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Thomas Körner and Katharina Puch  
Measuring marginal employment in surveys  
and registers



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## Preface

Marginal employment has considerably increased since the early 1990s, one of the reasons being legal changes. Meanwhile it has become a major element of the German labour market. In the same period, the availability of statistical information on that type of employment has markedly improved, too. This is because, first, comprehensive analyses of various data sources and intensive methodological activities aimed at improving the micro-census have successfully been carried out. Second, a major additional information source became available when, in 1999, marginal employment was included in the employment statistics of the Federal Employment Agency.

At the same time, however, the information obtained showed persisting problems. The results of the microcensus and of employment statistics differ markedly. That prompted many user questions and a lively discussion among experts. To put the studies on a solid empirical basis, the Federal Statistical Office and the Federal Employment Agency jointly initiated a register survey.

Together with new findings from the microcensus and from employment statistics, the register survey for the first time provides a comprehensive overview of the causes of the differences in data. The results presented here are a milestone of cross-source data analysis and they are of major importance even beyond the issue of marginal employment.

Also, the register survey is an example of the close co-operation between the Federal Employment Agency and the Federal Statistical Office in matters of labour market statistics. In times of scarce resources, this was the only way to implement such an ambitious project.

My thanks also go to the European Commission, which supported the studies. Last but not least, the results contribute much to further enhancing the labour force survey, which is among the most widely used statistics in Europe.

Yours,



Roderich Egeler

**President of the Federal Statistical Office**

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## List of abbreviations

CAPI	=	Computer Assisted Personal Interview
CATI	=	Computer Assisted Telephone Interview
CAWI	=	Computer Assisted Web Interview
EA	=	Employment Accounts
ESR	=	Employment Statistics Register
FEA	=	Federal Employment Agency
ILO	=	International Labour Organisation
ISCED	=	International Standard Classification of Education
KldB	=	Klassifikation der Berufe (German Classification of Occupations)
LFS	=	Labour Force Survey
n. a.	=	not available
NACE	=	Statistical Classification of Economic Activities in the European Community
SGB	=	Sozialgesetzbuch (Social Code Book)
SIN	=	Social Insurance Number

## Explanation of symbols

/	=	Value is not sufficiently reliable
–	=	No figures or magnitude zero
.	=	Numerical value unknown or not to be disclosed

# 1 Introduction

Differences between statistical results from different data sources are problematic for several reasons. First of all, they are annoying for the users who mostly just want to know a figure and are forced to learn about the production processes of statistics and the pitfalls of statistical measurement. Secondly, for instance if key indicators are concerned, they risk to be critically discussed by the media and the public and thus undermine the credibility of official statistics as a whole. Thirdly, and even more disturbingly, they fundamentally challenge the accuracy of statistical measurement. Presenting two diverging figures for one and the same statistical concept from two different sources will immediately raise questions as to the reasons for the divergence. While statisticians will easily understand that different working systems may lead to deviating results (for the notion of working systems, see Radermacher and Körner 2006), such results become a real challenge when the underlying reasons are not known.

The number of marginally employed persons in Germany is a case in point: It is an indicator often referred to in the political debate for several reasons. Marginal employment benefits from a number of privileges regarding taxation and social insurance contributions which, from time to time, tend to be closely scrutinised in the debate. Furthermore, there are data available regarding the number of marginally employed persons from two major labour market statistics: the Employment Statistics Register (ESR) kept by the Federal Employment Agency (Bundesagentur für Arbeit) as well as the Microcensus, the largest and by far the most important household survey in Germany.<sup>1</sup> Finally the level of the deviation between both data sources is so huge that it easily stimulates the imagination of journalists: According to the ESR about 4.9 million persons carried out a marginal employment with low pay (“geringfügig entlohnte Beschäftigung”; Bundesagentur für Arbeit 2011a) as their main job in the year 2010. In comparison, only little more than 3 million persons indicated such a job in the LFS. This difference has been an issue in the media (culminating in the (false) statement that the Federal Statistical Office “miscalculates mini-jobs”) and is constantly discussed in labour market research.

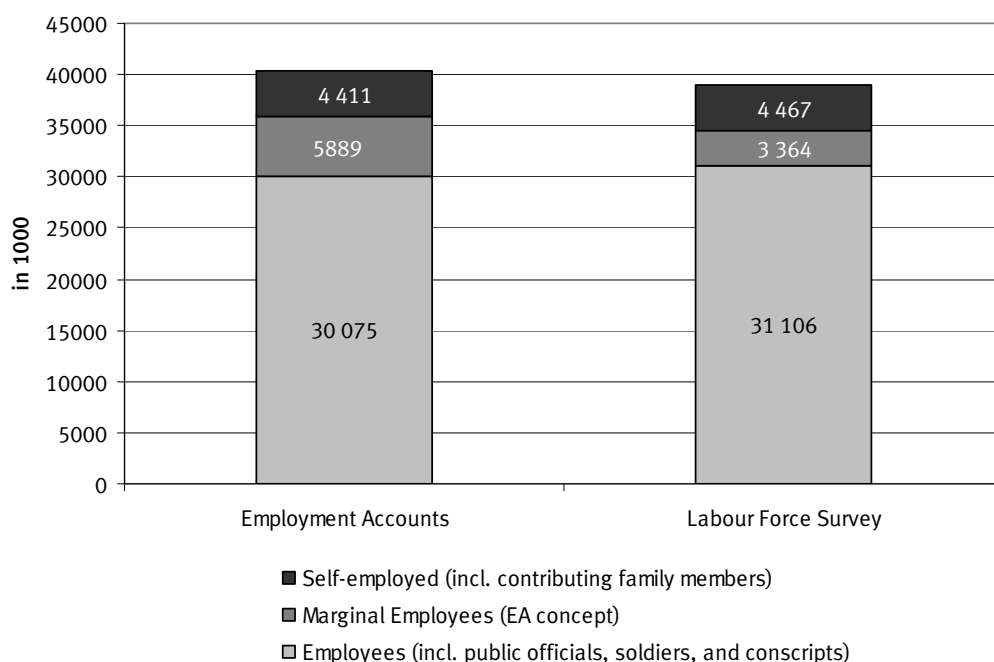
At the same time the difference is one of the main reasons for the significant difference of the number of employed persons between the LFS and the National Accounts (see Körner/Puch 2011). As here the extensive definition of the International Labour Organisation (ILO; see ILO 1982, 1998) is being applied, an accurate measurement of the number of persons in marginal employment is essential even if marginal employment, as a concept defined in the German Social Code (Sozialgesetzbuch – SGB), is not reflected in the list of LFS variables. According to the guidelines of the ILO also small jobs starting from one working hour per week have to be included. Due to the importance of this type of employment, the Eurostat Task Force on Quality of the Labour Force Survey identified the difficulties in capturing marginal employment as “the first source of incoherence” (Eurostat 2009, p. 52), and thus acknowledges problems in measuring small jobs in household surveys.

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1 In Germany, the Labour Force Survey is currently integrated into the Microcensus.

The deviations between the LFS and the Employment Statistics Register (ESR) are furthermore of key importance as the ESR is one of the major data sources used for the estimation of the number of (marginally) employed persons in the Employment Accounts (EA), the German system of estimating employment in the National Account's framework (for further details see Fritsch/Lüken 2004). As indicated in figure 1, the fact that the EA showed a number of employed persons 3.6 % higher than the one in the LFS in 2010 is to a very large degree due to the diverging number of marginal employees.<sup>2</sup> In the EA, the number of marginal employees is 75 % higher than in the LFS (Statistisches Bundesamt 2011).

**Figure 1**  
**Number of employed persons by status in employment in the LFS and the EA, 2010**  
**(national concept)**



In recent years, a number of studies have been carried out in order to investigate the reasons for these differences. A first follow-up survey to the LFS in the year 2008 showed that the LFS had difficulties to completely capture employment of pupils, students, homemakers, registered unemployed as well as pensioners (see Statistisches Bundesamt 2008; Köhne-Finster/Lingnau 2008; for an English summary see Köhne-Finster/Körner 2009).

<sup>2</sup> The number of marginal employees in the EA deviates from the one in the ESR mainly for two reasons: (1) Marginal employees, in the context of the EA, do not only include marginal employees registered in the ESR (low pay as well as short-term employees; see chapter 2), but also registered unemployed persons obliged to participate in the workfare scheme "1-Euro-Job". This latter group is estimated to about 300 thousand employees. (2) The larger difference is due to adjustments in the EA, which account for hidden and undeclared employment mainly in the industry sector of private households.

In these cases, the respondents are obviously guided by their main status, which leads them to omit small jobs in the interview. This first follow-up survey provided most valuable insight and led to large scale improvement actions regarding the questionnaire design for the labour status in the definition of the International Labour Organization (ILO). Based on the findings from this first follow-up survey, the questionnaire of the German LFS was completely revised in 2011 concerning the “leading” questions on employment (see Gauckler/Körner 2011). However, as the first follow-up survey was carried out independently from the Employment Statistics Register, it was not possible to give an estimation regarding the issue whether the effects identified can explain the entire difference between the LFS and the ESR.

Parts of the difference might well be due not only to measurement errors in the LFS, but also to differences in the operationalisation of the LFS and the ESR as well as to measurement errors in the ESR. For a proper understanding of the deviating results a further follow-up survey became necessary, which was to allow for a comparison of the LFS and the ESR on micro level. Comparing aggregated results is rather limited for a number of reasons: the extent of the difference might be underestimated as there might also be persons indicating a marginal employment in the LFS who are not registered in the ESR. If no comparisons on the micro level are possible, only very rough estimations can be made regarding the mechanism at play behind the measurement difference between the LFS and the ESR. For example, one can detect that the difference is largest in the age groups of 15 to 24 years as well as 55 years or older. Nevertheless, until now most statements as to the underlying effects have been limited to (plausible) speculation.

While a quite detailed analysis from the first follow-up survey is available for the measurement errors in the LFS, no such information could be given for measurement errors in the ESR until now. In addition to the possibility of micro-linking the data from the ESR and the follow-up survey, it is essential to gather information on the administrative processes concerning the registration. Much of this information is now becoming available with the present follow-up survey on marginal employment.

Hence, the main objectives of the follow-up survey are

- to get a proper understanding of the accuracy of the LFS as well as the restrictions due to its measurement process,
- to estimate the impact of differences in the operationalisation in the LFS and in the employment register, and
- to estimate the impact of measurement errors in the employment register and thus to enable valid comparisons between the LFS and the employment register.

The conduction of a follow-up survey is currently the only option to reach these objectives. A matching of LFS data with data from the ESR might theoretically have been an alternative approach, but was not feasible due to legal restrictions regarding data protection. Furthermore, such an approach also has important limitations and drawbacks. For example, it is a unique feature of the follow-up survey that it is possible to ad fur-

ther questions casting light on the effects of differences in the operationalisation in the LFS and ESR (e.g. in the case of jobs with irregular or flexible working time arrangements).<sup>3</sup>

Therefore, the project objectives could best be achieved by carrying out a survey among persons registered in the ESR as being marginally employed. For that purpose, a random sample has been drawn from the ESR. The project would not have been possible without the active support from the statistics department of the Federal Employment Agency (FEA), who is in charge of compiling the ESR. The FEA took care of drawing the probability sample from the ESR, carrying out the fieldwork operations (via a subcontractor) and matching of the data from the follow-up survey with the data from the ESR.

The respondents selected from the ESR were interviewed with a questionnaire simulating the (2011) LFS questions on employment. For the design of the questionnaire, the latest findings from methodological studies on the LFS have been taken into account in order to minimise the effect of measurement errors in the follow-up survey. The survey was carried out as a mixed-mode survey combining a postal PAPI survey with computer-assisted telephone interviewing (CATI) and a web option (CAWI). Following the data collection phase, the data gained through the survey were linked on micro-level with the information available from the ESR. The expected achieved net sample size was slightly more than 6000 persons.<sup>4</sup>

This report is organised as follows: Following this introduction, in a background chapter we outline the differences in the measurement process regarding marginal employment in the Labour Force Surveys respectively the follow-up survey and the ESR (chapter 2). Chapter 3 expatiates on the assumptions regarding the differences between the figures on marginal employed in the ESR and the LFS. A major part of the analyses carried out aim at testing these assumptions and quantifying their potential impact upon the differences between the LFS and the ESR. Chapter 4 gives a detailed overview of the methodological set-up of the follow-up or register survey,<sup>5</sup> covering the sampling design, the data collection strategy, nonresponse issues, data processing as well as the weighting design. The main part of this report – chapter 5 – discusses the results from the data analysis in detail. The objective is twofold: After a short overview of the approach chosen for data analysis from the register survey (5.1), section 5.2 presents structural analyses for the sub-populations that need to be distinguished for the data analysis. The subsequent

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3 A direct comparison of the ESR with data from a large household survey might become possible once the data from the German census 2011 will become available. As the census is based on a combination of a household sample of 10 % of the population as well as population and employment registers (for a brief summary, see Gauckler/Körner 2011), micro-linkage is being carried out in the process of the compilation of the census results. Unfortunately, results from the census will not be available before early 2013.

4 The conceptual work was discussed with and accompanied by a project group composed of the State Statistical Offices of Berlin-Brandenburg, Hesse, North Rhine-Westphalia and Saxony as well as the Leibniz Institute for the Social Sciences (GESIS Mannheim).

5 In the following the follow-up survey on marginal employment will be referred to as register survey (or simply “survey”) in order to avoid confusion with the Microcensus follow-up survey that was carried out in 2008. The term register survey also follows the common notion of “register maintenance survey” (Wallgren/Wallgren 2007, p. 61) with the important difference that the register survey on marginal employment aims at assessing the quality of the survey, but not correcting potential errors.

section 5.3 is devoted to a comprehensive empirical evaluation of the assumptions for the measurement errors in the register survey and the ESR. A final conclusion will discuss the results achieved in the context of the German Labour Force Survey as well as the Microcensus and give recommendations for the future development of both statistics.

## 2 Measuring marginal employment in surveys and registers

One might argue that measuring marginal employment is an awkward objective for a household survey. The concept of marginal employment is entirely defined in the context of the German social legislation and laid down in several volumes of the Social Code (SGB). A brief definition could state that marginally employed are simply those persons who are registered as such at the social insurance authorities in charge. The concepts are characterised by their large complexity. They are hard to understand for non-jurists and hence problematic to be implemented in household surveys in various respects.

At the same time, marginal employment is of high relevance for current labour market policies in Germany. Being in marginal employment goes along with a special status of the employee in the social insurance system defined by reduced social insurance contributions and taxes on the one hand and reduced entitlements to benefits from the social insurance system on the other. Furthermore, marginal employment is mostly characterised by low hourly wages. Against this background, being in marginal employment is more than a technical legal status, but in many cases it goes along with specific social statuses. Therefore, there has been a great interest in knowing more about the group of marginally employed persons, also in analyses of the German Microcensus.

The growing interest is probably also due to the sheer number of persons concerned: 12 % of the employed persons in Germany (or 4.9 million persons) are in marginal employment according to the ESR. This represents up to 50 % of the entire part-time employment. The large number of persons does not only translate into an accentuated policy interest, but also means that an accurate measurement of the total number of employed persons presupposes an appropriate measurement of persons in marginal employment.

Before entering the methodology and analysis of the register survey, this chapter summarises the definition of marginal employment as laid down in the Social Code and gives a detailed overview of the measurement of marginal employment in the ESR and the LFS. The measurement aspects of the register survey itself will be dealt with in the same section as the LFS because the operationalisation and methodology of the register survey have been designed as similar as possible to the LFS.

### 2.1 What is marginal employment?

According to article 8, paragraph 1 of the Social Code, book IV, (SGB IV “Gemeinsame Vorschriften für die Sozialversicherung”), there are two basic types of marginal employment to be distinguished: (1) Employment for which the wage is regularly not exceeding Euro 400 per month and (2) employment which – during a calendar year – is restricted to two months or 50 working days (irrespective of the earnings). The first type is usually referred to as marginal employment with low pay (*geringfügig entlohnte Beschäftigung*), the second one as short-term (marginal) employment (*kurzfristige Beschäftigung*).

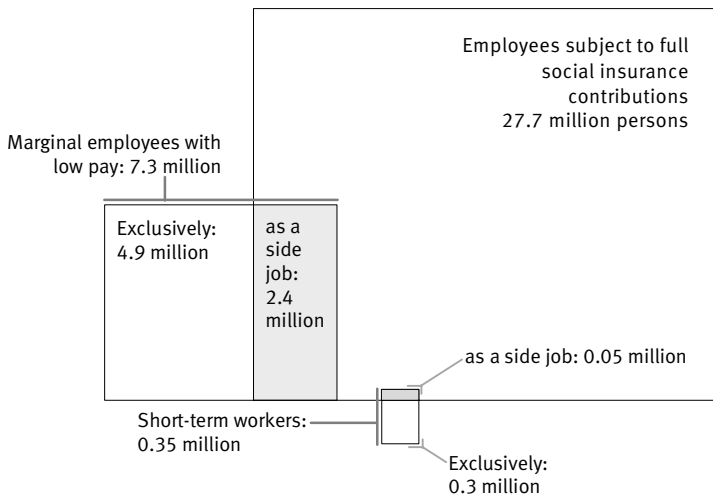
For the marginal employment with low pay, the threshold of Euro 400 refers to the “regular” monthly wage. This means that the amount can in certain cases be higher than Euro 400 in individual months, but not regularly. It should be noted that the threshold

does not strictly refer to an annual average, so that some degree of freedom is given, e.g. in the case of irregular extra payments (which cannot be expected on a yearly basis).

In the case of short-term employment, the thresholds (50 working days or two months) do furthermore not apply if the employment is carried out in a professional way (“berufsmäßig”) and the regular monthly wage is exceeding Euro 400. This is the case, if the employment is of more than “secondary economic importance” for the employee (like in the case of registered unemployed, but not for side jobs of students or pensioners).<sup>6</sup>

Speaking in numerical terms, marginal employment with low pay largely dominates. According to the ESR at the reference date of 30 June 2010, 7.3 million persons were registered as marginally employed with low pay compared to only 0.35 million short-term employed. Marginal employment can be carried out either as the sole employment a person holds (which applies to 4.9 million exclusively marginally employed with low pay and 0.3 million persons working exclusively as short-term workers), or as a side job combined with either a further marginal job or an employment subject to full social insurance contributions (voll sozialversicherungspflichtige Beschäftigung). Each of the combinations shown in figure 2 are subject to a differentiated treatment in terms of social contributions and taxation.

**Figure 2**  
**Types of paid employment in Germany (Figures according to the ESR for reference date of 30 June 2010)**



Source: Federal Employment Agency

As indicated in article 8, paragraph 3, Social Code, book IV, not only employees, but also persons in self-employment can register their self-employed activity as a marginal employment. Doing this, they also benefit from the special rules applying to social contri-

<sup>6</sup> For further details see GKV-Spitzenverband et al. (2009); Deutsche Rentenversicherung Knappschaft-Bahn-See (see 2011a, 2011b).



butions and income taxation. Unfortunately, little is known about the number of self-employed among the marginally employed persons. No such breakdown is available from the ESR, but the LFS indicates that the share of marginal self-employed persons in all marginally employed is below 3.5 %.

In terms of social insurance contributions and taxation, marginal employment is defined in contrast to the usual situation of employment which is subject to full social insurance contributions and standard taxation. Employees in Germany generally have to pay contributions to the statutory pension insurance, the statutory health insurance, the statutory unemployment insurance as well as the statutory long-term care insurance. The contributions to these types of statutory social insurance are jointly paid by the employers and the employees. The contributions (referring to the gross wage of the employee) currently amount to 19.9 % for the pension insurance (9.95 % each for employers and employees), 15.5 % for the health insurance (8.2 % to be paid by the employees, 7.3 % by the employers) and 3 % for the unemployment insurance (1.5 % each for employers and employees). The contributions for the long-term care insurance currently amount to 1.95 % (0,975 % each for employers and employees).<sup>7</sup> Only public officials and self-employed persons are exempted from this rule. Furthermore, the statutory health insurance (as well as the long-term care insurance) is voluntary for persons beyond the earnings threshold of 4 162.50 Euros (in 2010).

For marginal employees, reduced social contributions apply: The basic difference is that the entire (reduced) contributions and income taxes have to be paid by the employer alone. As contributions to the statutory health insurance concerns, a rate of 13 % of the gross wage applies. But only, if a health insurance in the statutory health insurance exists, which is not the case, e.g., for public officials and self-employed with a marginal side-job. Regarding the pension insurance the contributions amount to 15 % (again, an exception exists for marginal employees who are not included in the statutory pension insurance system). No contributions are to be paid for unemployment insurance and the long-term care insurance, as marginal employees are not covered by these insurance systems. Despite the pension insurance contributions paid by the employer, the employee does not acquire an entitlement to a pension based on the marginal job. This is only the case if the employee additionally pays an extra contribution to fill the gap between the lump-sum employer's contribution of 15 % and the full pension contribution of 19.9 % (i.e. – usually – an additional contribution of currently 4.9 %). No pension insurance contributions are required for persons who carry out the marginal employment as a side job in addition to a main job which is not subject to statutory pension insurance contributions (e.g. public officials or self-employed).

For marginal employees working in private households (e.g. as cleaning man or lady) a special treatment applies. The first difference is that the employer is not a company but a private household. The household registers its marginally employed by filling in a simplified form (referred to as "Haushaltsscheck") and transmitting the insurance contributions to the authority. Here, the lump-sum to cover the pension insurance as well as

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<sup>7</sup> This presentation is a very rough and heavily simplified outline for the purpose of this report. The intention is to give an overview regarding the usual situation and not an extensive description of the German social insurance system.

the health care insurance contributions is reduced to 5 % each of the gross wage. In total the contributions of marginally employed in households sum up to 10 % instead of the 28 % mentioned above (see table 1).

Short-term workers are again an exception from the applied rules for marginal employees. No social contributions have to be paid by the employer at all.

**Table 1: Social insurance contributions for marginal employees and employees subject to full social insurance contributions (simplified outline)**

Type of social insurance	Marginal employment in businesses	Marginal employment in private households	Employees subject to full social insurance contributions
	Contributions (in % of gross salary)		
Pension insurance	15	5	19.9
Health insurance	13	5	15.5
Long-term care insurance	–	–	1.95
Unemployment insurance	–	–	3

Also regarding the income tax, special provisions apply to persons in marginal employment. The income tax also has to be paid as a lump-sum by the employer alone. The tax rate is fixed at no more than 2 % of the gross wage, which already includes the church tax and the solidarity surcharge (except for persons who do not have to pay pension insurance contributions and who are taxed 20 % of their gross wage also on a lump-sum basis, however not including church tax and solidarity surcharge). For short-term workers, a lump-sum tax rate of 25 %, plus solidarity surcharge and church tax could, under certain conditions, be applied on a lump-sum basis. However, in this case frequently standard income taxation is used as well.

These rules for social contributions and taxation, at their first introduction in the year 2003 with the Second Act on Modern Services in the Labour Market (“Hartz II”), were intended to make marginal employment “more attractive to give industry more flexibility in employing low-wage earners and also to ensure that statutory pension contributions are paid to secure social security coverage for such employees” (web site of the Federal Ministry for Employment and Social Affairs; accessed 8 August 2011).<sup>8</sup> Indeed, the rules for employees and employers alike are quite attractive. Marginal employees receive their gross wage without deductions for taxes and social contributions (while the gross hourly earnings are 46 % lower than the average hourly earnings of all employees; see Wingerter 2009). With such lower wages, the reduced social contributions are also beneficial for the employers, in particular for private households. The group that benefits most from the regulations is however one, which is of secondary interest for the present study: Persons with a non-marginal main job and a marginal side-job do not have to pay taxes and social contributions for the side job at all.

<sup>8</sup> [www.bmas.de/DE/Themen/Soziale-Sicherung/400-Euro-Mini-Jobs/400-euro-mini-jobs-geringfuegige-beschaeftigung.html](http://www.bmas.de/DE/Themen/Soziale-Sicherung/400-Euro-Mini-Jobs/400-euro-mini-jobs-geringfuegige-beschaeftigung.html)

## 2.2 Measuring marginal employment in the ESR

Unlike the Labour Force Survey, the ESR is initially not based on a data collection for statistical purposes, but obtains its source data from the administrative processes used for the registration and deregistration of marginal employees. Since the year 1999, marginal employees, just like employees subject to full social insurance contributions have to be registered at the social insurance authorities in order to be able to follow up the payment of the social insurance contributions and to keep the accounts for the entitlements (e.g. regarding old-age pensions) of the employees. The registration is obligatory for employers and failing to register a marginal employee could entail heavy fines.

While for employees subject to full social insurance contributions, employers in a first step register the employees at their health insurance, for the marginal employees a special office was created in 2003 to take charge of the registration processes as well as the collection of the employers' social contributions. This office, called the "Minijob-Zentrale" (marginal employment is often also referred to as a "mini job"), is located at the "Deutsche Rentenversicherung Knappschaft-Bahn-See". Apart from the registration and de-registration of marginal employees, declarations have to be provided by the employers to the Minijob-Zentrale on various occasions. The list of the occasion necessitating a declaration has no less than 35 items (see GKV-Spitzenverband et al. 2010, Annex 1).<sup>9</sup>

The most important of these declarations are as follows:

- Registration due to start of job (10)
- Deregistration due to end of job (30)
- Deregistration due to interruption of the job of more than one month (34)
- Simultaneous registration and deregistration due to end of job (40)
- Deregistration due to death of the employee (49)
- Regular annual declaration (50)
- Declaration of interruption due to parental leave (52)
- Change of name (60)
- Declaration of employees whose enterprise is under insolvency (70)

For the declarations due on these (and further 26) occasions the employers are obliged to use an electronic reporting tool which is frequently integrated in the enterprise reporting systems (ERS; see figure 3). The declarations are processed within the Minijob-Zentrale, which applies systematic formal checks in order to detect data submission errors (see GKV-Spitzenverband et al. 2010, p. 19 ff.).

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<sup>9</sup> To private households employing marginal employees a simplified procedure is being applied, which requires declarations only on three different occasions (i.e. start of job, end of job, annual declaration).

**Figure 3**  
**Screenshot of the software system used for the submission of the declarations on employment**

The screenshot shows a web browser window with the title "sv.net/classic 11.0.0 - [Meldung zur Sozialversicherun...". The browser's address bar and menu bar are visible. The main content area is a form titled "Meldung zur Sozialversicherung". The form includes several sections:
 

- Personal data:** Fields for "Personalauswahl", "Versicherungsnummer", "Personalnummer (freiwillige Angabe)", "Name", "Vorname", "Straße und Hausnummer", "Land", "Postleitzahl", and "Wohnort".
- Employment details:** Fields for "Grund der Abgabe" (set to 1.0), "Entgelt in Gleitzone", "Namenänderung", "Beschäftigungszeit" (with "von" and "bis" fields), "Betriebsnummer des Arbeitgebers", "Personengruppe", "Mehrfachbeschäftigung", and "Betriebsstätte".
- Contribution information:** Fields for "Beitragsgruppen" (KV, RV, ALV, PV), "Angaben zur Tätigkeit", "Aktuelle Staatsangehörigkeit", "Beitragspflichtiges Bruttoarbeitsentgelt" (with a note "in DM ohne Pfennige / Euro ohne Cent"), "DM", "Euro", and "Statuskennzeichen".
- Alternative identification:** A section titled "Wenn keine Versicherungsnummer angegeben werden kann:" with fields for "Geburtsname", "Vorname", "Zusatz", and "Geburtsort".

It should be noted that the declarations for the registration and deregistration of marginal employees are legally linked to the payment of the social contributions, but technically separated processes. In the case of discontinuous employment situations this could result in a (legally correct) interruption of the payment of the contributions without deregistration (or declaration of interruption) of the employee (see chapter 3, discontinuity thesis).

After having been processed by the Minijob-Zentrale, the declarations received for the marginal employees are passed to the Federal Employment Agencies' statistics department. The FEA organises the declaration into personal accounts for each employee. Each person covered by the statutory social insurance (i.e. marginal employees as well as employees subject to full social insurance contributions), is filed in an account identified by the employee's social insurance number (Sozialversicherungsnummer – SIN). All declarations received are recorded in the account. If a person has more than one job, all jobs are being covered in his or her account, which makes it possible to identify, e.g., persons exclusively marginally employed from those who carry out the marginal employment as a side-job in addition to an employment subject to full social insurance contributions. For the calculation of the number of persons in marginal employment, the most

recent declarations recorded in the accounts are summed up referring to the reporting date under consideration (standard reporting dates are 31 March, 30 June, 30 September, and 31 December of each year). Figure 4 shows an example of the calculation of the number of persons in marginal employment for the reporting date of 30 September 2010, broken down by the type of declaration the sum is based upon.

In the example in figure 4, for 3.1 million (out of a total of 5,2 million) marginal employees, the statistic is based on a regular annual declaration (code “50”), whereas for 0.7 million persons a declaration of registration (code “10”), and for a bit less than 1 million persons a declaration of deregistration that took effect after the reporting date (code “30”) is the basis for the calculation of the population stock of marginal employees. As can be derived from figure 4 no more than 3 % of the declarations are older than one year, while around 74 % are younger than six months (which is due to the fact that the regular annual declarations always refer to the end of the previous year).

**Figure 4**  
**Breakdown of the number of marginally employed persons by type of declaration**  
**(30 September 2010)**

Wirksamkeitsmonat	Ausschließlich geringfügig Beschäftigte am Stichtag 30.09.2010 (6 Monate Wartezeit)									
	Anmeldung wg. Beschäftigungsbeginn	Anmeldung wg. Kassenwechsel	Anmeldung wg. Beitragsgruppenwechsel	Anmeldung Sonstige	Abmeldung wg. Beschäftigungsende	Abmeldung wg. Kassenwechsel	Abmeldung wg. Beitragsgruppenwechsel	Abmeldung Sonstige	Abmeldung wg. Ende nach Unterbrechung > 1 Mill.	Abmeldung wg. Arbeitskampf > 1 Mill.
	10	11	12	13	30	31	32	33	34	35
April 2008 . . . . .	112	/	/	/		182		14		
Mai 2008 . . . . .	225	/	/	17		348		37		
Juni 2008 . . . . .	321	/	/	19		597		66		
Juli 2008 . . . . .	541	/	/	32		963		89		
August 2008 . . . . .	647	/	/	37		1 120		105		
September 2008 . . . . .	943	10	/	68		1 264		110		
Oktober 2008 . . . . .	1 310	/	12	71		1 240		130		
November 2008 . . . . .	1 238	15	10	93		1 052		133		
Dezember 2008 . . . . .	407	.	/	61		2 176		371		
Januar 2009 . . . . .	4 184	60	133	532		1 495		188		
Februar 2009 . . . . .	2 598	16	25	83		1 666		200		
März 2009 . . . . .	2 582	28	17	105		2 079		175		
April 2009 . . . . .	2 824	19	10	84		1 764		178		
Mai 2009 . . . . .	2 679	13	20	147		1 666		179		
Juni 2009 . . . . .	3 118	13	22	85		2 050		202		
Juli 2009 . . . . .	4 082	17	18	128		2 296		220		
August 2009 . . . . .	4 595	15	18	161		2 336		267		
September 2009 . . . . .	4 945	29	20	139		2 277		254		
Oktober 2009 . . . . .	5 081	18	39	179		1 733		245		
November 2009 . . . . .	4 769	11	23	135		1 428		226		
Dezember 2009 . . . . .	4 128	11	25	168		2 293		454		
Januar 2010 . . . . .	61 969	524	3 952	31 304		1 579		236		
Februar 2010 . . . . .	37 816	157	1 420	1 320		1 849		263		
März 2010 . . . . .	51 222	170	1 392	1 917		2 082		251		
April 2010 . . . . .	59 504	220	1 738	2 219		1 867		265		
Mai 2010 . . . . .	59 484	199	1 644	2 030		1 787		322		
Juni 2010 . . . . .	62 969	193	2 029	1 686		1 897		359		
Juli 2010 . . . . .	86 280	246	2 186	2 892		1 819		481		
August 2010 . . . . .	90 655	298	2 195	3 452		1 236		752		
September 2010 . . . . .	108 102	334	2 412	3 657	227 370	19 817	7 026	2 195	9 151	/
Oktober 2010 . . . . .					272 786	13 432	6 267	1 049	11 581	/
November 2010 . . . . .					170 165	9 141	5 746	709	10 095	/
Dezember 2010 . . . . .					253 975	13 099	8 700	2 119	8 264	.
<b>Insgesamt . . . . .</b>	<b>669 330</b>	<b>2 639</b>	<b>19 390</b>	<b>52 828</b>	<b>924 296</b>	<b>101 630</b>	<b>27 739</b>	<b>12 844</b>	<b>39 091</b>	<b>16</b>

Source: Federal Employment Agency

**Figure 4**  
**Breakdown of the number of marginally employed persons by type of declaration**  
**(30 September 2010)**

Ausschließlich geringfügig Beschäftigte am Stichtag 30.09.2010 (6 Monate Wartezeit)											Ins- gesamt
Abmel- dung wg. Entgelt/ Wäh- rungs- wechsel	An-/Ab- meldung wg. Be- schäfti- gungs- ende	Abmel- dung wg. Tod	Jahres- meldung	Ubr.m. wg. Entgelt- ersatz- leistung	Ubr.m. wg Erzieh- ungs- urlaub	Ubr.m. wg gesetzl. Dienst- pflicht	Ubr.m. wg Jahres- meldung für frei- gestellte Angest.	Jahres- meldung wg. Schlie- ßung Mitgl. durch KK	Abmel- dung wg. Schlie- ßung Mitgl. durch KK	Geson- derte Meldung nach § 194 SGB VI	
36	40	49	50	51	52	53	70	94	95	57	
21				10	/	.		.		.	355
28				44	/	.		.		.	710
52				70	/	.		.		/	1 145
51				97	/	.		/		/	1 795
51				129	16	.		.		/	2 118
100				124	20	/		/		/	2 653
28				179	18	.		/		/	3 004
45				228	18	.		/		/	2 837
2 026			45 009	343	28	.	12	7 414		19	57 871
123				318	40	.		/		19	7 094
99				323	33	/		/		28	5 074
256				450	29	/		/		19	5 745
126				424	32	.		/		27	5 489
363				483	42	/		/		16	5 610
213				477	51	/		/		35	6 275
322				539	48	/				30	7 705
179				628	56	/				27	8 284
224				644	52	/				29	8 620
142				748	68	/				38	8 294
40				818	46	/				25	7 522
5 792			989 947	943	91	12	67	283		445	1 004 659
377				984	69	/				736	101 733
356				1 006	57	/		/		887	45 133
476				1 159	71	14		/		1 049	59 804
304				1 101	63	/		/		1 141	68 432
277				1 319	75	/		.		1 101	68 240
559				1 438	76	32		.		1 085	72 323
364				1 596	128	13		/		1 087	97 093
624				2 006	115	15		/		1 044	102 393
4 837	25 958	83		1 962	90	35		/	153	3 367	416 559
2 270	11 326	482		2 304	79	/		/	223	3 005	324 816
889	2 806	484		2 230	71	/		.	170	2 683	205 198
49 144	3 014	510	2 117 322	2 092	74	25	70	55	158	2 193	2 460 814
<b>70 758</b>	<b>43 104</b>	<b>1 559</b>	<b>3 152 278</b>	<b>27 216</b>	<b>1 684</b>	<b>197</b>	<b>149</b>	<b>7 784</b>	<b>704</b>	<b>20 161</b>	<b>5 175 397</b>

Source: Federal Employment Agency

In order to minimise the potential problem of zombie data sets of persons who have not been deregistered properly by their employer, a cut-off procedure has been developed: If the declaration that indicates an existing employment is older than around two years, it is assumed that the employment has meanwhile ceased and those cases are no longer included in the results of the ESR. In order not to cause systematic breaks in time series, the time span is not exactly two years but varying time lags are used on the basis of a stochastic algorithm (see Bundesagentur für Arbeit 2011b; Hartmann/Meinken 2007).

For comparisons with the LFS (and the analysis of the register survey), one important aspect concerns those groups of employees that are not covered by the ESR. As the ESR is based on registrations at the statutory social insurance, it does not take account of public officials and soldiers, self-employed, contributing family members, as well as conscripts and persons obliged to render alternative civil service (in total 6.5 million persons in 2010, according to the LFS). Those groups are, however, covered by the LFS. A problem arises if persons belonging to these groups carry out a marginal employment as a secondary job in addition to their main job. As for these jobs the same registration requirements apply, they will appear in the ESR as persons exclusively marginally employed. This could be one additional explanation for the deviations between the LFS and the ESR. It is one of the merits of the register survey to allow a rough estimation of the likely impact.

### **2.3 Measuring marginal employment in the LFS (and the register survey)**

The measurement approach of the Labour Force Survey is fundamentally different from the one implemented in the Employment Statistics Register. The measurement of the LFS is based on surveying households. The data collection of the LFS is currently integrated in the Microcensus, the largest household survey in official statistics in Germany. Since 1957 – in the new Länder (including Berlin-East) since 1991 – the Microcensus has been supplying statistical information on the population structure facilitating detailed subject-related and regional breakdowns, the economic and social situation of the population, families, consensual unions and households, on employment, job search, education/training and continuing education/training, the housing situation and health.

The Microcensus is organised as a decentralised statistics, which means that the organisational, methodological, and technical preparation (as well as the publication of the results) is done at the Federal Statistical Office, while conducting the survey and processing of the data are tasks of the statistical offices of the Länder. It is based on a federal law with a limited period of validity, the Microcensus Law. In 2004, the former “Law on the Execution of a Sample Survey of the Population and the Labour Market and of the Housing Situation of Households” of 17 January 1996 (Microcensus Law 1996; Federal Law Gazette I, p. 34) was replaced by the same-named Microcensus Law of 24 June 2004 (Microcensus Law 2005; Federal Law Gazette I, p. 1350). The current legal basis for the Microcensus has led to content-related and methodological changes in the Microcensus design for the years 2005 to 2012.

As mentioned before, the fieldwork is conducted by the statistical offices of the Länder by means of interviewers. The interviewers are equipped with laptops and visit the households (CAPI – Computer Assisted Personal Interviewing). About 75 % of the interviews



are conducted that way. Nevertheless, the household members may also complete a questionnaire without interviewer assistance (self-administered paper-and-pencil questionnaire, about 25 %). Largely, there is an obligation to provide information. Only for a few variables, legislation provides for voluntary response. Variables representing only the variables of the EU Labour Force Survey are always subject to voluntary response. The Microcensus allows proxy interviews, i.e. an adult household member may give a response on behalf of other household members. Such third-party information is available for about 25 % to 30 % of the persons aged 15 years or over.

The sampling design of the Microcensus is a random sample. For every sampling unit, there is the same probability to be included in the sample. The basic concept of sampling methodology here is a one-stage cluster sampling (area sampling), i.e. sampling units are areas (e.g. several houses or flats) and not individual households or persons. The annual sample size is 1 % of the sampling units. Sampling units are clusters or artificially delimited areas (sampling districts) ranging from small clusters of detached houses to parts of large apartment buildings. In the Microcensus 2009, some 53 000 sampling districts with an average of 15 persons per sampling district were interviewed. Forming the sampling districts is closely connected with stratification. All persons or households in a sampling district must be covered as statistical units.<sup>10</sup>

The information whether a respondent is employed according to the ILO concept and (in a distinct question) whether he or she is registered as a marginally employed person relies upon the self-perception of the respondent. As noted by scholars from the field of cognitive psychology (see, e.g., Tourangeau/Rips/Ransinski 2000; for an overview Brancato et al. 2006), there are at least five cognitive processes to be distinguished when a respondent prepares the response to a survey question (which partly start long before the actual interview):

- 1) Encoding, the process forming memories from experiences (over a long period of time prior to the survey interview)
- 2) Comprehension, the process of interpreting the meaning of the question
- 3) Retrieval, the process of recalling information relevant for answering the question from the memory
- 4) Judgement, the process of combining and supplementing what has been retrieved, and
- 5) Reporting, the process of selecting and communicating the answer.

All these processes are highly relevant for the measurement of marginal employment as well. The basic requirement for a “correct” answer regarding the question on marginal employment is that the respondent has memorised the fact that he or she belongs to the group of persons registered as marginal employee (encoding). Although the declarations of the employer to the Minijob-Zentrale are sent in copy to the employee as well, this is not necessarily the case. At the time of the survey interview, the respondent has to interpret the question in the way the statistical office intended the question (comprehension).

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10 Further details regarding the methodological set-up of the Microcensus can be found in Körner/Puch (2011). This section focuses upon the specific measurement problem of marginal employment.

At this stage there might be ambiguities due to the complexity of marginal employment situations, but also with concepts prevailing in everyday life (that are not necessarily identical with those of the Social Code). For example, a respondent could understand the definition of marginal employment in the questionnaire (“Question 15, item 1: “Yes, a 400-Euro-Job (“Mini-Job”) (The average monthly earnings are inferior to Euro 400)”, see figure 36, page 84) in the way that any job with such low earnings is referred to as a 400-Euro-Job. Nevertheless, also employees subject to full social insurance contributions might earn less than Euro 400. Once the question has been understood correctly, the respondent must take the appropriate answer from his memory (retrieval), which might, e.g., be problematic if there has not been a declaration on the part of the employer for a longer period of time. While the process of judgement does apply a bit less in the case of marginal employment, the process of reporting again plays a crucial role. The respondent has to select and communicate the answer to the interviewer. He or she might chose to answer incorrectly as he is perhaps unsure whether the declaration of his or her job (or secondary job) is fully in line with the provisions of the Social Code or the income tax act.

As noted before, in the process of measurement of marginal employments in a survey there are two problems to be distinguished. Firstly, in the question block often referred to as the “leading questions on employment”, the respondent has to be detected as an employed person according the ILO concept. Only those respondents who have been captured here have a chance to answer the question on marginal employment. In order to capture these persons as completely as possible, a targeted question (in addition to the question regarding work for one hour for pay or profit) has been integrated in the block of the leading questions that directly refers to marginal employment (see figure 5).<sup>11</sup>

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11 As the comparisons in this study refer to the results from the LFS and the Microcensus 2010, the presentation of the questions in this study refers to this year as well. It should be noted that the leading questions (as well as the question for the measurement of marginally employed persons) have been redesigned radically in 2011 (see Gauckler/Körner 2011).

Figure 5  
Leading questions on employment in the Microcensus 2010

23 Haben Sie in der vergangenen Woche eine oder mehrere geringfügige Beschäftigung/-en oder einen Ein-Euro-Job ausgeübt?

**Hinweise**

**Als geringfügige Beschäftigungen gelten**


- Tätigkeiten mit einem durchschnittlichen Verdienst von nicht mehr als 400 Euro pro Monat (Mini-Job).
- kurzfristige Tätigkeiten (Saisonbeschäftigungen), die auf höchstens zwei Monate oder 50 Arbeitstage während eines Jahres begrenzt sind.

**Der Ein-Euro-Job ist**

eine Tätigkeit, die Empfänger/-innen von Arbeitslosengeld II ausüben, für die zumeist ein bis zwei Euro pro Stunde gezahlt wird.

**Typische geringfügige Beschäftigungen sind**

- Ferien- oder Nebenjob als Schüler/-in oder Student/-in
- Austragen von Zeitungen oder Zeitschriften
- Putztätigkeit in einem Haushalt oder Betrieb
- Kinderbetreuung, Babysitting, Haushaltstätigkeit in einem Privathaushalt
- stunden- oder tageweise Aushilfstätigkeit in einem Kaufhaus/Geschäft
- Hinzuverdienst als Rentner/-in oder Hausfrau/Hausmann
- Verkaufs- oder Werbetätigkeit (auch Telefon- oder Außendienst)
- nebenberufliche Tätigkeit für eine Versicherung oder Bank
- Mitarbeit in einem Saisonbetrieb, z. B. im Gastgewerbe, in der Landwirtschaft, bei der Herstellung von Konserven
- nebenberufliche Lehrtätigkeit, Nachhilfeunterricht
- Taxi fahren, Aushilfstätigkeit bei einer Spedition
- sonstige Nebentätigkeit, z. B. Schreib-, Programmier- und Buchhaltungsarbeiten

Siehe auch zusätzliche Erläuterung  auf Seite 52.

Ja, einen 400-Euro-Job .....	<input type="checkbox"/>	1	<input type="checkbox"/>	1	<input type="checkbox"/>	1
Ja, eine kurzfristige Tätigkeit .....	<input type="checkbox"/>	3	<input type="checkbox"/>	3	<input type="checkbox"/>	3
Ja, einen Ein-Euro-Job .....	<input type="checkbox"/>	2	<input type="checkbox"/>	2	<input type="checkbox"/>	2
Nein .....	<input type="checkbox"/>	8	<input type="checkbox"/>	8	<input type="checkbox"/>	8

Comparisons with other data sources indicate that an important number of marginally employed persons are not captured in the survey as an employed person according to the ILO concept (see Körner/Puch 2011). However, even those persons who have been captured correctly still have to answer a further question in order to appear as marginally employed in the results of the Microcensus. In the question block regarding the main job, one of the questions refers to whether the main job is a marginal employment. As can be seen from figure 6, the question is quite similar to the one integrated in the block of the leading questions on employment.

**Figure 6**  
**Microcensus question on marginal employment in the questionnaire 2010**

66 **Handelt es sich bei Ihrer einzigen bzw. hauptsächlichen Tätigkeit um eine geringfügige Beschäftigung oder um einen Ein-Euro-Job?**

**Hinweise**

**Als geringfügige Beschäftigungen gelten**

- Tätigkeiten mit einem durchschnittlichen Verdienst von nicht mehr als 400 Euro pro Monat (Mini-Job).
- kurzfristige Tätigkeiten (Saisonbeschäftigungen), die auf höchstens zwei Monate oder 50 Arbeitstage während eines Jahres begrenzt sind.

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**Der Ein-Euro-Job ist**

eine Tätigkeit, die Empfänger/-Innen von Arbeitslosengeld II ausüben, für die zumeist ein bis zwei Euro pro Stunde gezahlt wird.

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**Typische geringfügige Beschäftigungen sind**

- Ferien- oder Nebenjob als Schüler/-in oder Student/-in
- Austragen von Zeitungen oder Zeitschriften
- Putztätigkeit in einem Haushalt oder Betrieb
- Kinderbetreuung, Babysitting, Haushaltstätigkeit in einem Privathaushalt
- stunden- oder tageweise Aushilftätigkeit in einem Kaufhaus/Geschäft
- Verkaufs- oder Werbetätigkeit (auch Telefon- oder Außendienst)
- nebenberufliche Tätigkeit für eine Versicherung oder Bank
- Mitarbeit in einem Saisonbetrieb, z. B. im Gastgewerbe, in der Landwirtschaft, bei der Herstellung von Konserven
- nebenberufliche Lehrtätigkeit, Nachhilfeunterricht
- Taxi fahren, Aushilftätigkeit bei einer Spedition
- sonstige Nebentätigkeit, z. B. Schreib-, Programmier- und Buchhaltungsarbeiten

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Siehe auch zusätzliche Erläuterung **2** auf Seite 52.

Ja, einen 400-Euro-Job .....	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Ja, eine kurzfristige Tätigkeit .....	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Ja, einen Ein-Euro-Job .....	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Nein .....	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0

Despite the similarity of the questions, there have been speculations that not all marginally employed persons correctly answer to this question for the reasons outlined above. There are also some empirical findings that suggest a certain degree of “misclassification” of marginal employees who appear as employees subject to full social insurance contributions in the tabulations of the Microcensus (Körner/Puch 2011; Statistisches Bundesamt 2008). On the level of the aggregated data it is maybe intriguing that the LFS captures 40 % less marginal employees than the ESR while the number of employees subject to full social insurance contributions exceeds the one determined by the ESR by 5 %.

Turning back to the question wording on marginal employment, it is important to note that while the definition is sought to be identical to the one of the ESR, the operationalisation of marginally employed in the LFS is different. The LFS determines the number of marginally employed by a self-declaration. In the questions of the survey not all the various elements of the legal definition of marginal employment can be taken up.

Apart from the measurement process itself, there are further differences between the LFS and the ESR that are considered of minor importance in the case of marginal employment, but which should nevertheless be taken into account: Firstly, the reference period differs. The results of the ESR are based on the last day of the month or quarter, whereas the LFS shows annual and quarterly averages. In this analysis the ESR results refer to the 30 September 2010 (the reference week of the register survey) and are compared to the annual average of the LFS results. The ESR results referring to the reference date of 30 September are usually slightly below the annual average of the ESR (– 29 000 in 2010). Secondly, the ESR does not use an age restriction in its population boundary. Consequently, also employed persons below the age of 15 years are included in the results. In 2010, according to the ESR, there have been about 60 000 persons below the age of 15 years, who have no chance to report a marginal employment in the LFS. Thirdly, another possible reason for the differences is the effect of an adjustment of the LFS results to benchmarks of the population statistics. The ESR, as a register statistics is carried out as a complete enumeration, i.e. no weighting procedure has to be applied. In contrast, the LFS is a sample survey, which needs to be weighted and calibrated using calibration marginals. As the last German census before 2011 has taken place back in 1987, there are doubts regarding the validity of the calibration marginals from population statistics. According to the results of the census test survey carried out in 2001 for the preparation of the 2011 population census, the population figures of the population statistics probably overstate the German population by about 1.5 %. This implicates that also the numbers of employees subject to full social insurance contributions and of the marginal employees might be “overstated” (i.e. the difference between ESR and LFS would presently even be underestimated). Nevertheless, given the huge deviations for marginal employees, the effects due to the weighting scheme do not play a major role in this context.

### 3 Theses about measurement errors in LFS and ESR

The deviations in the results for the number of marginally employed persons in the Employment Statistics Register and in the LFS are widely covered in scientific discussions. In recent years, quite many studies focussed on this topic and analysed various issues on the basis of existing data, but also using specialised surveys (see Brenke 2009; BMWA 2004; Schupp et al. 1999; Rudolph 1998). As a result, theses on measurement errors of marginally employed have been developed long since, but only seldomly made explicit.

During the course of the work initiated by the Federal Statistical Office and the Federal Employment Agency, partly inspired by the literature but to a larger extent by own analyses from both official sources (the LFS and the ESR), a set of theses concerning measurement errors in either source have been established. This chapter introduces the theses with regard to the different types of measurement error in each source.

#### 3.1 Measurement errors in data sources covering marginal employment

In general terms, measurement errors concerning marginal employment can be interpreted as an over- or undercounting of the number of the marginally employed in the legal sense. Besides an intersection of persons captured as marginally employed persons in both the ESR and the LFS, there are persons who have been (falsely or correctly) captured in only one of the sources. As shown in figure 7, for a comparison of both data sources, five subgroups of marginally employed persons have to be distinguished. Finally, there is one group which is captured neither by the LFS nor by the ESR. Adding the “real” number, a sixth subgroup comes into play.

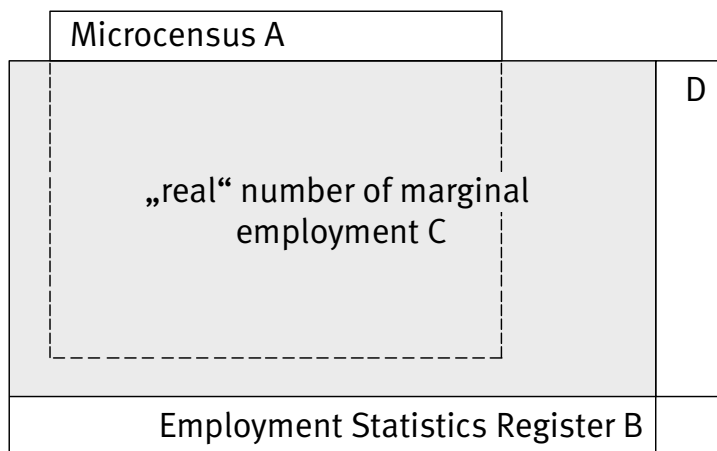
Figure 7 shows these groups and illustrates the subgroups of marginal employment being analysed in the project. The coloured area shows the number of marginally employed possibly captured by a (theoretical) optimal measurement tool. This group consists of people who might be covered by the LFS and the register, or by only one source, as long as the marginal employment is actually carried out (and not just declared, e.g. with aim of reducing taxes and social insurance contributions). Marginal employments that are not registered are not considered (Area D) even if they match the (income) criteria of registered marginal employed.

In the figure, area (A) refers to marginally employed in the LFS, area (B) to those in the ESR and area (C) shows the intersection of both sources. Persons belonging to the groups covered by area (A) without (B) can either have classified themselves wrongly in the LFS questionnaire (e.g. because they might have a job being subject to full social insurance contributions or a job that does not need a registration) or might be missing in the ESR (e.g. because their registration is delayed). Persons in the groups covered by area (B) without (A) might either be undercounted in the LFS or overcounted in the ESR, e.g. due to problems in the registration process.

Area (D) represents marginally employed that are neither registered in the ESR nor found in the LFS. This group is either not counted in both the LFS and the ESR or, very probably in the vast majority of the cases, belongs to the hidden economy and is therefore

beyond the scope of this project<sup>12</sup>. A survey is hardly able to identify those employment activities that are legally subject to social insurances contributions and registration, but that have not been registered. Therefore, this study concentrates on the marginal employment that is either registered or stated in the LFS.

**Figure 7**  
Marginal employment in the Microcensus/LFS and the register



As the aim of this study is an in-depth analysis of the measurement errors using a survey that will be linked to the ESR, the target population for the follow-up survey on marginal employment can only be the employees registered in the ESR (B)<sup>13</sup>. The aims of the survey are manifold. One objective is to find out if there are employment activities that are subject to registration of which the employee is not aware. This could be the case if a contract ended without an immediate de-registration. Furthermore, the survey may provide information on whether specific characteristics of marginal employment activities (e.g. regarding working time) might explain the difference in the results. Another aim is to assess the number and structure of the subgroup of employees that are belonging to area (B) but not to area (C). This group can either consist of people who did not indicate their (existing) marginal employment in the LFS, who are not working any more or who misuse the law by being registered but not actually working.

<sup>12</sup> One might even argue whether persons in undeclared employment should be labelled as marginally employed, because the registration at the social insurance authorities (and not the pay threshold) is the basis of the definition of marginal employment. Undeclared employment was, therefore, not covered by the study as it would also need a specialised survey design and is furthermore outside the target population. Research on this group has been conducted in the last years, e.g., by Trabert (2008); OECD (2008); Europäische Kommission(2007); Schupp/Spieß/Wagner (2006).

<sup>13</sup> Persons stated as marginally employed in the LFS only do not belong to the target population as – evidently – there are no contact details available for them in the ESR. This group could only be investigated if the ESR could be linked directly to the LFS.

It has to be mentioned that the intersections presented in figure 7 cannot be quantified on the basis of the LFS and the ESR, as no link of the micro data sets is possible. By comparing the aggregate results of both sources, one cannot assume that the net difference is due to an underestimation in the LFS. In fact the intersection is quite likely to be even smaller than suggested by a comparison of the aggregate results. The register survey is the solution to overcome the problem and to obtain a clearer picture of (most of) the subgroups shown in figure 7.

### 3.2 Theses about measurement errors in the Labour Force Survey

The measurement of legal constructions such as marginal employment or, in other contexts, registered unemployment is known to be problematic in surveys in general. This is mainly due to the complex legal definitions and the registration processes. As proven by the follow-up survey of the German Microcensus/LFS carried out in the year 2008, respondents are often not aware of the legal context of their legal status and cannot give a correct answer. This is especially true for persons with small economic activities.

In proxy interviews, compared to direct personal interviews, it may be even more difficult to gain a correct answer because the respondent may not know the detailed status of the other household members.

Regarding all these points, in the Microcensus follow-up survey carried out in 2008, the following theses for measurement errors in a (household) survey were developed (Statistisches Bundesamt 2008, p. 11 ff.):

#### Main status thesis

With the threshold of only one hour of working time per week, the concept of the ILO employment status differs markedly from the respondents' everyday notion of being economically active. As Schwarz (1987, p. 5) points out in his now classical paper "what respondents regard as (paid) work varies greatly with their employment history". Since then, many studies came to the conclusion that, in an interview, respondents rather refer to their main social status (main activity status), which is closer to their everyday perception of their situation. Groups such as university students, pensioners and housewives/housemen, whose main activity is often not an economic activity, mainly have their prevailing status in mind. This implies that they may not always indicate their small-scale marginal or secondary economic activities. Further problems might arise for persons who are employed, but not at work. According to the ILO guidelines, the interruption might last for a substantial period. In the Microcensus, like in the Labour Force Surveys of the other EU member states, persons absent from their job are considered employed only if the duration of the absence is up to 3 months (except for absence due to holiday, illness or maternity leave). Especially those working only periodically, discontinuously or sequentially will frequently regard themselves as not economically active although they actually are economically active according to the ILO definition.

The thesis implicates, that the number of (marginally) employed is underestimated in population surveys due to undetected economic activities. The main status thesis was largely confirmed by the Microcensus follow-up survey. The conducted register survey



was a further opportunity to replicate these results and to relate the impact of the main status on the detection of marginally employed persons in the LFS compared to measurement problems in the ESR.

### **Proxy thesis**

About one fourth of the persons covered by the Microcensus are not interviewed personally, but provide the information by means of a proxy answer. This means that the questions are answered by another household member as a substitute for the target person. Incorrect answers might be the result as the proxy respondents might not be sure about the labour status of their relatives. This can be especially difficult when details are being asked, i.e. the existence of small-scale economic activities or the hours worked in the reference week. Assuming this, the number of (marginally) employed is underestimated due to undetected economic activities.

It has to be noted that the register survey does not deliver any information on proxy interviews, as it was a personal interview without proxy interviews. However, the Microcensus follow-up survey showed that proxy interviews presumably do not have a major impact upon the measurement of marginal employment in the LFS.

### **Misled classification thesis**

Due to the complex legal construction of marginal employment some respondents might categorise themselves incorrectly. This may be the case for persons who know about their economic activity and classify it – because they do not know better – as a "standard" employment that legally is an employment subject to full social insurance contributions. This means, that questions relating to the labour force participation are answered "correctly", but the question whether the main job is a marginal employment is answered negatively despite an existing declaration of the employer.

This thesis points to an underestimation of the number of (marginally) employed persons due to the misled classification of the known economic activities. By asking a special question on the registration status in the register survey, there is an opportunity to test whether this thesis is valid.

### **Shortcutting thesis**

In bigger households it is thinkable that interviewers and respondents want to shorten the duration of the interview. Due to the amount of questions regarding the characteristics of the main job, questions might be answered incorrectly to "shortcut" this part of the questionnaire. This could particularly apply particularly to interviews in larger households or follow-up interviews as respondents here have the opportunity to "learn" about the consequences of indicating an employment. Shortcutting would lead to an underestimation of the number of (marginally) employed due to consciously incorrect answers in the leading questions on the employment status.

Again, the register survey does not deliver information on this thesis, as the telephone interviewers had not been told to register cases where they had the impression of respondents trying to be quick or jumping questions. To eliminate effects due to shortcutting in the data collection for the register survey, the interviewers have been thoroughly instructed prior to the fieldwork as well as strictly monitored by their supervisors.

For two of the four theses on potential measurement errors in the LFS, the register survey provides a basis for investigating whether there is empirical evidence for them. Ideally, this would allow a quantification of each of the assumed measurement errors. However, it has to be kept in mind that there might be intersections of the effects in the number of marginally employed.

### 3.3 Theses about measurement errors in the Employment Statistics Register

Not only the Labour Force Survey, but also the Employment Statistics Register can be subject to measurement errors regarding marginal employment. As for the data from population surveys like the LFS, it is possible to deduct theses on measurement errors in registers. Measurement errors, in the case of the ESR, might result from specificities of the complex legal definitions or the registration procedure via the social insurance authorities. As explained in detail in chapter 2, the ESR results are based on employment activities that are legally subject to the registration at and contributions to the social insurance system<sup>14</sup>. The definition of marginal employment is given in the Social Code (SGB), book IV, article 8, paragraph 1, no. 1.

As stated above, due to the complex regulation, it is very difficult for the layperson to understand and classify himself or herself correctly in a survey. Therefore, it is appropriate to use a register for the calculation of the number of marginally employed, at least if the aim is to get the number referring to the legal definition.

Furthermore, the reporting procedure is quite complex and might itself lead to measurement errors. The reporting procedure to the social insurance system for marginally employed is the same as for all other employed persons subject to social insurance contributions since April 1999. This means that the registration and deregistration as well as regular annual declarations or declarations on changes of an employment have to be reported by the employer. These reports are accounted in the ESR and constitute the basis for preliminary publications. The published results are based on results of the reference date with a waiting time of six months so that delayed registrations and reports can be included.

In summary, measurement errors in the ESR may be caused by delayed or missing reports, double counting of persons or wrong registrations. During the course of this study, the following theses have been set up together with the labour market experts from the Federal Employment Agency:

#### Double counting thesis

The results of the ESR count individual employees on the primary key of the social insurance number (SIN), even if they have several jobs at the same time. Theoretically, each person at working age has one, and only one SIN that is valid for the whole life of an employee. A person with two SINS could, at least in theory, register in parallel for two marginal jobs and thus be counted double although one of the jobs would be a secondary job (this would however also require a double wage tax card).

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<sup>14</sup> See article 28a Social Code, Book IV.

To avoid that persons have two or more SINS, there are yearly quality checks on doubled SIN conducted by the German Pension Fund who is in charge of the SIN. Although it is (theoretically) hardly possible to have double counts in the ESR, the thesis presented might lead to an overcount of the number of marginally employed in the register. The results of these quality tests may allow a quantification of potential errors.

### **Zombie data thesis**

The ESR may include persons who are registered as marginally employed, but who are in fact not working anymore. This is possible because of the high flexibility of marginal employment activities and interrelated registration processes, i.e., if an employer delays or forgets the deregistration of an employee. The timely detection of changes in the registration status is, therefore, a particular challenge for the ESR.

Given the results of employees aged 65 years and older in the ESR in comparison to surveys, it is assumed that the thesis is true especially among retired persons that are no longer employed. In summary, the thesis points to an over-estimation of the number of marginally employed. To examine this thesis, the results after longer “waiting times” in the ESR are analysed as well as cases with so-called “open accounts”.

### **Deregistration delay thesis**

The thesis is based on the consideration that the deregistration might be initiated by the employer with a larger delay compared to the registration. This may be due to the obligations to the payment of taxes and social contributions that are associated with the registration of an employee. These obligations may be a stronger incentive for the employer to quicken the reporting process and to handle the registration promptly and with priority. Deregistrations, however (because of a lack of financial obligations) may be handled only after some delay. This could contribute to a slight over-estimation of marginal employees. However, the effect is probably largely compensated by constant revisions (which take into account the current state of the registrations for the reporting month) as well as the cut-off procedure applied in cases for which no recent declaration is available. It should be noted that the cut-off procedures, in single cases, could also lead to an underestimation of marginal employment in the ESR, when persons for whom the employer did repeatedly not provide the regular annual declaration nevertheless continue to work in their job.

### **Discontinuity thesis**

Marginal employment is not only flexible in terms of high turnover but also in terms of a sometimes uneven distribution working times (Rudolph 1998). Periods of intense activity of an employee can be interrupted by breaks that last for weeks or even months. It might be possible that employees work for one month in January and again at the end of a year only, while being registered throughout the whole year. For the measurement in the LFS and the ESR this has different effects. In the ESR, the marginal workers remain registered as long as the employment relationship exists, i.e. until the employer reports a deregistration. This means that the person is counted as marginally employed continuously, while the activity is carried out discontinuously. This approach partly deviated from the definition of the International Labour Organisation, which only considers person absent from

their job as employed if there is a formal job attachment (which in turn is defined by the duration of the absence and the continuous pay of wage or salary). As a population survey, the LFS – other than the ESR – has the possibility to implement such complex definitions in practical fieldwork. While the LFS is guided conceptually by the definitions of the ILO, the conceptual basis of the ESR is constituted by the German Social Code.

In the LFS, the measurement of employment activities is based on a reference week (in the German LFS, this is the week before the interview takes place). Economic activities might not be reported by the respondent in a survey, if the job is exercised only once a month, if it is interrupted for a period of time or if it has been completed already but due to overtime, the contract is still running. In these cases, the ESR would not change the reported status. It should be noted that in many such cases the ILO definition might deviate from the definition implemented in the ESR, so that a differential treatment discontinuous employment in the LFS and the ESR might be appropriate. In such cases the line between measurement errors and conceptual differences gets blurred.

However, it is unclear how many employments are interrupted on each ESR reference date for reasons such as fluctuations in order situations, reduced working hours or insolvency, although the employment relationship formally continues to exist. An important aim of the register survey was, therefore, to closely examine the distribution of working time in marginal employment relationships.

### **Misuse theses**

The legal requirements for marginal employment offer a few opportunities for misuse for the employer as well as for the employee. In the discussion on measurement errors in recent years, various types of actual or perceived abuses have been brought up that suspect an overestimation of the number of marginal employees in the ESR. An empirical proof of the theses has not been possible until now and would need a specialised approach.

The theses on misuse have, however, been difficult to be verified in this study because of its objectives and methodological restrictions. Illegal or undeclared activities are hard to identify in a survey as it is planned for this project. Nevertheless, the information providing some indications on the extent of misuse has been analysed and interpreted as much as possible. This study focuses on the three main misuse theses and tried to find hints from the register survey.

#### **Family members registered as “substitutes” without actually working**

The thesis on substitutes implicates that persons registered as exclusively marginally employed actually have a further job. This additional job is performed by the same person, but a “substitute” non-working family member is reported (e.g. retired persons or persons in education) by the employer. Doing this, the employee continues to benefit from the reduced social contributions and taxes associated with marginal employment, but can “double” the threshold of Euro 400. To use substitutes, however, requires the simultaneous intention for misuse by the employer as well as by the employee. As long as both agree in using substitutes, both derive benefits from such an arrangement.

The persons reported to the social insurance agencies as substitute would probably deny the existence of a job in the LFS-interview (and in the follow-up survey, given that they respond at all), whereas they would be counted in the ESR. This means that the thesis points to an overestimation of the ESR.

### **Extra work thesis**

It may be possible that persons who are registered as marginally employed work longer hours and have higher wages than legally allowed. This case could be mainly found in the typical black market industry sector (hotels and restaurants, construction, manufacturing, household services, etc.). This is presumably not an extremely rare situation both for the marginal employees with low pay (who might, e.g. have a declared marginal employment as a cleaning man or lady in one household and further undeclared ones in others) as well as for short-term (marginal) employees. In the latter case, it might be difficult to examine whether the employment was really carried out on 50 days (or two months) a year only.

Unfortunately, it is not clear how this group of people is behaving in an interview situation such as the LFS. Reporting an employment (with long working hours or high pay) in the LFS but not being correctly registered in the ESR may also be due to retroactive registrations that are permitted by law within six weeks. To reduce such cases for certain industries that are considered to be prone to undeclared employment, employment relations have to be reported to the authorities using the “instant reporting procedure” since January 2009. As one could generally presume that persons in such situations would either restrict their answers to the declared job or not respond at all, it is unlikely that hard evidence could be expected from the register survey.

### **Family members of self-employed are registered in order to obtain tax reductions**

Finally, there might be marginal employees in the context of self-employed family members. Self-employed have the possibility to register family members as marginal employees in their own business. In such cases, it will be difficult to determine whether the family members were actually working for the enterprise. The benefit of such a practice is that the self-employed can reduce taxes by declaring the wage paid to the family member as operating costs and thus use a grey area that is not easy to be controlled.

A study on marginal employments from the year 2001/2002 suspects that in many cases non-working people are reported as marginal employees with the aim to save taxes or social insurance contributions (BMWA 2004). The study, furthermore, supposes monthly savings of up Euro 120 for self-employed persons who register a family member as marginal employee. With a new legislation in 2003 the incentives to do this are likely to have increased. At the same time, family members of the self-employed who are registered as marginal employees might not be aware of the fact that they are registered. Speaking against this is the obligation of the employer to provide their employees with the registrations and annual reports from the social insurance authorities, in particular if they pay supplementary contributions in order to contain the entitlement to a pension.

Regardless of whether abuse has objectively occurred in such cases, it may be assumed that the persons registered without knowing it do not answer according to their status in the register. The thesis implicates an overestimation of the ESR, too.

### **Conceptual differences in the treatment of secondary jobs**

As outlined in chapter 2, it is evident that the ESR to some extent overestimates the number of marginal employees in the case of public officials and self-employed. This is due to the fact that the ESR is conceptually restricted to employed persons subject to (full or reduced) social insurance contributions. Economic activities outside the framework of the statutory social insurance are therefore disregarded in the ESR. Therefore, persons who, in their main job, are public official or self-employed are not subject to (statutory) social insurance contributions and thus do not have to be registered at the social insurance authorities, will be treated differently compared to the LFS. If a public official or a self-employed get registered for a secondary job, they will be miscounted as exclusively marginally employed, as in the ESR the secondary job is the sole employment. While it is clear that this effect exists, the survey for the first time provides an opportunity to quantify the effects.

A further difference are the approximately 60 000 marginally employed in the age of below fifteen years. They are not captured as employed at all in the LFS, which also leads to a higher number of marginally employed in the ESR.

For the sake of completeness and to name all theses that have been considered during the course of this project, also the possibility of an underestimation of the register due to cases of undeclared employment should be taken into account. In certain areas (e.g. in the field of private household services), based on the findings of specialised studies an underreporting of marginal employment could be assumed. Nevertheless, an analysis of this group was beyond the scope of this study as it would require a very specific survey design. Moreover, these cases are part of the shadow and hidden economy that do not belong to the marginal employment within the scope of the German Social Code. A study based on the persons registered in the ESR, therefore, had to exclude this issue from the outset.

In summary, the theses on measurement errors in the LFS mainly consider an underestimation of the total number of marginally employed in the survey, whereas those theses concerning the ESR, mostly consider an overestimation. Table 2 gives an overview on the content of the theses and which methods may be able to evaluate them.

**Table 2: Overview on the theses**

Thesis		Analyses in the ESR	Analyses in the Register Survey	Analyses in the LFS
Overall tendency: underestimation in the LFS	Main status		(●)	(●)
	Proxy			●
	Misled Classification		●	(●)
	Shortcutting			
Overall tendency: overestimation in the ESR	Double counting	●		
	Zombie data	●	(●)	
	Deregistration delay	●	(●)	
	Discontinuity	(●)	●	(●)
	Substitutes		(●)	
	Extra work		●	(●)
	Self-employed		●	(●)
	Secondary jobs of public officials and self-employed		●	(●)
Persons below the age of 15 years	●			
Overall tendency: underestimation in the ESR	Shadow or hidden and black economy employment			

## 4 The methodological approach of the register survey

The development of the survey design for the register survey had to take into account a number of specific requirements: First of all, the methodologies used had to be similar to the ones used in the German LFS, in order to allow for a transfer of the findings from the register survey to the measurement of marginal employment in the LFS. Secondly, in carrying out a register survey of marginally employed persons we were dealing with a difficult-to-reach population. The entire methodological set-up, for instance the questionnaire, the data collection modes, and the fieldwork administration had to be developed in a respondent-friendly way, with the aim to stimulate an as high response rate as possible. In this respect, a further difficulty was that the data obtained from the register survey were to be micro-linked to the ones in the ESR. For reasons of data protection, a declaration of informed consent was required from the respondents. This challenged the objective of achieving a maximum response rate even further. Thirdly, in order to enable us to compare the data obtained from the register survey with those available from the ESR, it was necessary that the interview of the register survey was taking place as soon as possible after the reference week. Finally, despite the fact that the project was carried out together with the Federal Employment Agency and with the support of the European Commission, the budget was restricted. For this reason, e.g., it was out of the question to collect the data using face-to-face interviews.

This chapter summarises the methodological approach of the register survey and the considerations which lead to this approach. It covers the most important aspects of the sampling design (4.1), questionnaire design and testing (4.2), the data collection modes applied (4.3), the practical implementation of the fieldwork (4.4), response rates and nonresponse bias (4.5), the matching of the data obtained from the register survey with the data sets from the ESR (4.6) as well as the approach chosen for weighting and calibration of the survey data (4.7). Regarding all these aspects, in this chapter, special attention is being paid to issues that might restrict the reliability of the results.

### 4.1 Sampling design

The target population of the register survey were persons registered as exclusively marginally employed in the ESR (marginally employed with low pay as well as persons in short-term marginal employment). In order to be able to analyse the results in sufficiently differentiated breakdowns, it was assumed that a net sample size of no less than 6 000 persons should be attained. Accounting for the various reasons of nonresponse (see 4.5), the register survey was based on a gross sample size of 30 000 persons filed in the ESR. The sample was selected from the ESR at the Federal Employment Agency, who is the owner of the data and consequently of the addresses of the respondents.

The sample was drawn as a simple random sample with disproportional stratification by five-year age groups (15 – 19, 20 – 24, 25 – 29, 30 – 34, 35 – 39, 40 – 44, 45 – 49, 50 – 54, 55 – 59, 60 – 64, 65 – 69, 70 – 74, 75 or more years): the age groups had identical inclusion probabilities, except for the age groups 15 – 19 years and 20 – 24 years as well as 55 – 59 years, 60 – 64 years, 65 – 69 years, 70 – 74 years. For those age groups the inclusion probabilities were increased by the factor 1.5. The rationale behind this disproportionate stratification was that during the analysis a special focus was devoted to



younger and older marginally employed persons as concerning these age groups, the results from the LFS deviate most from the ESR (see chapter 1 of this study as well as Körner/Puch 2009; Körner/Puch 2011).

## **4.2 Questionnaire design and testing**

As already noted, it was particularly important for the register survey to develop a well-designed and thoroughly tested survey instrument. The special importance is due to the fact that it is known from the experiences of the LFS that marginally employed are not easily captured as employed persons in population surveys. Furthermore, as the data files available at the Federal Employment Agency contain addresses, but no telephone numbers (and the cost of face-to-face interviews would have exceeded the available resources), it was clear that at least a large part of the register survey would be done using self-administered data collection modes. While self-administered modes also have a number of advantages for the specific content of the register survey, their drawback is that in case of problems no advice from an interviewer is available for the respondent during the interview. Therefore, the wording of questions and the response categories had to be particularly clear and easy to grasp. For similar reasons it was not possible to exclusively rely upon computer-assisted data collection modes, so efforts had to be spent upon the development of an accessible self-administered paper-and-pencil questionnaire.

A first version of the questionnaire had already been developed prior to the project (but could at the time not be implemented due to lacking resources). The questionnaire was developed according to the guidelines for questionnaire design of official statistics in Germany and formally endorsed by the questionnaire design working group of German Federal Statistics. After a first draft had been developed in expert discussions with survey experts from the Federal Statistical Office, several State Statistical Offices, as well as the Leibniz Institute for the Social Sciences (GESIS Mannheim), a cognitive pretest was carried out in the pretest laboratory of the Federal Statistical Office.

For the pretest, 20 probands were invited for a cognitive interview based on an (partly standardised) interview guideline. In the interviews, various techniques of questionnaire testing were applied, including probing, sorting and think aloud interviewing. For the selection of the probands, care was taken that they actually were marginally employed (18 out of the 20 were also registered at the Federal Employment Agency). However, the probands were not informed prior to the interview that the topic of the survey was marginal employment.

The laboratory test led to numerous valuable insights and contributed a lot to the improvement of the questionnaire. Some key findings of the pretest were the following:

- The block of the “leading questions” for the measurement of the employment status according to the guidelines of the ILO was generally considered sufficient to also detect small jobs. Some smaller problems were removed during the revision of the questionnaire. For the leading questions, an approach similar to the one in the LFS questionnaire had been chosen in order to be able to draw conclusions from the register survey for the data collection of the LFS. Nevertheless, the pretest also confirmed earlier findings that there are particular groups of respondents (for instance pensioners), who are always reluctant to indicate their side job in a survey interview – even with an ideal questionnaire.

- The probands indicated that the standard questions about the main job like status in employment, working time, full-time and part-time employment as well as the kind of the work contract were not sufficiently adapted to the situation of persons with a marginal employment (who often have discontinuous working time patterns or only an oral or informal work contract). The relevant questions were revised for the register survey. Nevertheless, this problem might impede on the regular LFS questionnaires as well and lead to a revision of the respective variables as well as response categories.
- Much attention was paid to the “calendars” included in the questionnaire that served to measure the continuity of the time marginal employees spent “at work” (questions 17 and 18 of the final questionnaire, see annex). In a split ballot experiment, two variants of the calendar were tested, but no major difficulties or differences were found. As no particular difference could be found, the version which was closer to everyday life’s experience was chosen (months respectively weeks in chronological order and not in reverse order, i.e. starting with the week before the reference week).
- At the end of the cognitive interview, the response persons were asked to define marginal employment in their own words. This exercise confirmed findings from other pretests, namely that the respondents had only a rather vague idea regarding the elements of the definition of this form of employment. It was often associated with low pay, but it also turned out that many respondents rather referred to synonymous terms like “400-Euro-Job” or “Mini-Job” that were added as additional stimuli to the question on marginal employment (no. 15 of the final questionnaire, see annex). Not surprisingly, nine out of 18 probands were unsure regarding the answer to the question whether their main job was a marginal employment.

The results of the pretest were presented to an expert group composed of labour market experts, methodologists and fieldwork experts, who discussed the recommendations and agreed upon a revised version of the questionnaire. Short time before the actual start of the fieldwork, this questionnaire was adapted to the special requirements of the three data collection modes (at the time of the first development of the questionnaire a full PAPI mail survey was assumed). At the same time some slight revisions were implemented following an expert workshop regarding the practical fieldwork implementation of the register survey.

Also the cover letter for the register survey was included in the pretest. Here, an important point considered motivating persons who were not (marginally) employed. As the survey besides other objectives was to detect measurement errors in the ESR, it was vital that these persons do not refuse participation. In the final letter, a sentence in bold text was included stating that “even if you are currently not employed or just have a small side job, your participation is important”. The experiences during the fieldwork however revealed that still not all participants took this information in. Therefore, for the reminder letter two examples were added in brackets stating “even if you are currently not employed (e.g. because you are a pensioner, student or pupil) or just have a small side job, your participation is important”. Despite the improvements achieved due to this revision, it cannot be excluded that some of the persons falsely registered in the ESR had a lower propensity to participate in the register survey. The reactions of the respondents showed that pensioners were by far the group that most likely did not feel concerned by the survey.

### **4.3 Data collection modes**

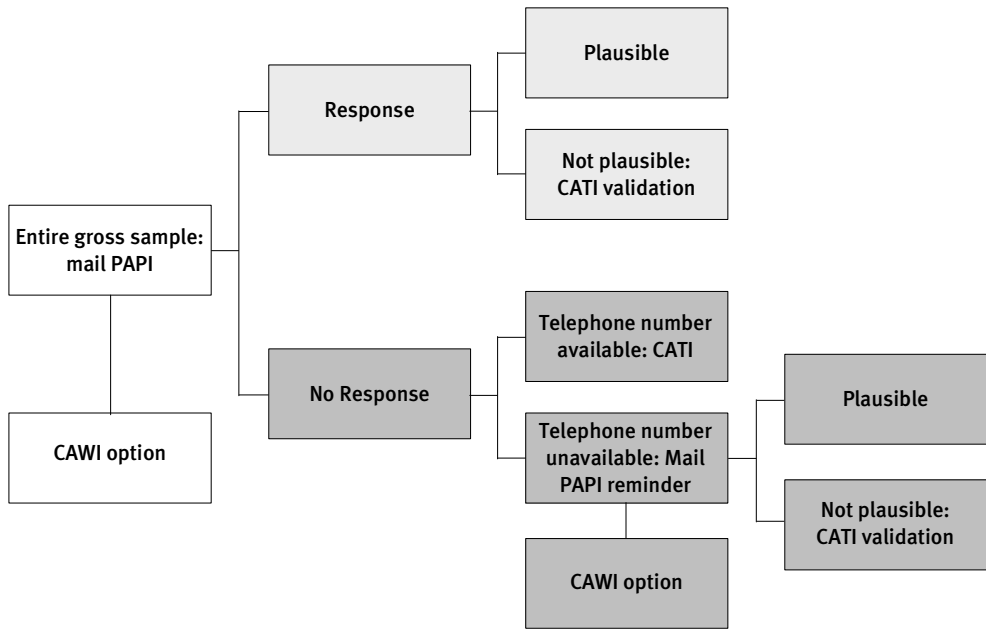
The initial plan was to carry out the register survey as a single mode survey, using a self-administered PAPI questionnaire sent to and returned by the respondents via postal delivery. The reasons for this initial planning were twofold: First of all, the address information available at the Federal Employment Agency covered postal addresses, but no telephone numbers. As it was clear that a face-to-face survey would not be feasible and that telephone numbers were not available in the register, the option of a telephone survey was also quickly ruled out (but later reconsidered). Secondly, the questionnaire included a number of important questions that were thought to be more suitable for a self-administered questionnaire. Examples are the calendars regarding the weeks respectively months in which the respondent was at work or not (questions 17 and 18). But also several questions involving long lists of items (e.g. question 14 regarding the main activity carried out in the main job) offer clear advantages using a self-administered mode, as the respondent has a visual display of the answer format in front of him or her and (in case of the calendar) could take his or her time to consult their personal agenda.<sup>15</sup>

However, when planning the practical fieldwork implementation it turned out that it might be difficult to achieve a cost-efficient response rate when exclusively relying upon mail PAPI questionnaires. Therefore, in a two-day expert workshop together with the Federal Employment Agency and the social research institute in charge of the fieldwork, the data collection approach was modified. The modified approach arranged for a sequential (and partly also concurrent) multiple mode design that complemented the self-administered PAPI mode by computer-assisted telephone interviewing (CATI) as well as computer-assisted web interviewing (CAWI) (see figure 8).

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<sup>15</sup> The fact that questions with long lists of items tend to lead to more differentiated results under self-administered modes has recently been described in another experimental study carried out by the Federal Statistical Office Germany (see *Statistische Ämter des Bundes und der Länder* 2010; for an English summary see Köhne-Finster 2010).

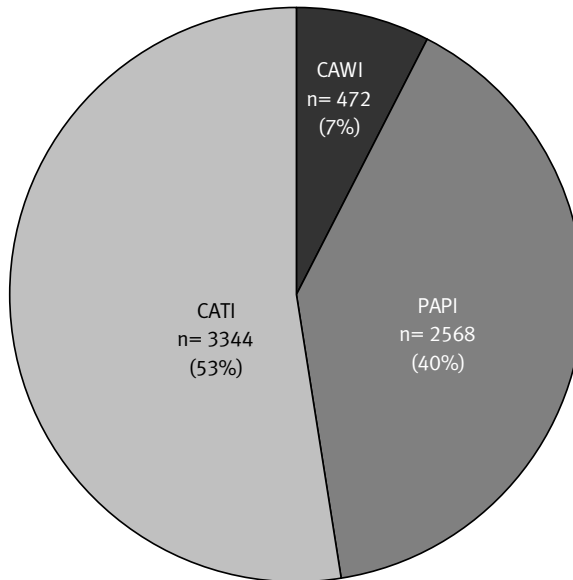
**Figure 8**  
**Multiple mode design implemented in the register survey**



As neither telephone numbers nor addresses were available from the data bases kept at the Federal Employment Agency, all persons selected for the sample were first contacted by mail. The letter contained a PAPI questionnaire as well as an access code to the CAWI questionnaire, which was however not promoted as priority mode. The objective of proposing an internet option was to raise the response of young marginally employed persons, who were considered particularly reluctant to participate in a voluntary survey. For the sampling units who did not react after about a week, a telephone number research was run, using publicly available material. Whenever a telephone number could be detected, the sampling units were called and invited to participate in a CATI interview. When no telephone number was found, a reminder was sent by postal delivery including a second copy of the questionnaire.

In order to outweigh the obvious drawbacks of the PAPI mode (e.g. in terms of non-respect of skip instructions), following the data entry (and plausibility checking) from all respondents in the PAPI mode, CATI validation interviews were run in order to resolve inconsistencies respectively to decrease potential item nonresponse. These telephone validation interviews were successfully conducted for 1 115 of the 2 568 questionnaires that were originally answered by the respondents as PAPI (see figure 9). This means that, out of a total of 1 810 PAPI questionnaire which were either implausible or incomplete, 61 % of the respondents were successfully contacted via telephone. For most persons who could not be reached, the lack of the telephone number was the reason (547 persons). Further 108 people could not be reached due to other reasons.

**Figure 9**  
**Share of data collection modes used in the register survey**



#### 4.4 Fieldwork implementation

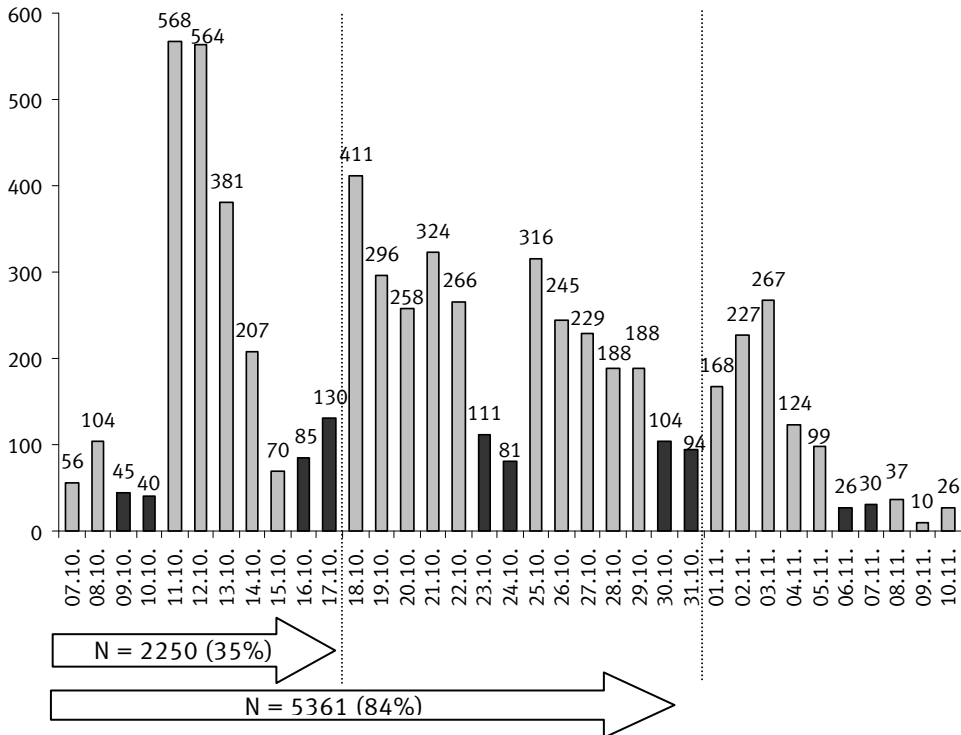
The fieldwork implementation was only possible due to the support of the Federal Employment Agency as there was no legally feasible way to transfer the addresses of the sampling units to the Federal Statistical Office. Against the background of the complexity of the mixed mode design (compared to the simple posting of PAPI questionnaires), during the practical implementation of the project, the Federal Employment Agency decided to commission the practical fieldwork implementation to an external service provider, the Link Institut für Markt und Sozialforschung. In this section the results from the implementation of the various modes is summarised.

##### PAPI mail mode

The fieldwork started at the end of the reference week with the mailing of the PAPI questionnaires on 1 October 2010. The mailing started already at the end of the reference week in order to make sure that the questionnaires were being received by the sampling units early in the week following the reference week, or ideally already on the Saturday of the reference week. Unfortunately, it turned out that the postal delivery required more time than initially thought. The questionnaires were not posted as priority mail, but as “Infopost”. The German postal service Deutsche Post AG suggests as a quality goal (but not as a contractual obligation) that 95 % of the letters sent via Infopost arrive during the four work days following the posting date. However, in the case of the register survey, this quality goal could obviously not be reached. The **first** letters actually arrived at the sampling units on 7 October 2010 (i.e. four working days after the posting date) and numerous letters arrived even later. Consequently, the time schedule for the fieldwork had

to be adapted, fortunately without major negative impacts upon the register survey. Despite these problems, it was possible to finalise 84 % of the interviews in the four weeks following the reference week (see figure 10).

**Figure 10**  
Interview dates of the register survey (net sample)



The second mailing of PAPI questionnaires (for those persons whose telephone number could not be determined) was launched on 21 October 2010, i.e. more than one week later than initially planned.

After the return of the PAPI questionnaires at the LINK Institute, data entry (using personal complete independent double coding to avoid typing errors) and consistency checks immediately followed as it was planned to carry out the CATI validation interviews as soon as possible after the return of the questionnaire. This aim was largely met as 78 % of the validation interviews were carried out in the seven days following the return of the questionnaire. From the 3 344 PAPI questionnaires received, a validation interview was necessary in 1 810 cases. Out of these cases, 61 % could be reached via telephone and the validation interview was successfully completed. In the vast majority of the 695 remaining cases no telephone number was indicated on the questionnaire (30 %) or no contact could be made (6 %). The remaining 81 questionnaires were still incomplete after the validation interview and, therefore, had to be disregarded.

## CAWI option

As envisaged after the expert workshop, an option using computer-assisted web interviewing started concurrently with the posting of the PAPI questionnaire. For the implementation of the CAWI questionnaire, a standard tool from the software package SPSS was applied (see figure 11).

**Figure 11**  
Screenshot from the CAWI questionnaire used in the register survey

In welchen Kalenderwochen haben Sie gearbeitet?  
Bitte klicken Sie die Wochen an, in denen Sie an mindestens einem Tag die Tätigkeit ausgeübt haben.  
Bei dieser Frage können Sie mehrere Antworten geben.

Monat	Mo	Di	Mi	Do	Fr	Sa	So	KW	Tätigkeit an mindestens 1 Tag ausgeübt
	Juli								
	28	29	30	1	2	3	4	26	<input type="checkbox"/>
	5	6	7	8	9	10	11	27	<input type="checkbox"/>
	12	13	14	15	16	17	18	28	<input type="checkbox"/>
	19	20	21	22	23	24	25	29	<input type="checkbox"/>
	26	27	28	29	30	31	1	30	<input type="checkbox"/>
August									
	2	3	4	5	6	7	8	31	<input type="checkbox"/>
	9	10	11	12	13	14	15	32	<input checked="" type="checkbox"/>
	16	17	18	19	20	21	22	33	<input type="checkbox"/>
	23	24	25	26	27	28	29	34	<input checked="" type="checkbox"/>
	30	31	1	2	3	4	5	35	<input type="checkbox"/>
September									
	6	7	8	9	10	11	12	36	<input type="checkbox"/>
	13	14	15	16	17	18	19	37	<input type="checkbox"/>
	20	21	22	23	24	25	26	38	<input type="checkbox"/>
	27	28	29	30	1	2	3	39	<input type="checkbox"/>

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LINK online research

As could be expected, the major part of the CAWI interviews was carried out immediately after the mailing of the questionnaires. Although no more than 7 % of the net sample was interviewed via CAWI, it was nevertheless considered a success as particularly young persons were reached with this mode (see section 4.5).

## CATI interviews

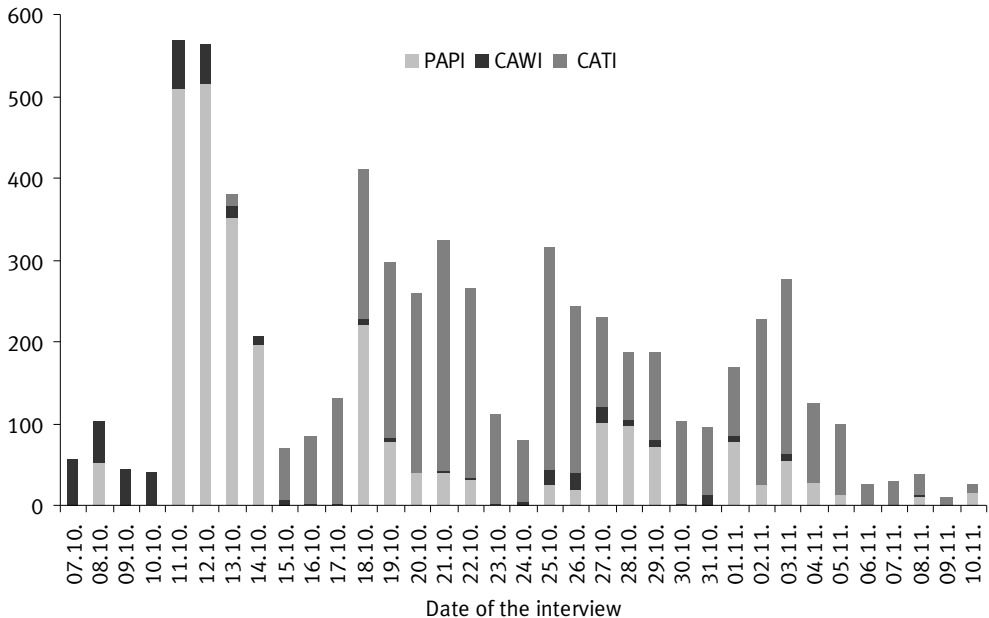
As a logical precondition to the computer-assisted telephone interviews (CATI), the telephone numbers had to be investigated. The search for the telephone number was carried out using diverse publicly available telephone registers using the name and the address information included in the data bases of the Federal Employment Agency. In order to guarantee the identity of the persons in the ESR with those holding the telephone number investigated a strict check of the name, the age and the sex was carried out at the beginning of the CATI interview. In case of inconsistency in one of these variables, the

interview was discontinued and the telephone number not used. From the eligible cases (persons who did not respond to the first mailing of the questionnaire), it was possible to investigate the telephone number in 51 % of the cases, with a larger success rate for older respondents (68 % for persons aged 60 years or older), and lower success rate for younger persons (36 % for persons aged 20 to 39 years). Out of the telephone numbers detected, for about 10% of the cases it turned out during the start of the CATI interview that the number was incorrect, i.e. the persons who answered the call was not the sample person. This was due to the fact that the algorithm used for the telephone number search was based on probability rules in case were the matching variables (first name, surname and address) did not match perfectly.

The telephone interviews were carried out from Monday to Friday from 9 a.m. to 9 p.m., on Saturdays from 10 a.m. to 4 p.m. and on Sundays from 11 a.m. to 4 p.m. On average 3.5 tries were necessary to reach the respondent, with a maximum of 15 call attempts. In order to outweigh the drawback of the CATI mode (no visualisation of the questions possible), the respondents were asked to look at the questionnaire they had received via postal delivery simultaneously to the interview. Unfortunately this was possible in only 10 % of the CATI interviews.

The CATI interviews were started on 13 October 2010 and finished by 10 November 2010, with a vast majority of the interviews taking place before the end of October 2010 (see figure 12). In total, 3 344 interviews were conducted via CATI, i.e. 52 % of the net sample. This already indicates that offering a CATI option was the right decision in order to achieve a cost-effective response rate (see 4.5).

**Figure 12**  
**Distribution of the survey modes over time (net sample)**





During the entire fieldwork period, a toll-free telephone hotline was installed to help the respondents in case of questions. In total 764 calls were received, mainly during the fieldwork of the PAPI mode. The hotline turned out to be an extremely valuable tool to answer concrete questions, to react to concerns, but also to learn something about the considerations to decide upon a participation in the register survey. Apart from privacy concerns and general complaints about the fact that the person had been contacted for the register survey, a surprisingly large number of pensioners called to inform about the fact that they were no longer employed and thus did not need to participate in the survey. These persons were instructed to participate nevertheless, as also information was required about former employment situations. In some of these calls a brief discussion followed in the course of which it turned out that the sample person was very well still having a side-job, which was sometimes even practiced regularly every week, but not perceived as employment by the respondents. In other calls, the respondents insisted on not having any kind of employment, which might be seen as a hint regarding the substitution thesis. Still other callers claimed that the sampled person was living abroad or returned to their home country after a seasonal job in agriculture. Although no general or quantitative conclusions can be drawn from these calls, it nevertheless confirmed two theses: Firstly, that for instance pensioners with a side-job were difficult to capture as ILO employed as they were strongly guided by their main social status and did not consider paid activities relevant to be declared under the leading questions on employment. And secondly that a number of persons included in the register even upon several probing questions persistently denied holding any kind of paid employment.

#### **4.5 Nonresponse**

In a survey without mandatory response, nonresponse always is an issue. In the register survey, the situation was particularly challenging as it could be assumed that the target population, at least to a larger degree as the general population, was difficult-to-reach. Furthermore, despite a careful wording of the questionnaire and the cover letter, the topic of the survey was thematically related to official declarations made by the employer to the social insurance authorities. Although the statistics of the Federal Employment Agency is organisationally distinct from the department in charge of the unemployment insurance or any authority that may find out on undeclared employment situations, it could be assumed that a number of respondents would rather hesitate before participation. Particularly those who are unsure whether their job was entirely declared at the social insurance authorities as requested will to some degree prefer not to participate in the survey. This hesitation may have been even higher because the cover letter as well as the questionnaire carried the emblem of the Federal Employment Agency. This point was further exacerbated by the fact that a declaration of informed consent was required for the linking of the micro data from the register survey with the data kept at the Federal Employment Agency.

Against this background, special efforts were made in order to motivate as many people as possible to participate. The complex way of mixing the data collection modes is an expression of these efforts. A further group that needed to be addressed separately were those persons who, contrary to the status in the ESR, were not employed in the reference week. One of the objectives of the register survey was to get at least a rough idea

regarding the potential impact of such “zombie data”. For this reason, the cover letter tried to explicitly motivate persons who were currently not employed to participate in the survey. Likewise, representatives of the Federal Statistical Office and the Federal Employment Agency focused on this crucial aspect during the training of the interviewers and the call centre staff responding to the respondents’ questions on the hotline.

Furthermore, in order not to lose analytical potential, the criteria for the acceptance of completed interviews were quite restrictive: 90 % of the questions had to be completed and the responses had to be internally consistent. No automatic corrections were allowed, but re-contact with the respondents was accepted as the only means to figure out inconsistencies. Furthermore, no item nonresponse was allowed at all in the questions on age, sex and employment activity in the reference week.

Against this background, when looking at the overall response rate of 22.6 %, one can conclude that the survey design chosen as well as its implementation in practical fieldwork were highly successful. It is true that the response rate was much lower than in the LFS which is, however, due to the large differences in the framework conditions. When looking at the reasons for the nonresponse, the largest share of nonrespondents refused to reply to any of both letters (38 %). Another 15 % refused to participate when called for a CATI interview. Another 12 % could not be reached (in addition to 5 % of undeliverable addresses in the ESR).<sup>16</sup> A further 4.5 % of the responses were lost due to the lack of the declaration of informed consent and further 4 % of the questionnaires were either incomplete or inconsistent (see table 3).

There were also some interesting differences between CATI and CAPI (CAWI could not strictly be compared as the target population could not clearly be determined due to the status as additional response option). Regarding the share of refusals and non-contacts, there is hardly any difference between CATI and CAPI. As expected, inconsistent and incomplete answers were practically only found in the non-computer assisted mode (PAPI). A further interesting detail is the large number of PAPI (and the even larger of CAWI) respondents who refused to declare their informed consent and, therefore, could not be taken into consideration in the register survey. In contrast, refusal to agree with the declaration of informed consent was much less of a problem in the interviewer-administered CATI mode.

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16 The fact that 5.2 % of the addresses in the sample were returned as undeliverable does not signify that these persons were no longer marginally employed. As the communication with the social insurance authorities is handled by the employer, the administration of the (employees’) addresses in the ESR is of no particular importance and is furthermore depending on two prerequisites: (1) the employee informing the employer about the change of his or her address and (2) the employer transmitting this information to the Minijob-Zentrale. A rate of 5.2 % of undeliverable addresses is, therefore, rather a better result than expected. Nevertheless, there was no chance in the register survey to check whether these cases would have indicated an employment in the register survey.

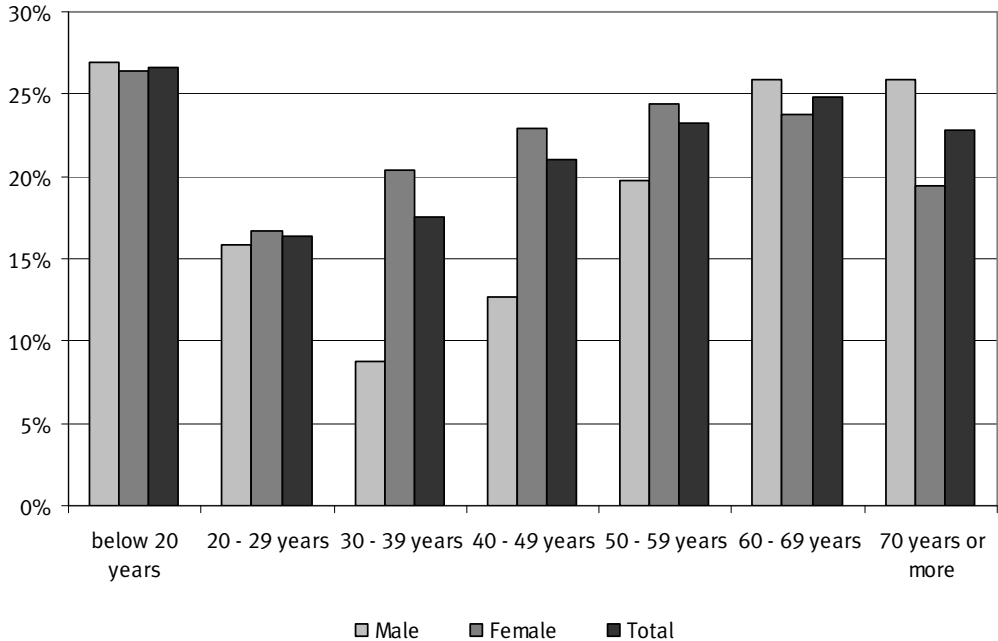
**Table 3: Nonresponse in the register survey by reasons and data collection mode**

	Total		Thereof		
	Persons	Share	PAPI	CATI	CAWI
		in %			
<b>Gross Sample</b> .....	<b>30,000</b>	<b>100</b>			
Ineligible units .....	1,718	5.7			
Person aged below 15 years .....	161	0.5			
undeliverable address .....	1,557	5.2			
<b>Adjusted gross sample</b>					
<b>(eligible units)</b> .....	<b>28,282</b>	<b>100</b>	<b>15,105</b>	<b>12,503</b>	<b>674</b>
No reply to both letters .....	10,639	37.6	10,639	n.a.	n.a.
Nonresponse communicated					
via hotline .....	34	0.1	34	n.a.	n.a.
Wrong telephone number .....	1,283	4.5	n.a.	1,283	n.a.
Refusal via CATI .....	4,451	15.7	n.a.	4,451	n.a.
No contact via CATI .....	2,176	7.7	n.a.	2,176	n.a.
Other nonresponse via CATI .....	908	3.2	n.a.	908	n.a.
Interview abandond (CAWI) .....	47	0.2	n.a.	n.a.	47
Inconsistent answers .....	695	2.5	695	0	0
Empty questionnaire returned ....	122	0.4	122	0	0
Questionnaire incomplete					
(< 90 %) .....	125	0.4	81	41	3
Item nonresponse for key					
questions (1, 2, 7) .....	156	0.6	6	136	14
No declaration of informed					
consent .....	1,262	4.5	960	164	138
<b>Net sample</b> .....	<b>6,384</b>	<b>22.6</b>	<b>2,568</b>	<b>3,344</b>	<b>472</b>
<b>Response rate (in %)</b> .....	<b>22.6</b>		<b>17.0</b>	<b>26.7</b>	<b>n.a.</b>

n.a. = not available

As often stated in recent survey research (see, e.g., Groves/Peytcheva 2008; Peytchev et al. 2011), the response rate is much less appropriate as a quality indicator compared to the nonresponse bias and has only limited (and sometimes even converse) impact upon the bias. In the case of the register survey, we are in the lucky situation that on a number of variables is available from the ESR for respondents and nonrespondents alike. Analyses carried out with some of these variables indicate that, despite the low response rate, the nonresponse bias is rather limited.

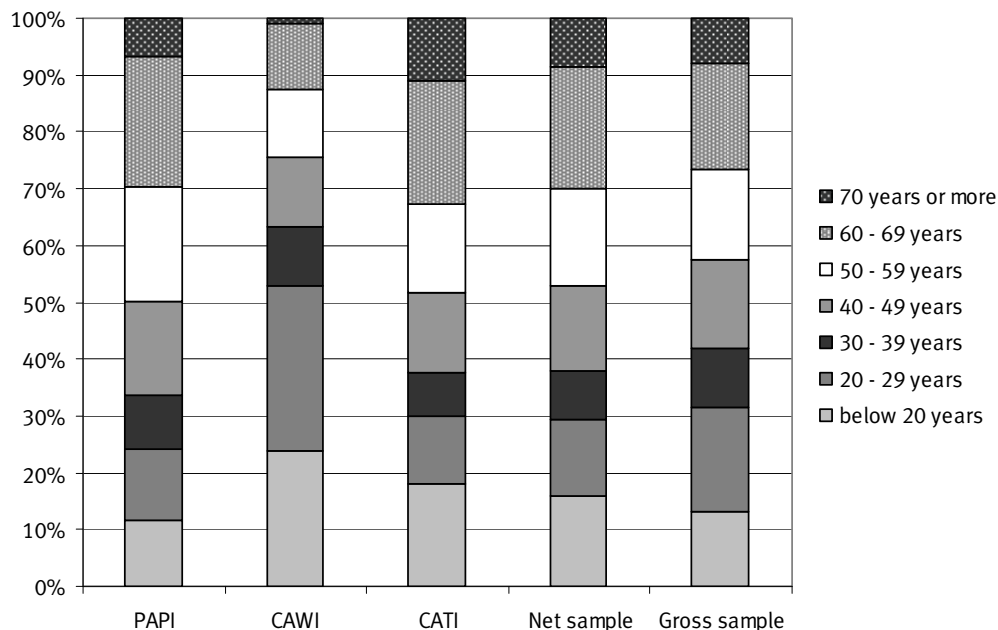
**Figure 13**  
**Share of respondents in the gross sample by age group**



This is first of all the case for the age structure. As indicated in figure 13, the share of the respondents in the gross sample varies only little. It is within the range of about 20 % to 25 % for most groups of marginal employees. The only exception from this general picture are persons aged 20 to 29 years (16.4 %), as well as aged 30 to 39 years (17.6 %), who were slightly more reluctant to participate in the survey. However, the most difficult-to-reach age group were the male marginal employees aged 30 to 49 years, for whom the share of the respondents in the gross sample is well below 15 %. This is, nevertheless, considered not to be too problematic as only a tiny part of the total marginal employment falls into this population group (about 5 % in the gross sample).

Looking at the occupation and the economic activity of the employer, the differences are moderate as well. As expected, the rate of the respondents in the gross sample is slightly higher for respondents in higher qualified occupations (about 25 % of the gross sample participated) and slightly lower for less qualified occupations such as workers in agriculture (15 %), kitchen workers (16 %), or builder’s labourers (15 %). For the economic activity of the employer a similar picture can be found. For the major economic activity groups the share of the respondents in the gross sample does only fall below 20 % for few industrial sectors. For instance the activities of “land transport and transport via pipelines” (18 %), “food and beverage service activities” (16 %), as well as “services to buildings and landscape activities” (15 %) have a response rate, which is slightly below the average.

**Figure 14**  
**Age structure of the respondents using the three data collection modes**



An analysis of the age structure of the respondents in the three data collection modes reveals that the reasoning behind the inclusion of the CAWI response option was largely justified. As can be seen from figure 14, the share of respondents aged below 20 years as well as 20 to 29 years (together above 50 %) was considerably larger than for the CATI and (even more distinctly) for PAPI respondents. Due to the use of the web-based mode the share of persons aged below 20 years is even slightly higher in the net sample compared to the gross sample, which is quite remarkable for a population survey. Had the register survey relied exclusively on PAPI and CATI, in particular the group of persons aged 20 to 29 years would have been underestimated.

The picture gets a little bit more mixed when looking at the educational attainment and the nationality of the respondents. As known from many other population samples with voluntary response, non-nationals and persons with low educational attainment tend to be underrepresented in the net sample. This is also the case in the register survey: While about 10 % of the exclusively marginally employed in the ESR have a foreign nationality this applies to only 4.7 % of the respondents in the register survey. For the educational attainment, a similar situation can only be suspected from a comparison with the LFS: Here, 26 % of the marginally employed are in ISCED groups 0 – 2, while the share in the register survey is only 16 %.

Nevertheless, in summary, the nonresponse bias is not likely to reach a critical level. The problematic groups are those known from other voluntary household surveys. Therefore, with a well targeted nonresponse treatment in the weighting procedure, it is not only possible to methodologically analyse the register survey with the ESR, but also to draw conclusions regarding the entire group of marginal employees.

#### 4.6 Data matching with the ESR

For the purposes of testing the theses outlined in chapter three, it was indispensable to micro-link the data obtained from the register survey with those kept in the ESR. Therefore, when the sample was drawn, each sampling unit was attributed a system free ID number, which after the return of the survey data sets was used to match each data set from the survey with the respective data set from the ESR. For the analysis, a wide range of variables (but, for confidentiality reasons, not the entire set) from the ESR was matched to the register data (see table 4).

**Table 4: Variables from the ESR matched with the register survey**

Status in Employment („Stellung im Beruf“)  
Occupation (Klassifikation der Berufe 1988)  
Starting date  
Ending date  
Wage  
Type of most recent declaration by the employer  
Type of marginal employment  
Economic activity of employer  
Educational attainment  
Nationality  
Year of birth

Each of the variables listed in table 4 has been matched for 13 different reference months (from September 2009 to September 2010) in order to allow for rich analytical possibilities regarding the ESR's registration and de-registration processes.

Regarding the reference period of the data matched from the ESR, a dilemma had to be solved. The data from the register survey were to refer to the identical reference period (i.e. the week from 27 September to 3 October 2010) as the ones from the ESR. Not surprisingly, at the time of the sample selection, the data from the ESR referring to 30 September 2010 were not available yet. For this reason, the sample was selected on the basis of preliminary data for 30 June 2010 (preliminary data with two months delay). As the matching took place after the register survey was conducted, for the matching of the data, the final data for the reference date 30 September 2010 was used. With this approach it was made sure that the data from the survey and the ESR refer to almost the identical reference period (the week from 27 September to 3 October 2010 for the register survey and the reference date 30 September 2010 in the case of the ESR). One drawback of this procedure is, however, that those persons who were deregistered between 30 June and 30 September 2010 were not possible to match.

#### 4.7 Weighting and calibration

For comparisons with other data sources, but also in order to correct for the nonresponse bias presented in section 4.5, the data from the register survey were weighted and calibrated by the Federal Statistical Office. The weighting consisted of several steps. As a first step, a detailed nonresponse analysis was carried out in order to quantify the impact of the variables available from the ESR upon the likelihood to participate in the register survey. The results from this analysis were included in the model for a generalised regression estimator (GREG). Various models with different breakdowns have been tested. As a result of these tests, a model containing the following variables was used:

- (1) Age and sex ( $11 * 2 = 22$  categories)
- (2) Nationality (German/non-German) and sex ( $2 * 2 = 4$  categories)
- (3) Economic activity of employer and sex ( $18 * 2 = 36$  categories)
- (4) Occupation and sex ( $15 * 2 = 30$  categories).

For the breakdowns by economic activity of the employer and occupation the categories shown in tables 5 and 6 have been applied (based on the homogeneity of the response rates achieved). The (very few) data sets for which a code could not be determined, were allotted proportionally over all the other groups.

**Table 5: Breakdown of the economic activity of the employer used for weighting and calibration (according to NACE Rev. 2)**

Group	Specification
A	Agriculture, forestry and fishing
B+C	Mining and quarrying; manufacturing
D, E, F	Electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities; construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
U, 9	Activities of extraterritorial organisations and bodies; no classification possible

**Table 6: Occupational groups used for weighting and calibration (according to the national classification “Klassifikation der Berufe“ (KldB) 1988)**

Occupational section (Berufsabschnitt)	Specification, occupational order (Berufsordnung)
Ia	Crop production, animal husbandry, fishing
IIa, IIIa-IIIi, IIIo-IIIr	Miner, mineral extractor, stone processor, building materials producer, ceramist, glassmaker, chemical workers, plastics processing, paper processing, printing, wood processing, metal production and processing, engineering and related occupations, electricians, assemblers, construction finishing worker, interior decorator, upholsterer, carpenter, painter, varnisher, product tester, dispatching
IIIm	Nutrition professional
III n	Occupations in building sector
III s, III t	Labourer without specification, machinist and related occupations
IVa, IVb	Engineer, chemist, physicist, mathematician, engineer, especially trained technical skilled worker
Va, Vb	Goods merchants, service merchants
Vc	Occupations in the transport sector
Vd	Organisational professionals, administration, office occupation, commercial clerk
Ve	Order and security services
Vf, Vh	Written work and artistic professions, social and educational professions, and other humanities and natural sciences occupations

Besides the “full model”, also partial combinations of the marginals listed above were tested. The tests included 12 additional models that combined the information available. The calibration marginals were calculated using the population of persons registered as marginally employed in the ESR on the reference day 30 September 2010. This means that the population used for the calibration does not fully match the sampling frame from which sample for the register survey was selected. Besides a small number of ineligible cases, a small part of the target population had an inclusion probability equal to 0 (persons who were registered as marginally employed between 1 July 2010 and 30 September 2010 only).

The calibration marginals for the four weighting terms were calculated for three distinct groups:

- (1) Target population of marginally employed persons (reference day 30 September 2010; final publication after six months)
- (2) Net sample (6 384 cases)
- (3) Net sample adjusted for cases that are not registered as marginally employed on the reference day 30 September 2011 (but previously on 30 June 2010 – 5 521 cases).

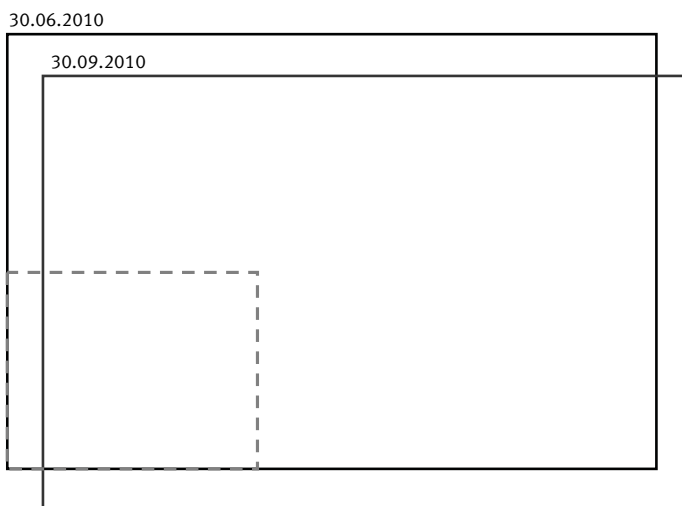


## 5 Concept of the analyses and results

The basic advantage of the register survey is that a direct link is made possible between the measurement obtained in population surveys on the one hand and the measurement derived from the registration process on the other. This possibility does not exist when analysing the LFS and ESR side-by-side. Due to this link, different combinations of results are possible. For example, the respondents could be identified as not employed in the survey, but as employed in the register. As these sub-populations are at the basis of most analyses gained from the register survey, the different combinations found are briefly sketched before entering the analysis itself.

Taking into account that the sample was drawn referring to a different reference date (30.06.2010) than the reference week of the survey (30.09.2010; see section 4.6), there are already two groups to consider. A third group consists of the group of persons responding to the survey. Therefore, the data consist of three populations containing a very large overlap and two non-overlapping sets (see figure 15). The outer area labelled “30.06.2010” is the gross sample referring to the reference date 30 June 2010 that served as the basis to conduct the survey. The area labelled “30.09.2010” is the gross sample referring to the target population for which the reference date is lying within the reference week of the survey. This sample was matched to the micro data obtained from the register survey. The intersection of these two areas shows the population that is registered as marginally employed at both reference dates for the gross sample, in June and September 2010. The non overlapping areas in both directions represent the population that has changed their registration status, i.e. due to deregistration respectively registration from July until September 2010. The small area in the left corner (framed by the dotted line) shows the net sample of the register survey which largely consists of persons who were registered at both reference dates.

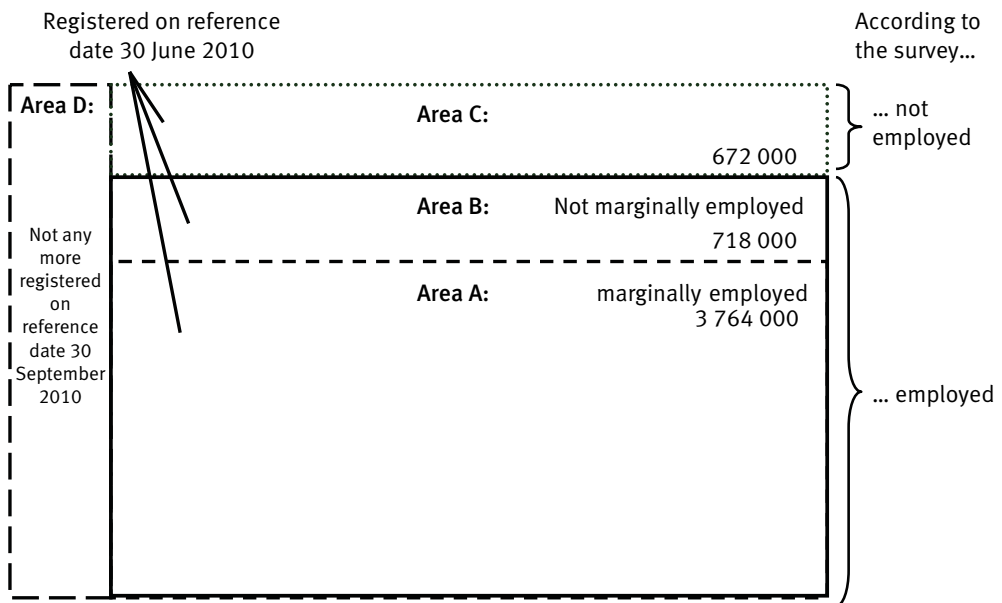
**Figure 15**  
**Intersection of the sample base to the realised sample**



While persons whose marginal employment was registered between July and September 2010 had no chance to be interviewed in the survey, the net sample of the register survey (N = 6 834) also includes persons who were marginally employed in June but who were no longer in the register on 30 September 2010 (863 cases). This sub-population, albeit not the main focus of the register survey, nevertheless allowed supplementary analyses regarding the registration process in the ESR.

As shown in figure 16, the population that was registered in the ESR at both reference dates (5 521 cases), can be further subdivided according to their working status (according to the ILO concept). This results in a total of eight subgroups, of which each has to be analysed looking at specific research questions. Figure 16 illustrates the subgroups whose compositions are explained in the following.

**Figure 16**  
**Subgroups of the register survey**



The whole area (A+B+C+D) consists of persons who participated in the survey and were registered as marginally employed in June and September 2010. These cases have been matched to the data from the ESR. Persons that were registered in the sample drawn on 30 June 2010, but who were no longer marginally employed in September are included in Area D.

The area that shows persons who have been registered in the reference week of the survey (Area A+B+C) is subdivided into the following groups of persons according to their employment status determined by the register survey: Areas A+B show persons that were registered in September 2010 and declared that they were working according to the ILO

guidelines. Persons belonging to **Area A** declared during the interview that they are not only employed, but that their main job was a marginal employment. This area consists of cases for which the answer of the respondents corresponds to the status of the register. **Area C** is made up of respondents who were registered in the ESR, but who did not indicate any employment according to the ILO definition.

In contrast to the persons included in the areas A, B, and C, there are also persons who participated in the survey, but were no longer registered in the ESR at the reference date of 30 September 2010. Also Area D could be subdivided by the employment status determined by the register survey (not shown in figure 16): (1) There are persons who were not registered anymore and who did not declare an employment according to the ILO guidelines in the interview. This area consists of cases where the answer of the respondents corresponds to the status of the register. Furthermore, (2) there are also persons who were not registered, but who declared having a paid employment in the survey, which was however not a marginal employment. These cases might be plausible as persons who ended their marginal employment could have meanwhile taken up an employment subject to full social insurance contributions. No plausible explanation exists a priori for the sub-population which (3) shows persons who, beyond saying that they were employed in the reference week, also declared a marginal employment. This group is of specific interest because the registration status in the ESR is not corresponding to the economic activity status measured in the survey interview. Here, the register needs to be analysed in more detail.

The following analyses are divided into two sections aiming at different, albeit related aspects: The first part in section 5.2, as a basic analysis of the data from the register survey, looks into the socio-economic structure of the population groups distinguished above. These analyses focus mainly on the three subgroups in the areas A, B and C because, here, the survey data are matched to the register data. This enables a comprehensive view on the data and at the same time constitutes the basis for the specific analyses targeting at the validation of the theses in section 5.3. Furthermore, these subgroups can be compared regarding the information available from the ESR and the register survey as well as (albeit only at the level of the aggregated results) to the Microcensus.

Section 5.3 tries to find empirical evidence for the theses explicated in chapter 3 more specifically. Here, each thesis leads to the decision which subgroups need to be analysed more closely. In each case, the subgroup will be named before referring to the results of the analysis.

## **5.1 Employment status according to the ILO guidelines in the register survey**

To be able to transfer the results of the register survey to the situation in the LFS, the employment status and the question whether the main job was a marginal employment had to be determined similarly to the LFS. Here, it is important to note that the LFS retrieves its results on employment based on the definitions and guidelines agreed in the context of the ILO (ILO 1982, 1998). These guidelines have been further specified for the operationalisation in the EU-Labour Force Survey in commission regulation no. 1897/2000

as well as in a set of recommendations laid down in the “Explanatory notes” for the operationalisation of the variables in the LFS. Therefore, the employment status according to the ILO guidelines is needed as a variable in the register survey.

For this purpose, in the questionnaire of the register survey, the first questions on the employment situation have been implemented similarly to the leading questions on employment in the LFS 2011 (see questionnaire in the annex). Question number 5 refers to the main social status of the respondent. If the answer is a main status that implicates an employment (categories: employed, public official<sup>17</sup> or conscript<sup>18</sup>), it is assumed that the respondent is employed according to the ILO guidelines. If the respondent indicates another status (i.e. retired person, student, . . .) a probing question (question 6) is used to determine whether the respondent, despite not being employed as main social status, had a side job or earned some extra money. Question 7 is the “classic” ILO question regarding work against pay or profit in the reference week, while question 8 aims at capturing persons who had a job, but were not at work in the reference week. Finally, all persons who were either employed as main social status, had a side job, worked during the reference week or had a job, but were not at work during the reference week were classified as ILO-employed (see Figure 17). All other groups are considered not being employed because they answered negatively to all questions concerning employment.

**Figure 17**  
**Derivation of the variable “ILO employment status” in the register survey**

<b>Employed {1,6,8}</b>	Question on main status? (Question 5)					<b>else</b>
	<b>Main status other than employed {≠ 1,6,8}</b>					
	If you are not “employed”, do you have a side job? (Question 6)					
	Yes {1}	No {2}				
		Do you usually have a (side) job? (Question 8)		Did you work in the reference week (27. Sept until 3. Oct 2010) for at least one hour? (Question 7)		
		Yes {1}	No {2}	Yes {1}	No {2}	
1	2	3	0	4	0	0
Employed	Employed	Employed	Not employed	Employed	Not employed	Not employed

It should be noted that this derivation of the ILO employment status in the register survey slightly deviates from the operationalisation used in the LFS. The main difference concerns the inclusion of all persons with a job, but not at work, irrespective of criteria

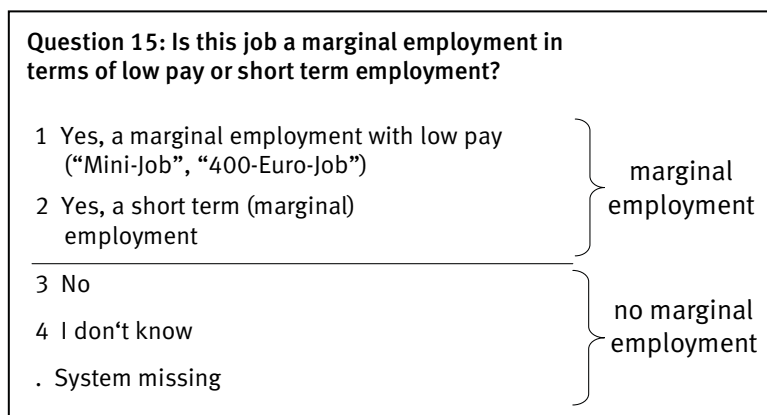
17 Public officials, soldiers and judges.

18 Conscripts, persons obliged to render alternative civil service and persons in voluntary community service.

such as the duration of the absence or the continuous pay of wage or salary. For the register survey, it was considered crucial not to lose persons in such situations in order to be able to analyse discontinuous employment patterns as detailed as possible. The other deviation from the usual approach in the LFS was to put questions 7 and 8 in parallel in the derivation, which is a pragmatic approach to minimise the effects of item nonresponse in the employment status. Although the overall effect of these differences is considered to be minor, particularly when comparing the register survey with the aggregated results from the LFS, these differences have nevertheless to be borne in mind.

The second step for the measurement of the number of persons in marginal employment, in the LFS as in the register survey, is to detect whether the employment a respondent is carrying out as his or her main job is a type of marginal employment. This is done using question 15 (see figure 18). If a respondent declares that his or her main job is a marginal employment with low pay or a short term employment, then marginal employment in the legal sense is assumed. If the respondent denies (to know) the type of employment or if it is a system missing value (which in fact is not really missing, but does not apply to the respondent; “real” missing values, in this report, are referred to as “no reply”)<sup>19</sup>, the employment type is not considered to be marginal employment.

**Figure 18**  
**Identification of marginal employment in the register survey**



When referring to ILO-employed or marginally employed in the context of results from the register survey in the following analyses, the derivations just presented are used.

19 Public officials, conscripts and persons obliged to render alternative civil service (declared as main job in question 12) did skip question 15 because their main job by definition cannot be a marginal employment. In addition, a system missing is attributed to all persons who did not indicate any type of employment.

## 5.2 Results of the structural analysis

A central aim of this study is to explain the big discrepancy of the results on marginal employment from the ESR and the LFS; the ESR being the main official source and the LFS an additional, and, concerning structural variables, much more detailed source for marginal employment. By conducting the register survey that is linked to the register information, it is possible not only to compare the aggregate results of both official sources, but to add analyses of the subgroups of marginally employed in the register survey linked on the micro level.

The intention of the following analyses is to learn how the subgroups of the persons who are registered as marginally employed differ concerning their employment status according to the ILO guidelines. Wherever possible, the analyses are additionally compared to the results of the LFS. For the comparisons with the LFS, it has to be kept in mind that the employment status registered in the ESR is unknown and not possible to link to the information of the respondents in the LFS. This restricts the comparability to the results from the register survey.

### 5.2.1 Introduction to the differences in the subgroups of the survey concerning its registration and (marginal) employment status

A first view should consider the marginally employed from the ESR (subgroup A+B+C:  $n = 5\,521$ ) and how they form the different subgroups. 85 % of the registered persons in the survey declare an employment and are therefore ILO-employed (subgroup A+B:  $n = 4\,715$ ). Of this group, a further 86 % categorise themselves as marginally employed (subgroup A:  $n = 4\,056$ ) in the survey. This means, that in 73 % of the cases, the answer of the respondents corresponds with their status in the ESR.<sup>20</sup>

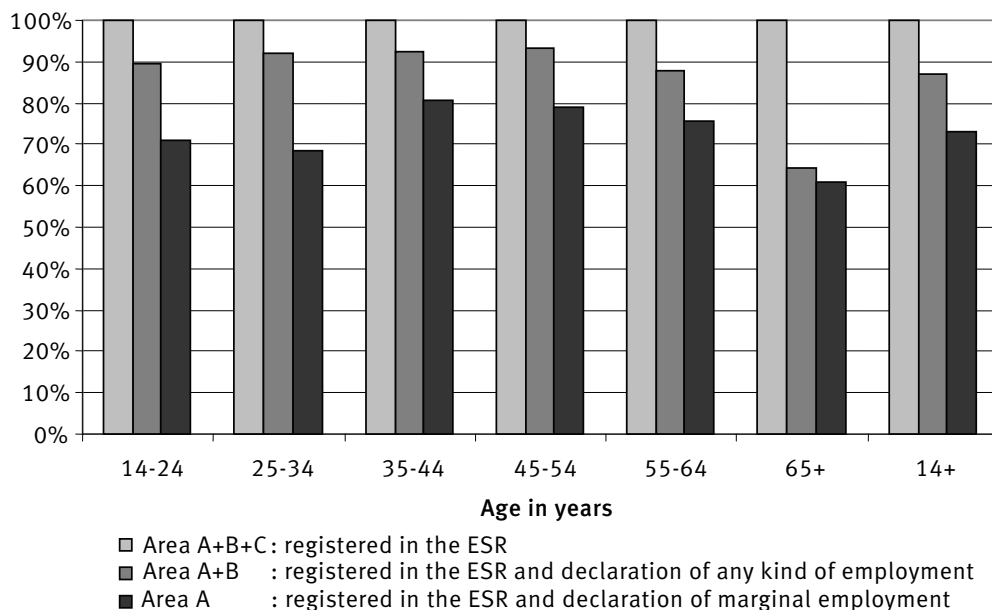
As expected from the introduction to the differences in the number of marginally employed, nearly every aspect of the difference also differs regarding sex and age groups. The following figure shows the share of marginally employed persons in the ESR, who were classified as ILO employed respectively declared that their main job was a marginal employment in the survey by age groups. Not surprisingly, they differ quite strongly.

This leads to a first important finding, namely that there are two distinct reasons why marginally employed registered in the ESR are not captured correctly in surveys: (1) Not indicating an employment at all and (2) indicating an employment, but not classifying this employment as a marginal employment. Maybe surprisingly, the quantitative effect of both reasons is quite of equal size (see figure 19).

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20 It should be noted that regarding the measurement of the employment status according to the ILO guidelines, important differences have been found between the data collection modes: While in the self-administered modes 93 % to 94 % of the respondents indicated to be employed according to the ILO guidelines, only 79 % did so in the computer-assisted telephone interview. According to the feedback received from the respondents on the toll-free number, it could be guessed that this difference is probably partly due to the fact that it was possible in the interviewer-administered mode to convince a larger number of persons to participate in the register survey who were not employed according to their own perception, in particular as this pattern appears consistently across all age groups. This would in turn suggest that the share of respondents not indicating an employment should be interpreted as the lower boundary.

**Figure 19**  
**Self-declaration of (marginal) employment in the survey**



Trying to interpret the differences by age groups the respondents in the age groups 35 – 54 seem to know best about their registered employment status. 94 % of the registered persons between 35 and 54 years declare an employment in the survey and, furthermore, 83 % classify themselves correctly as marginally employed. This result confirms former analyses based on aggregated data of the ESR and the LFS as well as the Microcensus follow-up survey (see Körner/Puch 2011 or Köhne-Finster/Lingnau 2008) where it was discovered that obviously persons in the age groups below 25 years and above 55 years did not categorise themselves as (marginally) employed much more frequently. The register survey, whose target population was the specific one of persons in marginal employment, confirms this finding and detects similar problems to a similar extent for persons in the age group 25 – 34 years.

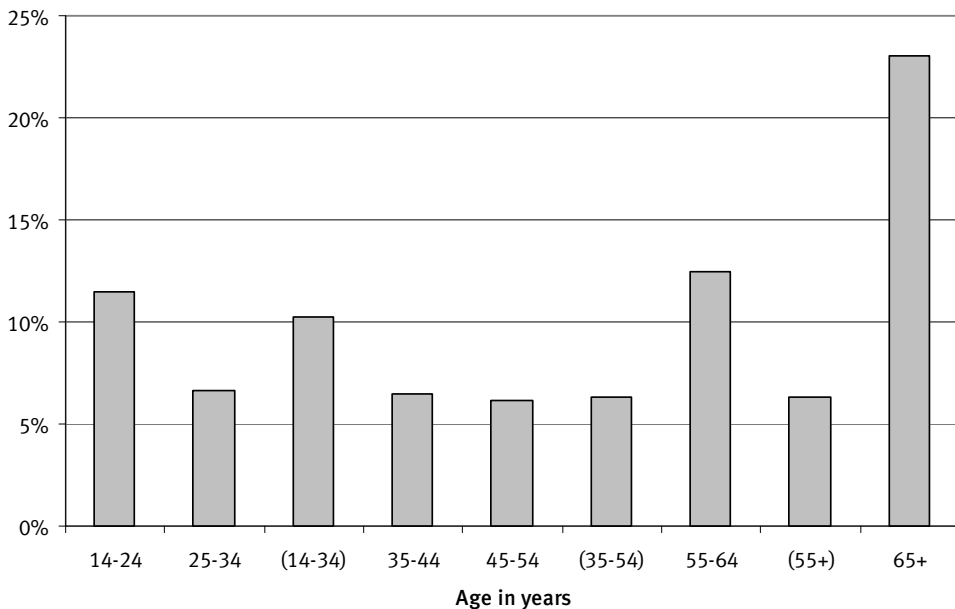
Registered persons below the age of 35 years declare an employment to 90 %, but only 71 % classify themselves as being in a marginal employment. This means that only about 80 % of the employed in this age group indicate the registration status corresponding to the ESR, whereas in the age group from 35 to 54 years the share is about 90 %. This is a difference of 10 percentage points which leads to the assumption that younger people do, to a lesser degree, know about their registration as marginally employed.

Looking into the second group that seems problematic, the picture is upside down. Here, only 66 % of the registered marginally employed persons in the age of 55 years and above declare any kind of employment in the survey. But out of these, 90 % indicate that their employment is marginal. This means, that persons in older age groups more often do not acknowledge an employment at all, but if they declare it, they confirm to a higher degree that this employment is a marginal employment.

The response behaviour is not only different between the age groups, but also concerning sex. Men acknowledge an employment (80 %) to a smaller degree than women (88 %). This difference between the sexes is even bigger when categorizing the type of employment. 80 % of those men who state an employment also declare it to be a marginal employment, compared to 89 % of the women. This means that only 64 % of the men, but 78 % of the women categorise themselves according to the registered status.

Apart from the three groups just described, a fourth has to be introduced for the comparisons in this chapter. The group results of the three mentioned above – it is the residual and consists of persons registered as marginally employed who do not declare an economic activity in the survey (subgroup C: n = 806). In this group, too, there are differences in its composition that are corresponding to those from subgroup A+B (n = 4 715): 20 % of the male and only 12 % of the female respondents do not declare an employment although a registration is reported. Figure 20 shows again differences by age groups in subgroup C corresponding to subgroup A+B.

**Figure 20**  
**Non-employed with a registration as marginally employed in the ESR (n = 806) by age**



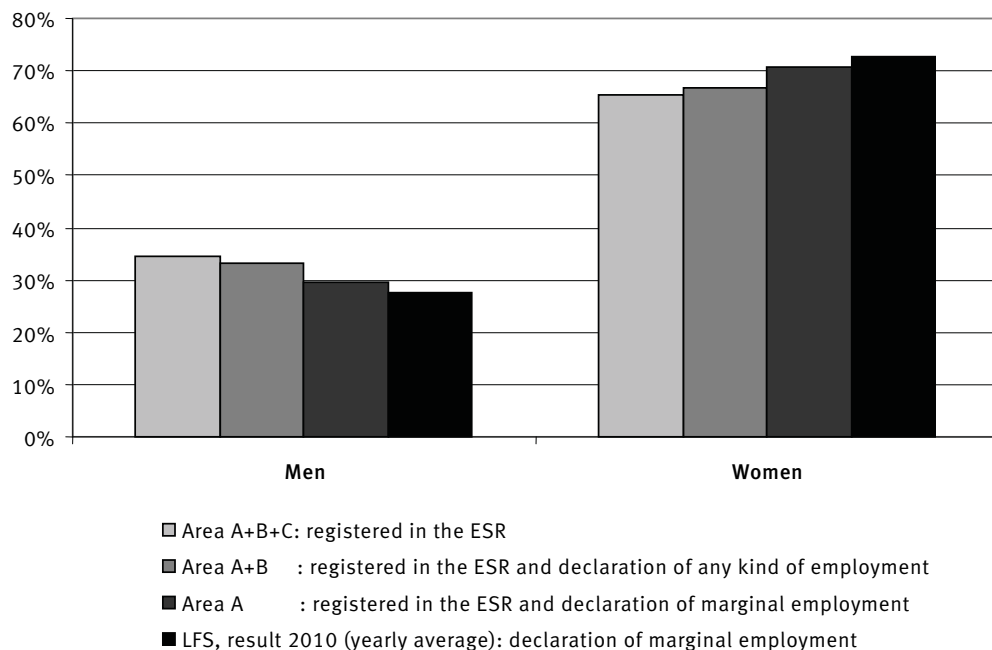
### 5.2.2 Structural comparison of the subgroups of the survey concerning its registration and (marginal) employment status

The following analyses look into the demographic structure of the subgroups named above, knowing already that their composition differs by age and sex. Additionally, the results from the LFS are added for comparison wherever possible. To have comparable results and to minimise the nonresponse bias, the weighted data are being used.



As an introduction, a first view into the differences in the subgroups of the weighted data is devoted to the variables age and sex. First of all, it can be stated that men are less often marginally employed than women. This is no new finding so far. But, regarding sex, the differences described in the previous section concerning the classification of a declared employment are very much the same. Men, to a lesser degree than women, declare a (marginal) employment so that the share decreases with each more detailed subgroup of the marginally employed in the ESR (see figure 21). Looking only at the persons reported in the ESR, 1.78 million or 35 % of the persons in marginal employment are male. Asking in the survey whether those people have an employment at all, fewer men indicate any employment which leads to a reduced share of 33 % (= 1.49 million). Men also less often indicate an employment as a marginal one. This reduces the male share in marginal employment further to 29 % (= 1.11 million). In total, this is a difference of 670 000 persons.

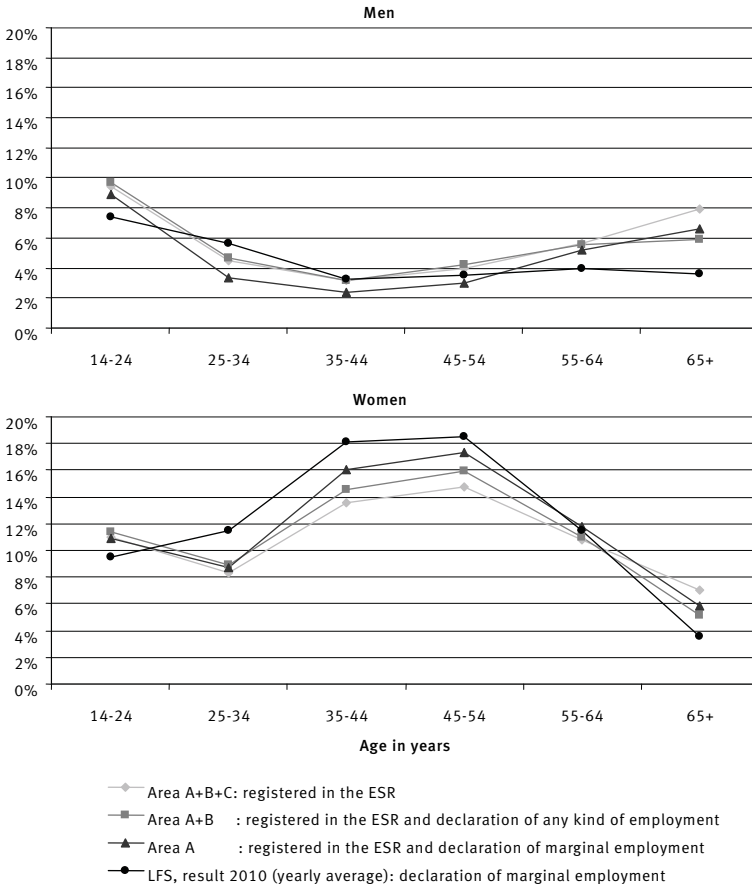
**Figure 21**  
Registered regarding the declared employment status in the survey by sex



Interestingly, the LFS result is very similar to the survey result as regards those who declare their economic activity being marginal. The share of women in all marginally employed persons in both sources is nearly the same (register survey: 71 % and LFS: 73 %) which implicates that the differences between the results of the ESR (65 % women) and the LFS may be due to the fact that the LFS results are gathered using a survey and not a register statistics. However, comparing the weighted survey result to the LFS result, there is still quite a big difference in numbers: The LFS counts 3.25 million persons who declared a marginal employment; the survey result is 3.76 million.

Figure 22 gives a deeper insight into to the structural age differences in each subgroup. Primarily, the figure illustrates the relative demographic structure of marginally employed. It should be noted that for this reason the figure deviates from the structure obtained when presenting the results in absolute terms. Obviously, marginal employment is a type of employment that is used mainly by women in the age groups 35 – 54 years (each about 14 %). Looking into the details, age and gender specific differences become visible. For men, marginal employment seems to be a topic between the age of 14 – 24 years (nearly 10 % of all marginally employed in the register) and again in the retirement age. Men show the highest participation rate in the age of 14 – 24 years. Approximately the same share show women in this age group (11 %). Contrary to the distribution by age of marginal employment for men, this type of employment regarding women is characterized by a higher share in the medium age groups. According to the register, 35 % of all marginally employed are women in the age of 35 – 54 years.

**Figure 22**  
**Share of registered and self-declared employment status by sex and age<sup>21</sup>**



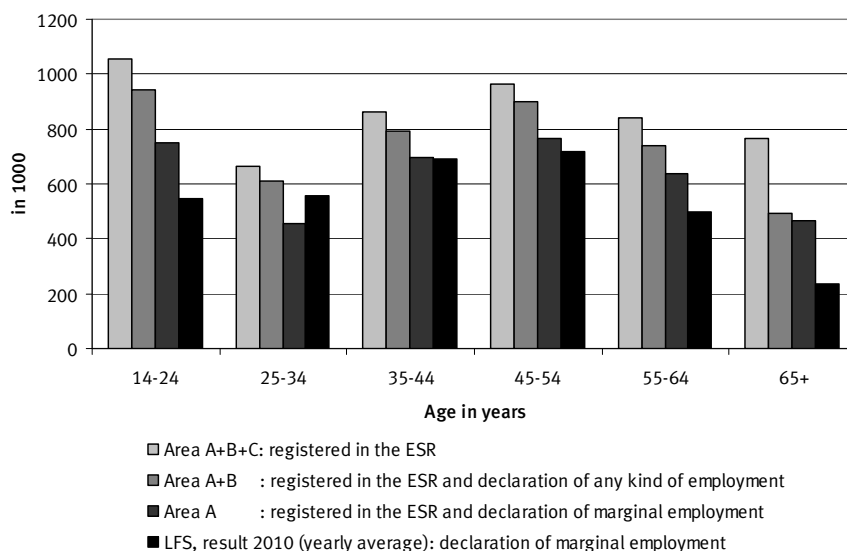
21 To read: 11 % of all marginal employed in the register are women aged 14 – 24 years.

Using this kind of illustration it becomes visible that the differences in the subgroups of marginally employed are each composed differently. Looking into those subgroups that are registered and declare an employment, a difference between the sexes is as obvious as in the age groups. In most age groups, the share of men who declare an economic activity (subgroup A+B) in the survey is slightly higher compared to the share of men who have a reported marginal employment in the ESR (subgroup A). This is only not true for men over 64 years. In figure 22 this can be seen in the medium-grey and dark-grey lines that are very close to each other. The categorisation of a self assessed marginal employment in the survey has not such a straight distribution. Compared to the shares of the registered, self-declared male marginal employees show smaller shares in the three age groups 25 – 54, but similar shares for the 14 – 24 year olds. In the figure this is visible comparing the light-grey line to the dark-grey line, which is below the light-grey line in all age groups.

The share of women in the age groups 14 – 34 matches quite well with the different subgroups. This changes for the women between the ages of 35 – 64 where the share of self-declared (marginal) employment is higher than in the ESR. For the old women (aged 65 years and more), the share is below that of the register.

Regarding the LFS (black line in the figure 22), the share of young (14 – 24 years) and older (55 + years) men are too low compared to the register results (– 2 percentage points), but even lower than the survey results. The women in the age groups 14 – 24 and 65 + show the same differences in the LFS. Only in the age group 35 – 64 years, the LFS shows a higher share (+ 4 percentage points). In total numbers this is not visible. The LFS, apart from the age group 25 – 34, shows a lower number of marginally employed than the weighted survey results (see figure 23).

**Figure 23**  
**Total number of registered and self-declared marginally employed by age**



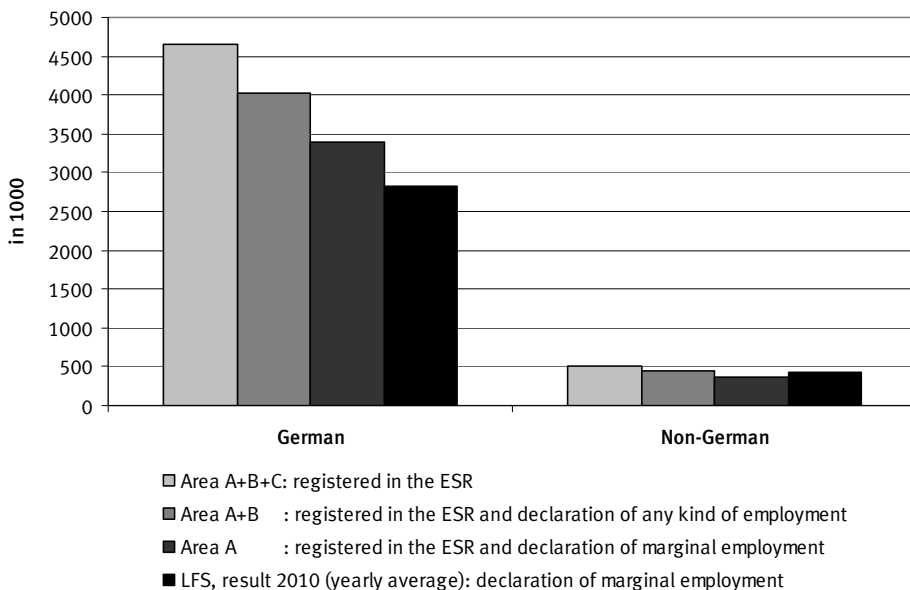
The further analyses of the demographic structure of marginally employed in the survey are not divided into age groups and sex. Therefore, it should be kept in mind that differences between sex and age groups exist, but somehow counterbalance looking into the totals.

### Marginal employees by nationality

The number of registered foreign marginal employees in the register survey is 500 000, which is equal to 10 %. This share does not vary in the different subgroups which is, however, to some part due to the fact that calibration by nationality was included in the weighting scheme. In the design weighted results (i.e. before calibration) the share of marginally employed foreigners is much smaller and does not exceed 5 % in any of the subgroups. As there are only small differences between the various subgroups, this lower share is obviously mostly due to the nonresponse bias. Foreigners were more reluctant to participate in the register survey than German nationals, but did not show larger differences regarding the responses to the employment questions. Nevertheless, it could be suspected that particularly those foreigners with the largest difficulties did choose not to participate in the survey at all.

As mentioned before, the weighted results of the ESR and the LFS concerning nationality are quite similar in absolute numbers (see figure 24). Astonishingly, the LFS (420 000 persons) counts even more Non-Germans than the register survey in its results for marginal employed (380 000 persons). These results are also visible regarding the shares of foreign marginal employed: the LFS has a higher share of Non-Germans (13 %) than the ESR and the surveyed marginally employed (each 10 %).

**Figure 24**  
**Total number of registered and self-declared marginally employed by nationality**



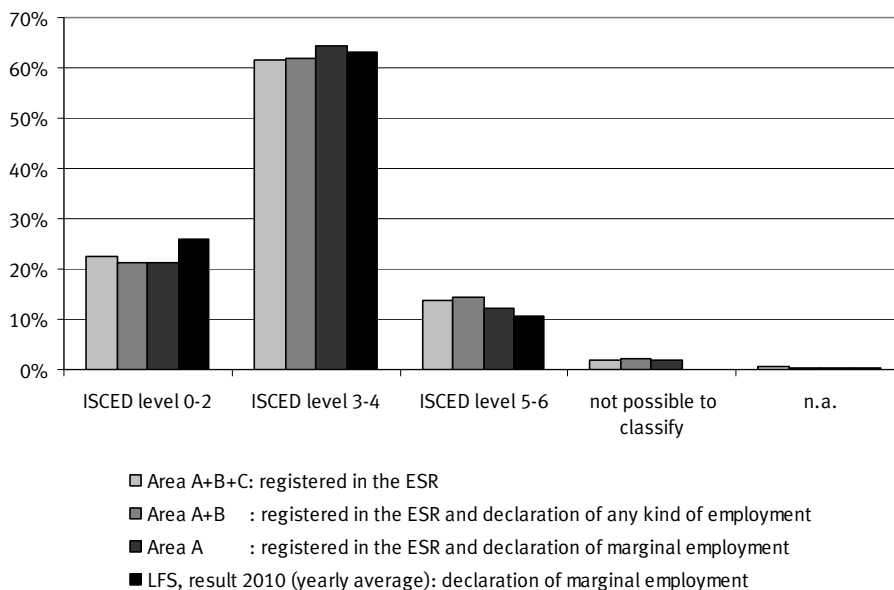
Unfortunately, there is quite a reasonable explanation for this. The foreigners in the LFS are calibrated to different marginals<sup>22</sup> (see Körner/Puch 2011, chapter 4.2) and because of that they are overrepresented in the LFS. Therefore, the share of foreigners in the LFS is even higher than in the ESR.

### Marginal employees by educational attainment

Examining the marginal employed in the survey by the highest level of education attained using the ISCED classification it can be concluded that the majority of the marginal employed (3.2 million) are in the secondary education level (ISCED 3 – 4). About 20 % have ISCED level 0 – 2 and slightly more than 10 % ISCED level 5 – 6. For a very small share (3 %) it is not possible to classify an ISCED level, because they have no valid answers in the primary variables.

Comparing the subgroups of the survey, there are interesting findings regarding the education levels of marginal employed. In absolute numbers, the ESR results show the highest number of persons in each of the three ISCED classes. Looking into the survey results, as for the totals, the numbers by ISCED classes reduces asking for employment and even more if a marginal employment is declared. Regarding the sequence known from the total number of marginal employed, the LFS counts even less persons in this type of employment. Unexpectedly, the LFS shows a higher number of marginally employed in ISCED level 0 – 2 than the surveyed persons. This is also visible in the shares (see figure 25).

**Figure 25**  
Share of registered and self-declared marginally employed by the self-declared education level



<sup>22</sup> For details on the calibration of foreigners in the LFS see Körner/Puch (2011) or Statistisches Bundesamt (2010).

Regarding the shares of marginally employed by education the LFS shows a higher share of lower educated persons than the subgroups of the survey and even the register (+ 5, respectively + 4 percentage points). The same is observed for the persons in the medium education level (LFS + 1 percentage point compared to registered in subgroup A+B+C), except that the subgroup of surveyed marginally employed (belonging to subgroup A) shows an even higher share than all other groups (+ 2 percentage points compared to the registered). This higher share of persons with lower educational attainment is levelled out by a lower share in ISCED level 5 – 6. Using the design weights only (to correct for the disproportional sample stratification, without adjusting to calibration marginals), the share of persons in ISCED groups 0 – 2 amounts to only 15 %. This is obviously below the share known from the LFS and the ESR. Given the experience in other surveys with voluntary participation it seems likely that this low share indicates some nonresponse bias, which can, however, partly be corrected by the calibration (in which education was nonetheless not included as a marginal). However, another issue is of higher interest in the context of the register survey: There does not seem to be a strong relationship between the level of education attained and the survey response upon the question on marginal employment. The only slight effect that might be seen is that persons with lower educational attainment seem to indicate an employment according to the ILO guidelines to a lesser degree.

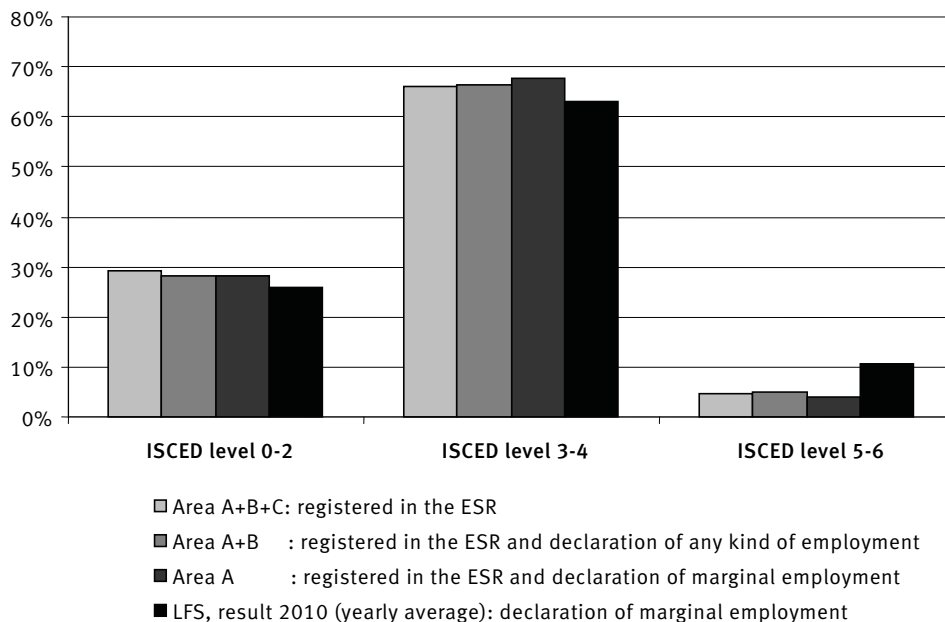
Education is a special case in the data of the project. The results above describe the self-declared answers of the respondents. As the survey data is linked to the register, a further variable on education is available: the education level reported in the ESR. The quality of the reported education level is of questionable quality, because it is not clear which status is reported by the employer<sup>23</sup>. Still there is the opportunity to compare the education level reported in the ESR with the self-declared status in the register survey.

A first analysis confirms that, as stated above, the quality of the reported education status in the ESR is indeed restricted. For nearly 60 % of the cases it is impossible to classify an ISCED code at all, because there is no or no valid information. However, taking only those register information that is possible to classify, the rough distribution of the education level is similar to the one obtained by the survey. But, as figure 26 in comparison to figure 25 illustrates, the share of lower educated marginal employed in ISCED 0 – 2 is much higher (+ 7 percentage points) than the self-declared status. The same is true for the medium education level, just to a lower degree (+ 4 percentage points). This overcoverage in ISCED levels 0 – 4 is consequently accompanied by an undercoverage of ISCED levels 5 – 6 (– 9 percentage points).

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23 The status reported should refer to the highest completed education level of the employee. Nevertheless, it is not clear what employers report. There are presumptions that employers possibly report the education level that is needed to conduct the task an employee is meant to do instead of the one actually completed by the employee. This could partly explain why the share of persons in ISCED group 0 – 2 is much higher using the ESR variable compared to the one measured in the survey.

**Figure 26**  
**Share of registered and self-declared marginally employed by the education level reported in the ESR (except for LFS)**



If a comparison of the LFS and the ESR considered education, the LFS would have a much higher share of highly educated persons in ISCED levels 5 – 6 (+ 6 percentage points). Therefore, it should be kept in mind that results from these kinds of comparison have to be interpreted with caution. A further remark can conclude that the reported education level in the ESR differs to quite an important extent from the self-declared one in surveys.

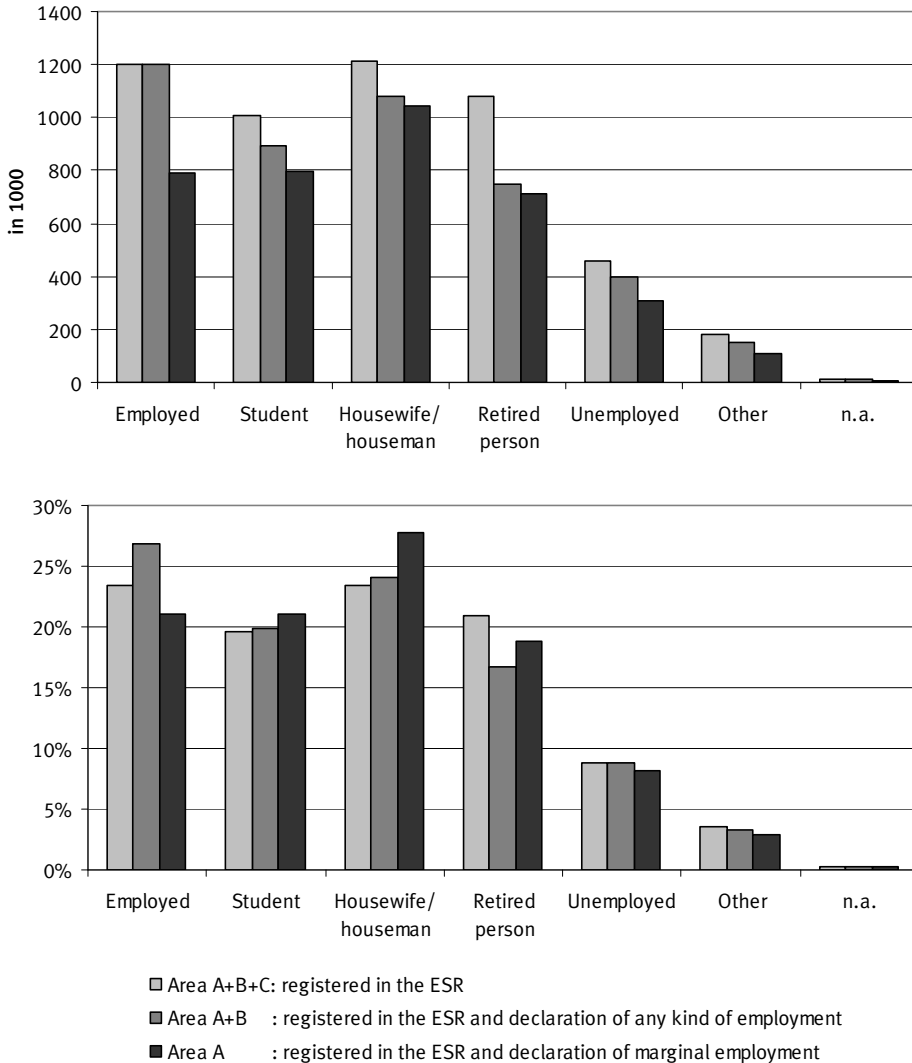
### Main status of marginal employees

The following analyses on the structure of the subgroups of the survey concern the general social status of the respondents. For the analyses, three variables were used: The self-declared main status, the main sources of the living expenses as well as the household context of marginal employed. Unfortunately, at least for the main status a comparison with results from the LFS is not possible for these analyses.

Starting with the main status, differences between the subgroups of registered (marginal) employed in the survey quickly become visible. Looking in the absolute numbers, the familiar picture of a staircase with three (more or less equal) steps downwards appears only in the case of “students”, “unemployed” and “other main status” (see top picture in figure 27). One deviation from the familiar picture is found in the main status “employed” where persons who are registered (subgroup A+B+C) and persons who are registered and declare an employment (subgroup A+B) have the same amount (1.2 million). In the subgroup of persons who are registered and declare a marginal employment (subgroup A) the “employed” amount to only 800 000 persons. This is possibly due to the fact

that the subgroup A+B includes employed persons that have a primary employment as public official or self-employed, who feel employed to a higher extent than persons with a marginal employment only. A further interesting main status group is that of housewives/housemen. Here, those persons declaring an employment and those saying this employment is marginal have nearly the same number. For the retired, the register shows much more cases (+ 350 000) than the survey. This is corresponding to the number of persons who are registered but do not declare an economic activity (the main attributes of subgroup C is being summarised later in this chapter).

**Figure 27**  
**Registered and self-declared marginally employed by main status**  
**(absolute numbers and share)**



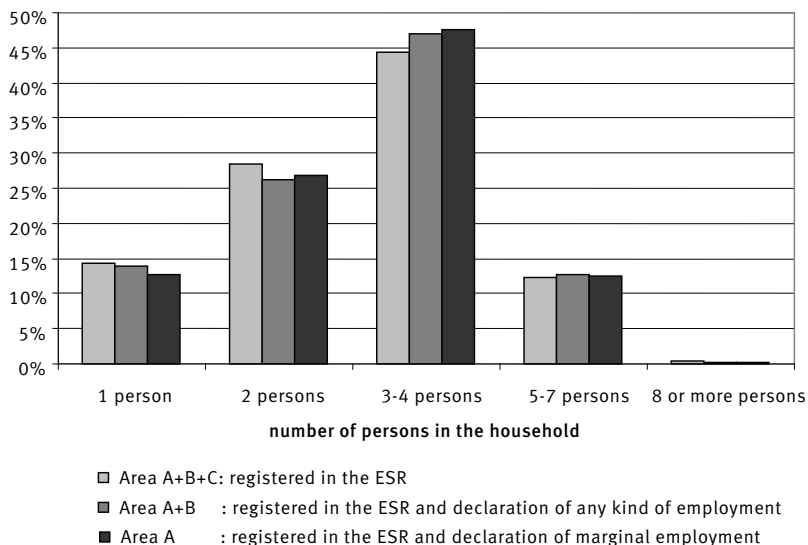


Looking at the distribution of marginal employed by main status in relative terms, some differences between the groups get clearer. The share of persons perceiving themselves as employed is the highest in the subgroup of those declaring an employment (subgroup A+B, 27 %) and the lowest for those declaring a marginal employment (subgroup A, 21 %). The higher share of marginally employed in the main statuses “student”, “housewife/houseman” and “retired person” again confirms the assumption that marginally employed do not perceive their main social status as being employed, but according to other criteria like being a student, unemployed or pensioner (see chapter 3). Consequently, in subgroup A+B+C, the share of persons who indicate employment as their main status is lower than for subgroup A as subgroup A+B+C also includes persons who did not indicate an employment in the survey.

### Marginal employees by household size

The distribution of marginal employed by household size shows that the majority of persons does not live in one person households. Only 14 % of those persons in the survey who declare an employment (subgroup A+B) live in one person households. In this case the LFS can be used as a comparison: Here, 18 % of all marginally employed persons live in one person households. This finding seems reasonable, as with a marginal employment you can only earn Euro 400 per month on average which is hardly enough to make a living. The highest share of marginal employed live in households with more than two persons (see figure 28). Comparing the distribution of the subgroups more closely, it is noticeable that the share of marginally employed according to the register (subgroup A+B+C) living in households with one or two persons is slightly higher (+ 3 percentage points) compared to the persons who indicate the marginal employment in the survey (subgroup A).

**Figure 28**  
Registered and self-declared (marginally) employed by number of persons living in the household

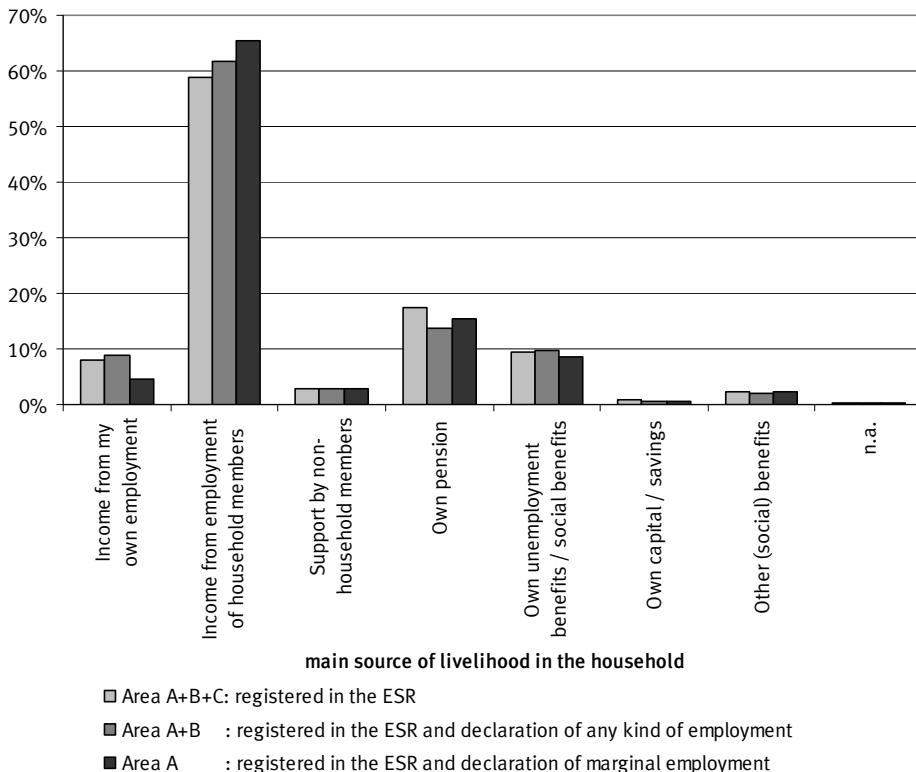


According to the differences just mentioned, the share of registered marginal employed living in households with 3 – 4 members is lower by 3 percentage points for the persons of group A+B+C (registered as marginally employed according to the ESR). The share of persons living in households with 5 – 7 household members (which is after all true for ca. 500 000 marginal employed) is very much the same in all three subgroups (about 12.5 %). It should be noted that these differences, to a large extent, reflect the larger share of older persons not indicating an employment, who tend to live in one person households more often.

**Main source of livelihood**

The last insight in the structure of marginal employed will concern their main source of livelihood. The question in the survey asked for the main source of livelihood of the household with an emphasis on who (the respondent or somebody else) is the source. Asking this way, the following findings are possible: only 8 % of the registered and 9 % of those declaring an employment (subgroup A+B+C and A+B) say that their main source of livelihood is their own employment. The vast majority (60 %) in these subgroups receives the household income from employment activities of other household members.

**Figure 29**  
**Registered and self-declared (marginally) employed by main source of livelihood in the household**



For the subgroup declaring a marginal employment (see figure 29) the share of persons who make a living from the income of other household members is 66 %. The second important source of livelihood for this subgroup is the own pension (15 %). This analysis displays that marginal employment is, regarding the household income, mainly conducted to earn something on top.

### 5.2.3 Structural comparison of the subgroup of non-employed in the survey

The respondents belonging to subgroup C (806 cases) is of special interest for the purpose of this study, as it consists of persons who were marginally employed according to the ESR, but who did not indicate any kind of employment in the survey. The fact that this subgroup deviates entirely from the group of persons who declare an employment already allows some first conclusions regarding the likely reasons of the differences between both sources. In the analyses above, the different structure of subgroup C has sometimes been obvious in comparisons of the subgroups A+B+C and A because subgroup C constitutes the difference between those two groups. The structure of subgroup C is presented on its own, because the deviations from the other groups are so special and hardly comparable to the groups mentioned above. For the comparisons subgroup A+B is used because these two groups should only be different in their self-declaration of employment activity.

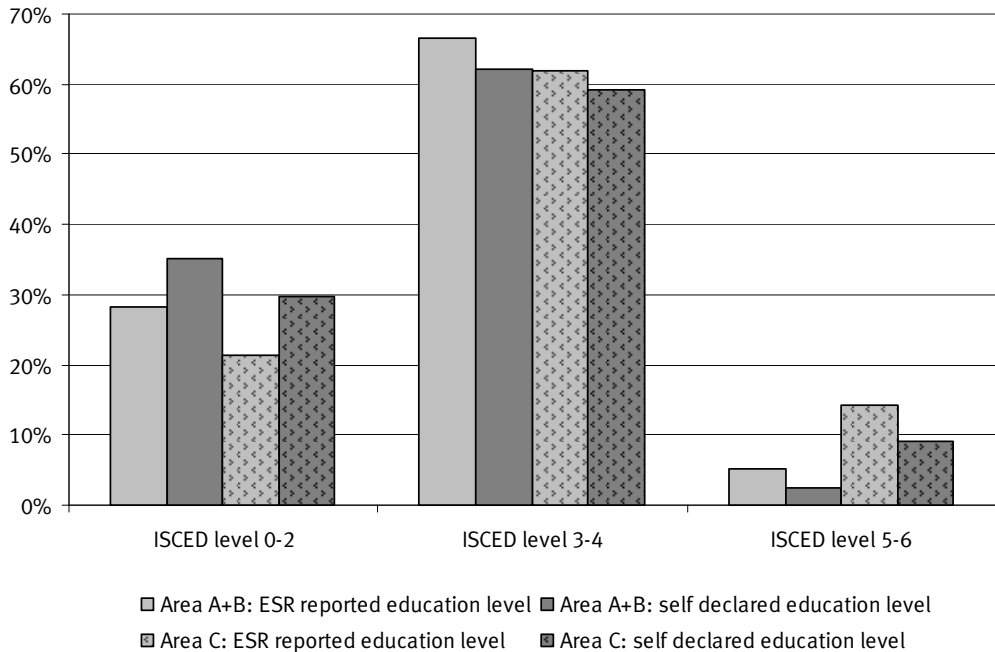
As already seen in figure 20 and 22, the subgroup of respondents who were registered in the ESR and did not declare an economic activity differ regarding sex and age groups. The distribution of men (44 %) and women (56 %) is much more balanced in this group compared to the persons who declared an employment (30 % men and 70 % women). The explanation for the remaining differences between the age groups by sex is probably just the fact that women in the age groups 35 – 54 years make up the highest proportion of marginally employed in either source.

The only age group that remarkably differs is the one of persons aged 65 years and older. They constitute 41 % of the whole subgroup C (compared to just 11 % for those indicating an employment), with 52 % of them being male. Put in a nutshell, this means that the highest share of persons that are registered in the ESR but do not declare an employment is over 65 years old. The remaining 59 % is spread more or less evenly among the other age groups.

The share of non-nationals in subgroup C (8 %) is a little bit smaller than in the other subgroups (10 %). As subgroup C consists of 40 % of persons aged 65 years and more, this may be due to the fact that the share of foreigners in the older population is smaller compared to younger age groups. Therefore, it can be assumed that this difference is not as important for the explanation of the whole difference.

The same assumption applies when comparing the subgroup C regarding the educational attainment. The share of lower educated persons in subgroup C is 9 percentage points higher than for persons registered as marginally employed and declaring an employment (subgroup A+B). This may be due to the fact that older persons to a much higher degree have lower education levels than the younger population. The same assumption would explain the differences regarding the other ISCED levels (see figure 30).

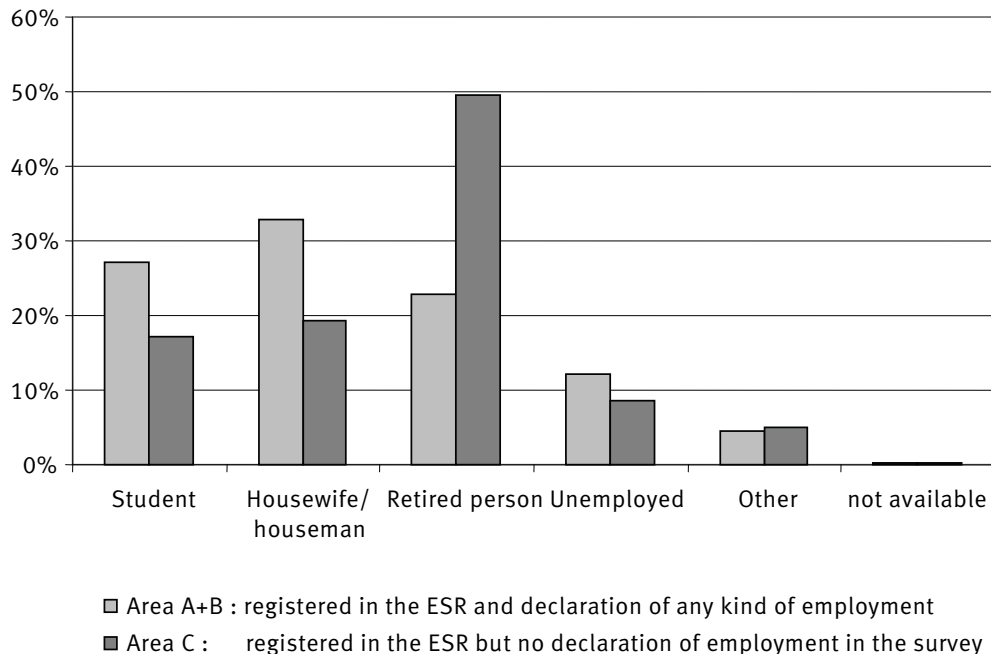
**Figure 30**  
**Share of employed and non-employed by the reported and self-declared education level**



Interestingly, the results of the education level reported within the ESR are somewhat different. As stated above, no education level is reported for about 60 % of the registered marginal employed. This share is slightly higher (63 %) for the subgroup of persons who do not declare an employment. Disregarding the cases not reported, the distribution of the non-employed in the register concerning their reported education level differs compared to the self-declared education level as much as the employed: the number of persons in higher education (ISCED levels 5 – 6) is three times higher when using the register variable on education.

As there is a high share of old persons in the group of the persons registered as marginal employed but not indicating an employment, also a high share of retired persons can be expected. As figure 31 illustrates, this is confirmed by analysing the main status of subgroup C. Obviously, there is no indication of persons in main status “employed” because all persons answering to this category have been determined as ILO-employed in the derivation of the employment variable (see section 5.1 and figure 17). If those registered and self-declared employed who answered “employed” in the main status are not considered in the calculation for the distribution of the main status, then the following picture is the result (see figure 31).

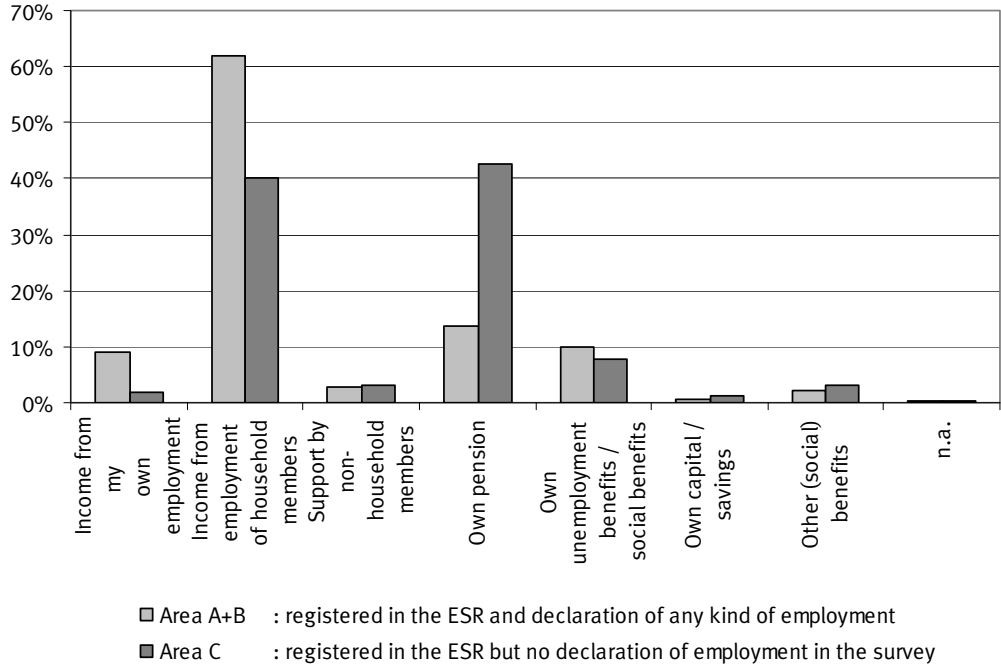
**Figure 31**  
**Share of registered non-employed and employed by main status**



It shows that the non-employed (subgroup C) are to a much higher share retired persons (50 % compared to 23 %). Students and housewives/housemen are represented to a similar extent (each slightly below 20 %), but to a much lower share than in the subgroup of the employed (27 % students, resp. 33 % housewives/housemen).

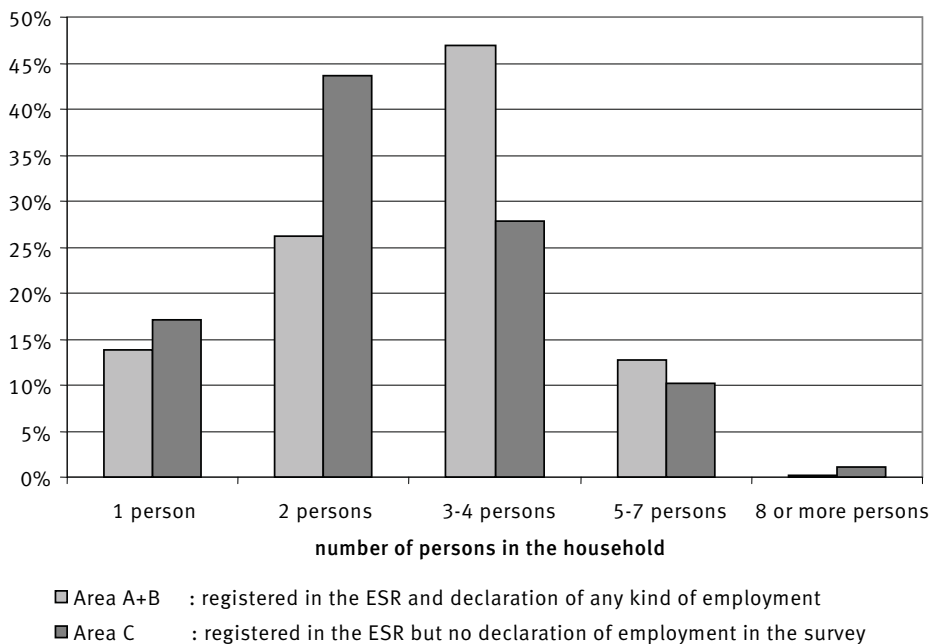
Looking into the last two structural analyses, the assumptions found above are confirmed. Subgroup C consists mainly of elderly and retired people which makes the subgroup fundamentally different from the subgroups of registered who declare an employment. This is confirmed by analysing the main source of livelihood. 43 % make a living mainly from their own pension; further 40 % live from the income of other household members (see figure 32).

**Figure 32**  
**Registered and self-declared (marginally) employed by main source of livelihood in the household**



And not to leave out the last structural household comparison: There is a much higher share of non-employed living in one and two person household (61 %) compared to employed (40 %). This is, too, possibly due to the high share of old people who do not live in families anymore because the children have moved out, but as a couple or single.

**Figure 33**  
**Registered and self-declared (marginally) employed by number of persons living in the household**



### 5.3 Discussion of the theses regarding the differences of the ESR and the LFS

Already from the structural differences of the groups distinguished in section 5.2 some conclusions regarding the theses on measurement errors in the LFS and the ESR are obvious. Based upon the systematic description of the subgroups in the register survey, the following section will draw the conclusions concerning the empirical relevance of the theses explicated in chapter 3.

#### 5.3.1 Measurement errors in the LFS

The aim of the project is to find differences in either source that can be quantified and that contribute to an explanation of the difference in the aggregated results. The assumptions discussed in the following are expected to provide hints that enable at least a rough quantification of the various effects at stake. The first assumptions that are discussed here are those regarding the underestimation in the LFS: (1) the main status thesis, (2) the proxy thesis, (3) the misled classification thesis and (4) the efficiency thesis.

##### (1) Main status thesis

As already seen in the structural comparison of the subgroups of the surveyed persons, the main status has a significant importance for the detection of economic activities of respondents. The main status – at least in Germany – is a social characteristic that, aside

from the economic view, is an attribute of every person that the respondent is aware of and, therefore, is easily able to answer. Asking for this attribute first and then trying to detect whether a person is in employment or not, seems to be a feasible way.

The findings from the Microcensus follow-up survey in 2008 (see Köhne-Finster/Körner 2009) and from the census pretest in 2010 (see Gauckler/Körner 2011) show similar results concerning the main status of marginal employed. However, both projects did not primarily concentrate on marginal employment, but generally on the detection of (small) employment activities following the ILO guidelines. The present study confirms the existing findings and underlines that marginally employed persons need to be addressed differently in surveys than other groups of the employed population.

The relevance of the main status thesis is strongly supported by the fact that the main social status of marginally employed persons drastically differs from the main social status of the entire population. Comparing the distribution of the main status of the employed persons in the census pretest for the total population and in the register survey for the marginal employees,<sup>24</sup> a completely different result is found. Asking the whole population in the census pretest, 87 % declare that their main status is employed.<sup>25</sup> In contrast, asking the subpopulation that is registered as exclusively marginally employed in the ESR, only 27 % state an employment in the main status (see figure 34). This clearly demonstrates that the marginally employed persons are quite a special population group. They rarely perceive the work they are doing as relevant for their main social status. Concerning the detection of economic activities, this demonstrates that the main status is more diverse and, therefore, more important for marginal employed than for the whole population.<sup>26</sup> This also means, that marginally employed need to be addressed differently than other groups of the workforce in surveys.

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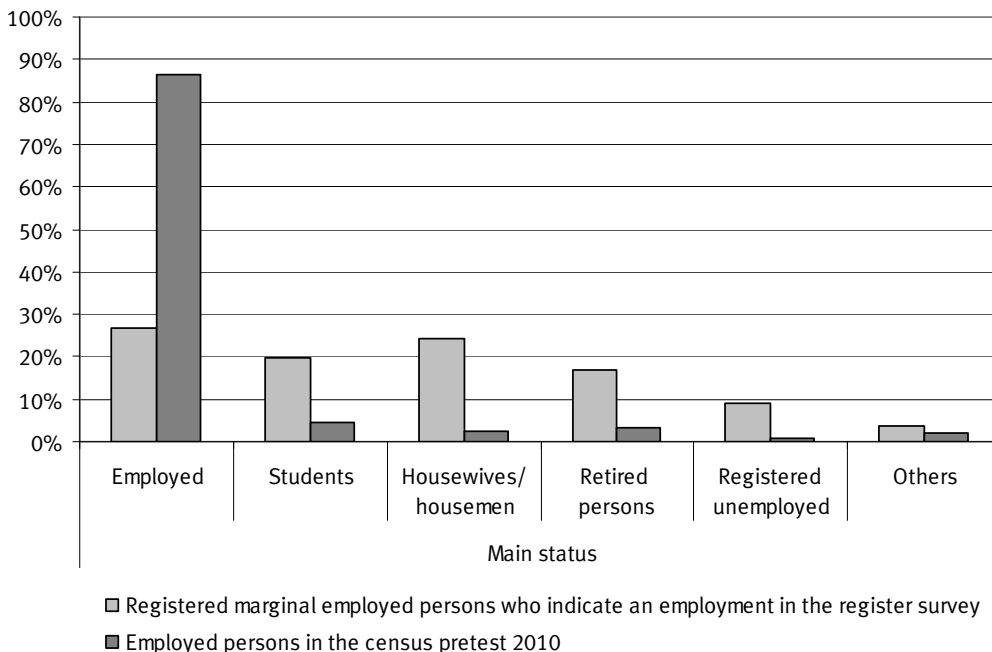
24 The comparison has to refer to the census field test as the main status is currently not included in the regular German LFS.

25 The Microcensus follow-up survey gets to the same result concerning the main status of employed persons. Here, 87 % of the employed persons indicated that their main status was employed, too.

26 Under the assumption that no hidden effects (like interviewer effects, mode effects, etc) are included in the results.



**Figure 34**  
**Distribution of the main status of employed persons in the census pretest 2009 and the register survey 2010**



The results of the follow-up survey allow a little more insight into the response behaviour of persons in marginal employments, since the type of the employment is obtained, too. Additionally, the determination of the main status is provided by the follow-up survey. As the survey is linked to the Microcensus, the indication of the main status in the follow-up survey can be linked to information from the Microcensus and used for further analyses.

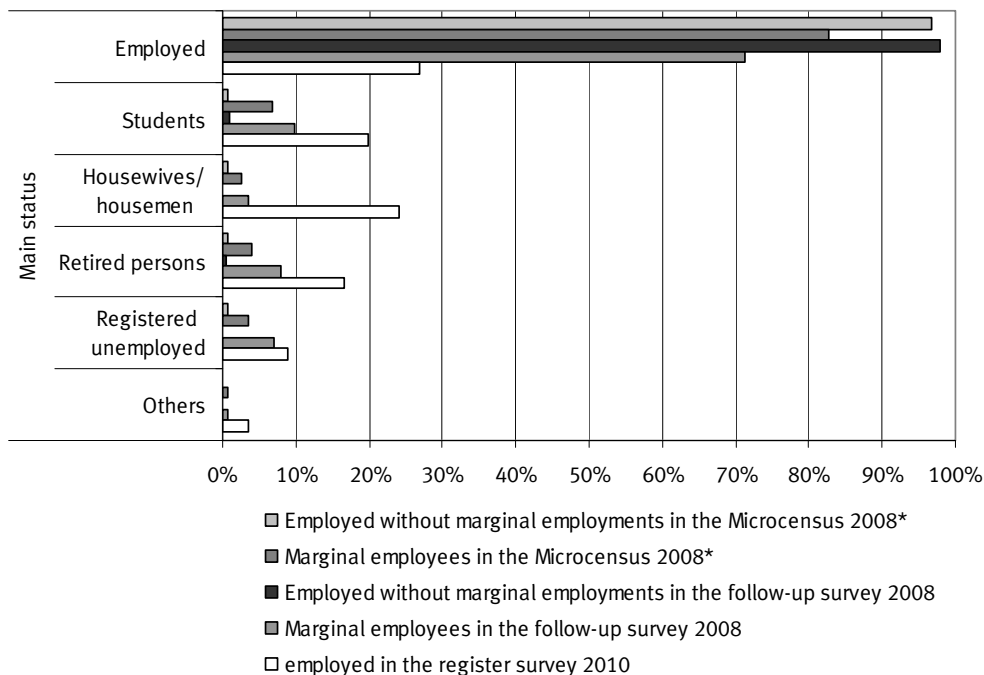
One result is, first, that at least 70 % of the employment activities detected in the follow-up survey (but not in the Microcensus interview) are marginal employment activities. This indicates that the orientation to the main status especially affects marginal employees (see Köhne-Finster/Lingnau 2008).

In turn it is clearly visible that marginal employees indicate “employment” less often as their main social status than standard employees. Employed, who indicated their employment not being marginal, answered “employed” as a major status in 97 % of the cases in the Microcensus and 98 % in the follow-up. This was however only true for 83 % (in the Microcensus), respectively 73 % (in the follow-up survey, if a marginal employment was detected) of the marginal employees.

The difference between the Microcensus and the follow-up survey result may in this point reflect the fact that the main status was determined only in the follow-up survey and was then linked to the Microcensus results collected by other means.

Furthermore, it was found out that especially pupils and students, as well as pensioners and the unemployed indicate a different status depending on the survey design (see figure 35).

**Figure 35**  
**Main status of employed without marginal employments and persons in marginally employments in Microcensus, follow-up survey and register survey**



\* Only cases that have been matched to the follow-up survey.

Compared to the results of the register survey where only 27 % of the respondents indicated to be employed in the main status, there must be other grounds of explanation. Possibly, the selected target population (only marginally employed) plays a role, or maybe the fact that the questionnaire was sent out by the Federal Employment Agency. Another reason could be the order of the questions in the register survey: Regardless of other characteristics, it was first asked about the main status and only then for employment activities. This could explain the much stronger scattering in the main status feature.

The above shown results from the census pretest, the Microcensus follow-up survey and the register survey show that the main status thesis provides a plausible explanation for important parts of the different results in the Microcensus/LFS and ESR. To quantify the effect of the orientation on the main status, insights into the cognitive processes of the respondents would be required. This would most likely be possible using a combination of a field test and a subsequent cognitive interview. Nevertheless, the results of the main status analyses help to estimate the possible extent of the main status effects in surveys.

The main status thesis is also supported by the results of the cognitive pretests for follow-up survey and the Microcensus. Additionally, the experiences of the calls to the hotline of the register survey underline the findings. In both cases, people who were only able to “remember” a marginal employment after repeated requests could be observed. This happened extraordinary often for retired persons who do not perceive a small activity as an employment. There were, however, also callers who convincingly assured, even if asked, that they are not in paid employment, which could point to measurement error in the employment statistics register.

In the register survey, marginally employed who did not indicate an employment in the main status or in the other employment questions are a subgroup of those persons, who indicate no activity, but according to the ESR own a marginal employment ( $n = 806$ , subgroup C). This group includes an estimated 670 000 persons or slightly over 13 % of all marginal employees according to employment statistics. Since the difference has very probably also other causes (such as the proxy theory or measurement errors in the employment statistics) the main status effect can not solely explain the whole difference. However, the experiences gained from the Microcensus follow-up survey and the register survey suggest that a significant part of this difference is due to main status effects.

## **(2) Proxy thesis**

Given its objectives and survey design, the register survey does not at delivering any information on the effect of proxy interviews, as it was a personal interview with nobody answering as a substitute. The Microcensus follow-up survey in 2008 covered both persons for whom another household member had provided information in the Microcensus, and those persons who had answered themselves. A comparison of both groups allowed for the proxy effect on the detection of employment to be estimated. The finding was that, based on the derivation of the employment status according to the ILO guidelines, the probability not to be employed is 8 %. The probability increases to 11 % for proxy interviews. Therefore, it can be stated that only a weak proxy effect is recognisable (Statistisches Bundesamt 2008). Unfortunately, it has not been analysed whether the proxy effect increases even more if a marginal employment is to be detected.

## **(3) Mised classification thesis**

Results for the misled classification thesis were of particular interest as regards the register survey. Here, through the linkage of the data from the ESR, it was possible to ask the population about the (self-declared) type of employment while knowing their legal status from the ESR. The failure of respondents to correctly classify as marginally employed is one of the plausible reasons for the differences in the results. To obtain findings on this thesis, question number 15 has been introduced in the survey (see figure 36). The respondent was asked to classify his/her main employment activity into the four given categories. If a respondent answers to one of the first two categories, he or she answers according to his or her reported status. Persons answering “No” must have another employment which is not registered at the ESR or classify themselves incorrectly. Persons answering “I don’t know” were expected not to be sure about their legal type of employment.<sup>27</sup>

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27 As noted in section 4.2, this question differs from the corresponding one used in the LFS until the year 2010. However, from 2011 onwards the question on marginal employment has been revised similarly as in the register survey.

**Figure 36**  
**Question on the type of employment**

**15 Ist diese Tätigkeit eine geringfügige Beschäftigung, also ein 400-Euro-Job oder eine kurzfristige Beschäftigung?**  
*(Bitte nur eine Antwort ankreuzen.)*

- Ja, ein 400-Euro-Job („Mini-Job“) (*Der Verdienst beträgt im Jahresdurchschnitt nicht mehr als 400 Euro pro Monat*) .....  1
- Ja, eine kurzfristige Beschäftigung  
*(begrenzt auf höchstens zwei Monate oder 50 Arbeitstage während eines Jahres; der Verdienst spielt keine Rolle)* .....  2
- Nein .....  3
- Ich weiß es nicht .....  4

The findings from the cognitive pretest already suggested that a considerable number of persons was not fully confident whether to classify their job as a marginal employment or not. Therefore, it is not surprising that only 86 % of all persons registered in the ESR (n = 5 521) classify themselves (presumably) correctly as marginal or short-term employed. This result, on the one hand, reassuringly shows that a vast majority provided a correct answer. On the other hand, the 14 % not indicating a marginal employment contribute about half of the difference between the register survey and the ESR.

For a proper interpretation of this result, the persons not indicating a marginal employment need to be differentiated further: 11.5 % declare that their main job was not a marginal employment (2 % responded “do not know” and 0.5 % gave no response). If this group is divided according to the professional status it becomes visible that about two-thirds of the respondents classify themselves as employees, but not as a marginally employed. 20 % state that they are self-employed and 10 % apprentices (public officials as well as conscripts and persons obliged to render alternative civil service were to skip this question in the questionnaire).<sup>28</sup>

This result may be plausible for the self-employed (110 000 persons), but not really for the other groups. An analysis of the status in employment and the type of employment shows that 27 % of the self-employed are exclusively marginally employed (which legally possible), 3 % are not sure about their type of employment and 70 % reply “no” to the question whether the main job is a marginal employment. This leads to the assumption that 70 % of all self-employed in the survey are de-facto self-employed in their main job and that the registration in the ESR is de facto a side job. Therefore, they categorise themselves correctly, while the ESR has no possibility to detect that the marginal employment registered is just a secondary job. (The target population of the ESR is restricted to employment subject to social insurance contributions. Therefore, these secondary activ-

<sup>28</sup> This group amounts to 115 000 persons who are equally classified differently in a survey compared to the ESR as their marginal employment can be a side job only.

ities of self-employed appear in the analysis of the ESR as exclusively marginal employments as self-employed persons are usually not covered in the ESR.) It is well conceivable, that the self-employed respondents did not note the reference to the main activity of the question<sup>29</sup>. The remaining 30 % are likely to be reported according to § 8 paragraph 3 of the Social Code IV as part of a “marginal self-employment”.

Less plausible is the result for apprentices (see table 7). Their main job is not marginal, but usually subject to full social security contributions and should be registered as such in the ESR. Therefore, it is to be assumed that 89 % of the apprentices categorise themselves correctly as being not marginally employed.

This is supported by the fact that the actual hours worked in more than 70 % of the cases are 35 hours and more. The obvious contradiction to the information in the ESR might interfere with the transition from a marginal holiday job in the summer to an apprenticeship (the reference week of the survey was close to the common beginning of the apprenticeships). After all, more than half of the apprentices reported in the survey that they started their employment activity in the last three months. It is also conceivable that in some cases, apprentices are employed as marginal employees, even if it is questionable whether this is legally permitted<sup>30</sup>. As to the low case number, no further conclusions can be drawn.

**Table 7: Registered marginal employed by self-declared status in employment and type of employment (question 15)**

Self-declared status in employment	Employees		Self-employed		Apprentices	
	Number	Share	Number	Share	Number	Share
	in 1 000	%	in 1 000	%	in 1 000	%
400-Euro-Job . . . . .	3 540	87	35	22	/	/
Short-term employment . . . . .	130	3	/	/	/	/
No marginal employment . . . . .	320	8	110	70	60	89
I don't know . . . . .	70	2	/	/	/	/

For the employees not indicating a marginal employment, it is very likely that the majority of the cases could be interpreted as a misclassification: Deducting the self-employed, public officials, conscripts, persons obliged to render alternative civil service and apprentices, a majority of this group confirms to usually work less than 25 hours per week (69 %) and to have a salary which does not exceed Euro 400 (61 %). Still these figures are clearly below the ones for the persons indicating a marginal employment in question 15 of the register survey (less than 25 working hours: 97 %; earnings above Euro 400: 98 %).

29 The reference to the main activity is placed in question 11 and repeated before question 12. “Please refer to the activity with the longest working hours in the following questions.”

30 It is considered illegal to employ an apprentice as marginal employee, although as demonstrated by some lawsuits it seems nevertheless to be practised in a small number of cases.

Possible explanations could be that the people gaining higher incomes or having conspicuously high weekly working hours actually do work more than permissible according to the social code. Otherwise they might carry out another unreported activity that is not counted in the ESR (but included in the responses to the register survey). In almost 18 % of cases (70 000) the main activity was started in the last three months. In these cases the respondents may be already referring to a new activity that is not yet recorded in the ESR.

The overall picture is confirmed by a cross tabulation with the main status (see table 8): Persons who self-declare to be employed as main status, much more often deny that their main job is a marginal employment: 28 % of them deny, the vast majority of them being self-employed, public officials, conscripts, persons obliged to render alternative civil service and apprentices. Students and registered unemployed persons more often confirm that their main job is a marginal employment, but to a higher (yet still moderate) share admit that they do not know about their type of employment (students 4 %, unemployed 6 %). Interestingly, housewives and -men seem to know exactly about their status. 97 % declare a marginal employment, followed by 95 % retired persons.

**Table 8: Registered marginal employed by main status and type of employment**

	Employed person	Student	Housewife/ houseman	Retired person	Registered unemployed	Other
	in %					
Marginal employed (low pay or short-term) . . . . .	71	89	97	95	77	90
No marginal employment . . . . .	28	7	2	3	16	10
I don't know . . . . .	1	4	1	2	6	1
Not available . . . . .	1	0	0	1	1	0

For the study of the influence of misled classification a further group can provide valuable information: the responses of the persons who, between the sample selection and the register survey, were deregistered from the ESR by their employer. Interestingly enough, 30 % of this group indicated that their main job was a marginal employment. Also for this group, working time and salary are similar to those of the persons admitting a marginal employment. Assuming that the registration was handled correctly, this result suggests that in surveys also those persons indicate a marginal employment who fulfil the earnings criterion, but are not registered officially.<sup>31</sup> Taking this effect into account the deviation between the LFS and the ESR would be even bigger than suggested by the aggregate results.

31 A further explanation might be that, during the cut-off procedure applied to cases without recent employer's declaration, a number of cases were deleted that in fact were still working.

In summary it can be concluded that marginal employed to a large extent indicate the registration status expected. Nevertheless, misled classification remains one of the most important sources of divergences between the ESR and the register survey. Two groups have to be strictly distinguished: Those who (presumably correctly) indicate that their main job was public official, self-employed, conscript or person obliged to render alternative civil service (for whom the ESR fails to detect that it is a secondary marginal employment; see section 5.3) and those who quite probably are marginally employed, but do not confirm this in the survey interview. While the first group amounts to some 300 000 persons, the latter one (including don't knows) comprises 425 000 persons.

In all these quantifications, one has to keep in mind that this result may be influenced by several facts: First of all, that the survey was commissioned by the FEA, and although the fieldwork was conducted by the LINK institute, the questionnaire and the cover letter were labelled with the logo of the FEA's statistics department. Secondly, quite a few persons asked the interviewers for the reason of being in the sample. The interviewers, with the aim of convincing as many persons as possible to participate in the survey, told that the sample was drawn from the ESR without mentioning that the persons contacted were all registered at the time of the interview. And, in addition, although instructed differently in the interviewer training, it cannot be excluded that some interviewers might have mentioned the topic "marginal employment" in their strategy to prevent nonresponse. All these factors make it likely that the effect due to misled classification is rather bigger in the LFS than shown in the register survey.

#### **(4) Shortcutting thesis**

Given its objectives and survey design, the register survey did not aim at delivering any information on this thesis, nor does the follow-up survey of the Microcensus 2008. The only study that tried to shed light on the effect behind the shortcutting thesis is an additional survey conducted at the same time as the Microcensus follow-up survey in North Rhine-Westphalia. Here, the interviewers were asked about their experiences in Microcensus fieldwork (Berke 2009). This study came to no conclusive results regarding the interviewers' behaviour, and did not provide empirical evidence regarding the one of the respondents'. According to the feedback of the interviewers in the study, shortening the interview has no significant effect but is considered likely (see Berke 2009).

Regarding a related aspect, the study showed that interviewers in nearly 40 % of the cases adopted practices referred to as "incidental interviewing" (*beiläufige Befragung*) or "individualised interviewing" for the employment questions instead of standardised interviewing.<sup>32</sup> Although it might have been worthwhile to discuss whether unintended effects of these practices might lead to shortcutting, this was actually not pursued in the study. Nevertheless, further and more dedicated methods would be necessary to systematically test the thesis, e.g. analysing audio-recorded interviews or time stamps recorded during interviews as well as respondent debriefings in suspicious cases.

For the register survey, testing the shortcutting thesis has never been an objective. Nevertheless the fieldwork tried to eliminate the effect of the shortcutting thesis as much as possible. The interviewers have been trained and, during the interviews, monitored by

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32 Similar results are presented in a study by Sabine Köhne-Finster and Gesine Güllner (2009).

their supervisors. Unfortunately, neither the telephone interviewers nor the persons at the hotline had been told to register cases where they had the impression of respondents trying to be quick or jumping questions. Furthermore, there are two important differences between the register survey and the LFS: The register survey was carried out only in one wave and not for the entire household what anyway limited the respondent's possibilities to learn about possible short-cuts in the questionnaire.

### 5.3.2 Measurement errors in the ESR

Coming back to the measurement errors in the LFS found in earlier studies was actually not the primary objective of the register survey. Although rich and new findings were made in this area, the main objective was to explore potential measurement errors in the ESR.

To achieve these objectives, in parallel to the register survey, some new analyses have been conducted in the ESR, too. Combining these analyses with the results from the register survey gives a quite complete overview of the measurement errors covered by the theses elaborated in section 3.3: (1) the double counting thesis, (2) the zombie data thesis, (3) the deregistration delay thesis, (4) the discontinuity thesis, (5) the misuse theses: (5.1) the substitutes thesis, (5.2) the self-employed thesis, (5.3) the extra work thesis, (6) the miscounting of secondary jobs thesis. As mentioned before, measuring undeclared employment was not an objective in the register survey.

#### (1) Double counting thesis

When the register survey was prepared conceptually, the possibility of double counting was quickly ruled out with a view to the standardised controls applied: These controls are considered to virtually eliminate a double counting of cases or double counting of individual employees by using the primary key of employment reports, the social insurance number (SIN). As mentioned before, the SIN is assigned by the social insurance authorities for each individual employee only once. The allocation of the SIN is done while recording the first social insurance contributions and is maintained until the end of the employee's life. The SIN is used by the social insurance authorities to carry out their administrative tasks (collection of contributions, payment of benefits, etc.). A double entry, therefore, would mean a doubled collection of contributions for the company concerned. For the employee, a double entry would go along with the possibility to register twice for a marginal employment and to benefit twice from the reduced taxes and social insurance contributions. However, double SINs are issued only by error, so that, even in the case of a doublet, it is quite unlikely that the employee concerned is in a situation in which it would be attractive to make use of this possibility.

In the published results from the ESR, the primary key is counted only once per employee (person concept), even if an employee has several jobs reported at the same time. To avoid the duplication of social benefits, the social insurance authorities annually perform routinely tests on the SIN. The results of these tests also allow a quantification of potential errors. According to a very rough estimation of the Federal Employment Agency, an over-counting of marginally employed persons due to double counts, in the worst case, amounts to less than 10 000 employees. Unfortunately, no more accurate quantification is possible as the social insurance authorities do not publish the results of their tests.

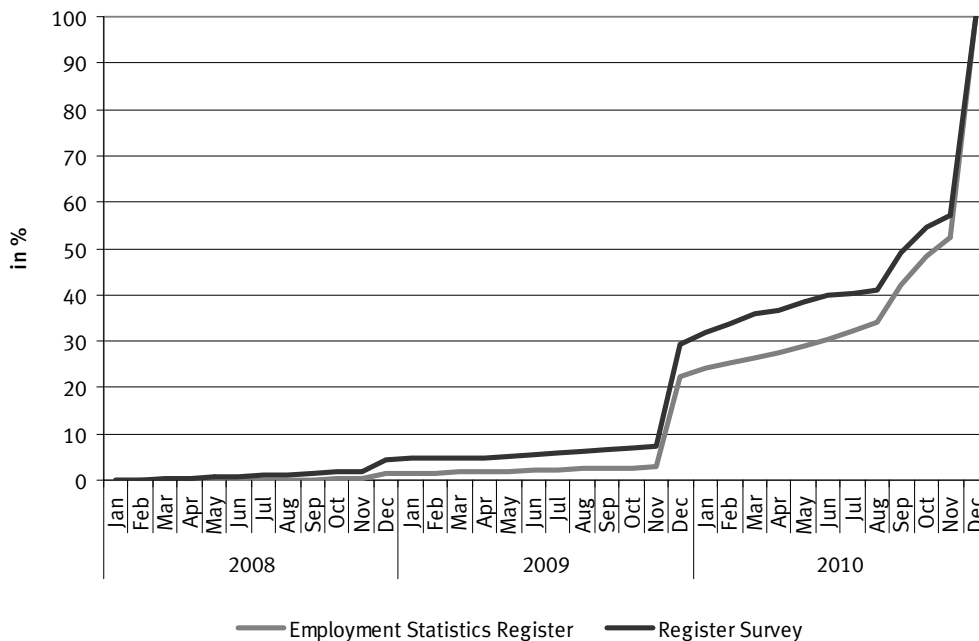


## (2) Zombie data thesis

The number of zombie data that are still counted in the ESR because employers forget deregistration is supposed to be small. The assumption arose because the published results of the ESR are based on a six-month-value of the reference date. The following analysis of the ESR shows that there is a point in formulating the thesis but, at the same time shows that it has limited effect. The vast majority of the reports in the ESR are dated close to the reference date. Thus, only about 1.4 % of all reports in the inventory file for the reference date 30 September 2010 are older than two years (see figure 37).

Another argument is given by the results of the register survey: Comparing the age of the total employment reports for the reference date 30 September 2010 (from the ESR) with the reports for the people who have stated that they do not work in the register survey, it becomes visible that those reports are only slightly older (see figure 37). Overall, only 3 %, respectively 7 % of the reports are older than nine months.

**Figure 37**  
Age of employment reports for the reference date 30.09.2010



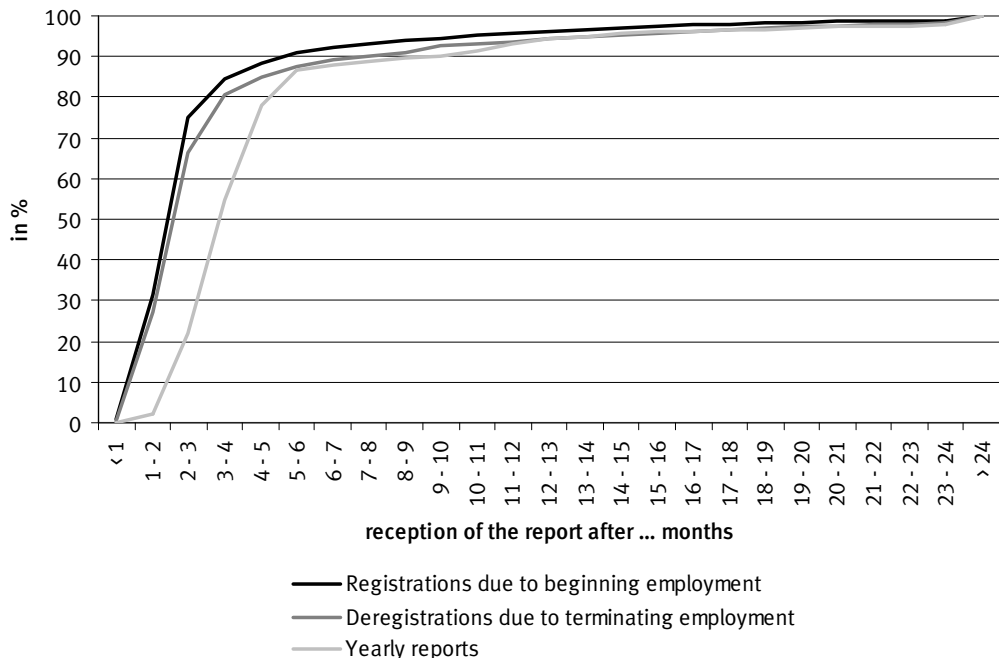
Another analysis proved that a prolongation of the waiting time between reference date and statistical processing of data to 9 or 12 months only insignificantly changes the number of marginal employed. The results would change by maximum – 1.2 % to + 1.4 % compared to the 6-month value. For three months, the result of the 6-months-value is even slightly under-recorded. Only in the fourth quarter the situation is inverted: Late deregistration at the end of the year lead to a slight downward correction of maximum – 1.2 %. Still, table 9 does not rule out the possibility of a constant number of marginal employed who are not deregistered by the employer erroneously.

Though the register survey could not provide hard evidence regarding the zombie data thesis, some useful hints can be derived from the results. The findings concern the subgroup of persons who are registered and declare no employment. The group consists of 806 cases, weighted this would correspond to 670 000 marginal employed or 13 % of all marginal employed in the ESR. Within this group there is presumably a certain share of cases to be considered zombie data. At the same time the group might also include persons who belong to the subgroup examined further in the misuse theses or persons with discontinuous employment patterns. Particularly, out of this group, 190 000 persons declared that their employment was terminated in 2009 or 2010 and 60 000 declared that it ended in the three months preceding the reference week (see deregistration delay thesis and misuse thesis).

### (3) Deregistration delay thesis

Using already existing analytical possibilities of the ESR, the pattern of the incoming reports can be analysed with respect to registrations and deregistrations. The following figure of the incoming reports on marginal employment for the calendar year 2007 shows that deregistrations have a significantly lower “filling degree” than registrations. Looking at the cumulated share, deregistrations are on average 4 percentage points lower than the registrations in the first four months. The delay decreases with the months passing, but deregistrations stay behind.

**Figure 38**  
**Cumulated share of incoming reports in the ESR (2007)**



As for a waiting period of 6 months, the time lag for registration and deregistration is more similar. For the year 2007, 90.8 % registrations and 87.6 % deregistrations were reported after a waiting period of six months. Considering that about 60 % of the marginally employed persons are counted on the basis of an available annual report, the difference of 3.2 percentage points is equivalent to an overestimation in the five-digit range. To estimate the potential impact on the number of marginal employed, it is, however, necessary to conduct such an analysis for the reference date. This analysis has not been conducted yet.

As for the zombie data thesis, the register survey could also not achieve an exact quantification of the effects of the delayed deregistration. The only finding here, again, is that the subgroup of persons who are registered and declare no employment amounts to 806 cases or, weighted to 670 000 marginal employed. Within this group there are presumably some cases with delayed deregistration, but there might as well be a specific amount of persons who belong to the subgroup examined in the misuse theses, the discontinuity thesis, and for instance the main status thesis.

Fortunately, there is one possibility to get a further indication on this thesis. An analysis of question 38 from the register survey allows comparing the termination dates of the last job of the respondents who do not declare an employment in the survey but who already worked in the past. Given that the effect of delayed deregistrations is most likely shortly after the end of the job, the number of persons who indicate that they terminated their last (presumably marginal) employment in the last three months could provide a rough estimation for the potential impact of delayed deregistrations. In the register survey 60 000 persons who were not employed in the reference week indicated that they terminated their last job in the period from July to September 2010. In total 100 000 persons terminated their employment in the whole year of 2010 and a further 60 000 in the year 2009. One possible explanation for this is that a formal employment in these cases still existed because the employer has not deregistered the employee timely.

Dividing these results by main status it becomes obvious that non-employed students to the highest share (62 %) terminated their job in 2010. This is true for 21 % of the housewives/housemen and 8 % of the retired persons. Taking these shares as 100 %, it can be seen that in total about 60 % of the jobs ended in the last three months before the reference date.<sup>33</sup>

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33 A further explanation might be discontinuous employment patterns instead of delayed deregistrations. For example, students who regularly carry out a side job during their semester break end the job according to their own perception, but remain registered in the ESR until the next semester break. This explanation is perhaps even more plausible given the difficulties to find evidence for delayed deregistrations in the data from the ESR.

**Table 9: Termination of the last employment of registered persons in year 2010 who do not declare an employment (subgroup D)**

	Students		Housewives/ housemen		Retired persons		Unemployed		Others		Total	
	Cases	Shares in %	Cases	Shares in %	Cases	Shares in %	Cases	Shares in %	Cases	Shares in %	Cases	Shares in %
Termination of last employ- ment in year 2010 .....	58	62	20	21	27	8	9	35	/	/	116	22

This result allows a rough estimation of the potential magnitude of effects due to delayed deregistration. Although, in total numbers those 60 % of jobs that ended in the three months before the reference date amount to 13 % of all persons registered in the ESR but not declaring an employment. Regarding all exclusively marginally employed in the ESR the deregistration delay is true for 1.2 % or about 60 000 persons according to the survey results.

In total, about 160 000 persons indicated that their last job ended in 2009 or 2010, which (considering the cut-off procedure applied) would be the theoretical upper boundary of effects due to deregistration delay.

#### (4) Discontinuity thesis

If an employment exists, but is not exercised in the reference period, it might not be counted in the LFS for several reasons. First of all, conceptually, persons who interrupt their employment for more than three months (and earn less than 50 % of their wage or salary) are not counted as employed, unless the absence is due to illness, maternity leave or partial retirement. Presumably a certain share of persons who exercise a marginal employment irregularly will not be captured by the standard questions used in the LFS. Secondly, even apart from the strict conceptual rules, it seems plausible that marginal jobs might be overlooked in the survey interview by the respondents if the job has not been practiced in the reference week and the surrounding weeks. This is, for example, the case when a job is carried out only once a month, if it is interrupted for a period of time or if it has been completed already but continues to be registered due to overtime in previous months. In the ESR, however, in these cases the registration status would not change. At the reference date 30.09.2010 for about 29 000 cases of exclusively marginally employed persons the employer reported an interruption of the employment because of illness or parental leave. For the calculation of the ESR, the employment relationship continues in such phases even if the employee is not actively working. However, interruptions of more than one month are included in the reporting process by reports on absences. Persons with the report on absence of more than one month are not counted in the results for a specific reference date. The amount of people who interrupt their actual activity on a reference date for other reasons (for example, fluctuations in the order situation, working short-time or insolvency) but continue being formally registered in an existing employment is, however, unclear.

A first result from the register survey for those respondents who did not work in the reference week but held a marginal job, states that 40 % have “occasional or irregular working time” (a code which does not even exist in the LFS) as the main reason for the absence, while only 25 % were on holiday and 14 % on sick leave.<sup>34</sup>

But the register survey brought further useful insights to the question of the distribution of working time and flexibility of marginal employments. One aim was to find out details regarding discontinuous employment patterns with different approaches. First, the exact working periods were scrutinised using a calendar in the questionnaire showing the last 14 weeks and the last 12 months before the reference period. And secondly three questions were asked covering different aspects concerning the continuity of the declared employment (questions 24 – 26).

Before showing results it should be mentioned that the following analyses are all based on the subgroup of registered marginal employed who declare a marginal employment themselves.<sup>35</sup> This is to exclude other employed persons (e.g. self-employed or public officials) who are – due to whatsoever reason – employed on a daily basis more frequently.

Before presenting results on the analysis of the working periods using the calendar questions it should be mentioned that, in the calendar, the respondent was only able to answer that he or she had been working in each of the weeks and months mentioned. Following the recommendation from the pretest, there was no column with the answer category “no”. Therefore, it should be kept in mind that there might be an effect in the answers due to the design chosen as item nonresponse cannot be distinguished from “no” answers. At the same time, the pretest for other respondents showed a tendency to simply tick all items in the calendar in order to avoid having to remember all individual weeks. This effect would tend in the opposite direction.

Looking into the calendars where the respondents were also asked to specify in which calendar weeks during the last three months they had been working at least one day, the following findings are possible. Adding the replies of the working weeks to months it can be seen (in figure 39) that approximately 90 % of all the registered marginal employed who declared that they have a marginal job, have been working at least on one day in each of the last three months.

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34 Note that, presumably due to the wording of the leading questions for the specific purposes of the register survey, this group comprises no more than 350 cases (design weighted), which corresponds to only 10 % of all marginal employed. An analysis of the calendars reveals, that the number of persons not at work in the reference week must be more than double that high (21 %). One reason might be that the question on the work in the reference week (question 7) asked whether the person had “worked” in the reference week (which might be mistaken for “having a job”), while the calendars (questions 17 and 18) more specifically inquired whether the “activity was exercised” in the weeks and months under consideration.

35 This means that the analysis does only show the employment patterns of those persons who indicated a marginal employment in the register survey. One might argue that some of the respondents with discontinuous working time did **not** indicate an employment at all. Thus, the effects presented here should be considered as a lower boundary.

**Figure 39**  
**Share of marginal employed working at least one day per month**

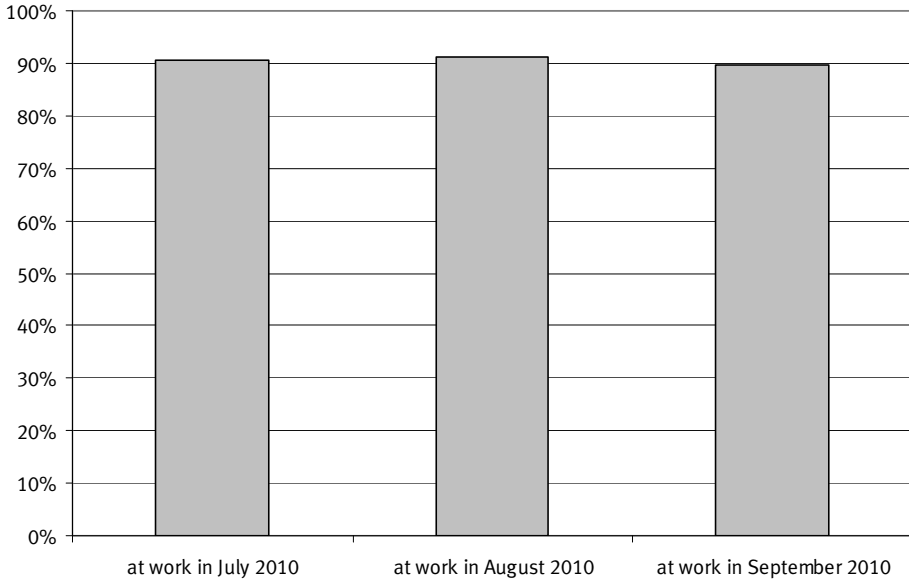
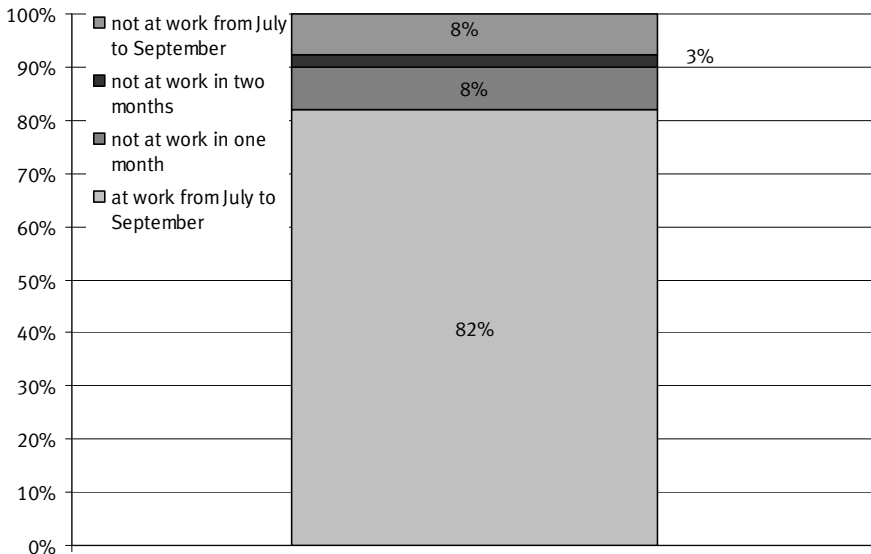


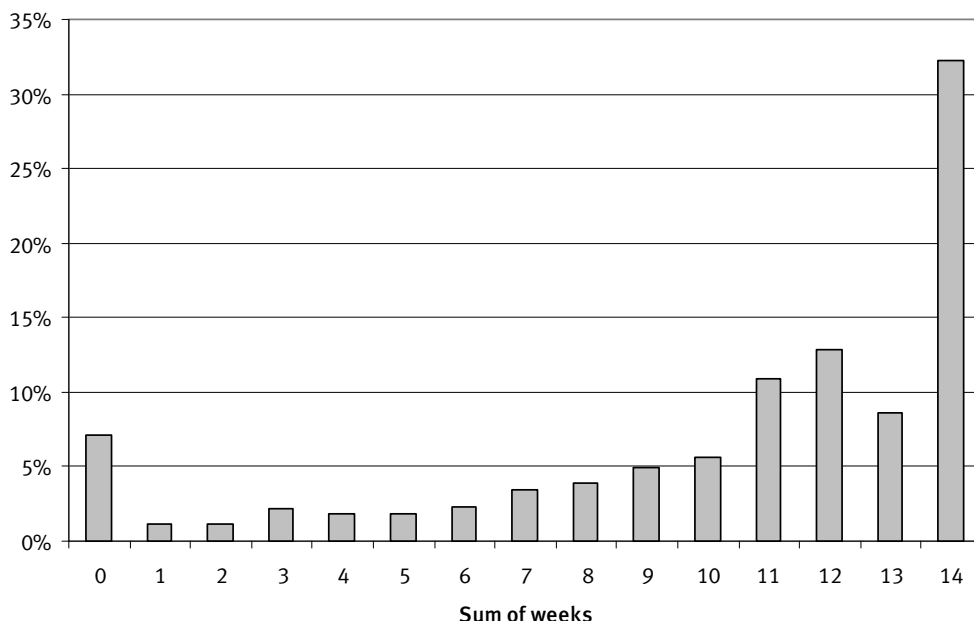
Figure 40 illustrates that, analysed by the continuity of work in the last three months using the calendar information, 82% of the marginal employed worked throughout all three months from July to September 2010. 8% did not work for at least one day in any of the three months before the reference date.

**Figure 40**  
**Share of marginal employed working by continuity of work referring to the calendar**



Counting the number of weeks a marginal employed person has been at work consecutively, only 32 % of the marginal employees identified in the survey were consistently working in all weeks from July to September 2010. In contrast 29 % have not exercised their activities for more than four consecutive weeks, 15 % have not been at the workplace for more than eight weeks. 7 % of the marginal employed have not worked at all during this period (see figure 41).

**Figure 41**  
**Share of marginal employed by sum of weeks in which an employment has been carried out during the last three months (July – September 2010)**



The results presented above confirm the irregular working patterns of marginally employed and show that discontinuous employment patterns are true for almost a third of employees. But although the share of discontinuous jobs might seem small in the presented analyses, it should still be kept in mind that exactly this group is the one considered to explain the differences.

Therefore, the third approach (analysing question 24 to 26) concerning this issue is used. Question 24 confirms, once again, that the majority of marginal jobs are carried out quite continuously. Regarding question 24, 8 % of all marginal employed who declared that their job is marginal state that they work regularly. Table 10 displays that the regularity of the jobs differs between the main status groups: Students (90 %) seem to work more regularly than retired persons and unemployed (each 69 %). Obviously, the employment patterns of the groups with the largest differences between the ESR and the register survey are at the same time most often irregular, which further supports the relevance of the discontinuity thesis.

**Table 10: Continuity of marginal employment according to question 24**

Question 24: Do you exercise this job regularly or irregularly (except for holidays or sickness)?	Main social status						
	Employed	Students	House-wives/housemen	Retired persons	Unemployed	Others	Total
	in %						
Regular .....	90	80	89	69	69	80	82
Irregular .....	9	20	11	31	31	20	18
Don't know/not available .....	1	0	0	0	0	0	0

Question 25 asks about the flexibility of working times and schedules. The answers to this question show that nearly 70 % of the marginally employed persons have no set working times and schedules. 25 % can choose rather freely when they want to work, 43 % set their working times in consultation with their employer (see figure 42).

**Figure 42**  
**Flexibility of working times and schedules of marginally employed**

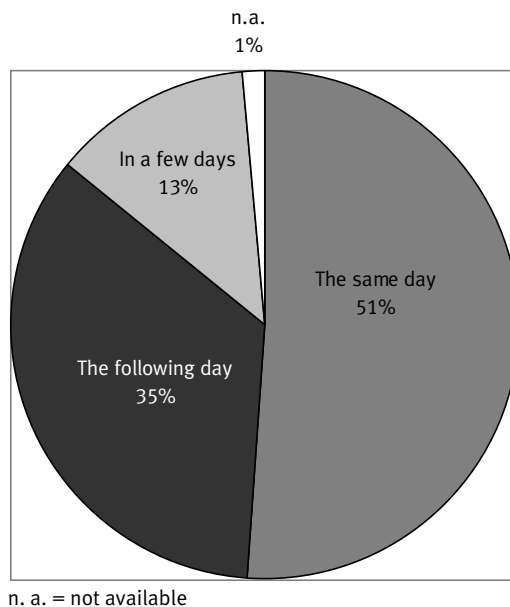


A further expected attribute of marginal employment is the flexibility in terms of being obliged to be available for work within hours or days upon demand of the employer. Question 26 was meant to give answers to this question. The result of 40 % being in such jobs where the employee has to be available on call, standby or as spare man is quite signifi-



cant. Asking these persons on how quickly they have to be available, the results show an extremely high flexibility (see figure 43): 51 % of all marginal employed who declare a marginal employment in the survey have to be available within hours at the same day. A further 35% has to work the day after he or she has been called to work. Interestingly, there is no big difference between persons who declare a marginal employment and those, who say it is not marginal. The distribution is very much the same.

**Figure 43**  
**Availability of marginal employed on call, on standby or as spare man**



These last analyses show that persons who are registered as exclusively marginally employed are a subgroup of employment that has very flexible working hours. Probably, because both the employer and the employee are profiting from this flexibility. Exceptions are those persons who are on call within hours. Here, the employer obviously profits more than the employee.

**(5) Misuse theses**

The theses on misuses are frequently evoked in the public debate, although there is very little empirical evidence available. Most contributions to this area are not based on empirical data, but rather on more or less educated guesses. Also for the register survey it was clear that, if at all, only rough estimations regarding the impact of misuse upon the deviations of the results can be expected. This is for several reasons: First of all, it can be doubted that persons who knowingly misuse the legal provisions of marginal employment will be ready to participate in a survey to the same degree as persons who benefit from the provision in a regular way. Secondly, those who participate might show a tendency to adapt their answers to the legal requirements. And thirdly, formulating questions to detect misuse is not straightforward so that any measurement will not be very accurate.

Nevertheless, a further differentiation is necessary. Under the heading of “misuse”, we summarise three very distinct phenomena which differ regarding the accessibility to measurement, but also their likely impact upon the deviation of the results between ESR and LFS. The best opportunities exist for the self-employed thesis, for which a potential impact could be estimated. Already for the substitute thesis there is much less empirical basis for estimation. Still, also here a potential effect could be estimated when analysing the subgroup of persons who were registered as marginal employed, but who did not declare an employment at all (subgroup C). As a finding from the structural comparison already shows, this group consists of persons who fit into the theses on misuse: young and old persons who do not work themselves but who are registered as substitutes or by self-employed.

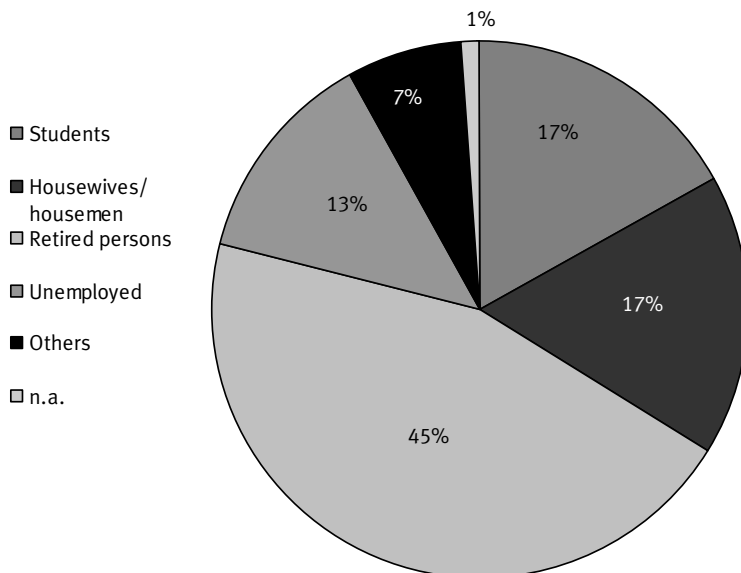
The situation is worst for analyses on the extra-work thesis. However, it seems worthwhile to have a look at the working hours and earnings declared by the marginal employed in the register. Fortunately, the impact of this group upon the difference regarding the headcount of LFS and ESR is by definition limited.

### **(5.1) Substitutes thesis**

Analyses on the substitutes thesis are hampered by the fact that it is in the first place not clear at all how substitutes would respond to the survey. They might choose not to participate, to deny having a marginal employment or reply as if they were working (and not just registered in place of somebody else). As little is known regarding the nonrespondents, our analysis has to focus on those who were registered as marginally employed in the ESR, but denied having any kind of job in the register survey. Further information could be gained from question 37 which asks if the respondents who did not declare an employment in the survey have ever worked in their life. About one third negated the question to have worked in the past which leads to a theoretical conclusion that this proportion may be persons that were registered as substitutes. Compared to the figures in the structural analyses where all persons who did not declare an employment have been considered, the proportions in the main status are a little bit different looking in this specific group (see figure 44): There is a smaller share of retired persons (45 % compared to 50 %) and a slightly higher share of unemployed (13 % compared to 9 %).

Figure 44

Registered marginal employed without self-declared employment who never had an employment before by main status



Supposing that those who indicated to never have had a job in their life are registered as substitutes, their impact upon all exclusively marginal employed in the ESR would be about 190 000 persons which is equal to a share of 4 %. It would explain about 10 % of the difference between the LFS and the ESR results. Nevertheless, other plausible explanations exist for this group so that the figure should be considered as an upper boundary.

### (5.2) Self-employed thesis

The same subgroup of persons who did not indicate any kind of employment in the register survey is looked at when searching for hints on the self-employed thesis. In order to learn more about the potential impact of this thesis, a question to examine this thesis was included in the questionnaire.<sup>36</sup> Although the empirical basis is more solid here, compared to the substitutes thesis, again only a potential effect could be estimated. In question 45 all respondents, those who declared an employment as well as the others, were asked if at least one member of the household is a self-employed or a freelancer.

This is the case for about 11 % of all registered marginal employees who did not declare an employment, compared to 14 % of all registered marginal employees. Assuming that every respondent who denied the existence of an employment and at the same time lived

36 The question exclusively focused upon self-employed **within the same** household. Nevertheless, self-employed could equally register family members living in other households (e.g. parents, children studying in another city), which is not covered by the question used in the register survey and could increase the potential impact. Consequently, the share of persons living together with one or more self-employed persons is highest for persons under 54 years (20 % for persons under the age of 25 and 16 % for those aged 25 to 54 years) and lowest for persons aged 65 years or older (4 %). The latter group would be most likely to live in a separate household, but could nevertheless be registered.

in the household with a self-employed person was in fact working for that household member, about 70 000 persons were eligible for the self-employed thesis. This would at maximum explain about 3 % of the difference between the LFS and the ESR results.

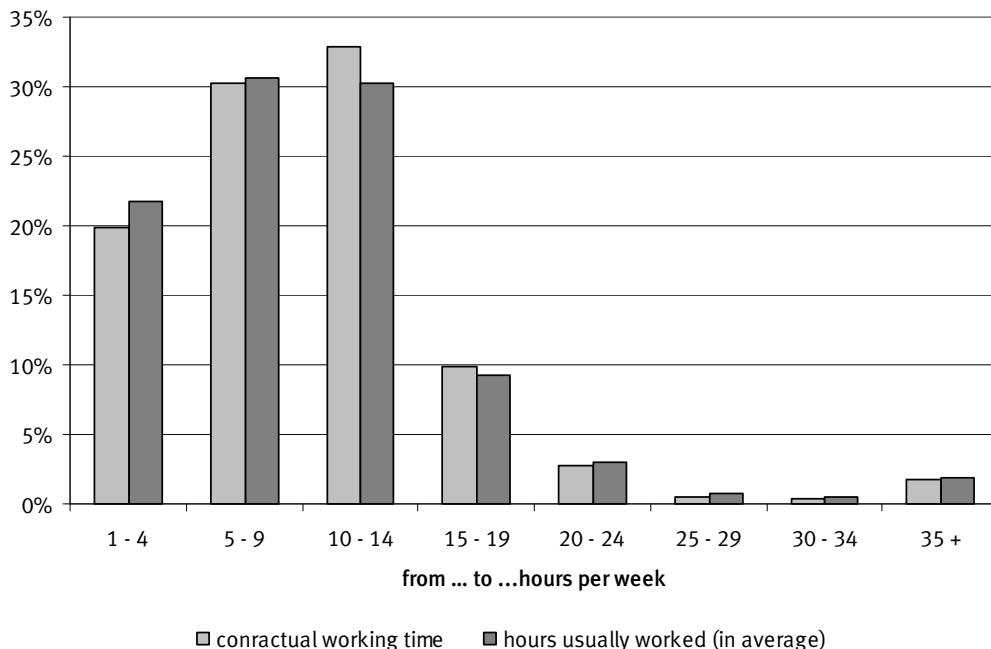
Regarding this result it should be noted that the question asked only for self-employed persons in the same household. Family members in other households (for example parents or children studying away from the self-employed) that also could be registered as marginal employees could not be captured in the register survey. Therefore, the effect could even be bigger. But, it is also possible that in a proportion of the cases an employment really exists (for example, occasional help in the family business). These persons are registered but they may not perceive the help as work and therefore would not indicate it in the survey.

### **(5.3) Extra work thesis**

As mentioned before, few indications for the number of persons who earn more than the threshold of Euro 400 could be obtained from an analysis of the question on the contractual working time and the hours usually worked per week. Furthermore, the income was captured in very small steps and in those thresholds that are needed to classify marginal employment persons by earnings. The subgroup analysed here is that of registered persons who self-declared a marginal employment in the survey (subgroup A).

The analysis of the contractual working hours at first stated that 43 % of the marginally employed in the survey have no such contractual agreement on the working time. Looking at those who do, more than 85 % have working hours below 15 hours, a further 10 % below 20 hours a week (see figure 45). The average actual working hours, however, show a higher share (84 %) of persons working less than 15 hours and 94 % working less than 20 hours. The average hours usually worked is 14.1 hours.

**Figure 45**  
**Contractual and usual working hours of marginally employed<sup>37</sup>**

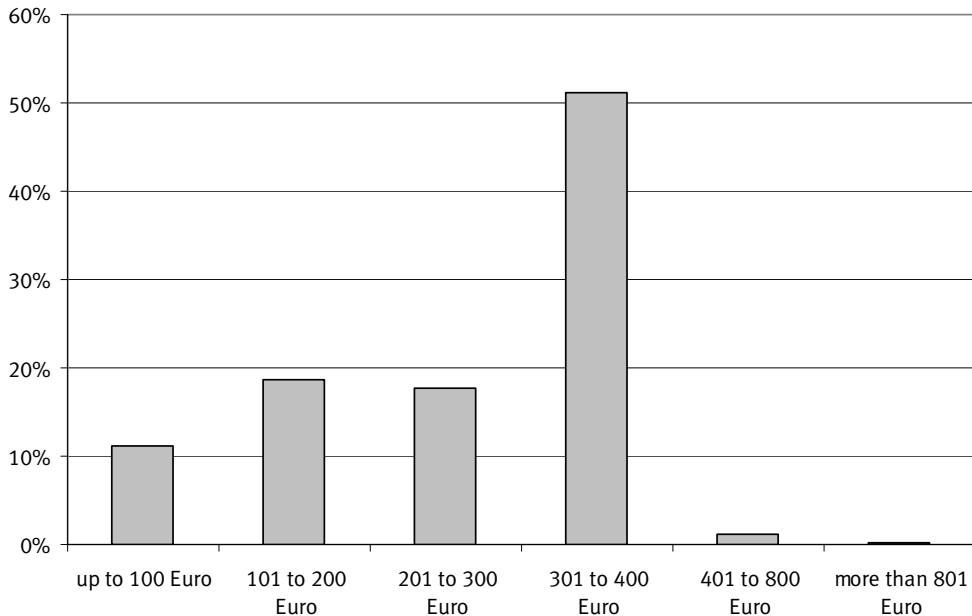


For the interpretation of the effect of too many working hours, which may include a hint to misuse in regard to the substitute thesis, the hours above the threshold of what can be called ‘normal’ working hours for marginal employed need to be taken into account. For this analysis 35 hours per week, with respect to the earnings of Euro 400 per month, is considered to be a too high number of working hours for a marginal employee. About 2 % of the marginal employed in the survey state that their working time is above this threshold (which is still below the share of short-term workers in the survey that amounts to 3.5 %). Under the assumption that there are no misclassified cases in this group, the result leads to the suggestion that these persons may belong to the group that use a substitute registration to be legally able to work that many hours.

The following analysis of the earnings of marginally employed persons shows a lower share of persons who top the earnings threshold of Euro 400 (1 %, see figure 46). Here, three things have to be kept in mind. Firstly, short-term employees are allowed to earn more than Euro 400 per months. Secondly, supplementary payments are allowed for low pay marginal employees under the condition that those are no regular payments, too. Thirdly, the earnings threshold of Euro 400 per month is the main and best known legal restriction to low pay marginal employment that has not only been stressed several times during the survey (i.e. in question wording) but is also well known in public.

<sup>37</sup> Registered marginal employed who declared a marginal employment in the survey.

**Figure 46**  
**Average monthly earnings of marginal employed <sup>38</sup>**



Therefore, the analyses on the hours worked may actually be more helpful than that on earnings. In summary, based on the analyses on the extra-work thesis, it is difficult to estimate the number of marginal employees who work more (and earn more than Euro 400) than legally permitted.

**(6) Systematic conceptual differences in the approach of measuring employment in the ESR and the Microcensus**

As mentioned in chapter 3, the ESR does not cover all economic activities, but only employment subject to social insurance contributions (i.e. marginal employment and employment subject to full social insurance contributions). Therefore, public officials, self-employed and contributing family members are disregarded by the ESR. Persons exercising one of these employment types which are not included in the ESR. However, if they have a marginal employment as a secondary job, such persons would appear as marginal employees, even if the marginal employment is neither their main nor their “exclusive” job.

The register survey allows an estimation of the group of persons who have a main job that is not registered in the ESR and, therefore, are counted as exclusively marginal employed despite the fact that their marginal job is only a (secondary) side job. According to the weighted results from the register survey, 32 000 of the exclusively marginal employed are conscripts and persons obliged to render alternative civil service, 84 000 are public officials, judges or soldiers and 150 000 are self-employed (compare table 11).

<sup>38</sup> Registered marginal employed who declared a marginal employment in the survey.

Only the self-employed received the question whether their main job is marginal or not because for the other two cases this category does not apply by definition.

**Table 11: Registered as exclusively marginal employed in the ESR by self-declared status in employment (main job)**

	Marginal employment in main job	No marginal employment in main job
Self-employed (incl. contract workers) .	41 000	113 000
Conscripts and persons obliged to render alternative civil service . . . . .	Not considered due to filters	32 000
Public official, judges and soldiers . . . .		84 000
<b>Sum . . .</b>	<b>41 000</b>	<b>228 000</b>
Share in all exclusively marginal employed in the ESR . . . . .	0.9 %	5.1 %

Subtracting those self-employed that declare a marginal employment, the result is that 228 000 persons who are not marginally employed in their main job are actually registered as such. This corresponds to a share of 5.1 % of the registered marginally employed persons covered by the register survey.

Subtracting approximately 5 % (persons who have a main job that is not registered at the statutory social insurance) from the 5.154 million exclusively marginal employed in the ESR in September 2010, the result decreases to 4.896 million. Assuming the result from the register survey could be transferred to the entire ESR, the difference between the LFS and the ESR would already reduce by 250 000 persons or about 12 % for September 2010.<sup>39</sup>

A similar effect concerns the marginally employed persons aged below 15 years. As indicated in section 2.3, persons registered as marginally employed below the age of 15 years in the ESR cannot be detected as employed at all in the LFS, because the LFS asks only for employment activities of persons aged 15 and older. According to the legislation, children below the age of 15 are allowed to work if (1) they are 13 years and older and, with the consent of the person with custody, and if (2) the employment is suitable and easy for children. The children are allowed to work no more than two hours per day.<sup>40</sup> Analyses from the register survey show that these children mainly do jobs like newspaper delivery. This group of marginally employed children amounts to about 60 000 persons (reference date 30.09.2010) which explains 3 % of the difference of the marginal employed in the ESR and the LFS.

<sup>39</sup> As self-employed are usually considered as difficult-to-reach in population surveys there is reason to think that the number of self-employed persons in the register survey should rather be interpreted as the lower boundary.

<sup>40</sup> See: Law for the protection of the working youth (Jugendarbeitsschutzgesetz), article 5.

## 6 Conclusions and recommendations

The register survey has led to important findings in quite a number of areas. It makes it much easier to respond to the question of why the number of marginally employed persons in the LFS deviates so strongly from the one provided by the ESR. On the way to this first result, many new features were discovered regarding the measurement process in both the LFS and the ESR. Considering these differences, a transfer of the results from the register survey leads to a rough estimation regarding the various effects behind the results from LFS and ESR. From a methodological point of view, the register survey contributed to the knowledge about the possibilities and limitations of register surveys as a methodological instrument. Finally, a number of recommendations can be derived for the further development of the LFS. This chapter gives an overview of the conclusions in these areas and finally gives recommendations arising out of the study.

(1) Regarding the deviations in the results, the most important finding is maybe that there is not one single source of incoherence. Neither one of the data sources can solely be “blamed” for the measurement errors that lead to the deviation. On the contrary, a quite complex set of different reasons has been identified. These reasons are sometimes more related to the working system adopted in the ESR and sometimes more to the one commonly used in population surveys.

In order to draw a conclusion about the differences in the number of marginal employees in the LFS, a two-step approach is adopted. In a first step, we summarise the findings about the deviations of the register survey from the ESR presented in chapter 5. Based on these results, in a second step, we try to transfer the insights gained to the discrepancies between the ESR and the LFS.

Following the theses presented in chapter 3, around ten different causes need to be distinguished that are at the origin of the deviations. As the analyses in this study have shown, some differences can be quantified more precisely, while for others only a range for a potential impact can roughly be estimated. The causes of the differences in the number of exclusively marginally employed persons are displayed in table 12.

When comparing the register survey and the ESR, generally two groups of respondents have to be distinguished: (a) Those who are registered as marginal employed according to the ESR and deny holding any type of employment and (b) those who are registered as marginally employed in the ESR and are captured as employed in the survey, but do not indicate marginal employment as type of their main job in the interview.



**Table 12: Estimated impact of different reasons for deviations between the register survey and the ESR**

Effect	Potential impact	Reliability
<b>(a) Respondents not indicating an employment in the register survey</b>		
Respondents guided by main status . . . . .	min. 350 000 persons	0
Persons registered as “substitutes” or zombie data . . . . .	max. 100 000 persons	–
Delayed deregistrations or discontinuous employment . . . . .	max. 100 000 persons	0
Self-employed registering family members . . . . .	min. 70 000 persons	0
Persons below the age of 15 years . . . . .	60 000 persons	+
<b>(b) Respondents indicating an employment, but not a marginal employment</b>		
Misled self-classification of respondents . . . . .	max. 350 000 persons	+
Extra work . . . . .	about 100 000 persons	0
Apprentices . . . . .	60 000 persons	+
Secondary jobs not detected in the ESR . . . . .	min. 250 000 persons	+
<b>For information: Further measurement problems relevant for the LFS</b>		
Discontinuous employment patterns . . . . .	min. 400 000 persons	+

The last column of the table tries to give a rough qualitative assessment of the reliability of the estimation, in order to indicate which figures need to be interpreted with particular caution. The plus sign stands for a reasonable reliability, the minus sign for cautious interpretations.

Based on the results of the register survey, the impact of the first group (a) is estimated to amount to around 700 000 persons which is about half of the entire deviation regarding the total number of marginal employed between register survey (self-declared) and ESR (employers’ declarations). For this group, it is known from the ESR that 60 000 persons in the ESR are below the age threshold of 15 years and, therefore, are excluded from the target population of the register survey (and the LFS). The phenomenon of self-employed registering their family members as marginal employees could potentially account for about 70 000 persons, while no evidence could be found that these self-employed actually registered their family members. The share of marginal employees holding a marginal job in the establishment of a relative, which is of similar magnitude (10 %), however, suggests that a high share of these persons is actually working for a self-employed household member. The analyses, furthermore, suggest that there is a group of potentially up to 100 000 persons whose deregistration – according to the information given in the register survey – was either delayed or who had a discontinuous employment situation (which was terminated according to the respondent’s perception but continued to exist according the declaration of the employer). If already these conclusions are of limited reliability, uncertainty increases when turning to the remaining 440 000 persons registered as marginally employed in the ESR but not indicating any employment.

According to the theses discussed in chapter 5, two possible explications are available for this subgroup: the guidance by the main status as well as persons registered as “substitutes” or zombie data. Unfortunately, from the data provided by the register survey it is hardly possible to further differentiate the two effects. “Substitutes” as well as persons not indicating an employment due to a strong focus on the main social status, both, will have a main status that is not employment. The information on the time elapsed since the end of the last job indicated in the survey interview does not really help in this case. While it seems suspicious that almost 200 000 persons indicated that they have never worked against pay (not even in a side job) in their life, this does not directly lead to the conclusion that all these persons are actually registered as substitutes. Ironically, the only empirical hint available stems from the calls of sample persons received at the toll-free number. A considerable amount of these calls came from people who insisted never having worked before. In some cases, after a few probing questions, it was found out that the person disregarded a side job as he or she focused on the main social status. In other cases, the respondents continued to insist never having worked, even in a side job. A further relevant piece of information could be obtained from the Microcensus follow-up survey. Here, it was proven that the number of employed persons can be increased by up to 8 % if a more appropriate questionnaire is being applied to people whose main social status is not employment. This leads to the conclusion that the largest part of the respondents not indicating any employment are attributed to main status effects, i.e. respondents tend to respond to employment questions according to their main social status. Following a rough estimation, the impact of the guidance by the main status might be estimated to at least 350 000 persons, while the number of persons registered as substitutes is probably not higher than 100 000 persons.

More reliable results can be presented for the respondents who are captured as employed according to the ILO definition in the register survey, but who do not confirm that their main job is a marginal employment (b). This group constitutes the second half of the difference between the ESR and the register survey and amounts to around 700 000 persons as well. At least 250 000 persons of this group, according to the register survey, are either self-employed, public officials, conscripts or persons obliged to render alternative civil service who have a secondary job. As the ESR conceptually focuses on employment subject to social insurance contributions, the main job for these types of employment is not filed here and hence the secondary job is counted as an exclusive marginal employment. In addition to this group around 60 000 apprentices are registered in the ESR, who might have referred to a marginal employment that ended shortly before the reference week of the register survey. For the largest group, there are clear indications that the respondents were actually holding a marginal job without responding accordingly to the question targeting at a measurement of marginal employed in the register survey. These 350 000 persons, regarding the attributes of their employment, are very similar to the marginal employed who confirm their status as marginal employee in the register survey. For another 100 000 the situation is less clear: Referring to their responses regarding working time and salary it seems likely that this group does have an employment from which they earn more than Euro 400 per month (extra work thesis). Otherwise, these persons might have another employment in addition to the one registered in the ESR and refer to this employment in the register survey.

(2) From this variety of effects contributing to the difference between the LFS and the ESR, it becomes quite clear that neither source can claim to dispose the “true” value on the number of marginal employed. Each source is subject to methodological as well as conceptual effects, the LFS mostly due to misled classifications of the respondents and the guidance by the main status, the ESR mostly due to the problem of secondary jobs registered as exclusive marginal employment. As could be expected against the background of the presentation in chapter 2, it is evident that measurement errors are much more important in the case of the LFS compared to the ESR. But one further aspect is highly important: Only part of the effects determined in this study can be referred to as measurement errors. Some effects are rather due to the distinct operationalisation in the LFS and the ESR. For example, the respondents who claim that their job ended recently (while still being registered) do answer correctly according to the ILO definition while there is equally no “error” in the ESR. Similarly, some of the differences are due to the fact that the ESR is conceptually restricted to employees subject to social insurance contributions and therefore does not cover parts of the employed persons like public officials and self-employed.

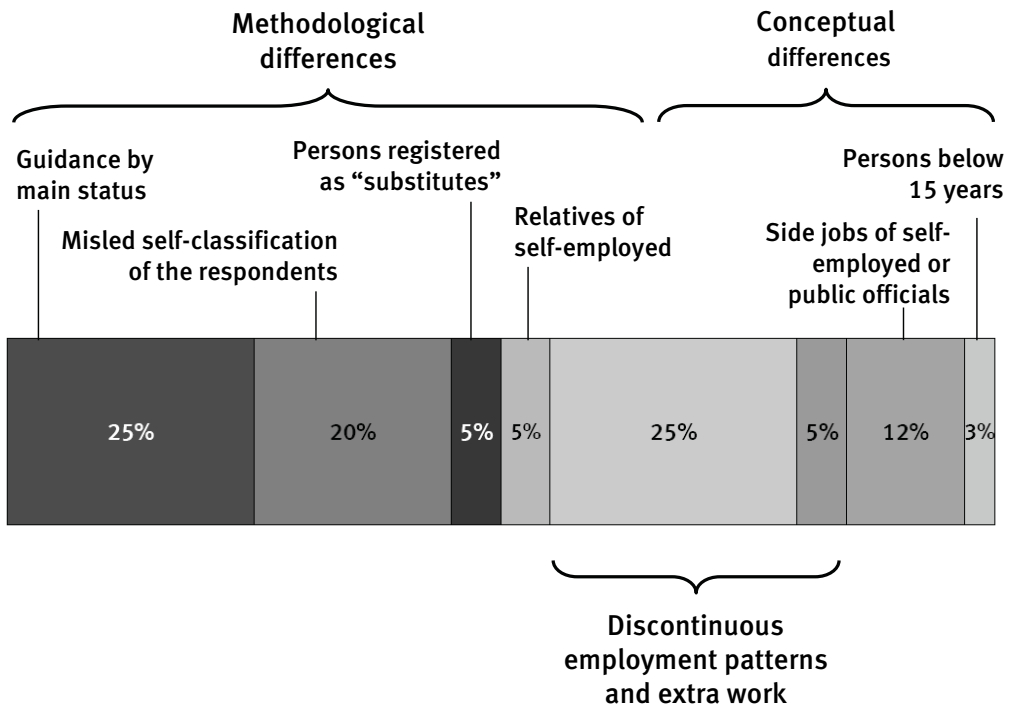
(3) The transfer to the situation in the LFS is quite straightforward as long as the assumption is made that the measurement achieved in the register survey is equivalent to the one of the LFS. However, as can be seen from table 13, one further aspect needs to be discussed: the persons with discontinuous jobs. In contrast to the LFS, in the register survey no restrictions were applied to check the formal job attachment of persons with a job, but not at work. This enabled us to get a clearer picture of the extent to which marginal jobs are carried out in a discontinuous way. We saw from the register survey that just under 300 000 marginally employed persons (captured as such in the register survey) did not work a single day in the period from July to September 2010 and further 400 000 persons were not at work in one or two of these months. For the measurement in the LFS, one might guess that at least 400 000 of these discontinuous workers would most likely not indicate an employment according to the criteria agreed in the ILO context.

In summary, the difference in the number of marginally employed persons between the ESR and the LFS could be explained by the effects shown in figure 47. For presenting the differences like this, it is assumed that the collection of the employment status of the register survey and the Microcensus are comparable because of the virtually identical survey questions. Nevertheless, the quantifications made are subject to some uncertainty, for example, because of the relatively high non-response in the register survey. To take these uncertainties into account, the differences between the number of marginally employed in Microcensus and the ESR is shown only as relative figures. Thus, overall, about two-thirds of the difference between the Microcensus and the ESR can be explained by methodological differences, about a third are due to conceptual differences.

The largest impact is due to the guidance of the respondents by their main social status and discontinuous employment patterns. Each of these effects, again very roughly, is estimated to 25 % of the difference. A further 20 % is likely to be based upon the misled classification by the respondents who are obviously marginally employed, but do not indicate this in the register survey. Around 12 % of the difference is due to secondary jobs e.g. of public officials and self-employed that are captured as main jobs in the ESR due

to conceptual differences. The remaining part concerns the conceptual difference regarding persons below the age of 15 years, persons registered by self-employed household members, substitutes and zombie data, as well as persons who actually seem to work more than registered in the ESR. As one can easily see, around two thirds of the difference is estimated to stem from methodological differences. In saying this, it has to be kept in mind that it is not fully clear whether the entire group of marginal employed with discontinuous employment patterns is to be considered employed according to the ILO definition.

**Figure 47**  
**Estimation of the magnitude of the main effects contributing to the difference between ESR and LFS regarding the number of exclusively marginally employed persons**



(4) Methodologically, the register survey has proved to be a highly useful instrument for the analysis of deviations between registers and surveys. However, the results at the same time showed that the possibility to link the data from the LFS with those included in the employment register must necessarily complement a register survey. Nevertheless, a register survey has considerable supplementary value compared to the simple data linking. Additional questions targeting at the assumed effects, like the calendars in the register survey, help to gain additional insight. Also the possibility to include all persons with a job who are absent from work in the reference week enhanced the methodological possibilities. In retrospective, one would maybe make even broader use of such targeted questions in a register survey. The analyses conducted were slightly limited by the fact

that persons not indicating any employment were confronted only with very few questions. If one had the chance to plan a register survey again, one would probably include more probing questions searching for hints of an employment that was forgotten as well as the characteristics of the former job. At the same time, it could also be useful to add a round of qualitative follow-up interviews for a sub-sample after the completion of the fieldwork (and analysis of first results) in order to learn more about the cognitive processes behind certain responses given.

(5) Finally, the register survey also led to a number of important conclusions regarding the LFS. First of all, it demonstrated the need to continue to improve the measurement of marginally employed persons in the fieldwork. Although by far not the entire difference between the LFS and the ESR can be reduced to measurement errors in the LFS, improvements are necessary in several respects: Persons whose main social status is not employment still often do not indicate small jobs in survey interviews. Innovative solutions have to be developed to ask them the employment questions in a way that enables a reliable measurement of the employment status. One approach which was already tested successfully in the Microcensus follow-up survey might be to develop a set of leading questions especially tailored to the situation of the various main status groups. Similarly, better solutions seem possible regarding the measurement of persons with long-term absences. Concerning marginal employed, the main problem is that the ILO criteria for a “formal job attachment” do not really fit the situation of marginal jobs, which are often deformed to some degree. Therefore, criteria like an assurance of return to work, paid holiday or sick leave do de facto not always apply to marginal employees. In contrast, it seems difficult to find many improvements regarding the self-declaration as a marginally employed person. Since the year 2005 various question types were used in the German LFS, ranging from detailed questions accompanied by a large number of examples to very brief and concise questions, which all did not seem to show major differences. Probably, the problem is already in the cognitive process referred to as encoding, i.e. a considerable number of marginally employed persons are asked a question for which they do not have the knowledge available. In such a situation the possibilities of improved questionnaire design or interviewer training are a priori limited.

A further necessary improvement in the LFS is related to the latter point, although it is only a by-product of the register survey: The register survey, and in particular the cognitive pretest carried out before the start of the project, pointed out that many of the variables and response categories regarding the main job were only partially relevant to marginal employees and other persons holding small side jobs. One could state that, while the employment definition of the ILO is as extensive as it could be, the variables regarding the main job are very much focused on standard employment situations. For example, marginal employees often have difficulties to find their appropriate status in employment and they struggle with the question about the type of contract. The work contract of marginal employed often does not explicitly state whether it is open-ended or not. Furthermore, marginally employed persons often only have verbal contracts – or the perception of no contract at all. Moreover, respondents with marginal jobs tend to be irritated if asked whether they work full-time or part-time. Regarding all these aspects and transferring the findings to household surveys, care should be taken that for each population respectively employment group adapted questions need to be formulated. Doing this,

allows a presumably “correct” answer in the first place. In the case of the LFS, the variables should be critically reviewed regarding the relevance for persons in marginal employment.

Far beyond the scope of this study but as a last point to conclude this study it should be mentioned that, linking survey data to registers can generate invaluable new insights into both sources from a methodological and conceptual point of view. For diverse methodological purposes and the sake of transparency concerning coherence, linking the LFS datasets with those from the ESR would be very advantageous and should be recommended.

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## **Annex 1**

### **List of declarations in the reporting process of (marginal) employees**

#### **Schlüsselzahlen für die Abgabegründe und Beitragsgruppen in den Meldungen nach der Datenerfassungs- und übermittlungsverordnung (DEÜV)**

##### **Teil 1: Abgabegründe**

###### **Meldungen der Arbeitgeber**

###### **Anmeldungen**

- 10 Anmeldung wegen Beginn einer Beschäftigung
- 11 Anmeldung wegen Krankenkassenwechsel
- 12 Anmeldung wegen Beitragsgruppenwechsel
- 13 Anmeldung wegen sonstiger Gründe/Änderungen im Beschäftigungsverhältnis, zum Beispiel:
  - Anmeldung nach unbezahltem Urlaub oder Streik von länger als einem Monat nach § 7 Absatz 3 Satz 1 des Vierten Buches Sozialgesetzbuch (SGB IV)
  - Anmeldung wegen Rechtskreiswechsel ohne Krankenkassenwechsel
  - Anmeldung wegen Wechsel des Entgeltabrechnungssystems (optional)
  - Anmeldung wegen Änderung des Personengruppenschlüssels ohne Beitragsgruppenwechsel
  - Anmeldung wegen Währungsumstellung während eines Kalenderjahres
- 20 Sofortmeldung bei Aufnahme einer Beschäftigung nach § 28a Absatz 4 SGB IV

###### **Abmeldungen**

- 30 Abmeldung wegen Ende einer Beschäftigung
- 31 Abmeldung wegen Krankenkassenwechsel
- 32 Abmeldung wegen Beitragsgruppenwechsel
- 33 Abmeldung wegen sonstiger Gründe/Änderungen im Beschäftigungsverhältnis
- 34 Abmeldung wegen Ende einer sozialversicherungsrechtlichen Beschäftigung nach einer Unterbrechung von länger als einem Monat
- 35 Abmeldung wegen Arbeitskampf von länger als einem Monat
- 36 Abmeldung wegen
  - Wechsel des Entgeltabrechnungssystems (optional)
  - Währungsumstellung während eines Kalenderjahres
- 40 Gleichzeitige An- und Abmeldung wegen Ende der Beschäftigung
- 49 Abmeldung wegen Tod

### **Jahresmeldungen/Unterbrechungsmeldungen/sonstige Entgeltmeldungen**

- 50 Jahresmeldung
- 51 Unterbrechungsmeldung wegen Bezug von bzw. Anspruch auf Entgeltersatzleistungen
- 52 Unterbrechungsmeldung wegen Elternzeit
- 53 Unterbrechungsmeldung wegen gesetzlicher Dienstpflicht
- 54 Meldung eines einmalig gezahlten Arbeitsentgelts (Sondermeldung)
- 55 Meldung von nicht vereinbarungsgemäß verwendetem Wertguthaben (Störfall)
- 56 Meldung des Unterschiedsbetrags bei Entgeltersatzleistungen während Altersteilzeitarbeit
- 57 Gesonderte Meldung nach § 194 des Sechsten Buches Sozialgesetzbuch (SGB VI)

### **Änderungsmeldungen**

- 60 Änderung des Namens
- 61 Änderung der Anschrift
- 62 Änderung des Aktenzeichens/der Personalnummer des Beschäftigten (optional)
- 63 Änderung der Staatsangehörigkeit

### **Meldungen in Insolvenzfällen**

- 70 Jahresmeldung für freigestellte Arbeitnehmer
- 71 Meldung des Vortages der Insolvenz/der Freistellung
- 72 Entgeltmeldung zum rechtlichen Ende der Beschäftigung

Quelle: GKV-Spitzenverband et al., 2010

## Annex 2a

### Main results of the register survey by subgroups

	<b>Subgroup A</b> (registered in the ESR)	<b>Subgroup C</b> (registered in the ESR, self- declared employment)	<b>Subgroup G</b> (registered in the ESR, self- declared marginal employment)	<b>Subgroup D</b> (registered in the ESR, no self- declared employment)
<b>Mode</b>				
PAPI .....	1 921	1 796	1 526	125
CAWI .....	325	307	235	18
CATI .....	2 399	1 903	1 686	497
MISSINGS .....	0	0	0	0
<b>Total ....</b>	<b>4 645</b>	<b>4 006</b>	<b>3 447</b>	<b>6 40</b>
<b>Sex</b>				
Male .....	1 472	1 189	938	283
Femal .....	3 173	2 816	2 508	357
<b>Total ....</b>	<b>4 645</b>	<b>4 006</b>	<b>3 447</b>	<b>640</b>
<b>Age</b>				
under 25 years .....	927	824	650	103
25 – 54 years .....	1 982	1 856	1 599	126
55 – 64 years .....	922	807	701	115
over 65 years .....	867	568	534	299
<b>Total ....</b>	<b>4 645</b>	<b>4 006</b>	<b>3 447</b>	<b>640</b>
<b>Citizenship</b>				
German .....	4 436	3 818	3 289	618
Non-German .....	207	186	157	21
No classification possible ....	2	2	1	0
Not available .....	0	0	0	0
<b>Total ....</b>	<b>4 645</b>	<b>4 006</b>	<b>3 447</b>	<b>640</b>
<b>ISCED</b>				
Still in education .....	251	222	173	30
Level 1 – 2 .....	738	592	514	146
Level 3 – 4 .....	2 907	2 516	2 248	392
Level 5 – 6 .....	646	585	443	62
Not available .....	0	0	0	0
MISSINGS .....	0	0	0	0
<b>Total ....</b>	<b>4 645</b>	<b>4 006</b>	<b>3 447</b>	<b>640</b>

## Annex 2b

## Weighted and calibrated results

	Subgroup A (registered in the ESR)	Subgroup C (registered in the ESR, self- declared employment)	Subgroup G (registered in the ESR, self- declared marginal employment)	Subgroup D (registered in the ESR, no self- declared employment)
<b>Mode</b>				
PAPI .....	2,099,890	1,958,500	1,627,520	141,390
CAWI .....	416,100	392,610	283,180	23,490
CATI .....	2,638,230	2,131,250	1,853,170	506,980
MISSINGS .....	0	0	0	0
<b>Total ...</b>	<b>5,154,220</b>	<b>4,482,360</b>	<b>3,763,860</b>	<b>671,860</b>
<b>Sex</b>				
Male .....	1,782,360	1,487,750	1,108,310	294,610
Femal .....	3,371,860	2,994,600	2,655,550	377,260
<b>Total ...</b>	<b>5,154,220</b>	<b>4,482,360</b>	<b>3,763,860</b>	<b>671,860</b>
<b>Age</b>				
under 25 years .....	1,148,530	1,033,230	814,720	115,300
25 – 54 years .....	2,489,330	2,304,810	1,912,680	184,520
55 – 64 years .....	843,340	739,400	637,680	103,930
over 65 years .....	767,590	494,040	466,140	273,560
<b>Total ...</b>	<b>5,154,220</b>	<b>4,482,360</b>	<b>3,763,860</b>	<b>671,860</b>
<b>Citizenship</b>				
German .....	4,646,010	4,027,720	3,386,150	618,300
Non-German .....	504,840	451,270	375,720	53,570
No classification possible ...	3,370	3,370	2,000	0
Not available .....	0	0	0	0
<b>Total ...</b>	<b>5,154,220</b>	<b>4,482,360</b>	<b>3,763,860</b>	<b>671,860</b>
<b>ISCED</b>				
Still in education .....	245,500	218,270	172,030	27,220
Level 1 – 2 .....	910,320	737,800	629,630	172,520
Level 3 – 4 .....	3,170,770	2,773,260	2,420,380	397,510
Level 5 – 6 .....	701,940	640,550	462,980	61,380
Not available .....	0	0	0	0
MISSINGS .....	0	0	0	0
<b>Total ...</b>	<b>5,154,220</b>	<b>4,482,360</b>	<b>3,763,860</b>	<b>671,860</b>

## Annex 3

### Questionnaire



**Bundesagentur für Arbeit**  
Statistik

## Jobben und Arbeiten 2010

**Dieser Fragebogen richtet sich an die Person,  
an die der beiliegende Brief adressiert ist.**

Bitte füllen Sie den Fragebogen selbst aus.

Ihre Teilnahme ist freiwillig. Wenn Sie nicht teilnehmen, entstehen Ihnen keine Nachteile.  
Wir bitten Sie jedoch herzlich um Ihre Teilnahme, damit wir zuverlässige und aussagekräftige  
Ergebnisse erhalten.

Sollten Sie einzelne Fragen nicht beantworten wollen, haben Sie die Möglichkeit,  
diese zu überspringen.

**Bei Fragen wenden Sie sich bitte an das LINK Institut  
unter der kostenfreien Rufnummer 0800 - 589 26 04  
zu den folgenden Zeiten:**

Montag bis Freitag: 08.00 Uhr – 21.00 Uhr  
Samstag: 10.00 Uhr – 17.00 Uhr  
Sonntag: 11.00 Uhr – 16.00 Uhr

**oder über die E-Mail-Adresse [jobbenundarbeiten@link-institut.de](mailto:jobbenundarbeiten@link-institut.de)**

**Hilfreich für die Beantwortung des Fragebogens ist:**

Kalender oder Dienstplan, in dem Sie Arbeitswochen, Krankheit oder Urlaub eingetragen haben oder nachvollziehen können.

**Bitte gehen Sie bei der Beantwortung des Fragebogens wie folgt vor:**

1. In Fragen mit **Kreisen** hinter den Antwortmöglichkeiten können Sie **nur eine Antwort** geben, in Fragen mit **Kästchen** hinter den Antwortmöglichkeiten können Sie **mehrere Antworten** geben.

Beispiel: (Nur eine Antwort möglich)

Ja \_\_\_\_\_ <sub>1</sub>  
 Nein \_\_\_\_\_ <sub>2</sub>

Beispiel: (Mehrere Antworten möglich)

Juli \_\_\_\_\_   
 August \_\_\_\_\_

2. Bitte beantworten Sie die Fragen, indem Sie die **Kreise oder Kästchen** bei den zutreffenden Antwortmöglichkeiten **ankreuzen**.

Beispiel

Ja \_\_\_\_\_ <sub>1</sub>  
 Nein \_\_\_\_\_ <sub>2</sub>

3. Beantworten Sie die Fragen der Reihe nach. **Überspringen Sie Fragen nur dann, wenn** hinter dem von Ihnen angekreuzten Kreis/Kästchen der Hinweis **„weiter mit Frage ...“ steht**. Setzen Sie dann die Beantwortung mit der angegebenen Fragenummer fort.

Beispiel

Ja \_\_\_\_\_ <sub>1</sub> ▶ weiter mit Frage 5  
 Nein \_\_\_\_\_ <sub>2</sub> ▶ weiter mit Frage 7

4. Besteht ein Antwortfeld aus einem **Feld für Zahlenangaben**, dann **tragen Sie bitte die entsprechende Zahl ein**.

Beispiel

Wochenstunden \_\_\_\_\_    
 Geburtsjahr \_\_\_\_\_

5. In Textfeldern **hinter der Antwortmöglichkeit „... und zwar: ...“** tragen Sie bitte **Text ein**.

Beispiel: Sonstiger Beruf, und zwar: Maurer

6. Falls Sie eine Antwort korrigieren müssen, nehmen Sie die **Korrektur deutlich sichtbar** vor, so dass eine eindeutige Zuordnung möglich ist.

Beispiel

Ja \_\_\_\_\_ ~~X~~  
 Nein \_\_\_\_\_



## Angaben zu Ihrer Person

### 1 Geben Sie bitte Ihr Geschlecht an.

(Bitte nur eine Antwort ankreuzen.)

- Männlich  1  
 Weiblich  2

### 2 Geben Sie bitte Ihr Geburtsjahr an.

1	9		
---	---	--	--

### 3 Welchen höchsten allgemeinen Schulabschluss haben Sie?

(Bitte nur eine Antwort ankreuzen.)

- Noch in schulischer Ausbildung  1  
 Keinen Schulabschluss  2  
 Haupt-/Volksschulabschluss  3  
 Mittlere Reife, Realschulabschluss,  
 Abschluss der polytechnischen Oberschule  4  
 Fachhochschulreife, Abschluss einer Fachoberschule  5  
 Abitur, allgemeine oder fachgebundene Hochschulreife  6

Anderen Schulabschluss, und zwar: \_\_\_\_\_

### 4 Welchen beruflichen Bildungsabschluss haben Sie?

(Bitte nur eine Antwort ankreuzen.)

- Noch in beruflicher Ausbildung (z.B. Auszubildende,  
 Berufsfachschüler/innen, Studierende)  1  
 Keinen beruflichen Bildungsabschluss  2  
 Beruflich-betriebliche Ausbildung (Lehre)  3  
 Beruflich-schulische Ausbildung (Berufsfachschule, Handelsschule)  4  
 Ausbildung an einer Berufs- oder Fachakademie, weiterbildenden  
 Fachschule, Meister-, Technikerschule  5  
 Fachhochschulabschluss (auch Ingenieurschulabschluss)  6  
 Hochschulabschluss, Promotion  7

Anderen beruflichen Bildungsabschluss, und zwar: \_\_\_\_\_

### Ihre aktuelle Lebenssituation

**5 Zu welcher Personengruppe würden Sie sich am ehesten zählen?**

*(Bitte nur eine Antwort ankreuzen.)*

- Erwerbstätige, Berufstätige, Auszubildende  1 ➤ weiter mit Frage 7
- Schüler/-innen, Studierende  2 ➤ weiter mit Frage 6
- Hausfrauen, Hausmänner  3
- Rentner/-innen, Pensionäre/Pensionärinnen  
*(auch im Vorruhestand)*  4
- Arbeitslose  5
- In Altersteilzeit  6 ➤ weiter mit Frage 7
- In Fortbildung  7 ➤ weiter mit Frage 6
- Grundwehr- oder Zivildienstleistende, im Freiwilligendienst  8 ➤ weiter mit Frage 16
- Dauerhaft Arbeitsunfähige  9 ➤ weiter mit Frage 6
- Sonstige, und zwar: \_\_\_\_\_

**6 Auch wenn man nicht hauptsächlich erwerbstätig ist, kann man sich durch einen Nebenjob etwas Geld hinzuverdienen. Wie ist das bei Ihnen: Jobben oder arbeiten Sie nebenbei?**

**Dabei spielt es keine Rolle, ob Sie pro Woche nur eine Stunde oder länger arbeiten.**

*(Bitte nur eine Antwort ankreuzen.)*

- Ja  1 ➤ weiter mit Frage 7
- Nein  2 ➤ weiter mit Frage 8

**7 Haben Sie auch in der Woche vom 27. September bis 3. Oktober 2010 mindestens eine Stunde gearbeitet oder gejobbt?**

*(Bitte nur eine Antwort ankreuzen.)*

- Ja  1 ➤ weiter mit Frage 11 a
- Nein  2 ➤ weiter mit Frage 9

**8 Sie haben gerade (Frage 6) angegeben, dass Sie zurzeit nicht nebenbei arbeiten. Haben Sie denn normalerweise mindestens eine bezahlte Tätigkeit oder einen Nebenjob, die/den Sie nur zurzeit nicht ausüben?**

**Mögliche Gründe hierfür sind z.B. Urlaub, Krankheit, Mutterschutz, Elternzeit, Altersteilzeit sowie punktuelle oder unregelmäßige Arbeitszeiten.**

*(Bitte nur eine Antwort ankreuzen.)*

- Ja  1 ➤ weiter mit Frage 9
- Nein  2 ➤ weiter mit Frage 37

**9 Was ist der wichtigste Grund, weshalb Sie Ihre Tätigkeit/Ihren Nebenjob in der Woche vom 27. September bis 3. Oktober 2010 nicht ausgeübt haben?**

*(Bitte nur eine Antwort ankreuzen.)*

- Punktuelle oder unregelmäßige Arbeitszeiten .....  1
- Urlaub *(auch Sonderurlaub)* .....  2
- Krankheit / Unfall .....  3
- Persönliche oder familiäre Verpflichtungen .....  4
- Aus- oder Weiterbildung *(allgemein oder beruflich)* .....  5
- Mutterschutz, Elternzeit .....  6
- Altersteilzeit *(auch in der Ruhephase)* .....  7

Anderer Grund, und zwar: \_\_\_\_\_

**10 Wann waren Sie zuletzt an Ihrem Arbeitsplatz?**

*(Bitte nur eine Antwort ankreuzen.)*

- vor maximal 1 Woche .....  1
- vor 2 Wochen .....  2
- vor 3 Wochen .....  3
- vor 4 Wochen .....  4
- vor 1 – 2 Monaten .....  5
- vor 3 – 4 Monaten .....  6
- vor 5 – 6 Monaten .....  7
- vor mehr als 6 Monaten .....  8

## Ihre Tätigkeit / Ihr Nebenjob

### 11 a) Wie viele bezahlte Tätigkeiten oder Nebenjobs üben Sie insgesamt aus?

(Bitte nur eine Antwort ankreuzen.)

- Eine/-n Tätigkeit / Nebenjob \_\_\_\_\_  <sub>1</sub> ► weiter mit Frage 12  
Mehrere Tätigkeiten / Nebenjobs \_\_\_\_\_  <sub>2</sub> ► weiter mit Frage 11 b

### 11 b) Bitte tragen Sie die/den Tätigkeit/Nebenjob mit der längsten wöchentlichen Arbeitszeit in das folgende Textfeld ein (z.B. Zeitungen austragen, Babysitting, Taxi fahren, etc.).

Bitte beziehen Sie sich in den folgenden Fragen immer auf diese Tätigkeit mit der längsten wöchentlichen Arbeitszeit.

### 12 Sind Sie derzeit tätig als ... ?

(Bitte nur eine Antwort ankreuzen.)

- Angestellte/-r, Arbeiter/-in (auch Aushilfen, Personen mit Nebenjobs, geringfügig Beschäftigte) \_\_\_\_\_  <sub>1</sub> ► weiter mit Frage 13  
Selbstständige/-r (auch Honorarkräfte, Personen mit Werkvertrag) \_\_\_\_\_  <sub>2</sub> ► weiter mit Frage 14  
Auszubildende/-r \_\_\_\_\_  <sub>3</sub> ► weiter mit Frage 13  
Grundwehr- oder Zivildienstleistender, im Freiwilligendienst \_\_\_\_\_  <sub>4</sub> ► weiter mit Frage 16  
Beamter/Beamtin, Soldat/-in, Richter/-in \_\_\_\_\_  <sub>5</sub> ► weiter mit Frage 16  
Sonstiges, und zwar: \_\_\_\_\_ ► weiter mit Frage 13

### 13 Üben Sie diese Tätigkeit in einem Betrieb aus, der einem Mitglied Ihrer Familie gehört?

(Bitte nur eine Antwort ankreuzen.)

- Ja \_\_\_\_\_  <sub>1</sub>  
Nein \_\_\_\_\_  <sub>2</sub>

**14 Was ist Ihre Hauptaufgabe in dieser Tätigkeit?**

(Bitte nur eine Antwort ankreuzen.)

- Putztätigkeit in einem Betrieb .....  1
- Putztätigkeit oder Haushaltshilfe in einem Privathaushalt .....  2
- Kinderbetreuung, Babysitting .....  3
- Pflegertätigkeit .....  4
  
- Aushilftätigkeit in Kaufhaus / Geschäft / Tankstelle .....  5
- Verkaufs- oder Werbetätigkeit im Telefon- oder Außendienst .....  6
- Tätigkeit für eine Versicherung oder Bank .....  7
  
- Schreibarbeiten, Buchhaltertätigkeiten .....  8
- Programmierarbeiten .....  9
- Internetbetreuung, Online-Dienstleistungen (z.B. Homepagepflege) .....  10
- Tätigkeit als wissenschaftliche / studentische Hilfskraft .....  11
- Lehrtätigkeit (auch Nachhilfeunterricht, Kurse) .....  12
- Beraterstätigkeit .....  13
  
- Austragen von Post, Zeitungen, Zeitschriften, Prospekten .....  14
- Tätigkeit in Gastronomie und Gastgewerbe .....  15
- Taxi fahren .....  16
- Auslieferungs- und Kurierdienste .....  17
- Wachdienst .....  18
  
- Landwirtschaftliche Tätigkeit, Gärtnerarbeiten .....  19
- Reparieren und Fertigen von Produkten / Fahrzeugen .....  20
- Bauen, Renovieren, Instandsetzen .....  21
- Hausmeisterstätigkeit .....  22
  
- Andere Tätigkeit, und zwar: \_\_\_\_\_

**15 Ist diese Tätigkeit eine geringfügige Beschäftigung, also ein 400-Euro-Job oder eine kurzfristige Beschäftigung?**

(Bitte nur eine Antwort ankreuzen.)

- Ja, ein 400-Euro-Job („Mini-Job“) (Der Verdienst beträgt im Jahresdurchschnitt nicht mehr als 400 Euro pro Monat) .....  1
- Ja, eine kurzfristige Beschäftigung (begrenzt auf höchstens zwei Monate oder 50 Arbeitstage während eines Jahres; der Verdienst spielt keine Rolle) .....  2
- Nein .....  3
- Ich weiß es nicht .....  4

### Ihre Arbeitszeiten

**16 Wie oft üben Sie diese Tätigkeit normalerweise aus?**

(Bitte nur eine Antwort ankreuzen.)

- Täglich  1
- Mindestens an einem Tag pro Woche  2
- Mindestens an einem Tag pro Monat  3
- Mindestens an einem Tag pro Vierteljahr  4
- Seltener  5

Nehmen Sie für die Beantwortung der folgenden Fragen eventuell einen Kalender oder Dienstplan zu Hilfe, in dem Sie Arbeitswochen, Krankheit oder Urlaub eingetragen haben oder nachvollziehen können.

**17 a) Bitte denken Sie an die letzten 3 Monate, also Juli bis September 2010. Haben Sie diese Tätigkeit in diesem Zeitraum an mindestens einem Tag ausgeübt?**

(Bitte nur eine Antwort ankreuzen.)

- Ja  1 ► weiter mit Frage 17b
- Nein  2 ► weiter mit Frage 18a

**17 b) In welchen Kalenderwochen haben Sie gearbeitet?**

(Bitte kreuzen Sie in der Spalte rechts außen die Wochen an, in denen Sie an mindestens einem Tag die Tätigkeit ausgeübt haben.)

Monat	Mo	Di	Mi	Do	Fr	Sa	So	KW	Tätigkeit an mindestens 1 Tag ausgeübt
Juli	26	29	30	1	2	3	4	26	<input type="checkbox"/> 1
	5	6	7	8	9	10	11	27	<input type="checkbox"/> 2
	12	13	14	15	16	17	18	28	<input type="checkbox"/> 3
	19	20	21	22	23	24	25	29	<input type="checkbox"/> 4
	26	27	28	29	30	31	1	30	<input type="checkbox"/> 5
August	2	3	4	5	6	7	8	31	<input type="checkbox"/> 6
	9	10	11	12	13	14	15	32	<input type="checkbox"/> 7
	16	17	18	19	20	21	22	33	<input type="checkbox"/> 8
	23	24	25	26	27	28	29	34	<input type="checkbox"/> 9
September	30	31	1	2	3	4	5	35	<input type="checkbox"/> 10
	6	7	8	9	10	11	12	36	<input type="checkbox"/> 11
	13	14	15	16	17	18	19	37	<input type="checkbox"/> 12
	20	21	22	23	24	25	26	38	<input type="checkbox"/> 13
	27	28	29	30	1	2	3	39	<input type="checkbox"/> 14

**18 a) Bitte denken Sie jetzt an die 9 Monate davor, also von Oktober 2009 bis Juni 2010.  
Haben Sie in diesen Monaten Ihre Tätigkeit an mindestens einem Arbeitstag ausgeübt?**  
(Bitte nur eine Antwort ankreuzen.)

- Ja  <sub>1</sub> ► weiter mit Frage 18b  
Nein  <sub>2</sub> ► weiter mit Frage 19

**18 b) In welchen Monaten haben Sie gearbeitet?**  
(Bitte kreuzen Sie die Monate an, in denen Sie an mindestens einem Tag die Tätigkeit ausgeübt haben.)

Jahr	Monat	Tätigkeit an mindestens 1 Tag ausgeübt
2009	Oktober	<input type="checkbox"/> 1
	November	<input type="checkbox"/> 2
	Dezember	<input type="checkbox"/> 3
2010	Januar	<input type="checkbox"/> 4
	Februar	<input type="checkbox"/> 5
	März	<input type="checkbox"/> 6
	April	<input type="checkbox"/> 7
	Mai	<input type="checkbox"/> 8
	Juni	<input type="checkbox"/> 9

**19 Wann haben Sie diese Tätigkeit zum ersten Mal ausgeübt?**

Monat

Jahr

**20 Auf welcher vertraglichen Basis üben Sie diese Tätigkeit aus?**  
(Bitte nur eine Antwort ankreuzen.)

- Mündliche Vereinbarung  <sub>1</sub>  
Schriftlicher Vertrag  <sub>2</sub>

**21 Ist diese Tätigkeit befristet oder unbefristet?**  
(Bitte nur eine Antwort ankreuzen.)

- Unbefristet  <sub>1</sub>  
Befristet  <sub>2</sub>  
Ich weiß es nicht  <sub>3</sub>

**22 Wie hoch ist Ihre vereinbarte Wochenarbeitszeit für diese Tätigkeit in Stunden?**  
(Bitte auf volle Stunden runden.)

Stunden pro Woche

Keine feste Wochenarbeitszeit vereinbart  <sub>0</sub>



**23 Und wie viele Stunden arbeiten Sie tatsächlich durchschnittlich pro Woche in dieser Tätigkeit?**  
(Falls Sie das nicht genau sagen können, schätzen Sie bitte.)  
(Bitte auf volle Stunden runden.)

Stunden pro Woche \_\_\_\_\_

**24 Üben Sie diese Tätigkeit (abgesehen von Urlaub oder Krankheit) regelmäßig oder unregelmäßig aus?**  
(Bitte nur eine Antwort ankreuzen.)

Regelmäßig \_\_\_\_\_  1  
Unregelmäßig \_\_\_\_\_  2

**25 Werden Ihre Arbeitszeiten und -einsätze vom Arbeitgeber vorgegeben, werden sie in Absprache mit dem Arbeitgeber festgelegt oder können Sie sie eher frei wählen? Was trifft am ehesten zu?**  
(Bitte nur eine Antwort ankreuzen.)

Vom Arbeitgeber vorgegeben \_\_\_\_\_  1  
In Absprache mit dem Arbeitgeber festgelegt \_\_\_\_\_  2  
Ich kann meine Arbeitszeiten eher frei wählen \_\_\_\_\_  3

**26 Stehen Sie bei dieser Tätigkeit auf Abruf oder als „Springer“ zur Verfügung?**  
(Bitte nur eine Antwort ankreuzen.)

Ja \_\_\_\_\_  1 ► weiter mit Frage 27  
Nein \_\_\_\_\_  2 ► weiter mit Frage 28

**27 Wie kurzfristig stehen Sie dabei zur Verfügung?**  
(Bitte nur eine Antwort ankreuzen.)

Sofort/am gleichen Tag \_\_\_\_\_  1  
Am folgenden Tag \_\_\_\_\_  2  
Nach mehreren Tagen \_\_\_\_\_  3



## Gründe für die Ausübung der Tätigkeit

### 28 Welche Gründe haben Sie, diese Tätigkeit auszuüben?

(Bitte kreuzen Sie alle zutreffenden Antworten an.)

- Ich erhoffe mir einen beruflichen Einstieg in diesem Bereich.  1
- Ich möchte den Kontakt zum Arbeitsleben halten.  2
- Ich kann mich dadurch weiterbilden.  3
- Für mich ist es eine gute Abwechslung zu dem, was ich sonst mache.  4
- Ich komme mit anderen Leuten zusammen.  5
- Es ist mir ein Bedürfnis zu helfen.  6
- Ich will meine Zeit sinnvoll nutzen.  7
- Die Tätigkeit macht mir Spaß.  8
- Ich möchte mit der Tätigkeit Geld verdienen.  9
- Andere Gründe.  10

### 29 Welche Bedeutung hat für Sie das Geld, das Sie mit dieser Tätigkeit verdienen? Welche Aussage trifft am ehesten auf Sie zu?

(Bitte nur eine Antwort ankreuzen.)

- Ich brauche das Geld unbedingt, um meinen/unseren Lebensunterhalt zu bestreiten bzw. die finanziellen Belastungen des Haushalts zu tragen.  1
- Ich brauche das Geld zwar nicht unbedingt, ich kann mir durch den Hinzuverdienst aber Extrawünsche erfüllen.  2
- Das Geld ist für mich eher unwichtig.  3

### 30 Wie hoch ist das durchschnittliche monatliche Nettoeinkommen aus dieser Tätigkeit mit der längsten wöchentlichen Arbeitszeit? Das Nettoeinkommen ist der Betrag, der Ihnen nach Abzug von Steuern und Sozialabgaben ausgezahlt wird.

(Bitte nur eine Antwort ankreuzen.)

- bis einschließlich 100 Euro  1
- 101 bis einschließlich 200 Euro  2
- 201 bis einschließlich 300 Euro  3
- 301 bis einschließlich 400 Euro  4
- 401 bis einschließlich 800 Euro  5
- 801 bis einschließlich 1.000 Euro  6
- 1.001 bis einschließlich 1.500 Euro  7
- 1.501 bis einschließlich 3.000 Euro  8
- 3.001 Euro und mehr  9

## Ausübung der Tätigkeit in der Zukunft

### 31 Wie lange möchten Sie diese Tätigkeit noch ausüben?

(Bitte nur eine Antwort ankreuzen.)

- Ich werde die Tätigkeit in Kürze beenden.  1
- Ich möchte die Tätigkeit nur für eine begrenzte Zeit ausüben  
(z.B. während Elternzeit/Erziehungsphase, Studium, Ausbildung).  2
- Ich möchte die Tätigkeit in absehbarer Zeit NICHT aufgeben  
oder ändern.  3
- Ich weiß es (noch) nicht.  4

### 32 Nun einmal unabhängig von dieser Tätigkeit: Würden Sie gerne mehr als bisher arbeiten?

(Bitte nur eine Antwort ankreuzen.)

- Ja, aber ich habe bisher keine passende Tätigkeit gefunden.  1 ➤ weiter mit Frage 34
- Ja, aber ich kann dies aufgrund meiner persönlichen Situation nicht.  2 ➤ weiter mit Frage 33
- Nein, ich bin so zufrieden.  3

### 33 Aus welchem Grund / welchen Gründen können oder möchten Sie nicht mehr als bisher arbeiten?

(Bitte kreuzen Sie alle zutreffenden Antworten an.)

- Weil ich mich um meine Kinder/pflegebedürftige Angehörige kümmern muss.  1
- Weil ich andere familiäre bzw. häusliche Verpflichtungen habe.  2
- Aus gesundheitlichen Gründen.  3
- Ich befinde mich in Ausbildung (auch: Schüler/-innen, Studierende, Personen in Fortbildung).  4
- Weil ich sonst zu hohe Steuern und Abgaben zahlen müsste.  5
- Weil mir sonst Sozialleistungen (Arbeitslosengeld, Wohngeld, Bafög) oder der Unterhalt gekürzt würden.  6
- Weil ich Zeit für andere Dinge (Ehrenamt, Hobbys, Freunde,...) haben möchte.  7
- Ich kann aus anderen Gründen nicht mehr arbeiten.  8
- Ich möchte aus anderen Gründen nicht mehr arbeiten.  9

## Vorliegende Tätigkeit

**34 Ist diese Tätigkeit Ihre erste Tätigkeit oder haben Sie vor dieser Tätigkeit eine andere bezahlte Tätigkeit / einen anderen bezahlten Nebenjob ausgeübt?**

*(Bitte nur eine Antwort ankreuzen.)*

Ja, ist meine erste Tätigkeit  1  weiter mit Frage 40

Nein, habe davor eine andere Tätigkeit/einen anderen Nebenjob ausgeübt  2  weiter mit Frage 35

**35 Wann endete Ihre vorangehende Tätigkeit?**

Monat

Jahr

**36 a) Und aus welchem Grund endete Ihre vorangehende Tätigkeit?**

*(Bitte nur eine Antwort ankreuzen.)*

Eigene Kündigung  1  weiter mit Frage 36b

Kündigung durch den Arbeitgeber  2

Eintritt in den Ruhestand  3

Auslaufen eines befristeten Vertrages  4  weiter mit Frage 40

Sonstiger Grund, und zwar:

**36 b) Und aus welchen Gründen haben Sie Ihre vorangehende Tätigkeit gekündigt?**

*(Sie können hier mehrere Antworten ankreuzen.)*

Aus familiären Gründen  1

Aus gesundheitlichen Gründen  2

Aus saisonalen Gründen  3

Wegen allgemeiner Unzufriedenheit  4

Wegen besseren Arbeitsbedingungen  5

Wegen höherem Gehalt  6

Sonstiger Grund, und zwar:

 weiter mit Frage 40

### Frühere Tätigkeiten

**37 Haben Sie früher schon mal eine bezahlte Tätigkeit / einen Nebenjob ausgeübt?**

(Bitte nur eine Antwort ankreuzen.)

- Ja \_\_\_\_\_  <sub>1</sub> ► weiter mit Frage 38  
Nein, noch nie \_\_\_\_\_  <sub>2</sub> ► weiter mit Frage 40

**38 Wann endete Ihre letzte Tätigkeit?**

Monat \_\_\_\_\_

Jahr \_\_\_\_\_

**39 a) Und aus welchem Grund endete Ihre letzte Tätigkeit?**

(Bitte nur eine Antwort ankreuzen.)

- Eigene Kündigung \_\_\_\_\_  <sub>1</sub> ► weiter mit Frage 39b  
Kündigung durch den Arbeitgeber \_\_\_\_\_  <sub>2</sub>  
Eintritt in den Ruhestand \_\_\_\_\_  <sub>3</sub>  
Auslaufen eines befristeten Vertrages \_\_\_\_\_  <sub>4</sub> ► weiter mit Frage 40  
Sonstiger Grund, und zwar: \_\_\_\_\_

**39 b) Und aus welchen Gründen haben Sie Ihre letzte Tätigkeit gekündigt?**

(Sie können hier mehrere Antworten ankreuzen.)

- Aus familiären Gründen \_\_\_\_\_  <sub>1</sub>  
Aus gesundheitlichen Gründen \_\_\_\_\_  <sub>2</sub>  
Aus saisonalen Gründen \_\_\_\_\_  <sub>3</sub>  
Wegen allgemeiner Unzufriedenheit \_\_\_\_\_  <sub>4</sub>  
Wegen besseren Arbeitsbedingungen \_\_\_\_\_  <sub>5</sub>  
Wegen höherem Gehalt \_\_\_\_\_  <sub>6</sub>  
Sonstiger Grund, und zwar: \_\_\_\_\_

## Statistische Angaben zu Ihnen und Ihrem Haushalt

Ein Haushalt besteht aus einer Person oder mehreren Personen, die gemeinsam wohnen und wirtschaften. Wer alleine wohnt oder alleine wirtschaftet, bildet einen eigenen Haushalt.

Nicht zum Haushalt gehören: Untermieter, WG-Mitbewohner, Hausangestellte und langfristig abwesende Personen (z.B. Kinder, die an einem anderen Ort studieren und gemeldet sind).

### 40 Wie viele Personen leben in Ihrem Haushalt, Sie selbst eingeschlossen?

Eine Person  1 ▶ weiter mit Frage 46

Mehrere Personen (Bitte Anzahl eintragen)   ▶ weiter mit Frage 41

### 41 Welche der folgenden Personengruppen leben bei Ihnen im Haushalt?

(Sie können hier mehrere Antworten ankreuzen.)

Partner/Partnerin bzw. Ehepartner/Ehepartnerin  1

Eltern oder ein Elternteil (auch Stiefeltern, Adoptiveltern oder Schwiegereltern)  2

Personen unter 27 Jahren  3

Keine davon  0

### 42 Wie viele Personen unter 27 Jahren leben in Ihrem Haushalt, Sie selbst eingeschlossen?

Bitte Anzahl eintragen:   ▶ weiter mit Frage 43

Keine Personen unter 27 Jahren im Haushalt  0 ▶ weiter mit Frage 44

### 43 Und wie viele Personen davon sind unter 18 Jahren, Sie selbst eingeschlossen?

Bitte Anzahl eintragen:

Keine Personen unter 18 Jahren im Haushalt  0

### 44 Wie viele Personen in Ihrem Haushalt gehen einer bezahlten Tätigkeit (Vollzeit / Teilzeit / Nebenjob) nach, Sie selbst eingeschlossen?

Keine Person  0

Eine Person  1

Mehrere Personen (Bitte Anzahl eintragen)

**45 Ist mindestens ein Mitglied Ihres Haushalts selbstständig oder freiberuflich tätig?**

(Bitte nur eine Antwort ankreuzen.)

- Ja  1  
 Nein  2

**46 Woraus bezieht Ihr Haushalt überwiegend die Mittel für den Lebensunterhalt?  
 Bitte kreuzen Sie nur die wichtigste Einkommensquelle des Haushalts an.**

(Bitte nur eine Antwort ankreuzen.)

- Meine eigene Erwerbstätigkeit  1  
 Einkünfte anderer Haushaltsmitglieder (z.B. des Partners/der Partnerin oder der im Haushalt lebenden Eltern)  2  
 Unterstützung durch nicht im Haushalt lebende Personen/Unterhalt (z.B. Eltern, Verwandte, Bekannte)  3  
 Eigene Rente / Pension  4  
 Eigenes Arbeitslosengeld, Sozialgeld  5  
 Eigenes Vermögen / eigene Ersparnisse  6  
 Sonstige Unterstützung (z.B. Bafög, Stipendium, Elterngeld)  7

**Einverständniserklärung**

Für besondere Analysen ist es erforderlich, die Angaben aus der Befragung um weitere Informationen zu ergänzen, die bereits in der Statistik der Bundesagentur für Arbeit über Ihre aktuelle oder frühere Tätigkeit vorhanden sind. Dies dient einzig dem Zweck der wissenschaftlichen Untersuchung.

Sämtliche Daten werden nur in anonymisierter Form ausgewertet, so dass keine Rückschlüsse auf Ihre Person möglich sind.

Sind Sie mit dieser Ergänzung der Befragungsdaten einverstanden?

- Ja  1  
 Nein  2

In seltenen Fällen kann es vorkommen, dass wir noch eine Rückfrage haben. Hierzu bitten wir Sie, uns Ihre Telefonnummer (inkl. der Vorwahl) anzugeben! Selbstverständlich ist auch diese Angabe freiwillig.

Telefonnummer: \_\_\_\_\_

Wann können wir Sie erreichen?

- Montag  Dienstag  Mittwoch  Donnerstag  Freitag  Samstag  Sonntag   
 9 – 12 Uhr  12 – 14 Uhr  14 – 17 Uhr  17 – 19 Uhr  19 – 21 Uhr

## Annex 4

### Translation of the questionnaire “Jobben und Arbeiten 2010”

**Question 1: Please enter your sex.** Male / Female

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**Question 2: Please enter the year of birth.** Year (four digits)

---

**Question 3: What is the highest general school-leaving qualification you hold?**

---

Still in education

No school-leaving certificate

Lower secondary school-leaving certificate

Intermediate secondary school

Certificate of specialised upper secondary education

Upper secondary education

Other

---

**Question 4: Which vocational qualification do you hold?**

Still in vocational training

No vocational qualification

Vocational training (apprenticeship)

Vocational training within the educational system

College of advanced vocational studies, master craftsman and technical college

Specialised college of higher education (also engineering degree)

University degree, doctorate

Public official career

Other

---

**Question 5: Which of the groups of people matches you best? (main social status)**

Employed, trainee

Pupils, students

Housewives, housemen

Retired persons, pensioners (also early retirement)

Unemployed

In partial retirement

In continuous education

Compulsary conscript or alternative civilian service, in voluntary service

Permanently incapacitated

Marginally employed

Parental leave / maternity leave

Other

**Question 6: Even though not being mainly employed, one can earn some extra money with a side job. What about you: Do you have a side job?**

Yes

No

---

**Question 7: Did you work or job in the week from September 27 to October for at least one hour, too?**

Yes

No

---

**Question 8: Do you usually have at least one paid employment or side job which you do not carry out at the moment?**

Yes

No

---

**Question 9: What is the most important reason why you did not carry out your employment / side job in the week from September 27 to October 3?**

Selective or irregular working hours / work schedule

Holidays (also special leave)

Sickness / accident

Personal or family duties

Education or continuous education (general or vocational)

Maternity leave, parental leave

Partial retirement

Retired person

Change of job / unemployed / between two jobs

Other reasons

---

**Question 10: When were you last present at your workplace?**

No more than one week ago

2 weeks ago

3 weeks ago

4 weeks ago

1-2 months ago

3-4 months ago

5-6 months ago

more than 6 months ago

---

**Question 11a: How many paid side jobs or employments do you have altogether?**

One employment / side job

Several employments / side jobs



**Question 11b: Which of these paid employments / side jobs is the one with the longest weekly working hours?**

Please name this employment / side job

---

**Question 12: You are currently occupied as . . . ?**

employee

self-employed (also contract workers)

apprentice

compulsary conscript or alternative civilian service, in voluntary service

public official, soldier, judge

pupil / student

retired

other

---

**Question 13: Do you carry out this job in a business which belongs to one of your family members?**

yes

no

---

**Question 14: What is your main task in the job?**

Cleaning work in a business

Cleaning work or domestic worker in a private household

Childcare, babysitting

Care work

Casual worker in a department store / shop / gas station

Salesperson or promoter

Work for an insurance company or bank

Desk work, work as accountant

Programming

Internet administration, online services

(student) research assistant

Teaching (also private tuition, courses)

Consultancy

Deliver of post, newspapers, journals / leaflets

Catering and hotel industry

Taxi driver

Delivery and courier services

Security

Work in agriculture, gardening

Question 14: What is your main task in the job?

Repairing and crafting of products or vehicles

Building, renovation, maintenance

Caretaking

Medical sector

Service sector

Storage / logistics

Artist

Gatekeeper / porter / concierge

Quality control / measuring

Other activities

---

**Question 15: Is this job a marginal employment, thus a 400-€-job or a short-term employment?**

Yes, a 400-€-job / mini-job

Yes, a short-term employment

No

don't know

---

**Question 16: How often do you exercise this job usually?**

on a daily basis

at least on one day a week

at least on one day a month

at least on one day a quarter of the year

less often

---

**Question 17a: Did you exercise this job within the period from July 2010 to September 2010 on at least one day?**

yes

no

---

**Question 17b: And in which calendar weeks did you work? (multiple answers possible)**

week 26 (June 28 – July 4): yes

week 27 (July 5 – 11): yes

week 28 (July 12 – 18): yes

week 26 (July 19 – 25): yes

week 30 (July 26 – August 1): yes

week 31 (August 2 – 8): yes

week 32 (August 9 – 15): yes

week 33 (August 16 – 22): yes

Question 17b: And in which calendar weeks did you work? (multiple answers possible)

week 34 (August 23 – 29): yes

week 35 (August 30 – September 5): yes

week 36 (September 6 – 12): yes

week 37 (September 13 – 19): yes

week 38 (September 20 – 26): yes

week 39 (September 27 – October 3): yes

---

**Question 18a: Did you exercise your job within in the period from October 2009 to June 2010 on at least one working day?**

yes

no

---

**Question 18b: And in which month did you work? (multiple answers possible)**

October 2009: yes

November 2009: yes

December 2009: yes

January 2010: yes

February 2010: yes

March 2010: yes

April 2010: yes

May 2010: yes

June 2010: yes

---

**Question 19: When did you first exercise this job?**

Months (two digits)

Year (four digits)

---

**Question 20: What is the contractual basis for your job?**

verbal agreement

written contract

---

**Question 21: Is this job fixed-term or permanent or do you not know?**

permanent

fixed-term

don't know

---

**Question 22: What is your agreed weekly working time for this job?**

no working hours agreed

Number of hours worked per week (two digits)

**Question 23: And how many hours do you actually work on average in this job?**

Number of hours worked per week (two digits)

---

**Question 24: Do you exercise this job regularly or irregularly (except for holidays or sickness)?**

regularly

irregularly

---

**Question 25: Are your working times and schedules set by your employer, are they set in consultation with your employer or can you choose rather freely?**

set by the employer

in consultation with the employer

I can choose rather freely

---

**Question 26: Are you available on call, on standby or as spare man?**

yes

no

---

**Question 27: How quickly do you have to be available?**

immediately / the same day

the next day

after several days

---

**Question 28: What reasons do you have to exercise this job? (multiple answers possible)**

I hope to start a career in this area: yes

I want to keep in touch with the working life: yes

I can do further training this way: yes

it is a good variation to what I normally do: yes

I meet other people: yes

I have the desire to help: yes

I want to spend my time usefully: yes

I enjoy the job: yes

I want to earn money with this activity: yes

other reasons: yes

---

**Question 29: How important is the money you earn with the job for you?**

I need it necessarily to make a living

I do not need it necessarily, I fulfil special wishes for myself

The money is not so important to me

**Question 30: What is the average monthly net income from the job with the longest weekly working hours?**

- One to 100 Euro
  - 101 to 200 Euro
  - 201 to 300 Euro
  - 301 to 400 Euro
  - 401 to 800 Euro
  - 801 to 1.000 Euro
  - 1.001 to 1.500 Euro
  - 1.501 to 3.000 Euro
  - 3.001 Euro and more
- 

**Question 31: How much longer do you want to do this job?**

- I am going to finish it soon
  - I want to pursue it only for a limited time
  - I do not want to give it up in the foreseeable future
  - I do not know (yet)
- 

**Question 32: Regardless of this job: Would you like to work more than before?**

- Yes, but I have not found a suitable job
  - Yes, but I cannot because of my personal situation
  - No, I am satisfied with how it is
- 

**Question 33: For what reason(s) do you not want to or are you unable to work more than before? (multiple answers possible)**

- I care for my children / care-dependent relatives: yes
  - I have other family / domestic responsibilities: yes
  - For health reasons: yes
  - I am in training: yes
  - I would have to pay too high taxes and duties otherwise: yes
  - My social welfare benefits / child support would be reduced otherwise: yes
  - I want to have time for other things: yes
  - I can no longer work for other reasons: yes
  - I want to work for other reasons no longer: yes
- 

**Question 34: Is this job your first job or have you done any other paid work / another side job before this job?**

- Yes, it is my first job
- No, I have done another job before

**Question 35: When did your last job finish? (year)**

Months (two digits)

Year (four digits)

---

**Question 36a: For what reason did your previous job terminate?**

Resignation

Dismissal

Retirement

Expiry of a fixed-term contract

Bankruptcy / insolvency / restructuring of the company

Beginning of studies / training / new professional orientation

Parental leave / maternity leave

Relocation

For health reasons

Private reasons

Other reasons

---

**Question 36b: For what reasons did you quit your previous job? (multiple answers possible)**

For family reasons: yes

For health reasons: yes

For seasonal reasons: yes

Because of general dissatisfaction: yes

Because of better working conditions: yes

Because of higher wages: yes

Beginning of studies / training / new professional orientation: yes

Parental leave / maternity leave: yes

Relocation: yes

Retirement: yes

Other reasons: yes

---

**Question 37: Have you ever previously exercised a paid job / a side job?**

Yes

No, never before

don't know / n.a.

---

**Question 38: When did your last job end? (month)**

1 – 12 months ago

more than 1 – 2 years ago

more than 2 – 4 years ago

Question 38: When did your last job end? (month)

more than 4-8 years ago

more than 8-12 years ago

more than 12 years ago

---

**Question 38: When did your last job end? (year)**

Months (two digits)

Year (four digits)

MISSINGS

---

**Question 39a: For what reason did your previous job terminate?**

Resignation

Dismissal

Retirement

Expiry of a fixed-term contract

Bankruptcy / insolvency / restructuring of the company

Beginning of studies / training / new professional orientation

Parental leave / maternity leave

Relocation

For health reasons

Private reasons

Other reasons

---

**Question 39b: For what reasons did you quit your previous job? (multiple answers possible)**

For family reasons: yes

For health reasons: yes

For seasonal reasons: yes

Because of general dissatisfaction: yes

Because of better working conditions: yes

Because of higher wages: yes

Beginning of studies / training / new professional orientation: yes

Parental leave / maternity leave: yes

Relocation: yes

Retirement: yes

Other reasons: yes

**Question 40: How many persons live in your household, yourself included?**

One persons

More than one person (please enter number of persons)

---

**Question 41: Which of the following groups of people lives in your household?  
(multiple answers possible)**

Partner or spouse respectively: yes

Parents or one parent: yes

Persons under 27 years (including yourself): yes

none of them: yes

---

**Question 42: How many persons under 27 years live in your household, including yourself?**

Enter number of persons

No Person below 27 years in the household

---

**Question 43: How many persons of those are under 18 years, yourself included?**

Enter number of persons

No Person below 18 years in the household

---

**Question 44: How many persons in your household pursue a paid job, including yourself?**

No person

One person

More than one person (enter number of persons)

---

**Question 45: Is at least one member of your household self-employed or freelancer?**

Yes

No

---

**Question 46: What is your household's main source of livelihood?**

My own employment

Income of other household members

Support by persons not living in the household

Own old-age pension

Own unemployment benefits, social assistance

Own capital / own savings

Other support (e.g. provisions by the Federal Law on Support for Education and Training, scholarship, parental leave)

---

**Do you agree to the complementation of the survey data with further information which is already present in the statistics of the FEA?**

Yes

No