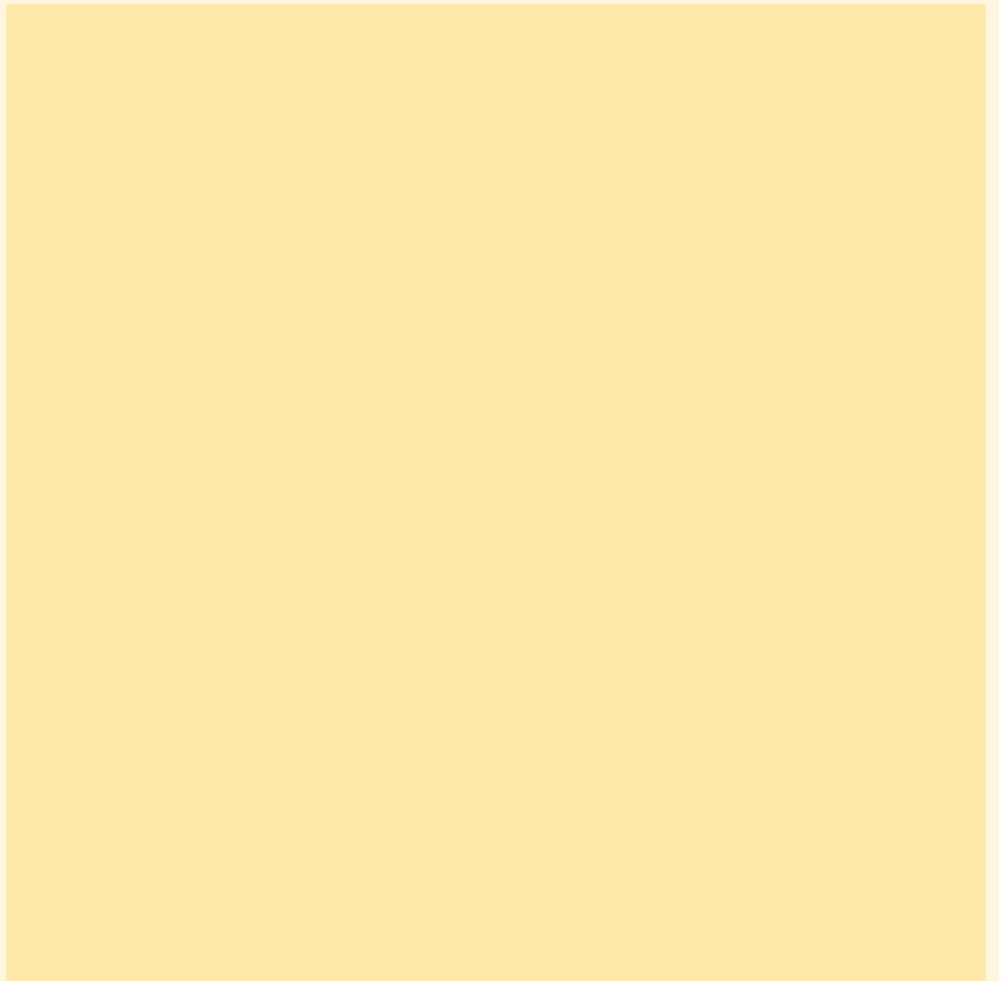




# Employment status and working conditions



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European Foundation for the Improvement of Living and Working Conditions

# Employment status and working conditions

Anneke Goudswaard and Frank Andries

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# Foreword

During the 1990s an increasing number of employees were engaged in non-permanent contract work in the European Union. The driving forces of the growth of non-permanent contracts can, to a large extent, be explained by an active labour market policy where job creation was the focus, and this type of employment provided a way of meeting the increased demand from employers for flexible work arrangements. This trend has had significant consequences for the employees involved. Many of the new jobs have been called 'precarious', as a number of studies have shown that people in non-permanent or temporary contract agency work are exposed to worse working conditions than people in permanent employment contracts.

To monitor the development of working conditions in Europe, the European Foundation for the Improvement of Living and Working Conditions carried out a third European survey on working conditions in 2000 (previous surveys were carried out in 1991 and 1996). The questionnaire addressed issues related to the physical, organisational and social work environments, as well as covering the effects of working conditions on health.

This report, based on the findings from the third survey, gives an overview of the situation regarding precarious employment (non-permanent employment contracts and part-time work) in the European Union in 2000, and highlights the impact that the different types of employment (permanent, non-permanent and self-employed) has on working conditions. The report will also compare the results from the previous survey (1996) which allow trends in these issues to be noted and monitored.

Raymond-Pierre Bodin  
Director

Eric Verborgh  
Deputy Director



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# Analytical framework, research questions and method

1

## Aim of the research

The Foundation has now for the third time carried out its European survey on working conditions. Based on the results of the Second survey on 'employment status' the Foundation has found a dividing variable in the field of working conditions and health. The working conditions, in particular the physical constraints and the conditions of employment, of precarious workers are worse than those of permanent workers: more work in painful positions, more exposure to noise, more repetitive tasks and movements and less skills development, less access to training, less autonomy over their work and time, and less access to participation (Letourneux, 1998). As a result of this, more musculoskeletal problems and fatigue are found among precarious workers. Workers with a permanent contract, on the other hand, are more exposed to high speed work and show more stress and mental health problems (Letourneux, 1998). Letourneux concludes that although poorer working conditions are largely explained by the profiles of the jobs concerned, the precarious status worsens the work situation. Benach and Benavides (1999) also find a relationship between employment status and health related outcomes, after the adjustment by working conditions. They find the same relationship as Letourneux: workers with a permanent contract are more likely to report stress, but less fatigue, backache and muscular pains. Both studies reported a higher absenteeism among permanent employees. These authors will repeat their analysis on health outcomes of precarious employment on the basis of the Third survey (Benach and Benavides, 2001). As the analysis of the second European survey shows, not only the physical and psycho-social conditions of work are divergent among different employment contracts, there are also differences in access to training, skills development and workers participation.

With regard to changing work organisations and employment relations in Europe, it is important to monitor developments, and at the same time to get more in-depth information into the relationship between employment status and working conditions. The data of the European survey provides the first criterion (see Letourneux, 1998 and Benach and Benavides, 1999). The Foundation has undertaken a qualitative and comparative (case study) research project in seven European countries, to provide more insight into what has been called 'local complexity' (Goudswaard and de Nanteuil, 2000). In this case study, research on 'flexible employment policies and working conditions', an analytical distinction was made between the concept of 'conditions of work', describing the practical conditions under which people work and cope with a specific technical and organisational environment, and the concept of 'conditions of employment', describing the rules and status under which people are employed, trained and paid (Goudswaard and de Nanteuil, 2000). Based on this conceptual distinction and the description in the case studies, three 'scenarios' became visible in the relationship between flexibility and working conditions (cited from Goudswaard, 2001):

In the first case, exposure to risk is shifted to the external, flexible workers or subcontractors. Those are the people who do the dirtiest, the most dangerous and the most monotonous jobs under relatively poor ergonomic conditions. They are not as well protected as permanent employees since they often fall outside the jurisdiction of committees that monitor working conditions or labour unions. This is not always necessarily intentional; sometimes they are simply not around long or often enough to participate in safety training or employment negotiations. It is worth noting that

this applies not only to unskilled workers but also to highly trained ones, such as those in the chemical industry who perform machine maintenance.

In the second, more common scenario, there is no difference in actual working conditions, but a gap does develop between permanent and non-permanent workers, or full-timers and part-timers, in terms of job security, access to training, career prospects and remuneration. The flexible workers get assigned the least favourable work times and have little opportunity to improve themselves. The research points out that gender segmentation also comes into play here. Women adopt flexible working time much more frequently than men. They therefore take the full brunt of the unfavourable aspects of increased flexibility.

In the third scenario, a company's own, permanent employees are functional and flexible. This is generally considered a very positive development. Internal flexibility can result in a diversification of duties and self-enrichment, which helps prevent monotony. In practice, however, it has a number of drawbacks because it is accompanied by greater demands, more uncertainty about performance expectations and a need for extra training. That puts people under pressure, thus partially obfuscating the positive effects. The picture is also complicated by another factor: the increasing pace of work in the European Union. Another negative aspect of increased internal flexibility is that for people who are unqualified to participate in broader tasking, job monotony actually increases.

In this report the data of the Third European survey will be analysed in order to find out what evidence can be found of the three scenarios mentioned above and what trends can be found. The analyses in this report will provide quantified information on the current situation regarding employment status and working conditions and the trends between 1996 and 2000 (the Second and Third European surveys).

### Research questions

The central research question is:

*What is the extent of precarious employment (non-permanent employment contracts and part-time work) in the European Union in 2000 and what is the impact of employment status on working conditions?*

This research question is twofold. In the first place there is the question of the occurrence of the different employment contracts (including part-time employment) and the trends between 1996 and 2000. Given the trend towards increasing flexibility, we would expect the amount of non-permanent employment contracts to have increased. This does not necessarily mean, however, that the working conditions of those concerned have deteriorated. Activities of social partners and companies in the field of occupational safety and health (OSH) prevention and national protective measures in the field of precarious employment could have an impact on the relationship between employment status and working conditions. Therefore it is interesting to answer the question of the impact of employment status on working conditions on the basis of the Third European survey, as has been done on the basis of the Second survey.

The central question will be investigated with the following more detailed questions:

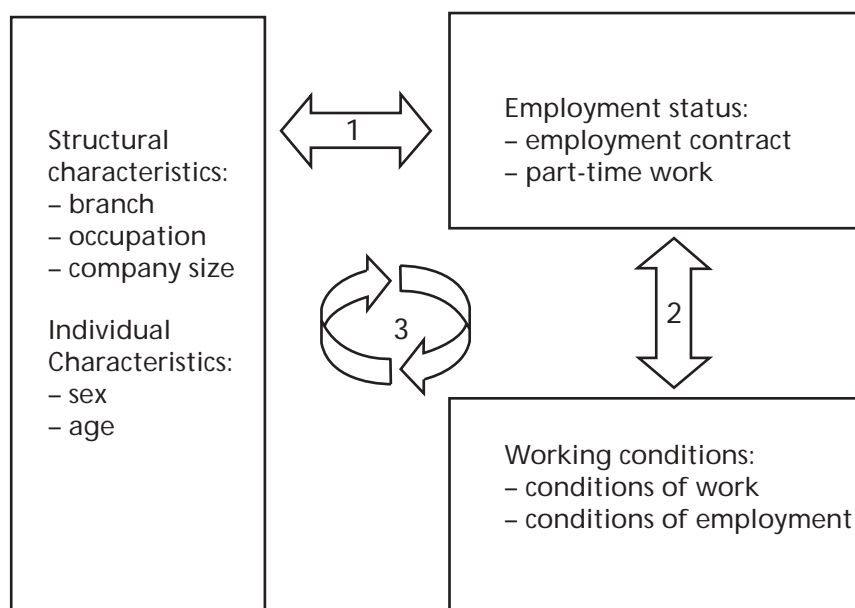
1. What is the current extent of the different employment contracts?
  - What differences can be found between countries, sectors, occupation and company size?
  - What categories of employees are concerned (sex and age)?
  - What are the trends between 1996 and 2000?
2. What is the relationship between employment status and working conditions?
  - Does a non-permanent employment status (still) lead to poorer conditions of work, in terms of musculoskeletal job demands and physical and/or chemical exposure?
  - Does a non-permanent employment status (still) lead to poorer conditions of employment, in terms of flexible working time, access to training, skills development and participation?
  - What is the relationship between employment status and psycho-social job demands?
  - What are the differences from the situation in 1996?

## Analytical framework

This report will in the first place provide information about the extent of the different employment statuses. The central research question speaks of precarious employment. In our more detailed questions and in our analytical framework, we will no longer use this term. The term precariousness can be used for too many different situations and can refer to either employment status or work situation. We will use the concept *employment status*, which consists of two dimensions: the type of employment contract (permanent, non-permanent or self-employed) and the duration of the contract (part-time versus full-time). As we will see there is a relationship between both dimensions, with more part-time work in non-permanent contracts. In some situations, the combination of both a non-permanent contract and a part-time contract may lead to a cumulative worse situation as regards working conditions. But in other situations, the two dimensions may travel in an opposite direction.

The other central concept of this study is *working conditions*. As we have learned from the previous case study research, this concept also consists of two dimensions: conditions of work and conditions of employment. Both conditions may be worse in some situations, but more often this will not be the case. In this report we will analyse the different aspects of the conditions of work and the different aspects of the conditions of employment. The third scenario, described above, will be described as intensification of work. For this scenario we will look at job demands and job control. Also, in the second scenario the control side of working conditions will be an important feature. One of the conclusions from previous research seems to be that one of the risks of flexibilisation is the lack of control of flexible workers over their environment (Goudswaard and de Nanteuil, 2000).

Employment status is not the only variable that may lead to bad working conditions, and will not always lead to bad working conditions. The structural characteristics of the job, and even some individual characteristics, will also be important in explaining working conditions. Therefore, we will use the following framework in our analyses. First, we will describe the extent of the different employment statuses and its characteristics (1). Then, we will describe the relationship between employment status and working conditions (2). Finally, we will look at the question if this relationship is due to the employment status or to the more structural and individual characteristics (3).



## Research methods

### The Third European survey on working conditions

The Third European survey on working conditions was carried out in 2000. The previous two surveys were held in 1991 and 1996. The Third Survey includes all 15 member states of the EU: Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden, and the United Kingdom. In each country (except for Luxembourg where only 500 people were questioned) about 1,500 people were questioned. This brings the total of the sample to 21,703 people. Included are employees, self-employed without personnel and the self-employed with less than 10 employees (the micro firms or small employers). The questionnaire contains a variety of questions on working conditions and health. Many of the questions in 2000 were identical to those asked in 1996, but some questions were new. In order to describe trends, we have used most questions that were similar, but we did include new information when this provided new insights into our topic. The table in the Appendix shows which items of the questionnaire we have used in this report. There are some weights available in the data, but these are not without their shortcomings. We have only used non-weighted data for this report, since we are mainly concerned with comparisons between groups or between the two surveys (1996 and 2000).

### Concepts used in the survey: employment status

In the survey several indicators can be found to indicate employment status. The main indicators are employment contract and duration of time. These two dimensions of employment status relate to each other, as can be illustrated in table 1.

As the table shows, we have three categories of employees in the sample: permanent, fixed term contracts and temporary agency contracts. The first category includes all employees with an open-ended contract, which we will call 'permanent contract', although this may not always be as permanent as the word suggests. We however, cannot describe labour law in all EU countries or

make any distinction between rules in different countries. Temporary agency contracts relate to those employed through a temporary employment agency. Fixed term contracts are contracts for a specific amount of time between the company and the employee, which can be seasonal, for a few months, but also for a few years. There are too little temporary agency workers in the sample to give an overview of this type of employment status in all countries, sectors or occupations. Therefore we will combine the fixed term contracts and the temporary agency contracts into the category 'non-permanent contract', as opposed to the 'permanent contract'. Apart from these two groups of employees we will also look at the self-employed without personnel and the self-employed with personnel. In practice, and in some countries probably more than in others, the distinction between employees and self-employed may be slight.

**Table 1 Employment contract and duration of time in EU countries (2000) (%)**

	>10 hrs	10-20 hrs	20-35 hrs	>35 hrs	Total EU
Self-employed without personnel	1.8	3.5	21.2	73.5	1784
Permanent	1.4	4.5	21.3	72.8	14228
Fixed term contracts	3.0	8.6	28.4	60.0	1749
Temporary agency contracts	4.7	11.7	29.7	53.9	343
Total EU	1.6	4.9	22.0	71.4	100%
	(300)	(897)	(4.005)	(12902)	18.104

In order to be able to compare our results with the work done previously by Letourneux (1998) and by Benach and Benavides (1999 and 2001), we will further exclude workers working less than 10 hrs, for being too marginal, and we will make the distinction between part-time and full-time work at 35 hours a week.

Combining the two dimensions of employment status, we will use the following categories:

- permanent full-time contracts (>35 hrs);
- permanent part-time contracts (10-35 hrs);
- non-permanent full-time contracts (fixed term and temporary agency contracts, >35 hrs);
- non-permanent part-time contracts (fixed term and temporary agency contracts, 10-35 hrs);
- self-employed (without personnel) full-time (>35 hrs);
- self-employed (without personnel) part-time (10-35 hrs).

The survey also contains information about small employers (employing less than 10 people). We will only include this group in the first chapter, when we look at the distribution of the different groups over countries, sectors and branches. In the next chapters we will no longer focus on employers, but only on the employees and self-employed (without personnel).

If we look at the different types of employment status for employees and self-employed, we can compare the data with the data of the 1996 survey (see table 2). The majority of the employees in the sample are still employed through a permanent full-time contract, but there has been a slight decrease from 62% in 1996 to 58% in 2000. There has also been a slight decrease in the percentage of non-permanent full-time workers: from 9% to 7%. The percentage of non-permanent part-time contracts has been stable. An increase can be found in the percentage of permanent part-time employed workers from 15% to 21%.

Table 2 Employment status in 1996 and 2000

	1996 n=	%	2000 n	%
Permanent >35 hpw	8.388	61.8	10.357	58.1
Permanent 10-35 hpw	2.081	15.3	3.672	20.6
Non-permanent >35 hpw	1.278	9.4	1.234	6.9
Non-permanent 10-35 hpw	605	4.5	789	4.4
Self-employed (without personnel) >35 hpw	1.008	7.4	1.332	7.5
Self-employed (without personnel) 10-35 hpw	219	1.6	443	2.5
Total	13.579	100.0	17827	100.0

### Concepts used in the survey: working conditions

As we have described in the first section of chapter 2, we are looking for empirical evidence of the three scenarios in the relationship between employment status and working conditions that came out of previous case study research (Goudswaard and de Nanteuil, 2000). In the first scenario the *conditions of work* play a central role: the practical conditions under which people work and cope with a specific technical and organisational environment. In this report we will investigate the following aspects of the conditions of work (see the Appendix for more precise information on the different concepts):

- physical and/or chemical exposure or ambient conditions, such as vibrations, noise, temperature, toxic vapours, hazardous products and radiations;
- information on risks resulting from the use of materials, instruments or products;
- musculoskeletal job demands or ergonomical conditions, such as painful or tiring positions, handling heavy loads and repetitive movements;
- emotional job demands or discrimination, linked to age or sex.

In the second scenario the *conditions of employment* play a central role, referring to the rules and status under which people are employed, trained and/or paid. In this report we will investigate the following aspects of the conditions of employment:

- working time flexibility, including work at night, in the evening, in the weekends, shift work, working more than 10 hours a day, and the satisfaction with the duration of the contract (does one want to work more or less hours);
- control over working time, including the ability to take a break when wanted and to decide to take holidays or days of leave;
- type of payment, basic fixed salary or not;
- different indicators for skills development, such as task flexibility, level of skill demands (too high or too low) and access to training;
- social support from colleagues and bosses, and consultation.

The third scenario mainly involves the consequences of *intensification of work*, which (contrary to the previous scenarios) is believed to have a greater impact on the permanent employees than on the non-permanent employees. In order to analyse the third scenario, we will focus on the following aspects of the working conditions:

- psycho-social job demands, such as working to tight deadlines and at high speed;
- job control, that is control over the order of tasks, the method of work and the speed of work.

#### **Concepts used in the survey: individual and structural characteristics**

As we have said with regard to our analytical framework, employment status is not the only variable that may lead to bad working conditions. The structural characteristics of the job, and also some individual characteristics, will also be important in explaining working conditions.

In this report we will look at both the structural and individual characteristics of employment status (Chapter 3) and at the question: if the relationship between employment status and working conditions may be (partly) due to some structural and/or individual characteristics (Chapter 5)? We will look at the following structural characteristics:

- country;
- sector;
- size of enterprise;
- occupation.

We will look at sex and age as two individual characteristics.

#### **Type of analysis and construction of the report**

In order to answer the first part of the research question that is the extent of 'precarious' employment in the European Union, we will present the following analyses:

- a comparison of the occurrence of different employment contracts between the survey of 1996 and 2000;
- description of the occurrence of different employment contracts in different EU countries;
- description of the occurrence of different employment contracts for branch, company size and occupation;
- description of the occurrence of different employment contracts for different groups of employees (sex, age).

In order to answer the second part of the research question, that is, the impact of employment status on working conditions, we will present the following analyses:

- bivariate analysis of the relationship between employment status and conditions of work;
- bivariate analysis of the relationship between employment status and conditions of employment;
- bivariate analysis of the relationship between employment status and intensification of work;
- multivariate analyses on the impact of having a non-permanent contract, a part-time contract and being self-employed on working conditions, taking into account the structural and individual characteristics.





# Structural analysis of the different types of employment status

In this chapter the different types of employment status are described. In the first section we will describe trends in the different types of employment status between the 1996 survey and the 2000 survey in the whole of the EU. In the second section we will describe the occurrence of the different types of employment status in the different EU countries and trends in the different countries. After that we will describe the structural characteristics of the different types of employment status and the individual characteristics of workers with the different employment statuses.

## Trends in employment status

The issue of employment status has come to the forefront in several European countries, but also in other parts of the world. In many countries there has been a decrease in the proportion of full-time permanent contracts. The Organisation for Economic Cooperation and Development (OECD) has spent the last few years discussing several aspects of employment status in their annual Employment Outlook.

In 1997 the OECD Employment Outlook analysed the question: whether job insecurity has increased? They concluded that there is a widespread, and in some countries very sharp increase, in the number of individuals perceiving employment insecurity between the 1980s and the 1990s (OECD, 1997). The OECD also found that although retention rates for certain groups have fallen (blue-collar workers and less educated workers), overall jobs seem to be as stable as in the 1980s. The authors explained this paradox by the possible rising risk of joblessness for the employed, lower earnings in the new positions, and difficulties to find a satisfactory new match. Also, labour market institutions are important for the feeling of job insecurity. Perceived job insecurity is lower when unemployment benefit replacement rate is higher and when there is a higher level of collective bargaining coverage and more centralised collective bargaining. These workers feel more protected. In this report we will not look at job insecurity as such, but we will look at the trend in non-permanent employment status in the last five years. The OECD Employment Outlook 1998 has a chapter on trends in working hours. This concludes that the long-term trend decline in average annual hours has slowed and in some countries seems to have stopped; there has been a growing diversity in hours worked by employees; part-time working has increased strongly in the majority of the countries (OECD, 1998). In this report we will look at part-time employment as a dimension of employment status. We will discuss other aspects of working hours as dimensions of working conditions.

The Employment Outlook 2000 devotes a chapter to self-employment and states that self-employment in the 1990s grew faster than civilian-employment as a whole in most OECD countries, in contrast with the 1970s, when the share of self-employment tended to fall (OECD, 2000). At the same time the proportion of self-employed with employees stabilised during the 1990s. The OECD states that the distinction between self-employment and wage employment may have weakened (franchising, self-employed that work only for one company). The article raises the issue of so-called 'false' self-employment. This is one of the reasons that we will also look at the self-employed without employees in our report, although we will not look at the issue of 'false' self-employment. The article also discussed the working conditions of the self-employed. On average the working conditions of the self-employed seem to be less favourable than those of employees doing similar work. They report less training, but higher job satisfaction (OECD, 2000). Here we find a second reason to include the self-employed in our report.

Figure 1 Employment status in 1996 and 2000 (all workers, excluding small employers)

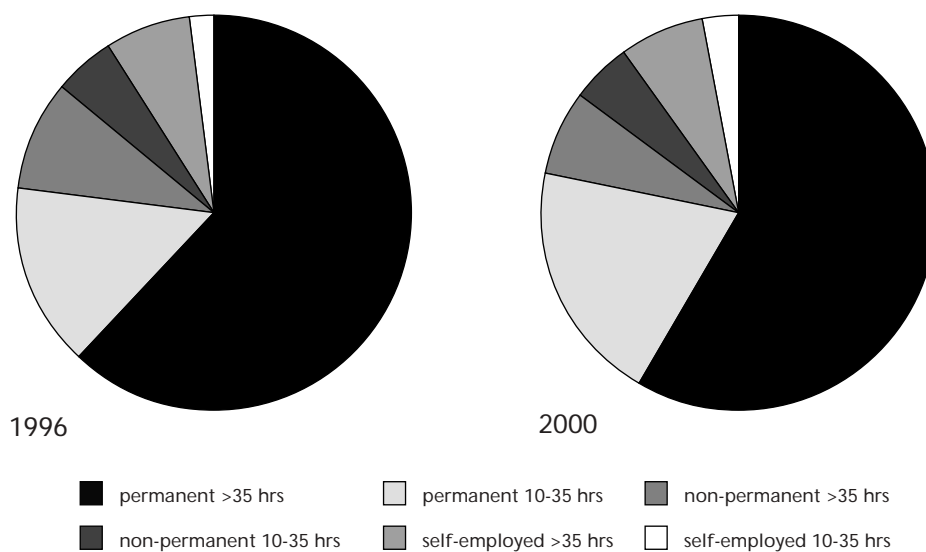
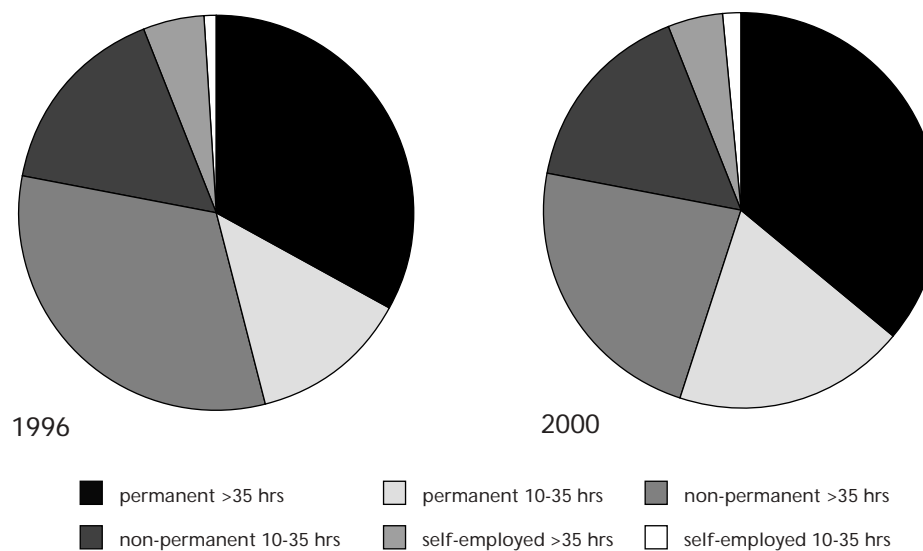


Figure 2 Employment status in 1996 and 2000 (less than one year in the job)



The European survey on working conditions gives information on the employment status of workers (see also table 2 in the previous chapter). When we compare the figures of 1996 and 2000 we can conclude that there has not been a major shift in the last five years (figure 2). The majority of workers are still employed in a permanent (or open-ended) contract (more than three-quarters of all workers). However, the percentage of non-permanent contracts has not increased. Instead, the share of non-permanent contracts has decreased from 14% to 11% of all workers, as it seems for the benefit of the part-time permanent contracts. The percentage of part-time employees with a

permanent contract has increased from 15% to 21%. The percentage of self-employed without personnel has slowly increased from 9% to 11% of all workers.

Since we know that an important part of the non-permanent contracts are filled by newcomers in jobs, we have also looked at the trends for people who are in their first year. If we look at these newcomers (figure 2), we usually see that more of these workers start with a non-permanent job and less with a permanent job or as self-employed without personnel. But also here, we see this shift from non-permanent contracts towards more open ended or permanent part-time contracts. The consequence of this shift is that now the permanent jobs make up a majority of the newcomers jobs in 2000 (>50%), as was not the case in 1996. The increase of the share of part-time permanent employment is the most obvious, but the percentage of permanent full-time jobs has also increased among these newcomers.

### Different types of employment status in EU countries

There are large differences in employment status between the European countries. Table 3 shows the percentages including the small employers in each country. On average the percentage of small employers is about 5% and the percentage of self-employed without personnel 9%. We see the highest percentage of self-employed without personnel (38%) and micro firms (12%) in Greece. The lowest percentage of small employers (2%) and self-employed without personnel (2%) can be found in the Netherlands.

**Table 3 Different types of employment status in the EU countries (2000) (total population; column %)**

	B	DK	D	EL	I	E	F	IRL	L	NL	FIN	P	A	S	UK	EU
Small employers (micro firms)	4.6	3.6	6.7	11.9	7.5	7.8	4.3	7.1	4.0	2.2	3.6	5.8	5.6	3.4	4.2	5.4
Self-employed without personnel																
>35 hrs	7.8	2.4	3.5	20.1	12.0	13.6	6.4	8.7	3.0	1.3	4.8	10.2	3.2	3.6	5.1	7.0
10-35 hrs	1.7	0.5	1.1	17.7	3.1	2.2	1.2	1.5	0.2	0.7	1.1	2.5	0.7	1.8	2.1	2.3
Total self-employed without personnel	9.5	2.9	4.6	37.8	15.1	15.8	7.6	10.2	3.2	2.0	5.9	12.7	3.9	5.4	7.2	9.3
Permanent employed																
>35 hrs	55.3	65.4	60.7	29.5	57.2	44.9	46.6	53.2	69.1	47.9	63.8	54.0	64.0	62.8	53.4	55.0
10-35 hrs	22.6	20.0	19.8	13.8	12.3	9.4	29.3	18.8	18.2	35.4	11.2	13.7	20.0	18.6	24.8	19.5
Total permanent employed	77.9	85.4	80.5	43.3	69.5	54.3	75.9	72.0	87.2	83.3	75.0	67.7	84.0	81.4	78.2	74.5
Non-permanent employed																
>35 hrs	4.1	5.2	5.4	3.9	3.8	15.8	5.7	5.4	3.8	5.8	11.1	9.6	4.5	5.8	6.3	6.6
10-35 hrs	3.8	2.0	2.9	3.2	4.1	6.3	6.5	5.2	1.7	6.8	4.4	4.2	2.0	3.9	4.1	4.2
Total non-permanent employed	7.9	7.2	8.3	7.1	7.9	22.1	12.2	10.6	5.5	12.6	15.5	13.8	6.5	9.7	10.4	10.8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

The highest percentage of non-permanent employees (22%) can be observed in Spain. All other countries have between 5% and 15% of non-permanent employees. The average percentage of permanent contracts is 74%. The highest percentages of permanent employees (over 80%) can be

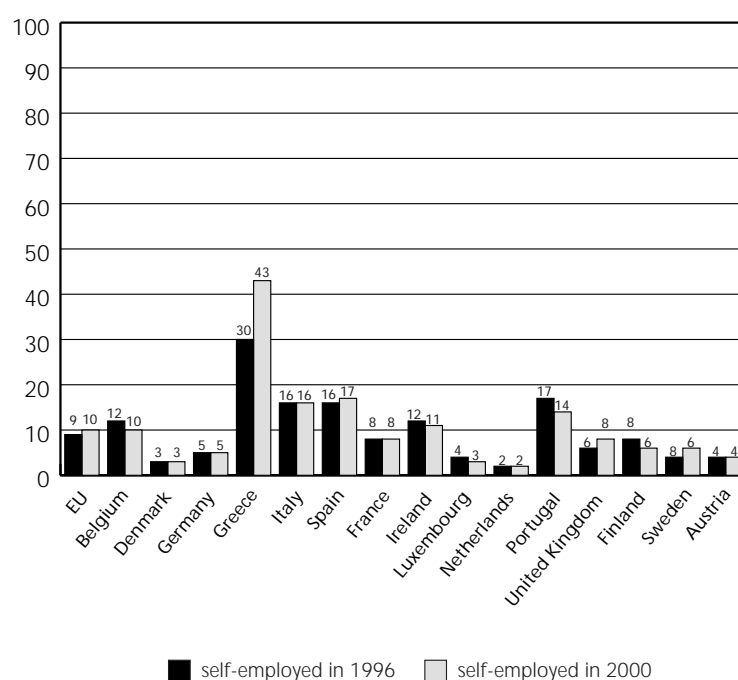
found in: Luxembourg, Denmark, Austria, the Netherlands, Sweden and Germany. The lowest percentages of permanent employees can be found in Greece (43%) and Spain (54%).

### Trends in employment status in Europe between 1996 and 2000

As we have seen for the whole of the EU, there has been a slight shift towards more part-time permanent employment and less non-permanent contracts. In this section, we will look at trends in employment status between 1996 and 2000 for the different EU countries. We will first look at the percentages of all self-employed versus all employees (excluding small employers). Then we will look at the percentages of non-permanent contracts and part-time contracts among the employees (excluding small employers and self-employed without personnel).

The total percentage of self-employed without personnel that we found in 2000 (9.9%) is slightly more than the percentage in 1996 (9.4%). This means a very slight increase in the share of self-employed without personnel in the EU. Figure 3 shows that in most countries there has also not been a major shift in the percentage of self-employed without personnel (increases or decreases of no more than 2%). This does not include Greece, where the percentage of self-employed has increased from 30% in 1996 towards 43% in 2000.

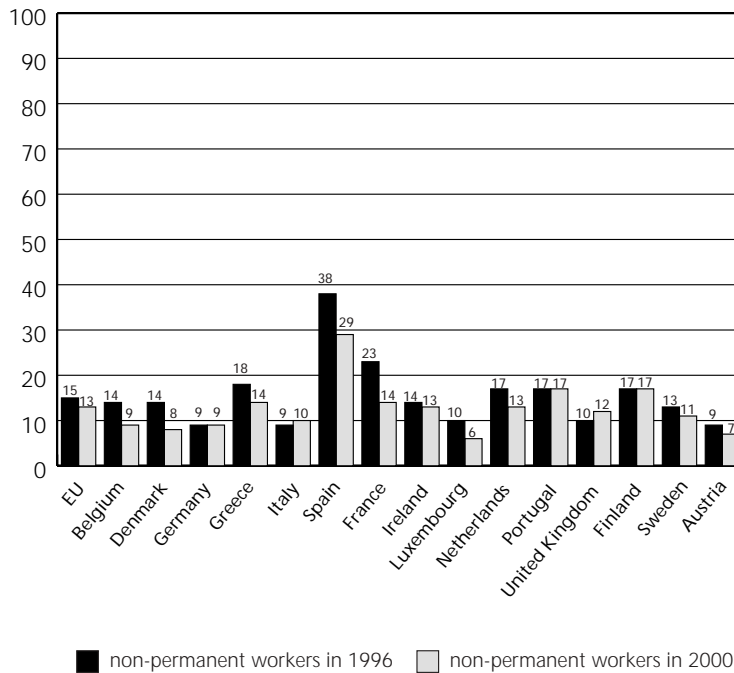
Figure 3 Percentage of self-employed without personnel in total population (excluding small employers)



We have searched for a comparison of this data with other sources, which appeared to be very difficult. The OECD gives either figures of change in the proportion of self-employment, or figures excluding agricultural employment (OECD, 2000). Also, different concepts are used for the self-employed. Eurostat does not give percentages of self-employed versus employees, but gives figures within the group of self-employed, such as the division of the self-employed between sectors (Eurostat, 1999).

As we have seen in the first section of this chapter, the total percentage of non-permanent employed has decreased. If we only look at the share of non-permanent contracts among employees (figure 4), we see a decrease from 15% to 13%. This decrease can be observed in almost all EU countries, except for the UK (increase of 2%), Italy (increase of 1%), Germany, Portugal and Finland (stable). The decrease is the largest in Spain, still the country with the highest share of non-permanent contracts.

Figure 4 Percentage of non-permanent contracts among employees

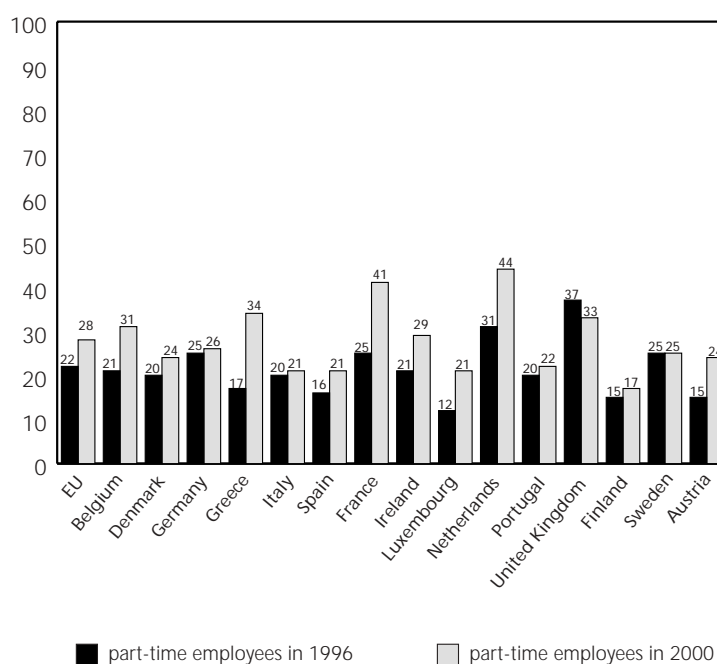


We have found comparable data from the Labour Force survey (Eurostat, 1999). When we compare the percentage of non-permanent employees in 2000 in the European survey on working conditions with the 1999 data of the Labour Force survey, we find that also in the Eurostat data the highest percentages of non-permanent contracts are found in Spain (44%) followed by Finland (21%) and Portugal (20%). The lowest percentage of non-permanent contracts are found in Luxembourg (4%). Based on this finding, we can conclude that the data is comparable. The outcomes for the other countries are a bit diverse (see Appendix 2).

In figure 5, we can see that the total share of part-time employees among all employees has increased from 22% to 28%. This increase can be observed in almost all countries, except for the United Kingdom (decrease of 4%) and Sweden (stable). The highest percentages of part-time employees can be found in; the Netherlands (44%), followed by France (41%), Greece (34%) and the United Kingdom (33%).

We have searched for comparable data and found some information in the OECD employment outlook 1999 (part-time employment <30 hrs a week) and in the Eurostat Labour Force survey 1999 (part-time as spontaneous answer) (see Appendix 2). It seems quite difficult to compare the different statistics, because of the different concepts used. We did find the highest percentages of part-time employment in all data to be reported in the Netherlands.

Figure 5 Percentage of part-time employees versus full-time employees



### The structural characteristics of employment status

After having looked at the differences between countries, we will now continue by looking at the different structural characteristics, such as company size, sector and occupation.

As we see in table 4, non-permanent contracts are more frequent in the smallest companies and so are the part-time permanent contracts. In the larger companies the percentages of permanent full-time contracts are the highest.

There are also clear differences in the share of self-employed between sectors and in the share of non-permanent contracts. The percentage of self-employed (both self-employed without personnel and small employers) is the highest in agriculture (44% self-employed without personnel and 14% small employers), followed by sales (18% self-employed without personnel and 9% small employers) and the hotel/restaurant sector (9% self-employed without personnel and 11.5% small employers). The percentage of self-employed is the lowest in public services (less than 1% in total).

The percentage of non-permanent contracts is the highest in the hotel/restaurant sector (16%), followed by the social sector (14%) and the real estate sector (12%). The percentage of permanent contracts is the highest (over 80%) in transport, manufacture, public utilities, finance and public services.

Table 4 also shows the differences between occupations in the share of self-employed or non-permanent workers. As we may expect, the percentage of self-employed is the highest among agricultural and fishing occupations (52% self-employed without personnel and 14% small employers). The percentage of self-employed is also high among managers (26% self-employed without personnel and 26% small employers). This may seem unexpected, but on the other hand

the self-employed will have to perform more managerial tasks, so they will consider themselves more often to be a manager.

**Table 4 The structural characteristics of employment status (2000) (total population; row %)**

	Employees				Self-employed (without personnel)		Small employers	Number
	Permanent		Non-permanent		>35	10-35		
	>35	10-35	>35	10-35				
<b>Size</b>								
2-9	60.4	24.0	9.5	6.1	-	-	-	6023
10-49	63.9	23.9	7.5	4.8	-	-	-	5611
50-99	68.0	21.1	6.9	4.0	-	-	-	2009
100-499	67.8	22.1	6.5	3.6	-	-	-	2998
500 and more	71.0	19.9	6.5	2.6	-	-	-	1982
<b>Sector</b>								
agricultural	29.5	5.0	5.3	2.1	30.4	13.9	13.7	824
manufacture	70.5	12.5	6.5	1.7	3.2	1.1	4.6	3675
public utilities	75.0	9.8	7.9	1.8	3.0	-	2.4	187
construction	65.0	4.7	10.4	0.9	8.4	1.4	9.1	1507
sale	45.6	18.6	4.7	4.0	14.7	3.5	8.9	3759
hotel/restaurant	42.7	20.7	9.6	6.6	7.7	1.3	11.5	1021
transport	71.0	12.4	5.7	2.2	5.1	0.9	2.7	1454
finance	63.9	19.6	3.3	2.8	3.3	1.3	5.7	748
real estate	54.5	16.1	7.2	5.0	8.1	2.5	6.6	1464
public services	65.6	23.0	6.7	3.8	0.3	0.1	0.5	1457
social sector	43.5	32.8	6.8	7.5	3.9	2.7	2.6	5481
<b>Occupation</b>								
managers	40.2	4.9	1.9	0.5	21.5	4.9	26.1	1504
professionals	47.9	27.7	5.5	6.2	5.2	2.7	4.7	2159
technicians	55.9	22.0	6.0	4.4	5.7	1.8	4.3	2737
clerks	58.9	25.4	6.4	4.6	2.9	0.5	1.2	2892
service/sales	48.1	28.3	6.9	6.4	4.9	2.1	3.3	3011
agriculture/fishing	24.8	2.4	5.4	1.3	35.7	15.9	14.4	459
Craft/trade workers	67.6	6.7	7.9	1.5	8.4	2.0	6.0	2801
operators	73.8	11.8	7.3	2.0	2.8	0.8	1.5	1482
elementary professions	52.1	25.0	9.5	7.2	2.7	2.4	1.1	1687
armed forces	59.6	17.0	20.2	2.1	1.1	-	-	94
Total EU	55.0	19.5	6.6	4.2	7.0	2.3	5.4	100%

The percentage of non-permanent contracts are the highest amongst the armed forces (22%) and the elementary professions (17%) and the lowest among the managers (2%). Within the permanent contracts there are large differences between occupations in the percentages of part-time and full-time contracts. The highest percentages of permanent full-time contracts (more than two-thirds of all workers) can be found among operators and craft trade workers. The highest percentages of permanent part-time contracts (more than a quarter of all workers) can be found among service/sales occupations, professionals, clerks and elementary professions. In the following sections we will look at the trends between 1996 and 2000 for the different sectors and occupations.

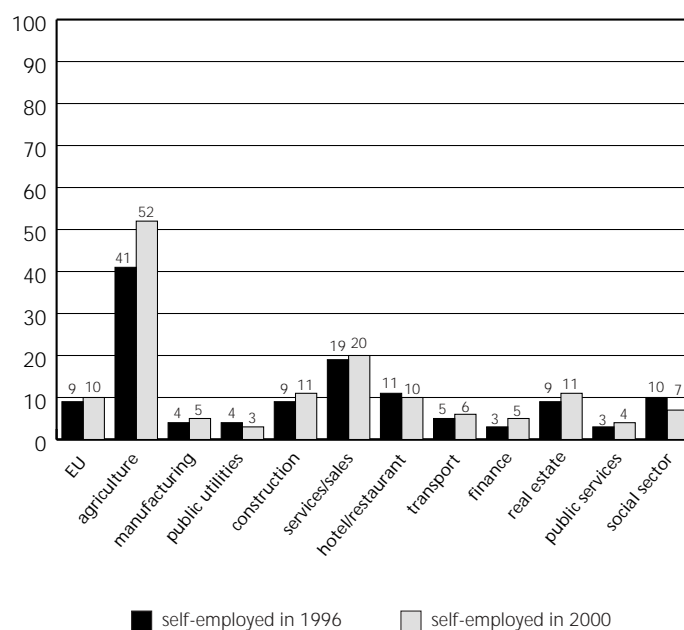


## Trends in structural characteristics of employment status

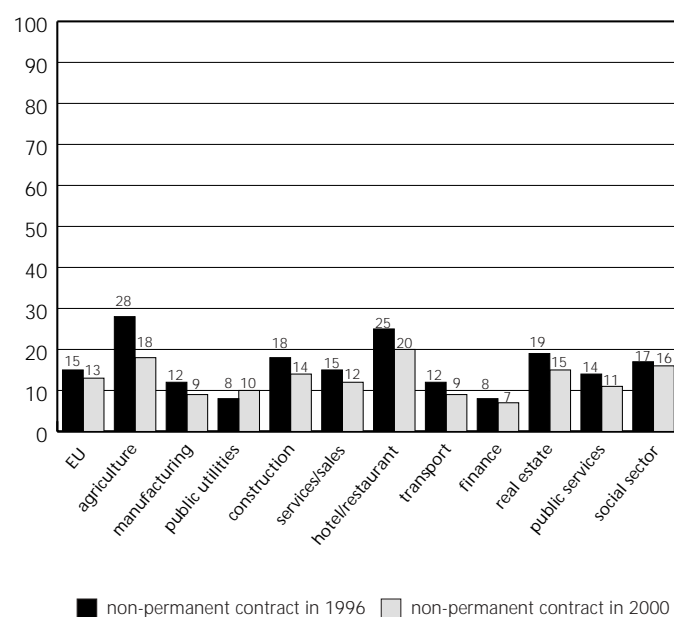
### Trends in sectors

As we have seen before the total percentage of self-employed without personnel only slightly increased with a 1% rise. The change in the share of self-employed without personnel has been only slight for most sectors, apart from agriculture, where there has been an increase from 41% in 1996 to 52% in 2000. In the social sector we can observe a slight decrease of 3%.

**Figure 6** Percentage of self-employed without personnel by sector (excluding small employers)



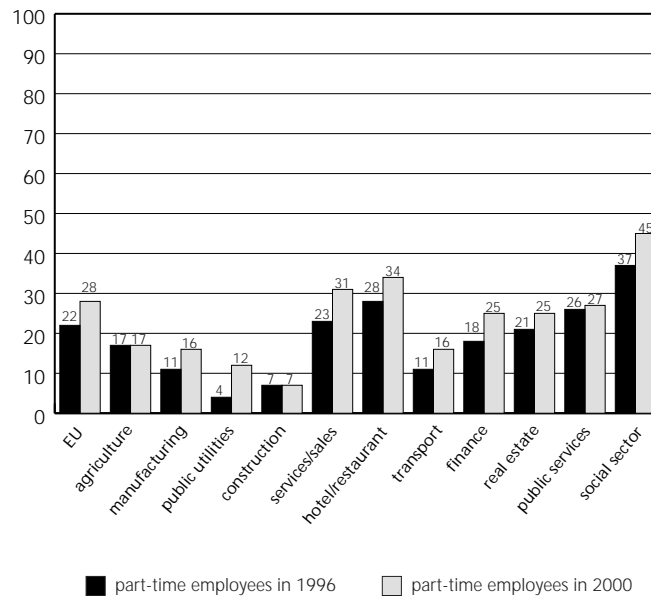
**Figure 7** Percentage of non-permanent contract by sector (total employees)



The percentage of non-permanent contracts among employees has decreased from 15% to 13% (see figure 7). Only in public utilities, the percentage of non-permanent contracts has increased with a 2% rise (10% in 2000). The decrease in non-permanent contracts has been the most obvious in agriculture, where (as we have seen before) the percentage of self-employed has increased.

In the whole of the EU the share of part-time employment has increased. In figure 8, we see the percentages of part-time contracts among employees for the different sectors. The percentage of part-timers among employees is the highest in the social sector, in the hotel and restaurant sector and in sales. There has been an increase of part-time employment among employees in all sectors, but not in agriculture and construction, where the percentage of part-time employees has been stable.

Figure 8 Percentage of part-time employees by sector (total employees)



### Trends in occupations

Figure 9 shows the trends in self-employment for the different occupations. As we can see, there has not been a large shift in the percentages of self-employed without personnel. The increase in the percentage of self-employed without personnel has been the highest for the managerial occupations and the agricultural occupations.

Figure 10 shows the percentage of non-permanent contracts among employees in different occupations. The general decrease in non-permanent contracts among employees can be observed in almost all occupations, except the managers and clerks, where the percentage has been stable. The strongest decrease can be observed in agricultural occupations.

Finally, we can observe the trend in part-time employment in the different occupations (figure 11). Part-time employment is most frequent among professionals, service and sales occupations and elementary professions. An increase in part-time employment among employees can be found among service/sales occupations, clerks, but also among technicians, craft/trade workers, operators, elementary professions and armed forces. A decrease can be observed in agricultural occupations. The percentage of part-time contracts among managers has been stable.

Figure 9 Percentage of self-employed without personnel by occupation (total population, excl. small employers)

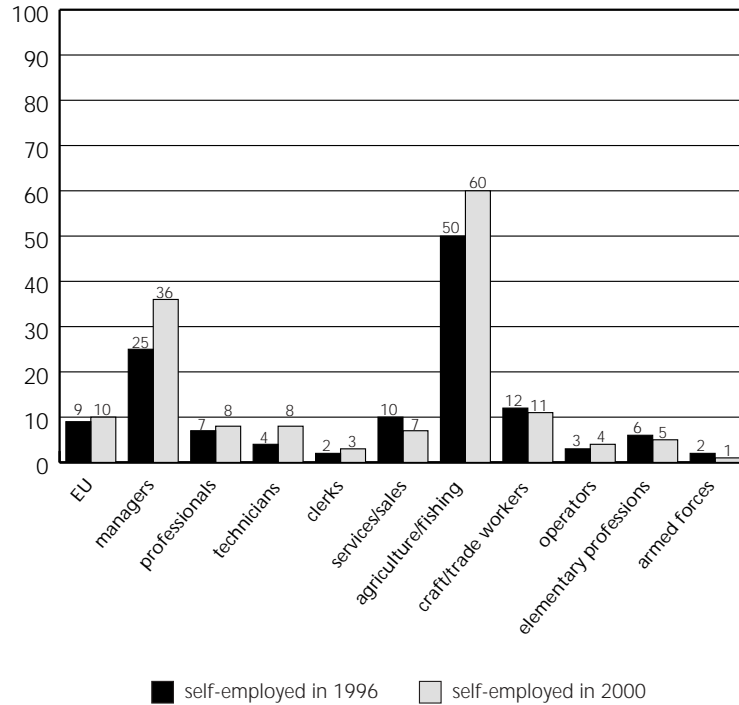


Figure 10 Percentage of non-permanent contracts by occupation (total employees)

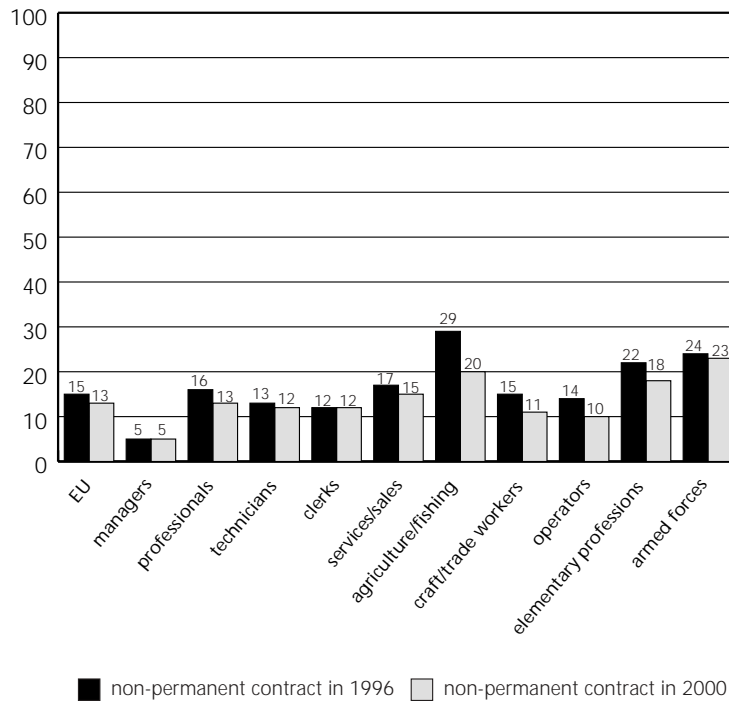
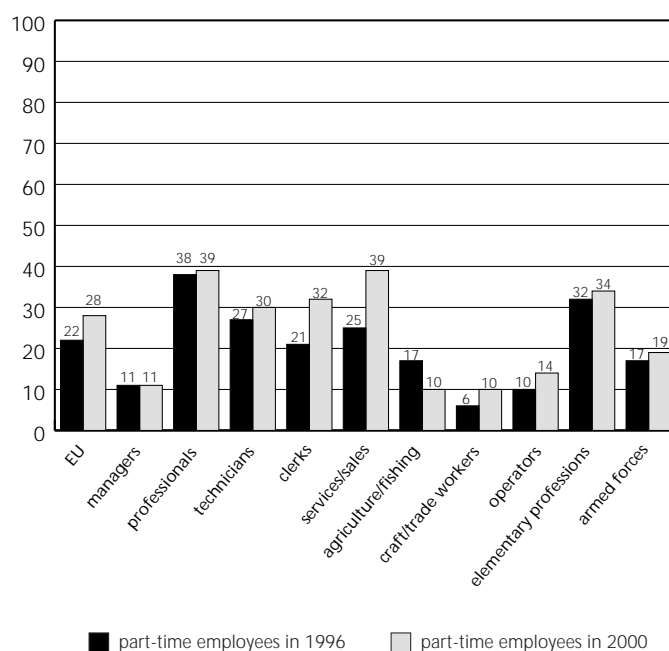


Figure 11 Percentage of part-time employees by occupation (total employees)



## The individual characteristics of employment status

In this section we will look at the individual characteristics of employment status and observe the differences in employment status between men and women and for different age groups.

Table 5 The individual characteristics of employment status (2000) (total population; row %)

	Employees				Self-employed (without personnel)		Small employers	
	Permanent >35	Permanent 10-35	Non-permanent >35	Non-permanent 10-35	>35	10-35		Number
<b>Sex</b>								
male	63.9	8.9	6.7	2.3	8.6	2.3	7.3	10452
female	43.9	32.8	6.4	6.6	4.9	2.4	3.0	8375
<b>Age</b>								
15-24	49.0	16.8	19.1	11.4	1.6	0.8	1.3	1904
25-34	57.4	18.8	8.0	4.9	5.3	1.9	3.7	5154
35-44	55.7	20.8	4.5	3.4	7.2	2.0	6.4	5619
45-54	56.7	20.8	3.2	2.2	8.2	2.4	6.6	4349
55-64	50.7	18.0	3.8	1.8	12.9	4.7	8.2	1651
65+	21.3	10.7	4.0	3.3	20.7	23.3	16.7	150
Total EU	55.0	19.5	6.6	4.2	7.0	2.3	5.4	100%

As we can see in table 5, men work more as self-employed than women. Of all men 18% are self-employed without personnel or small employers, and of all women only 10%<sup>1</sup>. Women, however, work more in non-permanent contracts (13%) than men (9%) and in particular in part-time non-

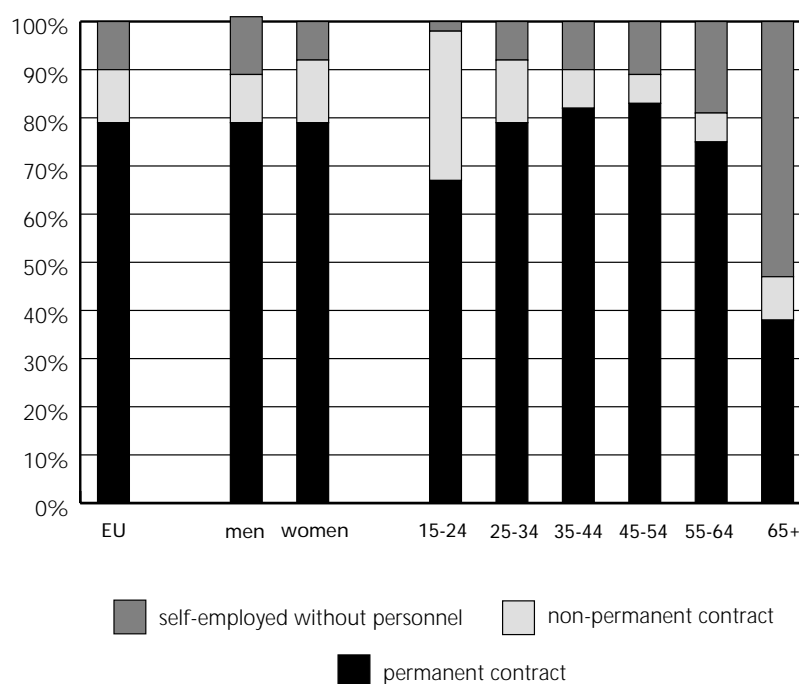
<sup>1</sup> In the rest of this chapter we will exclude the small employers and only look at self-employed without personnel.

permanent contracts (7% of all women and only 2% of all men have a non-permanent part-time job). As we know, female employees in general work more in part-time jobs. We can also observe this in the permanent jobs: 64% of all men work in a full-time permanent contract and 44% of all women; 33% of all women work on a part-time permanent contract and only 9% of all men.

As we look at the different age groups we see that the non-permanent jobs are more allocated to young employees and that the self-employed are mainly the older employees. This is shown very clearly in figure 12, when we see a drop in the share of employees and an increase in the self-employed without personnel as age increases.

However, if we only take a look at newcomers in the job, those who have been in any particular job for less than one year, we see a slightly different picture (figure 13). We observe higher percentages of non-permanent contracts in all age groups, and we see that only a few of the older workers start their self-employment at this older age.

**Figure 12 Employment status by sex and age in 2000 (all workers, excluding small employers)**



### Trends in individual characteristics of employment status

In the last section we will look at trends between 1996 and 2000 on the basis of individual characteristics. As we have seen, the total percentage of self-employed has slightly increased, but this is not the case for the youngest and the oldest age groups (figure 14). In particular the decrease in the oldest age group (65+) is remarkable.

The decrease in non-permanent contracts is the same for men and women and can be found in all age groups (figure 15). And, finally, the increase in part-time employment among employees has been the same for men and women and for all age groups (figure 16).

Figure 13 Employment status by sex and age in 2000 (less than one year in the job)

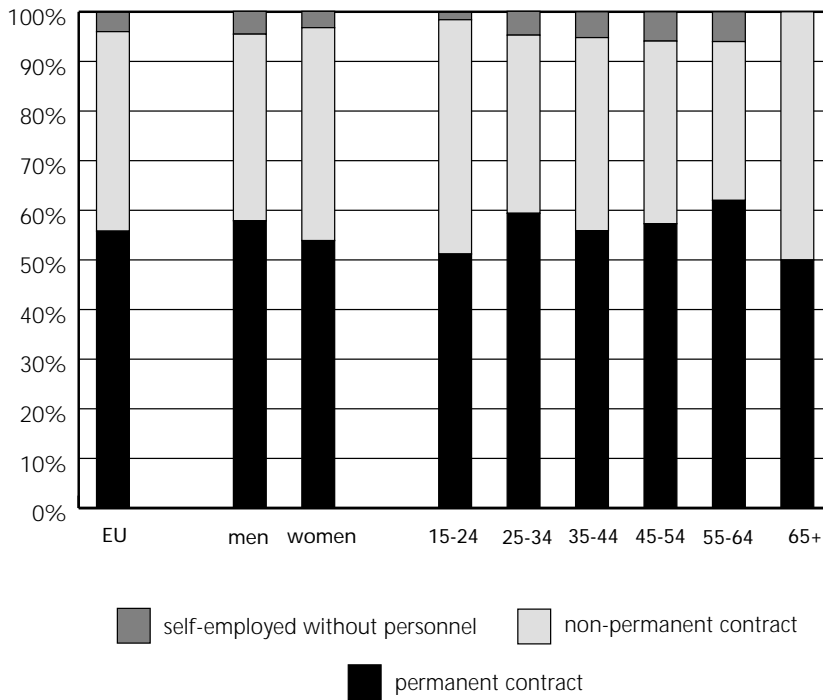


Figure 14 Percentage of self-employed without personnel by sex and age (all workers, excluding small employers)

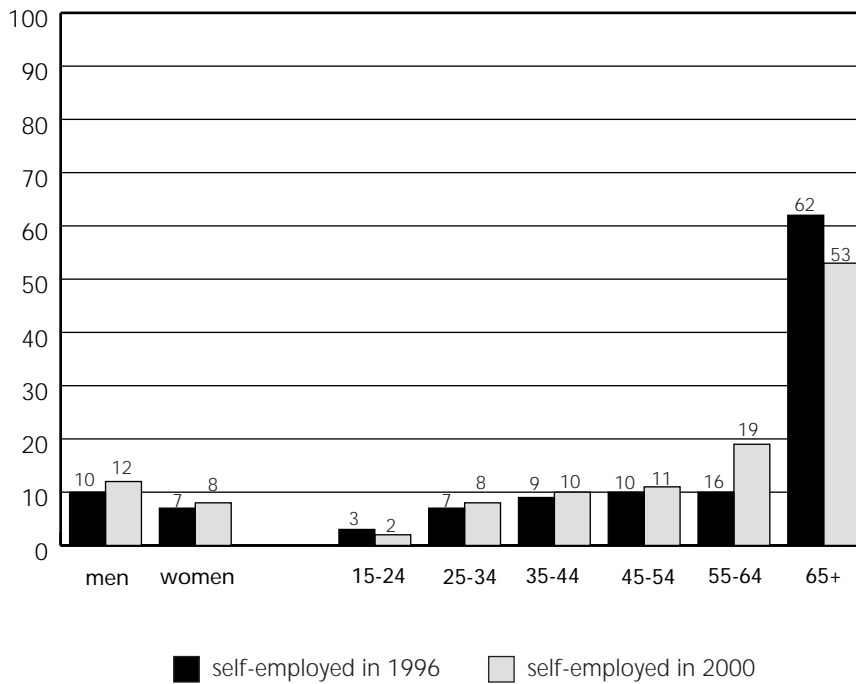
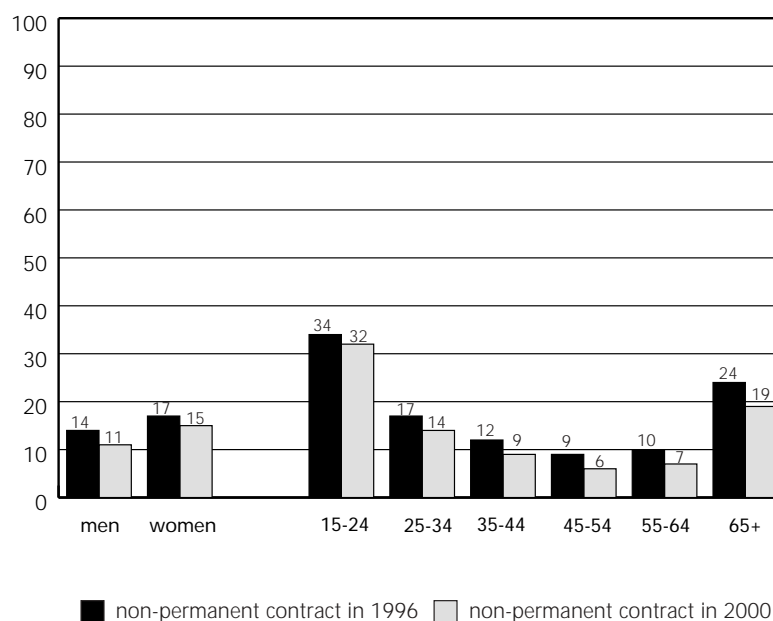


Figure 15 Percentage of non-permanent contracts by sex and age (total employees)



## Conclusion

In the 1980s and 1990s there was a change in employment relations. Although in most countries the full-time job with a permanent contract has become less important. On the other hand, there has been an increase in part-time jobs, non-permanent jobs and self-employment. In this chapter we have answered the question of whether this trend has continued over the last five years. On the basis of the comparison between the Second and Third European survey on working conditions, we can conclude that there has been no further growth of non-permanent contracts in the EU. The percentage of non-permanent contracts among employees has decreased from 15% in 1996 to 13% in 2000. If we only consider newcomers in jobs, the share of non-permanent contracts is more important, but here we also see a decrease: in 2000 the majority of employees have started a job with a permanent contract, which was not the case in 1996. The growth in part-time employed has continued, the percentage of part-time jobs among all employees has grown from 22% in 1996 to 28% in 2000. There has also been a slight increase in the percentage of self-employed without personnel versus employees (from 9% in 1996 to 10% in 2000).

There appears to have been a shift in the employment status of employees, with a decrease in the share of non-permanent contracts with an increase in the share of part-time permanent contracts. This shift can be found for both men and women and for all age groups. The picture of the employee with a non-permanent or a part-time contract has not changed, however: women work more often in a non-permanent job and in a part-time job than men. The percentage of non-permanent jobs is the highest among the young (age <25); decreases with the age of the employee and increases again after age 65. The percentage of part-time contracts is divided relatively equal among all age groups.

Although there are differences between sectors and between occupations the decrease of non-permanent contracts and the increase of part-time employment can be found everywhere.

The sector with the highest percentage of non-permanent contracts among the employees is the hotel/restaurant sector (20%), followed by agriculture (18%) and the social sector (16%). All other sectors have between 7% and 15% non-permanent contracts. The lowest percentage of non-permanent contracts can be found in finance (7%).

Figure 16 Percentage of part-time employees by sex and age (total employees)

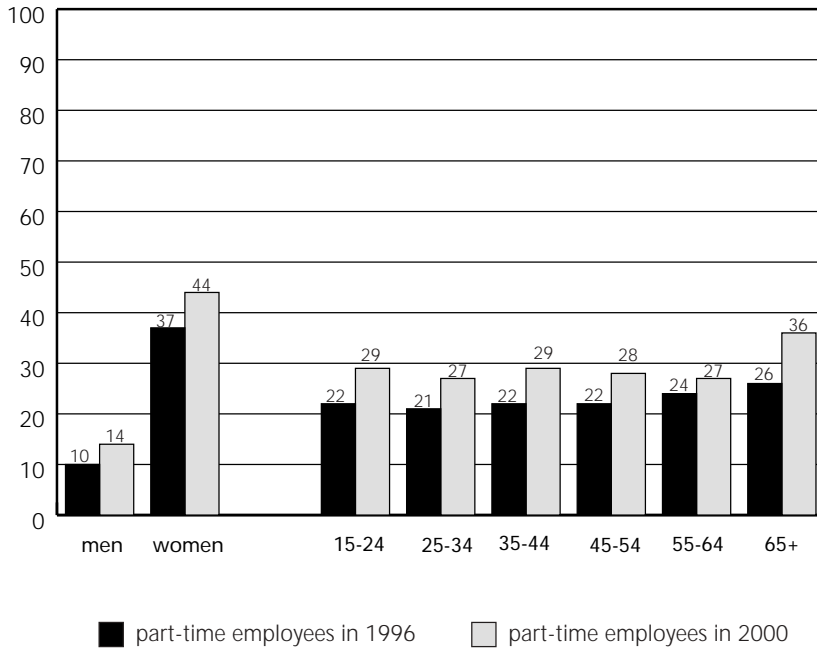
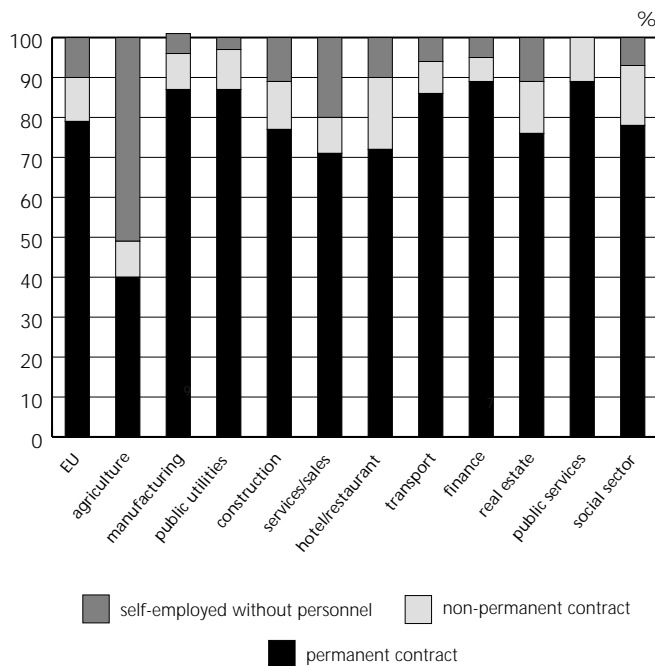


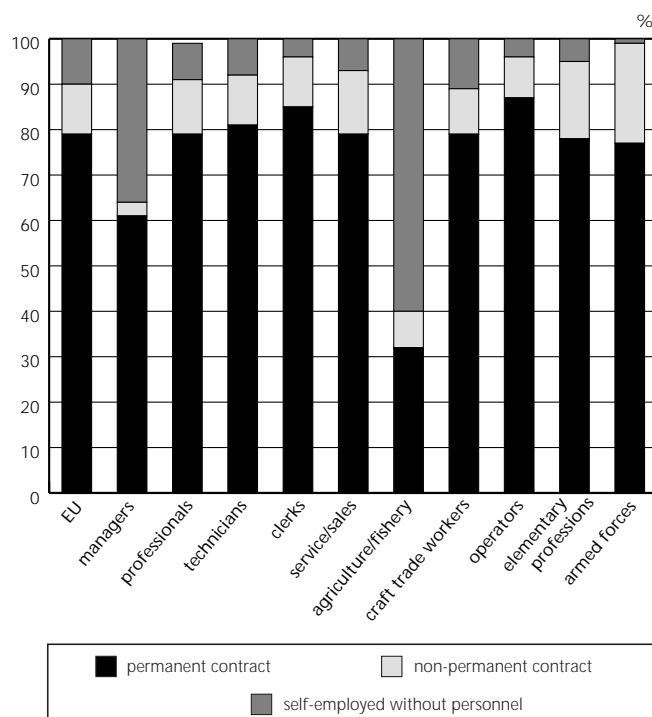
Figure 17 Employment status in sectors in 2000 (all workers, excluding small employers)





The differences in part-time employment between the sectors are larger, varying from 7% to 45%. The highest percentages of part-time contracts among employees can be found in the social sector (45%), hotel/restaurants (34%) and sales (31%). The lowest percentage can be found in construction (7%).

**Figure 18** Employment status in occupations in 2000 (all workers, excluding small employers)



When we look at the different occupations we see a range from 5% to 23% for non-permanent contracts. The highest percentage of non-permanent contracts can be found in the armed forces (23%), agriculture (20%) and the elementary professions (18%). The lowest percentage of non-permanent contracts is found among managers (5%). The percentage of part-time contracts varies from 10% for craft/trade workers to 39% for service/sales occupations and professionals.

We did not only look at the employees, but also at the self-employed without personnel. The distinction between employees and these groups of self-employed seems to have become slight. The percentage of self-employed without personnel is strongly connected to the sectoral structure, since most self-employed work in agriculture (more than half of the employees in agriculture in 2000 are self-employed). The share of self-employed without personnel versus employees has grown slightly between 1996 and 2000. In most sectors the changes have been small. Growth has been the largest in agriculture. When we look at the occupations of the self-employed without personnel we see that they work mostly in agricultural occupations and in managerial occupations (which is probably a generic name used by the self-employed without a specific occupation).

The share of self-employed without personnel in the age groups between 25 and 65 has grown, but the share of self-employed without personnel younger than 25 (only a small proportion of all self-employed without personnel) and the share of self-employed without personnel older than 65 (a

large proportion of the self-employed without personnel) have decreased. The common picture of the self-employed without personnel does not change: men work more as self-employed without personnel than women and the share of self-employed without personnel increases slightly with age, and strongly after age 65.

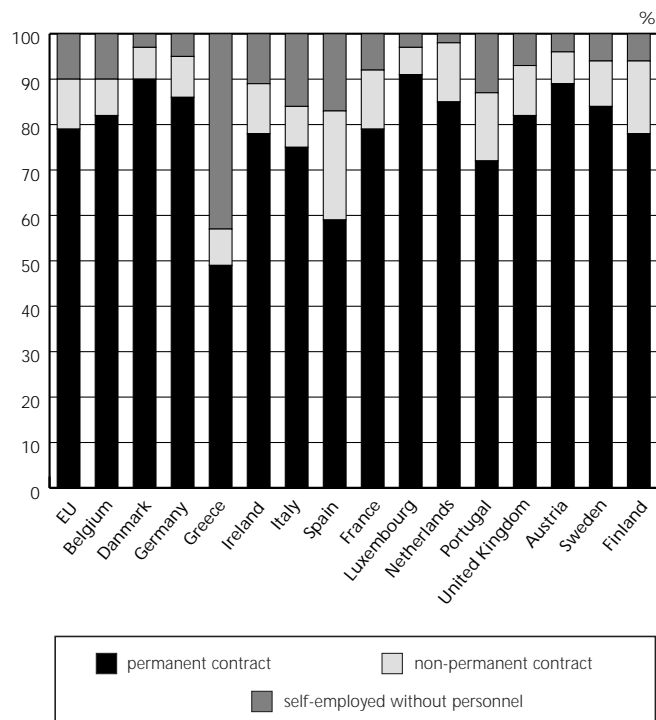
We started this chapter by looking at the differences between the EU countries. Comparison of these figures with other sources was difficult, because of the differences in concepts used. We will only repeat the main differences found between the countries in the European survey.

The highest percentage of self-employed can be found in Greece, the lowest percentage of self-employed in the Netherlands. In most countries there has not been a major shift in the percentage of self-employed without personnel (increases or decreases of no more than 2%). This does not include Greece, where the percentage of self-employed without personnel has increased from 30% in 1996 to 43% in 2000.

The highest percentage of non-permanent contracts can be found in Spain (22% of total population), followed by Portugal and Finland (>10% of population). Most other countries vary between 5-10%. The percentage of non-permanent contracts decreased in all countries, except for the UK, Italy, Germany, Portugal and Finland.

The highest percentage of part-time employees can be observed in the Netherlands (44% of all employees), France (41%), Greece (34%) and the UK (33%). The lowest percentage of part-time employees was in Finland (17%). All other countries vary between 20-30%. An increase in part-time employment is found in all countries, except for the UK and Sweden.

Figure 19 Employment status in EU countries in 2000 (all workers, excluding small workers)





# Employment status and working conditions

In this chapter the three scenarios in the relationship between employment status and working conditions that came out of the case study research will be analysed.

In the first scenario exposure to risks is shifted towards flexible workers. Non-permanent workers and/or part-time workers are hired to do the work with high chemical, physical or musculoskeletal risks. In this scenario the gap between permanent and non-permanent employees is based on the distinction in conditions of work. Since there is also a distinction between conditions of employment, we can speak of a cumulative situation. We will analyse this scenario in Chapter 4, section 2, where we will look at differences between categories of employment status in ambient conditions, in ergonomic conditions and in emotional job demands.

In the second scenario there is no difference in actual conditions of work, but a gap develops between permanent and non-permanent and between part-time and full-time workers in the field of access to training, skills development and (control over) working time. We will analyse this scenario in Chapter 4, where we will look at differences between categories of employment status in working time and control over working time, in payment, in different aspects of skills development and training and in social support and consultation.

The third scenario concerns intensification of work for the 'core population'. In this scenario the psycho-social job demands are high for all workers, but more so for the permanent workers working in a flexible environment. We will analyse this scenario in Chapter 4, in the section dealing with differences in job demands and job control between categories of employment.

In this chapter we will present some tables that show the occurrence of the different aspects of working conditions for the different employment statuses. We will describe the percentages of employees exposed to the different risks at the level of the items<sup>2</sup>. In order to compare the results with Letourneux (1998) we will use the same items as have been used before. In order to compare the results to the total of the population we will use the same scales<sup>3</sup> that have been used by Houtman et al. (2001). These scales will also be used in the multivariate analyses in the next chapter. In the next chapter we will describe the results of multivariate analyses, in which we analyse whether the differences found in this chapter are due to the employment status or to other structural and/or individual variables.

## First scenario: the transferral of risks in the field of conditions of work

In this section we will describe the differences between groups of workers in conditions of work. We will look at physical and chemical exposure or ambient conditions, at musculoskeletal job demands or ergonomic conditions, and at emotional job demands.

<sup>2</sup> An *item* represents a single question in the questionnaire. We will present the percentage of workers that have answered 'yes' to the specific question or item. *Example* in table 6: 23.8% of the full-time employees with a permanent contract say that they are exposed for at least  $\frac{1}{4}$  of their time to vibrations; 11.3% of the part-time employees with a permanent contract say that they are exposed for at least  $\frac{1}{4}$  of their time to vibrations. In some tables we have used the percentage 'no' (see table 10).

<sup>3</sup> A *scale* represents a number of items or questions that are related to each other. The score that is given in the table represents the number of positive answers to the items in the specific scale. In order to be able to compare the different scales, they have all been calculated in a range from 0 to 100. *Example* in table 6: the full-time employees with a non-permanent contract have the highest score on unfavourable ambient conditions (a score of 14.2 on a range of 0-100).

## Employment status and working conditions

Analysing the Second survey on working conditions, Letourneux found that the conditions of work of non-permanent workers were worse than those of permanent workers with regard to exposure to noise, painful or tiring positions, handling heavy loads and repetitive movements (Letourneux, 1999a). In this section we will see if this is still the case in 2000. We will, however, not only make a distinction between permanent and non-permanent contracts, but also between part-time and full-time contract<sup>4</sup>.

### Physical and chemical exposure or ambient conditions

**Table 6 Employment status and physical and/or chemical exposure**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
For at least ¼ of working time exposed to: (% 'yes')							
- Vibrations	23.8	11.3	26.8	11.4	25.1	19.5	20.9
- Loud noise	31.5	21.5	33.5	23.2	23.5	16.5	28.2
- Extreme temperatures	32.3	25.5	34.2	27.4	27.9	28.5	30.4
- Toxic Vapours	24.0	14.1	25.2	12.1	25.3	24.0	21.6
- Hazardous products	15.2	9.5	15.5	8.7	16.1	19.9	14.0
- Radiation	6.5	3.6	6.8	2.7	3.2	2.0	5.4
Unfavourable ambient conditions (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	12.5 +	7.9 -	14.2 +	8.7 -	11.7	12.2	11.7
2000	12.7 +	8.1 -	13.4 +	7.8 -	11.1	10.6	11.4
	non-permanent - permanent		part-time - full-time				
Unfavourable ambient conditions: Tested difference in scale scores (+ positive; - negative; ns = not significant)	1996		2000		1996		2000
	ns		ns		-		-
How well informed were you about the risks resulting from the use of materials, instruments or products which you handle in your job were you? (column %)							
- very well	46.6	48.8	39.6	39.2	46.2	43.8	46.1
- fairly well	42.8	41.3	44.5	42.3	43.9	41.5	42.7
- not very well	7.9	7.5	11.8	12.9	8.2	11.6	8.5
- not at all	2.6	2.4	4.0	5.6	1.7	3.1	2.7

If we look at the different items in table 6, we can see some differences between groups of employees when it comes to exposure to unfavourable ambient conditions. Full-time employees with a non-permanent contract have the highest exposure rates. Employees with full-time non-permanent contracts are most exposed to extreme temperatures (34% of this group states that they are exposed to this for at least a quarter of the working time), loud noise (33.5%) and vibrations (27%). However we can also see that the differences between part-timers and full-timers are greater

<sup>4</sup> In the tables we have marked the differences between these groups only with a significance of  $p < .001$ .

than the differences between permanent and non-permanent contracts. Part-time employees are less exposed to unfavourable ambient conditions than full-time employees. If we look at the trend between 1996 and 2000, we see that the differences between permanent and non-permanent contracts have diminished. The exposure rates of permanent contracts have slightly increased and the exposure rates of non-permanent contracts slightly decreased. We can assume that this is mainly due to sectoral changes with regard to the non-permanent contracts and not to the improvement of the work situation for non-permanent contracts as a whole.

Table 6 also shows the differences in information about these risks. Here, we do see differences between employees with a permanent contract and the other groups. Both full-time and part-time employees with a permanent contract are better informed about risks, together with the full-time self-employed without personnel. Part-time employees with a non-permanent contract are the least informed about risks (18.5% is not at all or not very well informed), followed by the full-time employees with a non-permanent contract (16%) and the part-time self-employed without personnel (15%).

### Musculoskeletal job demands or ergonomic conditions

In table 7 we can see the differences in exposure to musculoskeletal job demands or unfavourable ergonomic conditions. The self-employed seem to be the group most affected when it comes to unfavourable ergonomic conditions. Over 50% of the self-employed without personnel report painful or tiring positions for at least a quarter of their working time.

**Table 7 Employment status and musculoskeletal job demands**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
For at least ¼ of working time exposed to: (% 'yes')							
- Painful or tiring positions	45.1	42.1	49.6	44.3	54.3	57.9	45.7
- Carrying or handling heavy loads	35.7	30.2	41.4	30.2	44.1	38.5	35.4
- Repetitive arm or hand movements	59.3	55.6	63.7	57.0	63.2	56.0	59.0
Unfavourable ergonomic conditions (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	24.5	23.0 -	30.9 +	26.9	31.1 +	30.2 +	25.6
2000	26.8	24.9 -	30.1 +	24.9	31.1 +	28.5	26.9
Unfavourable ergonomic conditions: Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent - permanent			part-time - full-time			
	1996		2000		1996		2000
	+		+		-		-

Also, the employees with a full-time non-permanent contract report high rates of unfavourable ergonomic conditions. More than 60% of full-time non-permanent employees and more than 60% of full-time self-employed without personnel report repetitive arm or hand movements for at least one quarter of their working time. Full-time employees report more unfavourable conditions than

part-time employees. Both the difference between permanent and non-permanent contracts and the difference between part-time and full-time employment is significant. When we look at the trend, we see an increase in the amount of unfavourable ergonomic conditions, but we also observe that the differences between permanent employees and the other groups have become smaller. Here also we may wonder whether this is due to sectoral changes.

### Emotional job demands or discrimination

As table 8 shows, there has been a slight increase in harassment or discrimination in the workplace between 1996 and 2000. When we look at the differences in employment status we see that this increase has mainly been reported by non-permanent employees working full-time and self-employed without personnel working full-time. The differences between either non-permanent and permanent contracts or between part-timers and full-timers are not consistent in the two samples. In the 2000 sample, the full-time non-permanent employees are significantly more exposed to harassment than the other groups. In 1996 however, it was the part-time permanent employees who were most exposed. When we look at the item intimidation for 2000, we see then both the part-time permanent employees and the full-time non-permanent employees report the highest levels of intimidation.

**Table 8 Employment status and emotional job demands**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Intimidation							
1996	7.6	9.3 +	7.0	8.1	3.6 -	5.0	7.5
2000	9.6	11.3 +	12.0	8.4	6.3 -	4.3 -	9.7
Discrimination linked to age							
1996	2.6	2.6	4.9 +	5.0 +	1.6	4.6	2.7
2000	2.5	2.4	5.5 +	3.6	1.7	1.1	2.5
Sexual discrimination (only female workers)							
1996	2.1	3.7 +	9.8	1.5	2.8	3.0	3.3
2000	2.3	2.9	1.7	2.8	3.2	2.5	3.0
Harassment/discrimination (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	2.2	2.8 +	2.6	3.1	1.2 -	2.7	2.3
2000	2.6	3.0 +	3.7 +	2.9	1.8 -	1.3 -	2.7
	non-permanent – permanent			part-time – full-time			
Harassment/discrimination 1996	1996		2000		1996		2000
Tested difference in scale scores (+ positive; - negative; ns = not significant)	ns		+		+		ns

(% 'yes'; + higher percentage than the average; - lower than average)

### Second scenario: differences in conditions of employment

In this section we will look at the differences between groups of workers in conditions of employment. First we will look at the working hours and working time flexibility and the control over working time. Next we will look at type of payment. Third, we will look at different aspects of skills development and training. Finally, we will look at social support or consultation.

Analysing the Second survey on working conditions, Letourneux found that the conditions of employment of non-permanent workers were worse than those of permanent workers with regard to learning new things, receiving less training and performing monotonous tasks and are less likely to discuss problems relating to their work with colleagues or bosses (Letourneux, 1999a). Letourneux found a relationship between employment contract and duration of time, but did not find a large difference in working in weekends or at night. Temporary agency workers, however, work more at irregular hours than employees with a permanent contract (Letourneux, 1999a). In this section we will see if this is still the case in 2000. We will, however, not only make a distinction between permanent and non-permanent contracts, but also between part-time and full-time contracts.

### Working time flexibility and control over working time

In table 9 we can see different aspects of working time flexibility. Some of the items are new to the questionnaire and cannot be compared to the previous survey.

The self-employed without personnel are working more during weekends than the employees. More than 50% of full-time self-employed work at weekends and more than 40% of part-time self-employed. Non-permanent employees work more at weekends than permanent employees. Only 21-22% of the employees with a permanent contract work weekends. The amount of work during weekends for all workers has been stable between 1996 and 2000.

Self-employed without personnel also work longer days more often: they work more times a month in excess of 10 hours a day than all categories of employees. They do not work more at night than employees. Part-time employees work less at weekends and also less at non-standard work hours. Full-time employees with a non-permanent contract work most in shifts, self-employed the least. The differences in shift work between permanent and non-permanent contracts or between part-timers and full-timers on the whole are not significant.

**Table 9 Employment status and working time flexibility**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
No. of Sundays per month	1.6	1.6	1.7	1.6	2.3 +	2.2 +	1.6
No. of Saturdays per month	2.1	2.1	2.3	2.3	4.0 +	3.3 +	2.3
No. of times a month more than 10 hours a day	3.2	1.7	3.0	1.5	7.3	4.7	3.1
No. of nights per month	2.3	2.0	2.7	1.8	2.7	2.2	2.3
Working over weekends (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	21.3 -	21.4 -	24.8	26.2	56.8 +	35.6 +	24.7
2000	21.3 -	22.0 -	24.7	22.6	53.5 +	44.8 +	24.7
Working in weekends	non-permanent – permanent			part-time – full-time			
Tested difference in scale scores (+ positive; - negative; ns = not significant)	1996		2000		1996		2000
	+		+		ns		ns



## Employment status and working conditions

Table 9 (continued)

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Non-standard working hours (weekends + nights) (scale scores, range 0-100; + higher score than the average, - lower than average) 2000	17.9 -	15.6 -	20.6	16.0 -	43.8 +	34.7 +	19.8
Non-standard working hours Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time			
	1996 not available		2000 ns		1996 not available		2000 -
Shift work (scale scores, range 0-100; + higher score than the average, - lower than average) 2000	19.6 +	18.0	24.6 +	18.3	3.8 -	3.4 -	18.0
Shift work Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time			
	1996 not available		2000 ns		1996 not available		2000 ns

Table 10 Employment status and control over working time

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Can you – take a break when you want to (% 'no')							
1996	43.8	53.7	+ 53.5 +	59.2 +	21.7 -	36.5	45.1
2000	46.5	53.7 +	57.1 +	58.7 +	20.1 -	15.1 -	46.5
Can you – decide when to take holidays or days of leave (% 'no')							
1996	58.1	62.0 +	84.4 +	84.4 +	22.1 -	43.8	56.5
2000	58.8	60.8 +	80.6 +	81.1 +	21.1 -	15.1	55.3
Less control over working time (scale scores, range 0-100; + higher score than the average, - lower than average) 2000	49.4 +	53.5 +	62.1 +	59.8 +	15.0 -	11.0 -	48.1
Less control over working time Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – fulltime			
	1996 not available +		2000 not available +		1996		2000
Would you like to work (% 'yes')							
– more hours	14.1	20.7	20.3	43.3	13.3	16.3	23.6
– less hours	38.9	8.7	15.6	4.8	51.1	11.1	10.8
– the same number of hours	47.0	70.6	64.1	51.9	35.6	72.6	65.5

Table 10 shows that there is a relationship between employment status and control over working time. In this case it is cumulative for being a part-timer and having a non-permanent contract. Employees with a non-permanent contract have less control over their working time and part-time employees have less control over their working time than full-time employees. More than 50% of the part-time employees and/or the non-permanent contracts cannot take a break when they want to, and more than 80% of the employees with a non-permanent contract cannot decide when to take holidays or days leave. The self-employed seem to have most control over their working time.

We also have some information on how satisfied workers are with the amount of hours they work. In table 10 we can see that the part-time employees with a permanent contract and the part-time self-employed without personnel are the most satisfied with their hours of work (more than 70% would like to work the same number of hours). The self-employed without personnel that work full-time are the least satisfied: over 50% of them would like to work fewer hours. On the other hand, over 40% of the part-time employees with a non-permanent contract are not satisfied because they would like to work more hours. This group can be referred to as the involuntary part-timers.

### Type of payment

The questionnaire also provides us with some information about type of payment. As we can see in table 11, employees with a non-permanent contract are less secure in their income than employees with a permanent contract, because they have less basic fixed salaries. The percentage of employees with no fixed salary is highest among the part-time employees with a non-permanent contract. The total percentage of employees with no fixed salary has been stable over the years, although the differences between permanent and non-permanent contracts have decreased slightly.

**Table 11 Employment status and salary**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Do you have a basic fixed salary (% 'no'; + higher percentage than the average, - lower than average)							
1996	5.1 -	5.0	9.3 +	14.0 +	-	-	5.9
2000	5.5	5.3	7.7 +	11.3 +			5.9
	non-permanent – permanent			part-time – full-time			
No basic fixed salary	1996		2000		1996		2000
Tested difference in scale scores (+ positive; - negative; ns = not significant)	+		+		ns		ns

### Skills development, task flexibility and access to training

We have different indicators that relate to workers' access to skills development and training. Some indicators have to do with the content of the job and give information on the ability to learn by being allocated to challenging work or being allocated to work that matches the personal abilities. Other indicators relate to the investment of the companies in additional training.

Table 12 shows the difference in skills development due to the content of the job. Items had to do with solving problems, performing complex tasks and learning new things in work. We can see a (cumulative) difference between permanent and non-permanent employees and between full-timers and part-timers. Full-time employees perform more skilful jobs than part-time employees and employees with permanent contracts more than employees with non-permanent contracts. There has been no improvement in the content of jobs between 1996 and 2000, but here also the distinction between permanent and non-permanent jobs has decreased a bit. Also interesting is that part-time self-employed without personnel perform jobs which require low skills. The full-time employees with a permanent contract have the best scores.

Table 13 shows another aspect of skills development through the content of the work, in this case through being involved in task rotation or working in teams (task flexibility). There are no significant differences between permanent and non-permanent employees with regard to task flexibility (both work in teams and task rotation), but there are differences in the amount of task rotation. Permanent employees are more involved in task rotation than non-permanent employees. The differences that we observe between part-time employees and full-time employees are not significant. The self-employed show low levels of task rotation and/or task flexibility. We could have assumed that their jobs were more skilful to start with and there is less need for task flexibility, but this was just contradicted in the previous table, in any case for the part-time self-employed without personnel. Involvement in task rotation has decreased between 1996 and 2000 for all groups.

**Table 12 Employment status and skills development**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Does your work involve: (% 'no')							
- meeting quality standards	27.9	24.2	31.1	41.4	33.5	43.9	30.9
- quality assessment	24.2	24.8	30.1	33.9	17.6	20.2	24.6
- solving problems	16.4	19.1	24.7	26.4	7.9	12.7	17.2
- no monotonous tasks	38.7	38.8	46.9	42.6	46.9	45.1	40.1
- complex tasks	38.6	52.5	47.2	63.0	50.1	60.4	44.5
- learning new things	24.7	25.6	32.2	31.6	35.4	45.1	27.5
Lack of skills low-skilled work/ more correct (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	24.1 -	30.1 +	31.0 +	35.1 +	27.8	28.5	26.5
2000	26.4 -	32.0 +	31.6 +	39.5 +	28.8	36.8 +	28.9
Lack of skills	non-permanent - permanent			part-time - full-time			
Tested difference in scale scores (+ positive; - negative; ns = not significant)	1996		2000		1996		2000
	+		+		+		+

Table 13 Employment status and task rotation

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time		
Does your work involve task rotation? (% 'no'; + higher percentage than the average, - lower than average)								
1996	38.3 -	38.9 -	42.8	42.9	84.8	84.4 +	42.7	
2000	51.7 -	51.0 -	52.0	56.2	92.2 +	94.7 +	55.9	
No task rotation Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	+		+		ns		ns	
Less task flexibility (scale scores, range 0-100; + higher score than the average, - lower than average)								
2000	44.2 -	45.3 -	44.3 -	49.7	90.8 +	92.5 +	49.2	
Less task flexibility Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	not available		ns		not available		ns	

Table 14 shows the match between personal ability and the level of skill demands. The group that report that the demands are too high have increased. There are two groups that report higher demands more than others; the non-permanent employees that work part-time and the self-employed without personnel that work full-time. Overall the differences between permanent and non-permanent employees and between part-timers and full-timers are not significant.

The groups that report that the demands are too low has been stable between 1996 and 2000. Here, the differences between permanent and non-permanent employees are significant: employees working in non-permanent contracts, and in particular the part-time employees, more often work in jobs where the demands are too low and which are not challenging. Remarkably, a high percentage of self-employed without personnel that work full-time report that the demands are too low (almost the same percentage that report the demands to be too high: 35%).

Finally, we have information about the number of days of training that people have received, provided by the employer (table 15 shows the percentages of employees that had no training). The number of days of training has increased slightly between 1996 and 2000. As we would expect, employees working full-time in a permanent contract received more training than employees with non-permanent contracts. Also, in 2000 full-time employees have received more training than part-time employees. The self-employed without personnel have had the least days of training, which cannot be found strange if they have to pay for it themselves.

Table 14 Employment status and level of skills demands

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time		
Do your skills match the demands of your work? (% 'yes') – the demands are too high								
1996	19.0 -	20.4	27.5	31.4	28.2	34.3	21.5	
2000	23.9	17.3 -	28.2	35.5 +	35.8	13.5	24.3	
Demands too high Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	+		ns		ns		ns	
Does your skills match the demands of your work? (% 'yes') – the demands are to low								
1996	20.0 -	23.7	31.8	38.0	29.0	38.9	24.0	
2000	22.4	20.2	32.7	43.2 +	34.8 +	16.9	24.1	
Demands too low Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	+		+		ns		ns	

Table 15 Employment status and training to improve skills

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time		
Did you receive training paid for or provided by the employer in the last 12 months? (% 'no')								
1996	63.5 -	65.3 -	78.5 +	78.4 +	92.2 +	88.1 +	68.1	
2000	61.9 -	66.3	68.9	73.4 +	84.3 +	88.7 +	66.1	
No training Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	+		+		ns		+	

### Social support or consultation

A last indicator of the conditions of employment relates to the participation of workers at the workplace in consultation and information. We do have information on social support, which includes consultation with colleagues and bosses. This is a new scale, so we cannot compare this with the previous survey. What is surprising is that there are no significant differences between permanent and non-permanent workers and between part-timers and full-timers. There is, however, a difference between employees and self-employed without personnel, the last group having less social support, as their name might suggest.

Table 16 Employment status and social support

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time		
Do you receive assistance from colleagues? (% 'no')								
1996	8.3 -	10.0 -	9.2 -	11.8	60.8 +	57.5 +	13.0	
2000	9.8 -	12.2 -	10.1 -	12.4 -	75.0 +	79.4 +	16.9	
No assistance from colleagues Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	ns		ns		ns		ns	
Less social support (scale scores, range 0-100; + higher score than the average, - lower than average)								
2000	41.0 -	41.3	41.0	41.1	46.5 +	48.2 +	41.6	
Less social support Tested difference in scale scores (+ positive; - negative; ns = not significant)	non-permanent – permanent			part-time – full-time				
	1996		2000		1996		2000	
	not available		ns		not available		ns	

### Third scenario: intensification of work (job demands and job control)

In this section we will look at two dimensions of intensification of work: psycho-social job demands and job control. In theory, a balanced or unbalanced combination of both dimensions will either lead to active jobs or to high strain jobs (Karasek, 1991 and 1998). Therefore, we will also look at the combination of the two dimensions.

Analysing the Second survey on working conditions, Letourneux found that the psycho-social job demands were very high for all groups of employees (Letourneux, 1999a). Work at high speed was more the case for fixed-term contracts, while work at very tight and short deadlines was more the lot of employees on permanent contracts. Letourneux also found that employees in non-permanent contracts had less personal freedom to change their working speed, adapt their methods or even change the order in which they perform tasks.

In this section we will see if this is still the case in 2000. However, we will not only make a distinction between permanent and non-permanent contracts, but also between part-time and full-time contracts.

#### Psycho-social job demands

We will first look at the job demands. Overall job demands have become higher between 1996 and 2000. This is the case for all groups (see table 17). Job demands are the highest for full-time employees (both permanent and non-permanent). If we look at the different items we see that the speed of work is the highest for full-time non-permanent employees and that full-time permanent employees work most at very tight deadlines, as was found on the basis of the Second survey.

## Employment status and working conditions

Job demands of the self-employed without personnel are less high than those of these two groups of employees. Job demands of non-permanent employees are (significantly) less high than those of the permanent employees. The differences between part-time and full-time employees are also significant: part-time employees face less psycho-social job demands.

**Table 17 Employment status and psycho-social job demands**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Does your work entail (for at least ¼ of working time): (% 'yes')							
Very tight and very short deadlines	62.2	50.6	58.3	45.1	58.6	51.3	57.7
High speed work	61.8	55.9	63.0	52.0	52.6	47.1	59.2
High Job demands (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	33.4 +	27.5 -	33.3	26.0 -	26.2 -	23.0 -	31.4
2000	34.5 +	30.6 -	34.8	28.1 -	28.3 -	26.4 -	32.8
	non-permanent – permanent			part-time – full-time			
High job demands	1996		2000		1996		2000
Tested difference in scale scores (+ positive; - negative; ns = not significant)	-		-		-		-

## Job control

**Table 18 Employment status and autonomy at work**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Are you able to choose or change: (% 'no')							
- the order of tasks	35.4	34.2	47.2	44.8	13.0	13.7	34.2
- the methods of work	32.2	30.3	43.4	37.7	12.0	11.9	30.8
- the speed of your work	32.8	31.6	40.4	35.1	11.9	10.4	31.1
Low job control (scale scores, range 0-100; + higher score than the average, - lower than average)							
1996	32.0 +	28.3	39.2 +	36.8 +	10.9 -	11.4 -	30.4
2000	33.6 +	32.0	43.7 +	39.3 +	12.4 -	12.1 -	32.1
	non-permanent – permanent			part-time – full-time			
Low job control	1996		2000		1996		2000
Tested difference in scale scores (+ positive; - negative; ns = not significant)	+		+		ns		ns

As we have mentioned, high job demands can be balanced with high job control in order to prevent stress at work. Table 18 shows the levels of low job control for the different employment statuses. As we can see the increase in high job demands has been followed with an increase in job control. There are no significant differences between part-time and full-time employees in job control. There are, however significant differences between permanent and non-permanent employees.

Non-permanent employees have less control over the order of tasks, the method of work or the speed of their work. Self-employed have higher job control.

### Combination of demands and control

The combination of these two dimensions (job demands and job control) can be seen as an indicator for active versus passive work (high demands and high control = active work; low demands and low control = passive work) or as an indicator for low strain versus high strain work (low demands, high control = low strain; high demands, low control = high strain). These are the four dimensions from the Karasek model (Karasek et al, 1991, 1998).

**Table 19 Employment status and job control and job demand (2000)**

	Permanent contract		Non-permanent contract		Self-employed (without personnel)		Total
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	
Combination of job demands and job control (column %)							
Low demands, high control (low strain work)	24.8	31.0	20.4	26.4	46.8	48.3	28.0
Low demands, low control (passive work)	24.3	25.4	29.6	33.8	11.3	11.1	24.0
High demands, high control (active work)	24.9	20.5	17.7	16.4	33.4	33.4	24.0
High demands, low control (high strain work)	26.1	23.2	32.3	23.5	8.5	7.2	24.0
	100%	100%	100%	100%	100%	100%	100%

When we look at table 19, we can see that that full-time employees with a non-permanent contract have a relatively high percentage of high strain jobs, next to a relatively high percentage of passive jobs. The self-employed on the other hand, have a high percentage of low strain jobs and of active jobs. Part-time employees with a non-permanent job have a relatively high percentage of passive jobs, while part-time employees in a permanent contract have a relatively high percentage of low strain jobs.

### Conclusion

In this chapter we have analysed the possible relationship between employment status and working conditions, by discussing the different risks and looking at the differences between permanent and non-permanent employees, between part-time employees and full-time employees and between employees and self-employed without personnel. We did not include any other variables in our analysis, nor did we look at possible combinations of risks. This will be done in the next chapter. In this chapter we have discussed three possible scenarios:

1. unfavourable conditions of work are being transferred to flexible workers;
2. the gap between permanent and non-permanent workers develops in the field of the conditions of employment;
3. intensification of work and high job demands have a greater impact on non flexible workers.

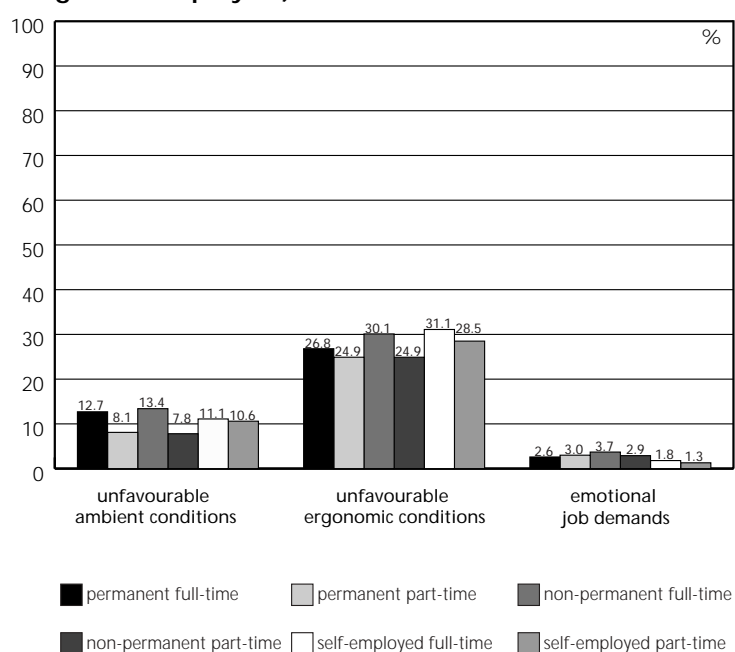


We find little evidence for scenario 1 and the hypothesis that dangerous work situations are transferred to non-permanent workers. The differences between permanent and non-permanent workers has decreased, with a deterioration of the situation of the permanent employees. We do, however, still find that ergonomically poor jobs are more often performed by non-permanent employees working full-time and self-employed (both full-time and part-time). Part-time workers are less exposed to physical hazards than full-time workers.

We can summarise the main findings in the relationship between employment status and conditions of work (physical hazards and harassment at work):

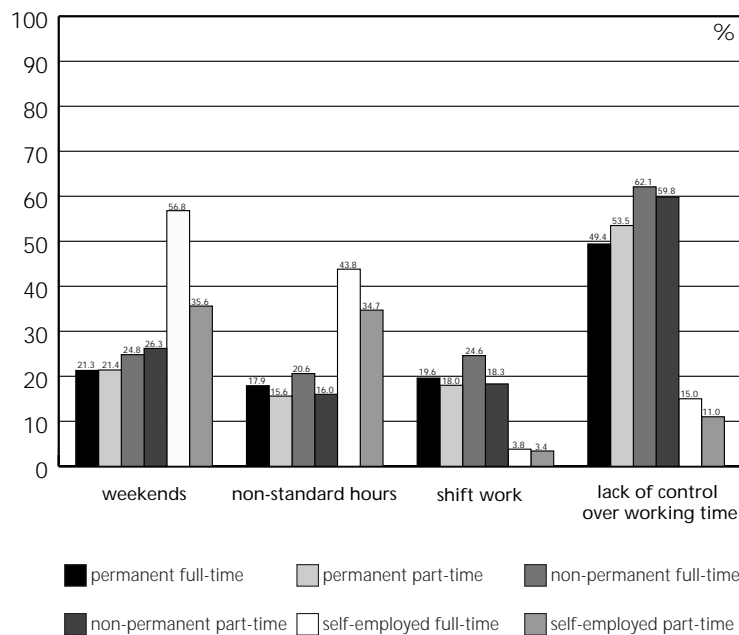
- The differences in working under physical hazards such as vibrations, noise and temperatures between permanent and non-permanent employees have decreased. Differences between permanent and non-permanent employees are not significant. Full-time employees are significantly more often exposed to these conditions than part-time employees. Employees with non-permanent contracts are less well informed about these risks than permanent employees.
- For the total population there has been an increase in musculoskeletal job demands or unfavourable ergonomic conditions. These increases can mainly been found among the employees with a permanent contract. This means that the differences between groups of employment status have decreased. But, the self-employed without personnel and the employees with a non-permanent contract are more exposed to unfavourable ergonomic conditions than the employees with a permanent contract. Here also, full-timers are more exposed to these conditions than part-timers.
- There seems to have been an increase in harassment or discrimination at work for full-time employees with a non-permanent contract. Differences between groups in the two samples are not consistent between the two surveys.

Figure 20 Employment status and conditions of work (scales, 2000) (self-employed excluding small employers)



If we look at scenario 2, we find evidence for most of our hypotheses. Non-permanent employees work more over weekends than permanent employees and have less control over working time. They also have less secure income, perform less skilled work and/or have less access to training. Having a non-permanent contract and a part-time contract worsens this situation. There is no difference in social support between permanent and non-permanent workers. The self-employed have less social support, work more over weekends and at non-standard working hours, but have more control over their working time.

Figure 21 Employment status and working time (scales, 2000; excluding small employers)



We can summarise the main findings in the relationship between employment status and conditions of work as follows (working time, task flexibility, skills development):

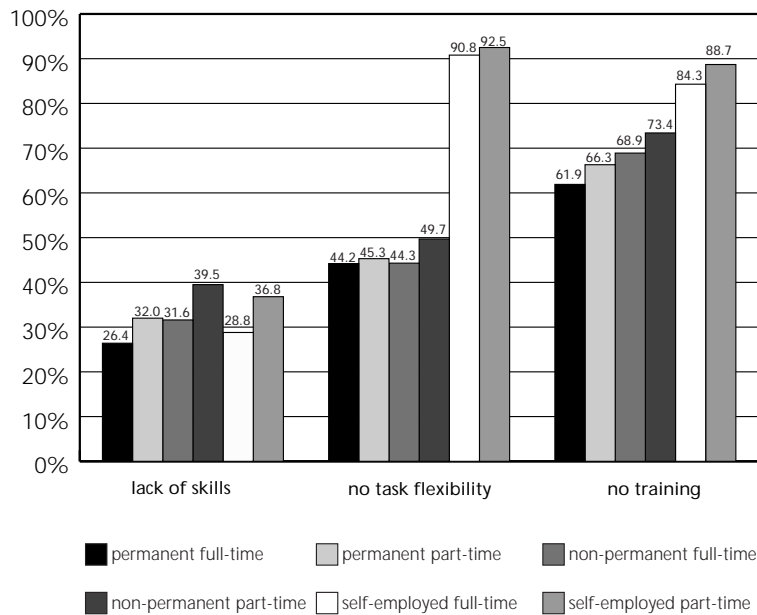
- More than 50% of full-time self-employed work over weekends and more than 40% of part-time self-employed. Non-permanent employees work more over weekends than permanent employees. Only 21-22% of the employees with a permanent contract work weekends. There has been no increase in weekend work for all workers. Self-employed without personnel also work longer days more often, that is they work more times a month more than 10 hours a day than all categories of employees.
- The self-employed hardly ever work in shifts. The full-time employees with a non-permanent contract work most in shifts.
- Part-time employees with a permanent contract and part-time self-employed without personnel are the most satisfied with their hours of work (more than 70% would like to work the same number of hours). The self-employed without personnel that work full-time are the least satisfied: over 50% of them would like to work fewer hours. On the other hand, over 40% of the part-time employees with a non-permanent contract are not satisfied, because they would like to work more hours.

- There is a big difference in control over working time between employment statuses: the self-employed have most control over their working time, the employees with a non-permanent contract the least. Of employees with a permanent contract, the part-time employees have less control over their working time than the full-time employees.
- Employees with non-permanent contracts have less fixed salary than employees with a permanent contract. The percentage of employees with no fixed salary is highest among the part-time employees with a non-permanent contract. The total percentage of employees with no fixed salary has been stable over the years, although the differences between permanent and non-permanent contracts have decreased slightly.
- There are no significant differences in task rotation between permanent and non-permanent employees and between part-time and full-time employees. There is, however, a difference between employees and self-employed. Less than 10% of the self-employed report task rotations, which is even less than in the previous survey. Also, for the employees, the percentage of employees that report task rotation has decreased.
- Non-permanent employees perform tasks with less skills involved in the job (lack of skills), than permanent employees and part-time workers perform tasks with less skills involved than full-time employees.
- There are two groups that report higher skills demands more than others, the non-permanent employees that work part-time and the self-employed without personnel that work full-time. Overall the differences between permanent and non-permanent employees and between part-timers and full-timers are not significant.
- The groups that report that skills demands are too low has been stable between 1996 and 2000. Here, the differences between permanent and non-permanent employees are significant: employees working in non-permanent contracts, and in particular the part-time employees, more often work in jobs where skills demands are too low, and which are not challenging. Remarkably, also a high percentage of self-employed without personnel that work full-time report that skills demands are too low (almost the same percentage that report the demands to be too high: 35%).
- Less than 40% of all workers have received training paid for or provided by their employers in the past 12 months: employees with a permanent contract more than employees with a non-permanent contract, and full-time employees more than part-time employees. The percentage of employees that have received training has increased slightly, in particular within the group of full-time non-permanent workers and full-time self-employed, but also within the group of part-time non-permanent workers.
- There are no significant differences between permanent and non-permanent workers and between part-timers and full-timers with regard to social support. There is, however, a difference between employees and self-employed without personnel, the last group having less social support, as their name might suggest.

At first glance, we seem to find evidence for *scenario 3*: permanent employees face higher job demands than non-permanent workers and full-time employees face higher job demands than part-time employees. If we consider the thought that work stress is a result of unbalanced job demands versus job control, the picture is slightly different. In particular the non-permanent employees have

less job control. So, at a second glance, we do not find evidence for the third scenario. Job demands have increased for all, and if we also look at job control as a way of coping with high demands, it may be that the consequences of intensification can be experienced more by non-permanent employees since they have less job control. When we look at the combination of job control and job demands, we see a relatively high percentage of high strain jobs for the full-time workers with a non-permanent contract.

**Figure 22 Employment status and skills development (scales, 2000; excluding small employers)**



We can summarise the main findings in the relationship between employment status and job demands and job control:

- There has been an increase in high job demands for all groups of workers. The job demands of non-permanent employees are (significantly) less high than those of the permanent employees. Part-time employees face lower job demands, but part-time employees with a permanent contract face slightly higher demands than part-time employees with a non-permanent contract. The self-employed have lower job demands than the employees with a full-time permanent contract.
- There has also been an increase in job control for all groups of workers. Here there is a difference between permanent and non-permanent employees. All non-permanent employees (both full-time and part-time) face lower job control. The self-employed have higher job control.
- The full-time employees with a non-permanent contract have a relatively high percentage of high strain jobs, next to a relatively high percentage of passive jobs. The self-employed on the other hand, have a high percentage of low strain jobs and of active jobs. The part-time employees with a non-permanent job have a relatively high percentage of passive jobs, while the part-time employees in a permanent contract have a relatively high percentage of low strain jobs.

Figure 23 Employment status, job demands and job control (scales, 2000; excluding small employers)

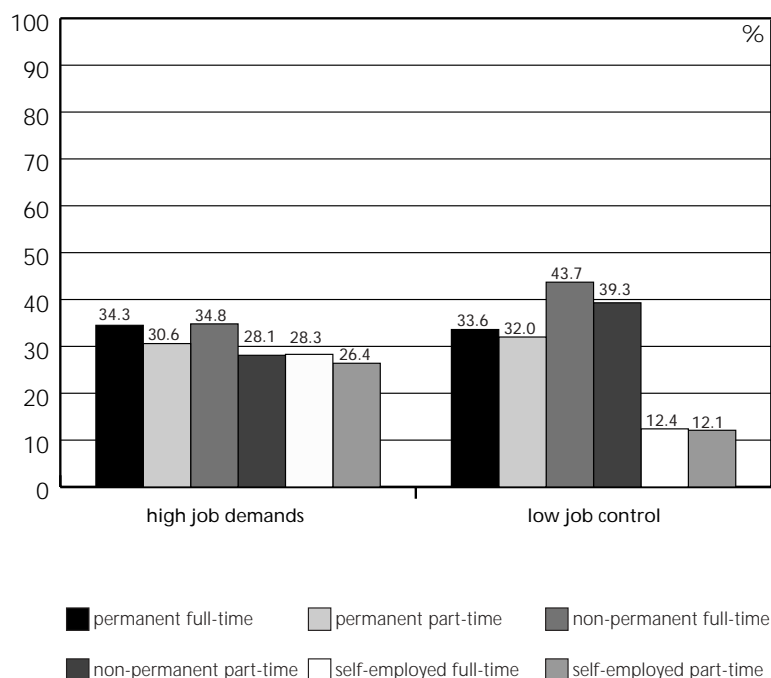


Table 20 Summary of the significant differences in working conditions between permanent and non-permanent workers and between part-time and full-time workers

	Non-permanent – permanent		Part-time – full-time	
	1996	2000	1996	2000
<b>Working conditions:</b>				
scales:				
Unfavourable ambient conditions	ns	ns	-	-
Unfavourable ergonomic conditions	+	+	-	-
Harassment/discrimination (ns = not significant)	+	+	ns	
<b>Employment conditions:</b>				
scales:				
Work over weekends	+	+	ns	ns
Non-standard hours	not available	ns	not available	-
Shift work	not available	ns	not available	ns
Low time control	not available	+	not available	+
No basic fixed salary	+	+	ns	ns
Less skills required	+	+	+	+
Less task rotation	+	+	ns	ns
Less task flexibility	not available	ns	not available	ns
Demands too high	+	ns	ns	ns
Demands too low	+	+	ns	ns
No training	+	+	ns	+
Less assistance from colleagues	ns	ns	ns	ns
Less social support	not available	ns	not available	ns
<b>Intensification of work:</b>				
scales:				
High psycho-social job demands	-	-	-	-
Low job control	+	+	ns	ns

(univariate analysis; + = positive relationship; - = negative relationship)

Table 20 summarises the results of the analysis in this chapter. A plus (+) in the table means that the non-permanent (or the part-time) employees are exposed more to the condition than the permanent (or full-time) employees. A minus (-) means that they are exposed less. In the next chapter we analyse which of the findings will hold when structural and individual characteristics are taken into account.



# The impact of employment status on working conditions

In this section we will continue with multivariate analyses, only looking at the available scales used in the previous chapter.

We will analyse the characteristics and working conditions of different types of employment status in different steps. We will look at the relationship between employment status and:

- conditions of work (the practical conditions under which people work and cope with a specific technical and organisational environment): step 1;
- conditions of employment (the rules and status under which people are employed, trained and paid): step 2<sup>5</sup>;
- structural characteristics (sector and occupation): step 3;
- conditions of work, conditions of employment and structural characteristics: step 4;
- conditions of work, conditions of employment, structural and individual characteristics (gender and age): step 5.

The explained variance ( $R^2$ ) of these different steps will show the importance of the different aspects in our analytical model. Also these analyses will show if the relationships found in the previous chapter are still valid when the structural or individual characteristics are taken into account. A positive number in the tables means a positive relationship between the specific condition and the employment status. A number below zero will mean that we have found a negative relationship. We will do this analysis for non-permanent employment contracts, for part-time employment and for the self-employed without personnel.

## Non-permanent contracts

In this first section we will analyse the characteristics of non-permanent employees and by doing this we will answer the question if this group of workers stands out for its bad working conditions or not, and if so whether this is also true when the structural and individual characteristics of the non-permanent employees are taken into account.

Table 21 shows the results of the different steps taken. First of all, we can see that the total explained variance is very small in the first three steps. Only when the individual characteristics are taken into account we gain a  $R^2$  of 15%. If we only look at the first two steps, we can see that the conditions of work are even less important than the conditions of employment, based on the explained variance. This is in line with what we found in the previous chapter.

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<sup>5</sup> In order to reduce the number of steps, we have divided the two dimensions of the third scenario between the first two steps, seeing job demands as an aspect of conditions of work and job control as an aspect of conditions of employment.



## Employment status and working conditions

**Table 21** Multivariate analyses with regard to non-permanent contracts (linear regression, stepwise, dependent variable belongs to the group of non-permanent employees)

	step 1	step 2	step 3	step 4	step 5
<b>Conditions of work</b>					
unfavourable ambient	-.02			ns	
unfavourable ergonomic	.04			ns	
emotional demands	.02			ns	
high job demands	-.02			ns	
<b>Conditions of employment</b>					
low job control		.02		.04	.02
non-standard hours		ns			
shifts		ns			
low time control		.08		.07	.07
low skills		.06		.05	.05
training		ns			
low task flexibility		ns			
low social support		-.02		-.02	ns
<b>Sector</b>					
agricultural			ns		
manufacture			ns		
public utilities			ns		
construction			.03	.03	.03
sales			.03	ns	
hotel/restaurant			.07	.06	ns
transport			ns		
finance			ns		
real estate			.04	.05	.04
public services			ns		
social sector			.08	.09	.09
<b>Occupation</b>					
managers			-.04	-.02	ns
professionals			ns		
technicians			ns		
clerks			ns		
service/sales			ns		
agriculture/fishing			.03	.03	.03
craft/trade			ns		
operators			ns		
elementary			.05	.03	.03
<b>Individual characteristics</b>					
gender (female)					ns
age					-.18
<b>R2</b>	<b>.001</b>	<b>.013</b>	<b>.013</b>	<b>.024</b>	<b>.150</b>

When we look at the last step we can see that employees with a non-permanent contract have the following characteristics:

- younger workers;
- working in jobs with less job control;
- working in jobs with less time control;
- working in less skilled jobs;
- working in construction, real estate or social sector;
- working in agricultural occupations or elementary occupations.

This implies that non-permanent contracts are not characterised by their bad conditions of work. As we saw in the last chapter, there was no significant difference between permanent and non-permanent contracts with regard to ambient conditions and the differences in emotional demands were not so clear. But now we can add that also the more unfavourable in ergonomic conditions that we found and the lower psycho-social job demands, can be better explained by the structural characteristics than by the non-permanent employment status.

Non-permanent contracts can be characterised by some aspects of the conditions of employment (although the explained variance is very low): by having less control over the job and less control over the working time. Differences in social support are no longer significant, when individual characteristics are taken into account. There are no significant differences in the actual working hours (standard or non-standard). Also, employees with non-permanent contracts are allocated to less skilful jobs. This could be explained by the fact that these employees are younger, so we did some additional analysis to see the differences between different age groups (see table 22). Based on this analysis we can conclude that only employees with a non-permanent contract over 26 years of age have less job control than the permanent employees in the same age group. All non-permanent employees have less time control. Only the non-permanent employees under 35 years of age have less skilled jobs than the permanent employees in the same age group.

**Table 22 Multivariate analyses with regard to non-permanent contracts, by age group**

	15-25 years	26-35 years	>35 years
<b>Background</b>			
gender	ns	ns	.04
<b>Job demands job control</b>			
less job control	ns	.04	.03
<b>Employment conditions</b>			
less time control	.08	.07	.04
less skills	.06	.06	ns
less social support	ns	ns	ns
<b>Sector</b>			
construction	ns	ns	.05
hotels/restaurants	ns	ns	.05
real estate	ns	.04	.04
social	.11	.10	.08
<b>Job</b>			
agriculture/fishing	ns	ns	.04
elementary	ns	ns	.05
<b>R2</b>	<b>.022</b>	<b>.027</b>	<b>.021</b>

### Part-time employment

The second aspect of employment status that we will analyse is part-time employment. We will look at the characteristics of part-time employees as opposed to full-time employees (table 23). The total explained variance is the same as in the previous section, 15% in step 6. When we look at the first two steps we see that the conditions of work are a bit more important than the conditions of employment. However, some of the aspects of conditions of work are explained better by sector and occupation than by part-time employment. When we look at the last step we can see that employees with a part-time contract have the following characteristics:

- female workers;
- working with more favourable ambient conditions;
- working less at non-standard hours;
- less control over working time;
- less skilful work;
- less training;
- working in social sector and hotel/restaurant, and not in construction;
- working in service/sales occupations and not as managers.

The more unfavourable ergonomic conditions for part-time employees that we found in the previous chapter can be explained by structural and individual characteristics and are not due to part-time employment. Also the low psycho-social job demands are no longer significant when structural characteristics are taken into account. This means that part-time contracts can be characterised by their favourable ambient conditions, but do not differ from full-time contracts in the other aspects of conditions of work.

Part-time contracts can be characterised by some unfavourable conditions of employment, for example, less skilful jobs, less training and less time control. Differences in job control can be explained by the structural characteristics of the job.

### Self-employed without personnel

Finally we will look at the characteristics of the self-employed without personnel as opposed to employees (table 24 on p.52). The explained variance is higher than in the previous two sections. The total explained variance in the last step is 34%. When we look at the first two steps, we see that the conditions of work do not explain much of the difference between self-employed without personnel and employees, but the conditions of employment do, even more than the structural characteristics.

When we look at the last step we can see that the majority of self-employed without personnel have the following characteristics:

- male workers;
- older workers;
- working in more unfavourable ergonomic conditions;
- having less psycho-social job demands;
- working more at non-standard hours, but less in shifts;
- having more time control;

- having more job control;
- having less training;
- having less task flexibility;
- having less social support;
- working in agriculture, sales, hotel/restaurants and not in public utilities and public service;
- working as managers, in service/sales occupations and in crafts.

**Table 23 Multivariate analyses with regard to part-time employees (Linear regression, dependent variable belonging to the group of part-time employees)**

	step 1	step 2	step 3	step 4	step 5
<b>Background</b>					
<b>Conditions of work</b>					
unfavourable ambient	-.16			-.06	-.03
unfavourable ergonomic	.04			.03	
emotional demands	.04			ns	
high psycho-social job demands	-.05			ns	
<b>Conditions of employment</b>					
less job control		-.06		ns	
non-standard hours		-.06		-.09	-.06
shifts		ns			
less time control		.06		.02	.02
less skills		.11		.06	.05
training		-.03		-.05	-.05
less task flexibility		ns			
less social support		ns			
<b>Sector</b>					
agricultural			ns		
manufacture			ns		
public utilities			ns		
construction			-.03	-.04	-.03
sales			.03	ns	
hotel/restaurant			.06	.06	.05
transport			ns		
finance			ns		
real estate			ns		
public services			ns		
social sector			.22	.22	.17
<b>Occupation</b>					
managers			-.08	-.07	-.05
professionals			ns		
technicians			ns		
clerks			ns		
service/sales			.03	.03	.06
agriculture/fishing			ns		
craft/trade			-.09	-.10	
operators			ns		
elementary			ns		
<b>Individual characteristics</b>					
gender (female)					.24
age					ns
<b>R2</b>	<b>.026</b>	<b>.019</b>	<b>.086</b>	<b>.109</b>	<b>.150</b>

**Table 24** Multivariate analyses with regard to self-employed without personnel (Linear regression, dependent variable belonging to the group of self-employed without personnel)

	step 1	step 2	step 3	step 4	step 5
<b>Conditions of work</b>					
unfavourable ambient	-.03			ns	
unfavourable ergonomic	.09			.07	.07
emotional demands	-.04			-.02	ns
high job demands	-.07			-.04	-.04
<b>Conditions of employment</b>					
less job control		-.07		-.06	-.05
non-standard hours		.30		.28	.23
shifts		-.09		-.07	-.07
less time control		-.21		-.22	-.19
less skills		ns			
training		-.09		-.10	-.08
less task flexibility		.24		.26	.23
less social support		.13		.10	.13
<b>sector</b>					
agricultural			.08	.05	.02
manufacture			-.05	-.02	ns
public utilities			-.02	-.05	-.03
construction			.02	ns	
sales			.15	.08	.07
hotel/restaurant			.03	.05	.05
transport			ns		
finance			ns		
real estate			.04	ns	ns
public services			-.06	-.05	-.03
social sector			.04	.04	ns
<b>Occupation</b>					
managers			.19	.11	.09
professionals			ns		
technicians			ns		
clerks			-.07	-.05	ns
service/sales			.06	.06	.07
agriculture/fishing			.19	ns	ns
craft/trade			.03	.03	.07
operators			-.03	ns	
elementary			-.04	.02	ns
<b>Background</b>					
gender (male)					.02
age					.06
<b>R2</b>	<b>.011</b>	<b>.310</b>	<b>.156</b>	<b>.310</b>	<b>.339</b>

The picture of the self-employed without personnel is definitely not one-dimensional. Even when structural characteristics are taken into account they perform work under more unfavourable ergonomic conditions. On the other hand do they have less psycho-social job demands. The other differences in working conditions can be explained by structural and/or individual characteristics. They work more at non-standard hours, have less training, less task flexibility and less social support, which is directly due to the characteristics of their employment status. But they do have more control over their time and their job.

## Conclusion

Based on the Second survey Letourneux concluded that structural characteristics were more important in explaining employment status than working conditions. Letourneux points out that 'it would therefore seem that the relationship observed between employment status and working conditions is primarily due to the fact that jobs involving difficult working conditions are occupied more by workers on precarious contracts of employment.' The term 'precarious employment' in her report stands for our term 'non-permanent contracts'. However, she shows that there remain significant relationships between working conditions and employment status (after taking into account structural characteristics). So, 'while the relationship is undoubtedly not as strong, there seems to be a clear cut link between employees' precarious status and poorer quality working conditions'.

On the basis of our analyses in this chapter we can partly subscribe these results, but we can also give a more nuanced picture of the relationship, as we have looked at two dimensions of employment status and at two dimensions of working conditions. Table 25 on the next page gives the results of the multivariate analyses, before and after taking into account the structural and individual characteristics.

We will now summarise the main findings of this chapter for the non-permanent contracts, part-time employed and self-employed without personnel:

- The analyses can hardly explain the differences between permanent and non-permanent contracts on the basis of working conditions (0.1% and 1%). There is no significant relationship between non-permanent contracts versus permanent contracts and conditions of work (scenario 1). There is, however, a weak but significant relationship between having a non-permanent contract and low time control and lack of skills (scenario 2). There is also a significant relationship between having a non-permanent contract and low job control (scenario 3). As we had expected, there are no advantages found in having a non-permanent contract.
- Some of the differences that we found can be better explained by the structural characteristics, but more important are the individual characteristics: non-permanent employees are younger than permanent employees (total explained variance 15%). Non-permanent contracts are not characterised by the gender dimension. Overall, when other aspects are taken into account, there is no difference between men and women in the chances of having a non-permanent contract. Only when we look at different age groups, we see that older women are more likely to have a non-permanent contract than older men.
- This implies that non-permanent contracts are not characterised by their bad conditions of work. As we did see in the last chapter, there was no significant difference between permanent and non-permanent contracts with regard to ambient conditions and the differences in

emotional demands were not so clear. But now we can add that also the differences in ergonomic conditions and in psycho-social job demands that we found can be better explained by the structural characteristics than by non-permanent employment status.

**Table 25 Summary of the multivariate analyses on relationship between employment status and working conditions**

	Unfavourable conditions	Favourable conditions	R2
<b>Non-permanent contracts:</b> excl. structural/individual characteristics	Young workers (male and female) – ergonomic conditions – discrimination – low job control – low time control – no skills	female workers age 35+ – ambient conditions – low job demands – social support	Conditions of work: .001  Conditions of employment: .01
incl. structural/individual characteristics	– low job control – low time control – no skills	– none	Total: .15
<b>Part-time contracts:</b> excl. structural/individual characteristics	Female workers; all age groups – ergonomic conditions – discrimination – low time control – no skills – no training	– ambient conditions – low job demands – high job control – less non-standard hours	Conditions of work: .03  Conditions of employment: .02
incl. structural/individual characteristics	– low time control – no skills – no training	– ambient conditions – less non-standard hours	Total: .15
<b>Self-employed without personnel:</b> excl. structural/individual characteristics	Male workers; older workers – ergonomic conditions – non-standard hours – no task flexibility – no social support – no training	– ambient conditions – no discrimination – low job demands – high job control – no shifts	Conditions of work: .01  Conditions of employment: .31
incl. structural/individual characteristics	– ergonomic conditions – non-standard hours – no task flexibility – no social support – no training	– high time control – low job demands – high job control – high time control – no shifts	Total: .34

- Non-permanent contracts can be characterised by some aspects of the conditions of employment: by having less control over the job and less control over the working time, although the explained variance is weak. There are no significant differences in the actual working hours (standard or non-standard). Also, employees with non-permanent contracts are allocated less skilful jobs.
- The total explained variance of the difference between full-time and part-time employment is the same (15%). After taking into account structural and individual characteristics, part-time workers are less exposed to unfavourable ambient conditions (scenario 1). They work less at non-standard hours, and have less control over their working hours, they perform tasks with less skills involved, and have less training (scenario 2). The differences that we find in psycho-social job demands and job control, are explained by the structural characteristics of the job (scenario 3).
- The more unfavourable ergonomic conditions for part-time employees that we found in the previous chapter can be explained by individual characteristics and are not due to part-time

employment. Also the low psycho-social job demands are no longer significant when structural characteristics are taken into account. This means that part-time contracts can be characterised by their favourable ambient conditions, but do not differ from full-time contracts in the other aspects of conditions of work.

- Part-time contracts can be characterised by some unfavourable conditions of employment, for example less skilful jobs and training. They do work less at non-standard hours, but also have less time control.
- There is a gender dimension with regard to having a part-time contract: women are more likely to have a part-time contract than men. There are no differences for the different age groups.
- The analyses give a stronger explanation of being self-employed: total R2 is .34. Here, in particular, the conditions of employment add a lot to the model (31%). The self-employed face worse ergonomic conditions than the employees (scenario 1). They work more at non-standard hours, but less in shifts and have higher time control. They have less task flexibility and less social support, and also less training (scenario 2). Self-employed are less confronted with low job demands and have higher job control than employees (scenario 3).
- The picture of the self-employed without personnel is definitely not one dimensional. Even when structural characteristics are taken into account they perform work under more unfavourable ergonomic conditions. On the other hand, they do have less psycho-social job demands. The differences in emotional job demands can be explained by individual characteristics and the differences in ambient conditions by the structural characteristics.
- They work more at non-standard hours and less in shifts, have less training, less task flexibility and less social support, which is directly due to the characteristics of their employment status. But they do have more control over their time and their job.
- When we look at the individual characteristics, the self-employed are more likely to be male and are older than the employees.





# Summary and conclusions

# 5

In the 1980s and 1990s there was a change in employment relations. While in most countries the full-time job with a permanent contract has become less important, on the other hand, there has been an increase in part-time jobs, in non-permanent jobs and in self-employment. Work organisations change more rapidly and employment relations have become more flexible. This trend is not without its consequences for the employees involved. Many of these new jobs have been called 'precarious' and several sources have concluded that the working conditions of the workers with a fixed term or temporary agency contract were worse than those of the permanent workers (Letourneux, 1998; Benach and Benavides, 1999; OECD 1997 and 2000; Goudswaard and de Nanteuil, 2000; Dhondt et al 2001). Traditional prevention systems in the field of occupational safety and health may not be sufficient to protect these non-permanent workers. Although some of the traditional risks may have become less important, working conditions on the whole do not seem to have improved (Merlie and Paoli, 2000), and new risks have emerged, such as ergonomical problems and work pressure.

Results from the Foundation's Third European survey on working conditions have been used in this report to analyse the changes in employment relations between 1996 and 2000 and to examine the relationship between employment status and working conditions.

The concept of *employment status* is two-dimensional. On the one hand, we have divided two types of employment contracts: permanent or open-ended contracts versus non-permanent contracts (fixed term, temporary, seasonal contracts). On the other hand, we have divided between full-time (>35 hours) and part-time employees (10-35 hours). These two dimensions are linked together, with a higher proportion of part-time jobs with non-permanent contracts. In some situations, the combination of both a non-permanent contract and a part-time contract may lead to a cumulative situation in terms of working conditions. In other situations, however, it will have the opposite effect. We not only looked at the employees, but also at the self-employed without personnel, since the distinction between employees and these groups of self-employed have become slight (OECD, 2000).

The concept of *working conditions* is also two-dimensional. In the first place we have analysed the conditions of work, describing the practical conditions under which people work and cope with a specific technical and organisational environment. In the second place, we have analysed the conditions of employment, describing the rules and status under which people are employed, trained and paid. We analysed three possible scenarios for the relationship between employment status and working conditions:

1. In the first scenario, the exposure to risk is shifted to the external, flexible workers or subcontractors. These are the people who do the dirtiest, the most dangerous and the most monotonous jobs under relatively poor ergonomic conditions. They are not as well protected as permanent employees since they often fall outside the jurisdiction of committees that monitor working conditions or labour unions.
2. In the second scenario, there is no difference in actual conditions of work, but a gap does develop between permanent and non-permanent workers, or full-timers and part-timers, in terms of job security, access to training, career prospects and remuneration. The flexible workers get assigned the least favourable work times and have little opportunity to improve themselves.

3. The third scenario does not involve the flexible workers or part-timers, but a company's own, permanent employees. Due to the intensification of work, and a higher internal flexibility, these employees are put under more pressure.

Employment status is not the only variable that may lead to poor working conditions, and will certainly not always directly lead to poor working conditions. The structural characteristics of the job and even some individual characteristics will also be important in explaining working conditions. That is why in the preceding chapter multivariate analyses were carried out taking into account several structural and individual characteristics.

On the basis of the comparison between the Second and Third European survey on working conditions, we can conclude that there has been no further growth of non-permanent contracts in the EU. On the whole, the percentage of non-permanent contracts among employees has decreased from 15% in 1996 to 13% in 2000. If we only consider newcomers in jobs, the share of non-permanent contracts is more important, but here we also see a decrease: in 2000 the majority of employees had started a job with a permanent contract, which was not the case in 1996. The growth in part-time employed has continued; the percentage of part-time jobs among all employees has grown from 22% in 1996 to 28% in 2000. There has also been a slight increase in the percentage of self-employed without personnel versus employees (from 9% in 1996 to 10% in 2000).

There appears to have been a shift in employment status of employees, with a decrease in the share of non-permanent contracts and an increase in the share of part-time permanent contracts. This shift can be found for both men and women and for all age groups. Although there are large differences between sectors and occupation, the decrease of non-permanent contracts and the increase of part-time employment can be found everywhere. A possible explanation for this trend can be found in shortages in the labour market, changes in the labour market rules and regulations, and unemployment protection, but also in changes in the sectoral structure (growing service sector) and in the workforce (ageing workforce, more women in employment). The common picture of employees in different employment contracts did not change: men work more in full-time jobs and in permanent jobs or as self-employed without personnel than women; women work more in part-time jobs and (in particular among employees over age 35) women work more in a non-permanent contract than men. The non-permanent employees are either young (<25 years) or old (65+) and the share of self-employed without personnel increases with the age of the workers.

When we do not involve structural and individual characteristics in our analyses, we find the following relationships between employment status and working conditions:

1. We find little evidence for *scenario 1* and the hypothesis that dangerous work situations are transferred to non-permanent workers. The differences between permanent and non-permanent workers have decreased, with a deterioration of the situation of the permanent employees. Non-permanent employees are, however, less well informed about these risks than permanent workers. Although the differences between permanent and non-permanent employees have become less, we do still find that ergonomically poor jobs are more often performed by non-permanent employees working full-time and the self-employed (both full-time and part-time). Part-time workers are less exposed to physical hazards than full-time workers. In this case having a non-permanent contract and a part-time contract will lessen the risks.

2. If we look at *scenario 2*, we find evidence for most of our hypotheses. Non-permanent employees work more over weekends than permanent employees and have less control over working time. They also have less secure income, perform less skilled work and/or have less access to training. Having a non-permanent contract and a part-time contract worsens this situation. There is no difference in social support between permanent and non-permanent workers. The self-employed have less social support, work more over weekends and at non-standard working hours, but have more control over their working time.
3. At first glance, we seem to find evidence for *scenario 3*: permanent employees face higher psycho-social job demands than non-permanent workers and full-time employees face higher job demands than part-time employees. High job demands can be balanced (partly) by high job control. If we consider the thought that work stress is a result of unbalanced job demands versus job control, the picture is slightly different. In particular the non-permanent employees have less job control. So, at second glance, we do not find evidence for the third scenario. Job demands have increased for all groups of workers, and if we also look at job control, as a way of coping with high demands, it may be so that the consequences of intensification are experienced more by non-permanent employees, since they have less job control. When we look at the combination of job control and job demands, we see a relatively high percentage of high strain jobs for the full-time workers with a non-permanent contract.

Finally we attempt to see whether these results can be explained by the differences in employment status or whether they can be explained by the sector and occupations in which these jobs are performed or by the individual characteristics of the employees. We can conclude that, based on the explained variance, the analyses can hardly explain the differences in employment status based on the conditions of work *scenario 1*. Most of the differences we found can be better explained by differences in sector or occupation. There remains, however, a significant relationship between having a part-time contract and more *favourable* ambient conditions. There remains, also, a significant relationship between the self-employed without personnel and *unfavourable* ergonomic conditions.

We can also only partly explain the differences in the employment status of the employees and the conditions of employment. Most of these differences can be better explained by structural or individual characteristics (non-permanent employees being younger and part-time employees being female). There remains, however, a significant relationship between employment status and conditions of employment *scenario 2*: non-permanent contracts can be characterised by having low time control and less skilful tasks. Part-time contracts can be characterised by having low time control, performing less skilful tasks and receiving less training. There are no significant differences between part-time and full-time employees in the field of job demands and job control *scenario 3*, when structural characteristics are taken into account. There are also no differences between permanent and non-permanent employees in job demands, but non-permanent employees have less job control.

The employment status of the self-employed without personnel is highly linked to the conditions of employment. Their situation is, however, diverse. When structural and individual characteristics are taken into account, we find that self-employed without personnel receive less training, have less task flexibility and less social support, but they have higher time control, higher job control and face less job demands than the employees.



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# Appendix 1

## Concepts used in the survey

Survey concepts	Description	Variable names
<i>Employment status</i>		
Small employers	Self-employed with employees, micro firms	q4: 2. self-employed with employees
Self-employed without personnel	Self-employed without employees	q4: 1. self-employed without employees
Permanent contract	Employee with an unlimited contract, permanent contract, open-ended contract	q4b: 1. unlimited contract
Non-permanent contract	Temporary employment agency contract Fixed term contract (<1 year and >1 year)	q4b: 2. fixed term contract, q4b: 3. temporary agency contract
First year in the job	Working less than one year in this job	Q44crr (duration of contract in years)
Full-time work	More than 35 hours per week	q14r (hours of work per week in categories)
Part-time work	Between 10 and 35 hours per week	q14r (hours of work per week in categories)
<i>Structural characteristics</i>		
Country	Country code	pays (15 EU countries: Belgium, Denmark, Germany, Greece, Italy, Spain, France, Ireland, Luxembourg, Netherlands, Portugal, United Kingdom, Finland, Sweden, Austria))
Sector	Sector, branch of industry	q5r (11 categories: agricultural, manufacture, public utilities, construction, sales, hotel/ restaurants, transport, finance, real estate, public services, social sector )
Size of enterprise	Size of enterprise	q7 (5 categories: no. of employees: 2-9; 10-49; 50-99; 100-499; 500 and more)
Occupation	Occupation	q2r (10 categories: managers, professionals, technicians, clerks, service/sales, agriculture/fishing, craft/trade workers, operators, elementary professions, armed forces)
<i>Individual characteristics</i>		
Sex	Sex	ef10 (1. male, 2. female)
Age	Age group	ef11r1 (age 15-24, 25-34, 35-44, 45-54, 55-64, 65+ )
<i>Working conditions (1)</i>		
<i>Conditions of work</i>		
Physical and/or chemical exposure or ambient conditions	Items: Vibrations Loud noise Extreme (low/high) temperatures Toxic vapours Hazardous products Radiation  Scale: Unfavourable ambient conditions	q11a (5 pointscales) q11b q11c, q11d q11e q11f q11g  7 items (noise, vapour, danger, vibrations, high/low temperature, radiation); range 1-7 all of the time – never; (Cronbach alpha .79)
Information on risks	How well informed are you about the risks resulting from the use of materials, instruments or products, which you handle in your job?	q13 (very well, fairly well, not very well, not at all)
Musculoskeletal job demands or ergonomical conditions	Items: Painful or tiring positions Carrying or handling heavy loads Repetitive arm or hand movements  Scale: Unfavourable ergonomic conditions	q12a q12b q12c  3 items (painful posture, heavy work, repeated movements); range 1-7 all of the time – never; (Cronbach alpha .69)



## Employment status and working conditions

Survey concepts	Description	Variable names
Emotional job demands or discrimination	Items: Intimidation Discrimination linked to age Sexual discrimination  Scale: Discrimination	q3103 (yes/no) q3106 (yes/no) q3104 (yes/no) 10 items (confrontation with physical violence, harassment, discrimination from colleagues cq. clients); range 1-2 yes/no; (Cronbach alpha .59)
<i>Working conditions (2)</i>		
<i>Conditions of employment</i>		
Working time flexibility	Items: No. of nights per month No of Sundays per month No. of Saturdays per month Shift work No. of times more than 10 hrs a day per month  Wanted to work more or less hours  Scales: Work over weekends  Shift work Non-standard working hours	q16ar q16cr q16dr q18b (yes/no), q18c (types) q16er  q17b (would you like to work 1. more/2. less/3. same number of hours  2 items (work on Saturday/Sunday); range 1-7 all of the time – never; (Cronbach alpha .65) 1 item; range 1-8 types, yes/no 3 items (work at night, in evening and/or more than 10 hours per day); no. times per month; (Cronbach alpha .66)
Control over working time	Items: Can you not: – Take a break when you want to – Decide when to take holidays or days of leave  Scale: Time control/less control over working hours	q2602 (yes/no) q2603 (yes/no)  2 items (taking breaks, decide on holidays); range 1-2 yes/no; (Cronbach alpha .62)
Type of payment	Do you not have a basic fixed salary	ef22c (yes/no)
Skills development	Items: Does your work involve: – meeting quality standards – solving problems – monotonous tasks – complex tasks – learning new things  Scale: Lack of skills (skilled work)	q2401 q2403 q2404 q2405 q2406 6 items (meet standards, judge quality, solving problems, monotonous, complicated tasks, new things); range 1-2 yes/no; (Cronbach alpha .74)
Task rotation	Does your work involve task rotation (yes/no)  Scale: Task flexibility	q27b1  2 items (task rotation, work in teams); range 1-2 yes/no; (Cronbach alpha .63)
Level of skills demands	Do your skills match the demands of your work? – demands are too high – demands match – demands are too low	q28 (1. demands too high, 2. match, 3. too low)

Survey concepts	Description	Variable names
Access to training	No. days of training paid or provided by employer in last 12 months	q29r
Social support or consultation	<p>Items:</p> <p>Within your workplace are you able to discuss your working conditions in general? Do these exchanges of views take place with colleagues and/or with superiors?</p> <p>Scale:</p> <p>Social support</p>	<p>q30a1 (yes/no)</p> <p>q30b1 (with colleagues), q30b2 (with superiors)</p> <p>3 items (assistance, regular talks with colleagues cq. boss); range 1-2 yes/no; (Cronbach alpha .77)</p>
<i>Working conditions (3)</i>		
<i>Intensification of work</i>		
Psycho-social job demands	<p>Items:</p> <p>Does your work entail (for at least <math>\frac{1}{4}</math> of working time):</p> <ul style="list-style-type: none"> <li>- Very tight and very short deadlines</li> <li>- High speed work</li> </ul> <p>Scale:</p> <p>High job demands</p>	<p>q21b1 (7 pointscales)</p> <p>q21b2 (7 pointscales)</p> <p>2 items (work at high speed, deadlines); range 1-7 all the time – never; (Cronbach alpha .65)</p>
Job control	<p>Items:</p> <p>Are you able to choose or change:</p> <ul style="list-style-type: none"> <li>- the order of tasks</li> <li>- the method of work</li> <li>- the speed of your work</li> </ul> <p>Scale:</p> <p>Little job control</p>	<p>q2501 (yes/no)</p> <p>q2502 (yes/no)</p> <p>q2503 (yes/no)</p> <p>3 items (free to choose order, method, speed); range 1-2 yes/no; (Cronbach alpha .64)</p>



## Appendix 2

# Figures from other data sources

	Eurostat Labour Force Survey 1999		OECD Employment Outlook 1999
	Temporary employment (seasonal, temp agency, training contracts etc.)	Part-time employment (spontaneous)	Part-time employment (<30 hrs)
Belgium	13.7	39.9	19.9
Denmark	11.3	33.9	15.3
Germany	13.4	37.2	17.1
Greece	14.7	10.5	-
Spain	34.9	17.6	7.9
France	14.8	31.7	14.7
Ireland	9.9	30.6	18.3
Italy	11.8	15.7	11.8
Luxembourg	4.4	24.6	12.1
Netherlands	15.4	68.6	30.4
Austria	7.8	32.5	12.3
Portugal	20.4	16.7	9.3
Finland	21.2	17.0	9.9
Sweden	16.6	40.0	14.5
United Kingdom	7.5	44.4	23.0
EU	14.2	33.5	16.4



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*Since the 1980s there has been a growth in 'non-standard' employment: part-time jobs, non-permanent contracts and self-employment. This trend is not without important consequences for the employees involved: many of these new jobs have been called 'precarious' and there is evidence to suggest that working conditions for this category of workers are less favourable than for permanent workers. This report compares the work situation of these two groups of workers. It covers aspects such as working time, task flexibility, skills development, physical risk factors and psycho-social demands. Its findings are based on data from the Foundation's Third European survey on working conditions 2000 which was carried out across the 15 EU Member States.*

The European Foundation for the Improvement of Living and Working Conditions is a tripartite EU body, whose role is to provide key actors in social policy-making with findings, knowledge and advice drawn from comparative research. The Foundation was established in 1975 by Council Regulation EEC No. 1365/75 of 26 May 1975.

