



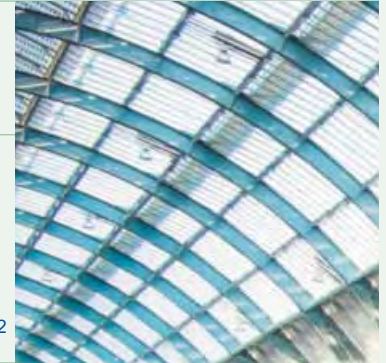
European Foundation for the
Improvement of Living and
Working Conditions



Metal industry: Working conditions and job quality

'Work plays a significant role in people's lives, in the functioning of companies and in society at large. But what is work? How can we describe it? Is it changing, and if so, is it for better or for worse? Is it fulfilling the numerous and at times conflicting expectations we have of it? How can we take steps to improve work for the well-being of all?'

Eurofound, *Fifth European Working Conditions Survey: Overview report, 2012*



This report gives an overview of working conditions, job quality, workers' health and job sustainability in the metal industry (NACE 25 to 30).¹ The sector includes the manufacture of fabricated metal products, computers, electronic and optical products, electrical equipment, automotive production, trailers and semi-trailers, and other transport equipment. The findings are based mostly on the fifth European Working Conditions Survey (EWCS), which gathers data on working conditions and the quality of work across 34 European countries. Additional information on the structural characteristics of the sector is derived from Eurostat data. The fifth EWCS contains responses from 1,382 workers in the metal industry. The report compares aspects of work in the sector with the EU28 as a whole.

Structural characteristics

In 2010 13,917,600 European workers worked in the metal industry, comprising 6.4% of the EU28 workforce. Employment in the sector dramatically decreased by 11.6% between 2008 and 2010, and increased slightly by 1.9% between 2010 and 2012 (Eurostat, 2013).

Countries where the metal industry is a relatively large employer are the Czech Republic (11.88%), Germany (10.71%), Slovakia (10.4%) and Slovenia (10.23%). The sector has relatively little prominence in Luxembourg (1.02%), Cyprus (1.12%), Lithuania

(1.44%) and Latvia (1.93%). A large proportion of workers in the metal industry (57%) are in medium-sized workplaces (10–249 employees), compared to 46% of workers in the EU28. The percentage of workers in the metal industry in micro-workplaces (1–9 workers) accounts for 12.2% of all sectoral workers, while in the EU28 the proportion is 41.9%. Large workplaces (250+ employees, 5%) also account for a sizeable proportion of workers in this sector (30.8%), considerably higher than in the EU28 (12.1%).

The sector is male-dominated, 78.4% of the workers in the metal industry being men, and it employs a relatively large proportion of middle-aged people. Only 8.4% of workers in the sector are under 25, compared to 9% in the EU28. Just over a quarter (29.3%) of workers in the sector are aged between 40 and 49, compared with 27.5% in the EU28.

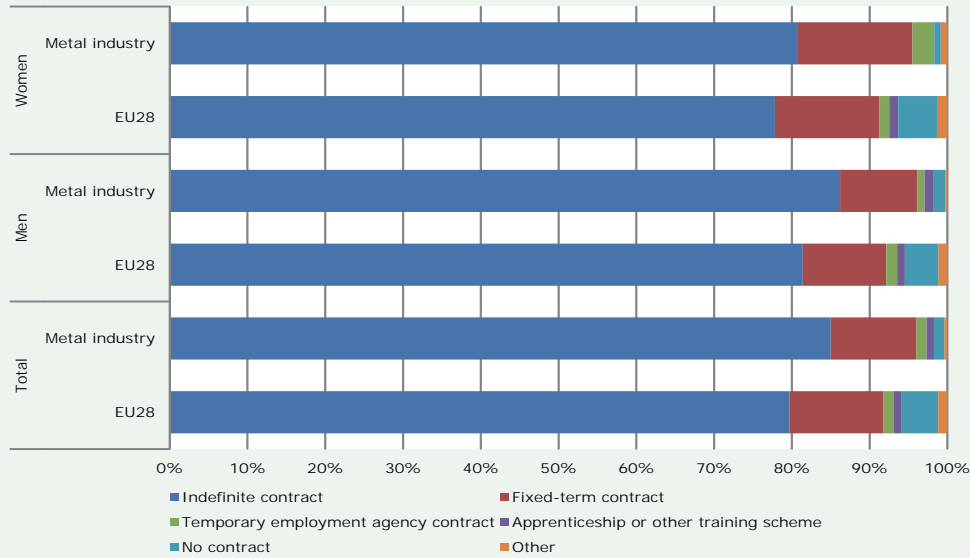
Self-employment is relatively uncommon in the metal industry: just 2% are self-employed with employees and 3% are self-employed without employees, compared to 4% and 11% respectively in the EU28.

Metal industry in a nutshell

- The sector includes a high proportion of medium- and large-sized workplaces
- Part-time work is not common
- Atypical working hours are not very prevalent
- Job strain is an issue for many workers in the metal industry
- There are high levels of exposure to physical risks, particularly among manual workers

¹ Nomenclature statistique des activités économiques dans la Communauté européenne (statistical classification of economic activities in the European Community).

Figure 1: Employment status, by gender



Fixed-term and temporary agency contracts are as prevalent in the metal industry as in the EU28 as a whole. Following the EU28 trend, within the metal industry fixed-term and temporary contracts are more prevalent among women than among men (Figure 1). It is also interesting to note that indefinite contracts are more common in this sector than in the EU28 as a whole.

EU28 as a whole, while increased hours have been less frequent than in the EU28. Medium-sized and large workplaces seem to have been particularly affected by working hour reductions.

Working conditions

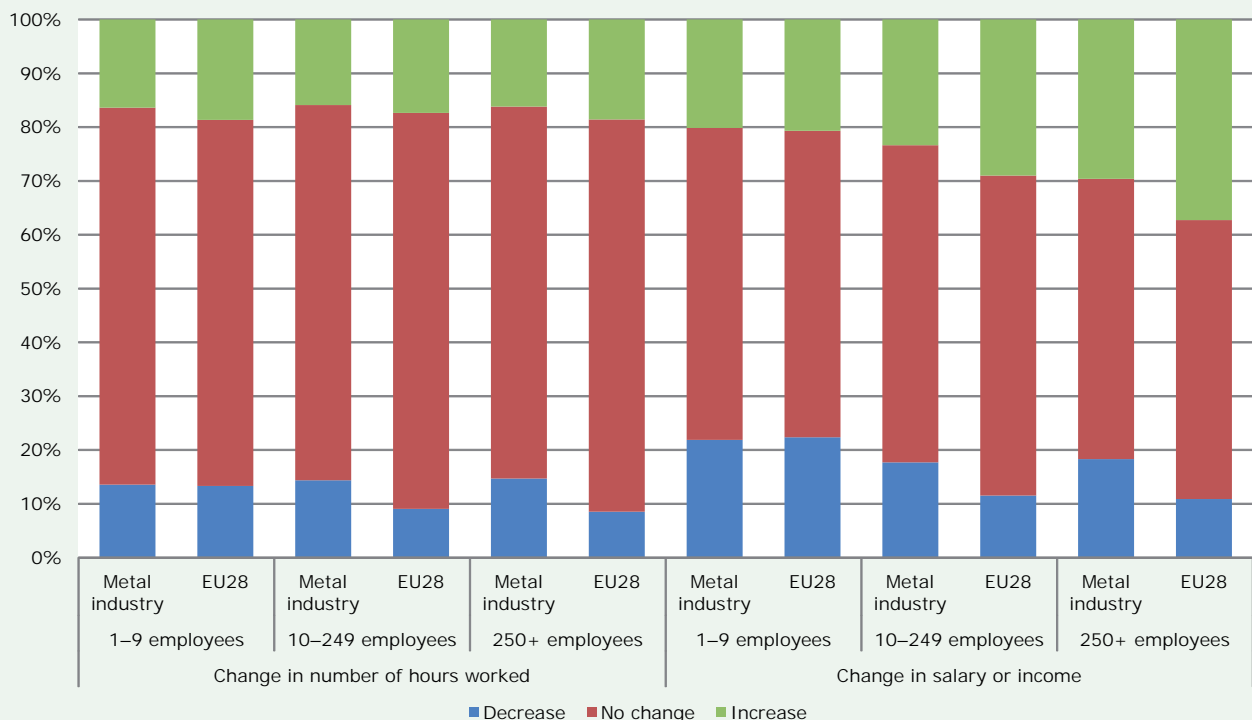
Changes since the crisis

Figure 2 shows that reduction in hours worked has been more common in the metal industry than in the

A similar trend is observed when looking at the change in income, with the metal industry reporting a higher percentage of salary decreases and a lower percentage of salary increases than the EU28 as a whole.

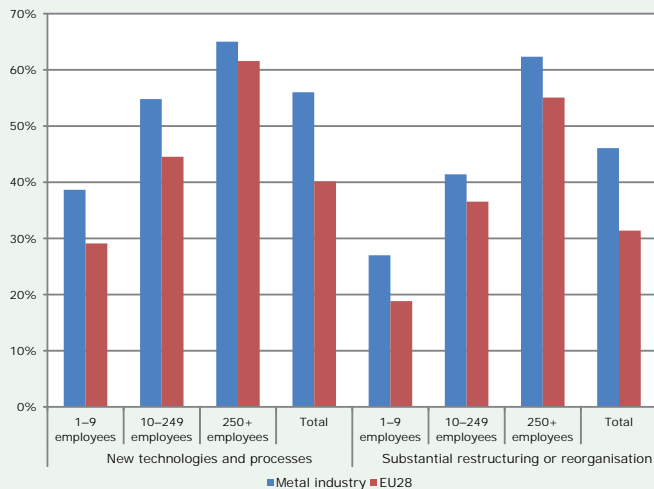
In terms of restructuring and the introduction of new technologies (Figure 3), workers in the metal industry were more affected than the EU28 average. The

Figure 2: Percentage of employees reporting changes in number of hours worked and salary or income in past year, by workplace size



metal industry follows the same pattern as the EU28: the share of employees reporting restructuring or reorganisation or the introduction of new production processes and technologies increases with workplace size.

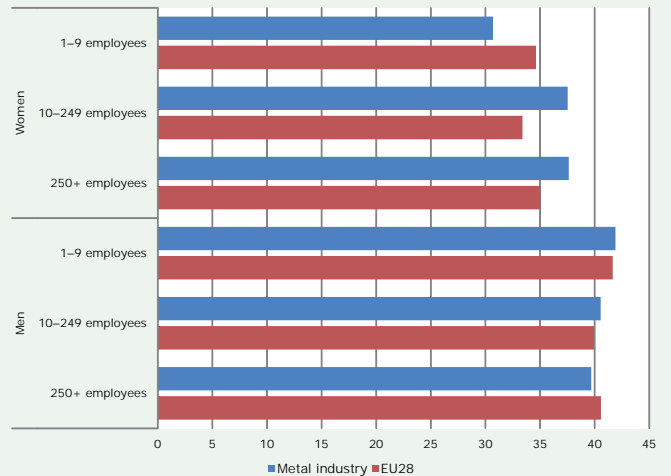
Figure 3: Restructuring and introduction of new technologies in past three years, by workplace size



Working time and work-life balance

Workers in the metal industry on average work 40 hours per week compared to 38 hours in the EU28. Only women in micro workplaces in the metal industry report working considerably fewer hours than their peers in the EU28 (Figure 4).

Figure 4: Average working hours, by gender and workplace size



When comparing the metal industry with the EU28 average there are no substantial differences in terms of working time preferences: 30% would prefer to work fewer hours than currently, whereas 13% would prefer to work more hours. However, the data does show differences between men and women and between different sizes of workplaces (Figure 5).

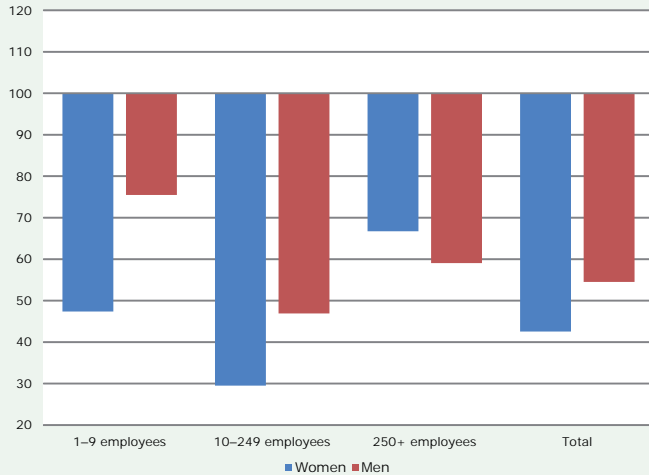
In micro and large workplaces, both men and women tend to report a preference for working fewer hours less often than in the EU28. Male workers in the metal industry in medium-sized workplaces report more frequently a preference to work fewer hours, but the proportion is very similar to that of the EU28.

Figure 5: Working time preference, by gender and workplace size



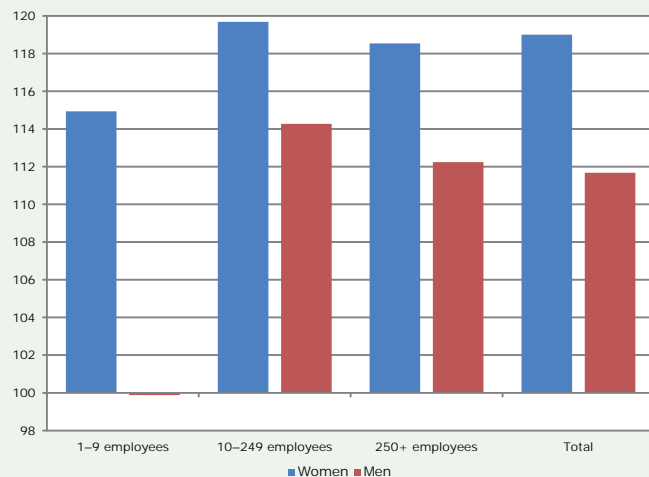
Figure 6 shows that working atypical hours (weekends, evenings and/or nights) is much less prevalent in the metal industry than in the EU28 as a whole, especially for women in micro, small and medium-sized workplaces and men in SMEs.

Figure 6: Index of working atypical hours (EU28=100), by gender and workplace size



When looking at the regularity of working time, differences between the metal industry and the EU28 are marked (Figure 7).

Figure 7: Index of regularity of working time (EU28=100), by gender and workplace size



Workers in the metal industry are considerably more likely to have regular working hours than the average EU28 worker. The only exception is male workers working in micro workplaces, who report working times that are equally regular as the average EU28 worker.

Figure 8 shows that work-life balance (the fit between working hours and family or social commitments) is slightly better for those working in the metal industry than in the EU28 as a whole. The greatest difference

can be observed for women working in micro workplaces, only 2% of whom report having a poor work-life balance (the equivalent figure for the EU28 average is 16%).

Figure 8: Poor work-life balance, by gender and workplace size



In the metal industry, as in the EU28, more men report a poor work-life balance than women; the most striking difference can be seen in smaller workplaces.

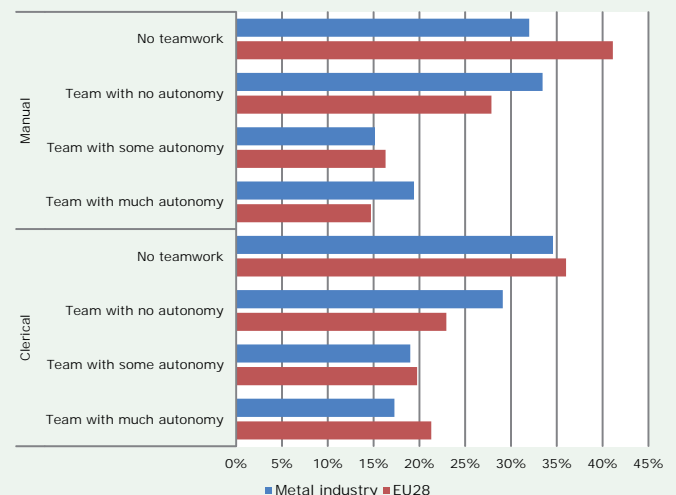
Work organisation

Teamwork

Teamwork has been proposed as an alternative to work organisation models based on high levels of labour division. As teamwork reflects a variety of practices, it can also assume a variety of forms. Different types of teamwork can be identified using the EWCS by looking at the level of autonomy within the teams.

Teamwork is slightly more prevalent in the metal industry (67%) than in the EU28 (62%) – Figure 9.

Figure 9: Team work and team autonomy, by occupational category



However, the proportion of workers working in teams without autonomy is higher for both manual and clerical metal industry workers than for their peers in the EU28. A further exception to this is the higher proportion of manual workers in the sector reporting working in a team with much autonomy compared to the average for manual workers in the EU28.

Task rotation

Task rotation is also an important feature of work organisation. Depending on how it is implemented, task rotation may require different skills from the worker ('multiskilling') or may not ('fixed task rotation') and is either controlled by management or by the workers themselves ('autonomous'). Task rotation has been shown to be beneficial for workers' well-being, and autonomous multiskilling systems in particular are associated with higher worker motivation as well as better company performance.

While the percentage of workers in the metal industry working in a task rotation system does not differ much from the EU28, small differences can be observed. Workers in micro workplaces in the metal industry are less likely to be in management-controlled fixed task rotation (2%) than the EU28 average of workers in small workplaces (7%). Another difference is the greater proportion of metal industry workers in small and medium-sized workplaces reporting to be in management-controlled multiskilling (37%) compared with the EU28 average for similar workers (30%).

Female bosses

The proportion of workers in the sector who report having a female boss is much lower than in the EU28 as a whole. Only 20% of women in the metal industry report having a female boss, compared with the 46% of EU28 average; only 3% of men report having a female boss, compared to 12% of male workers in the EU28.

Skills and training

Overall, the majority of workers in the metal industry say that their present skills correspond well with their duties (Figure 11). The proportion of people reporting being under-skilled or over-skilled is similar to that in the EU28. The main exception to this is the higher proportion of people under 35 in this sector who consider themselves to be 'over-skilled' (38%) in comparison with the under-35 EU28 workers (32%).

Receiving employer-paid training in the metal industry is gender-biased (Figure 12). Women in the sector receive less training than women do in the EU28 as a whole, regardless of age. On the other hand, men in the sector are more likely to receive training than men in the EU28. The only exceptions are men aged over 50, among whom there are no differences in the proportion that received training and the EU28 average.

Figure 10: Prevalence of task rotation, by workplace size

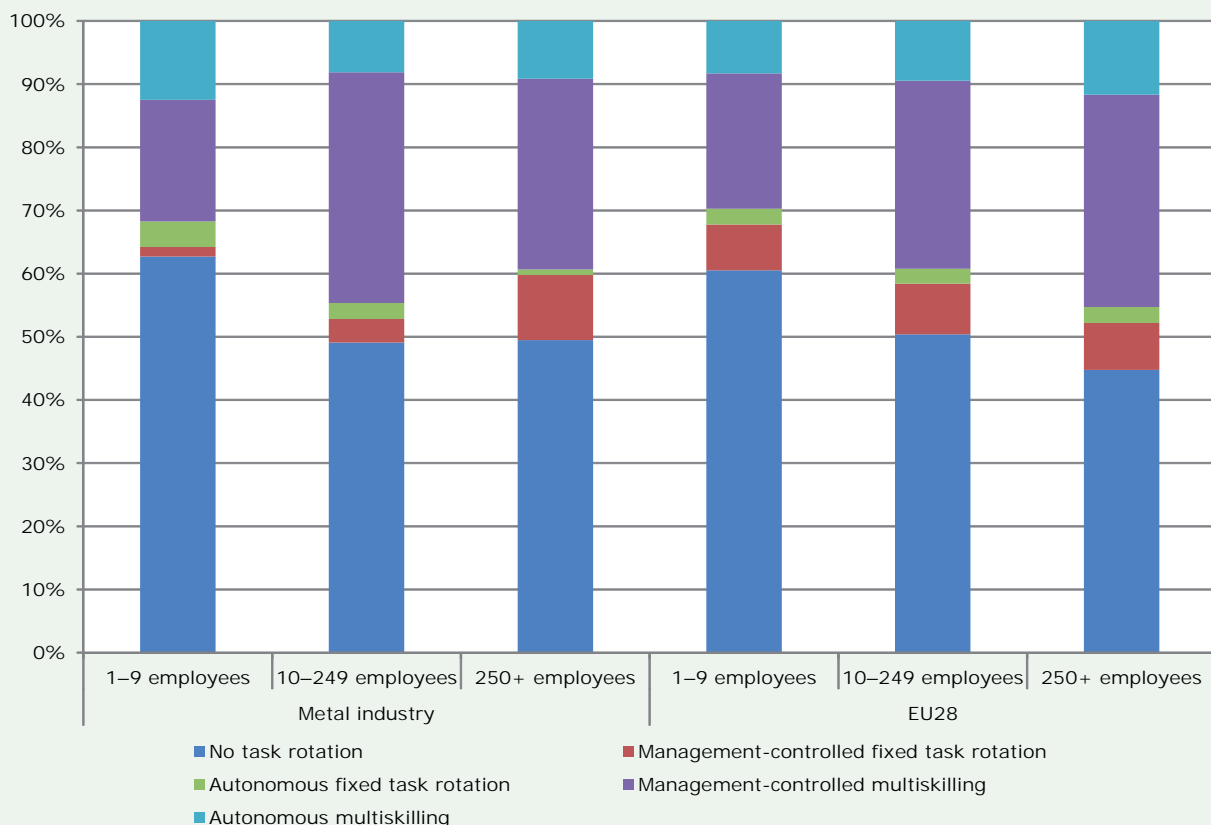


Figure 11: Match between skills and tasks, by age group

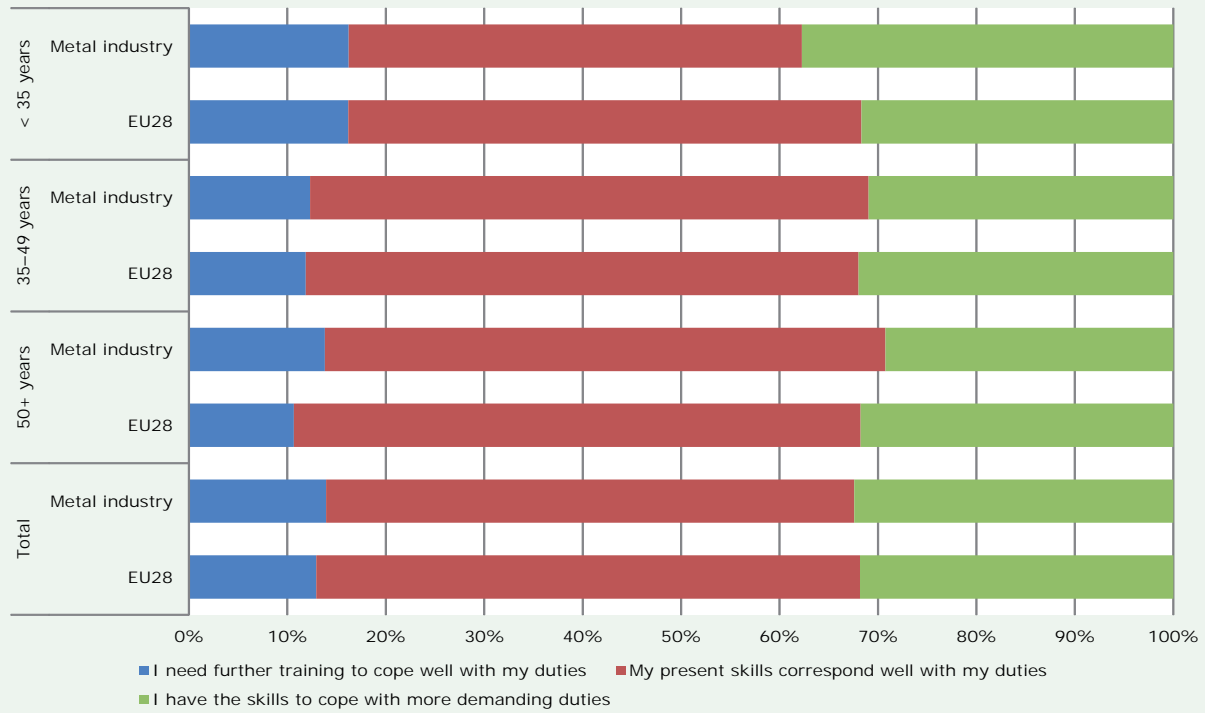


Figure 12: Employer-paid training, by gender and age

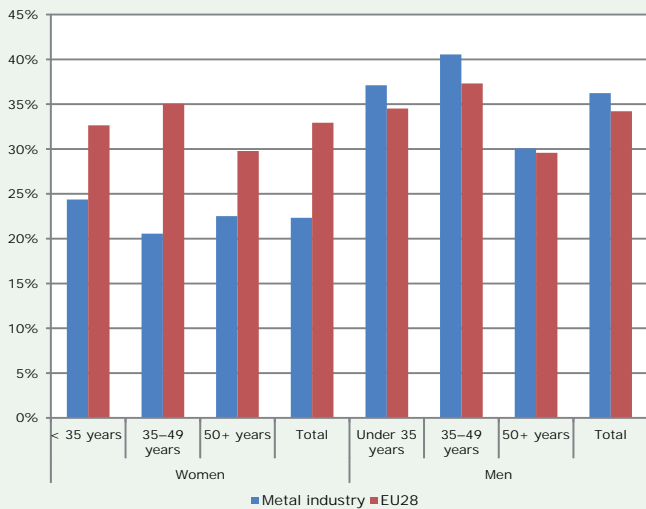
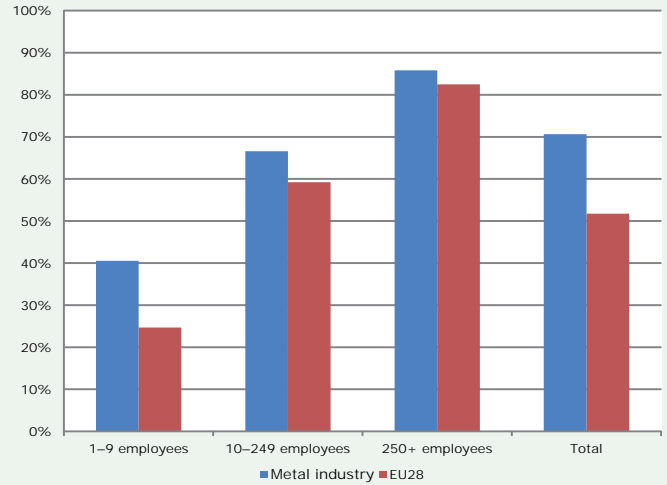


Figure 13: Availability of an employee representative at the workplace, by workplace size



Employee representation

The EWCS contains fairly limited information on formal employee representation. It asks whether an employee representative is present at the workplace and whether workers have raised an issue with an employee representative in the past year. Figure 13 shows the combined results of these questions (an employee representative has been considered to be 'available' if they are present at the workplace or when an issue was raised).

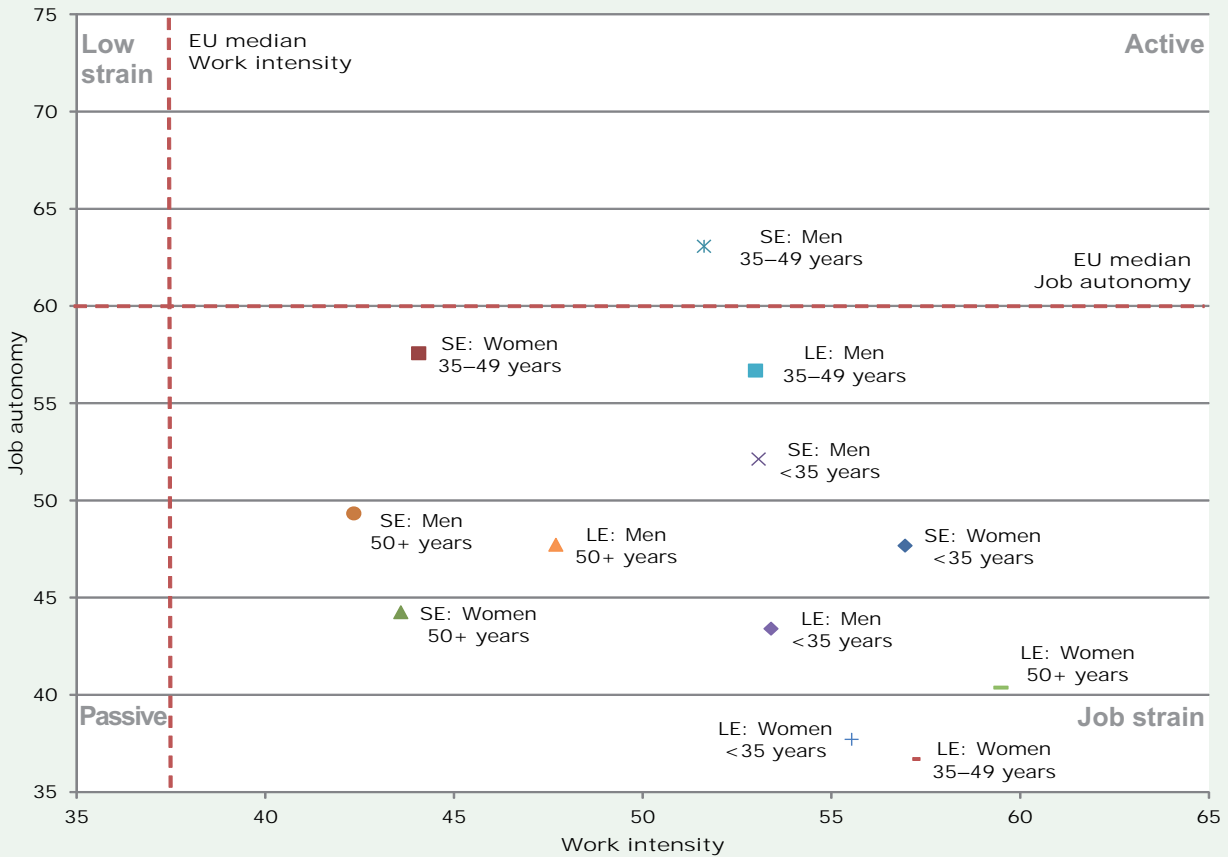
In 2010, 71% of employees in the metal industry reported that an employee representative was available compared to 52% of workers in the EU28. Employee representation tends to be greater in the metal industry for all categories of workplace size, even if the difference is smaller for large workplaces.

Psychosocial and physical environment

Job autonomy and work intensity

The psychosocial and physical environment has a huge impact on workers' well-being. According to the job demand and control model of the American sociologist Karasek (1979), workers are more likely to suffer from work-related stress when they are faced with high levels of demand while being limited in the control they have over the way in which they carry out their job.

Figure 14: Distribution of groups of workers by average levels of job autonomy and work intensity



Note: LE = large enterprise; SE = micro, small or medium-sized enterprise

Figure 14 shows the likelihood of workers in the metal industry suffering from work-related stress. Groups of workers are plotted along two axes: job autonomy and work intensity.

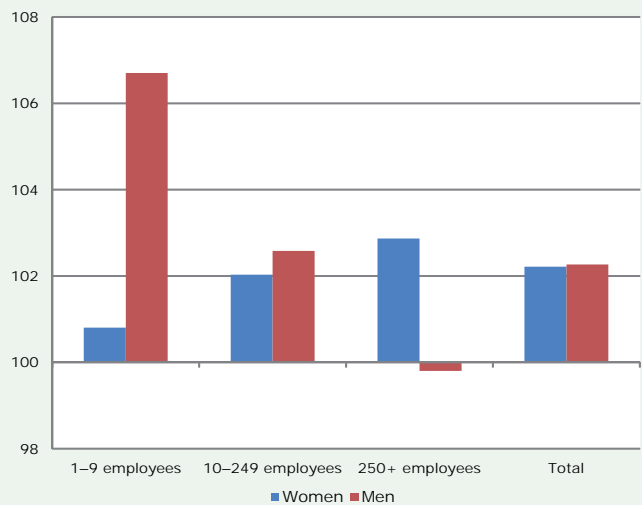
Most groups of workers in the metal industry fall into the bottom right quadrant category: ‘job strain’. This is the most problematic category, as these jobs are characterised by high levels of intensity and low levels of autonomy, posing the risk of unhealthy stress levels and consequently a range of stress-related illnesses such as cardiovascular disease and mental health problems.

The only exception to this are men aged 35–49 working in small or medium-sized workplaces. This group has more autonomy than the rest and so falls into the upper right ‘active’ category. ‘Active’ jobs imply high levels of work intensity and high levels of job autonomy. Although these jobs can be very demanding, workers have enough control over the way they do their job and can develop coping strategies through active learning.

Social environment

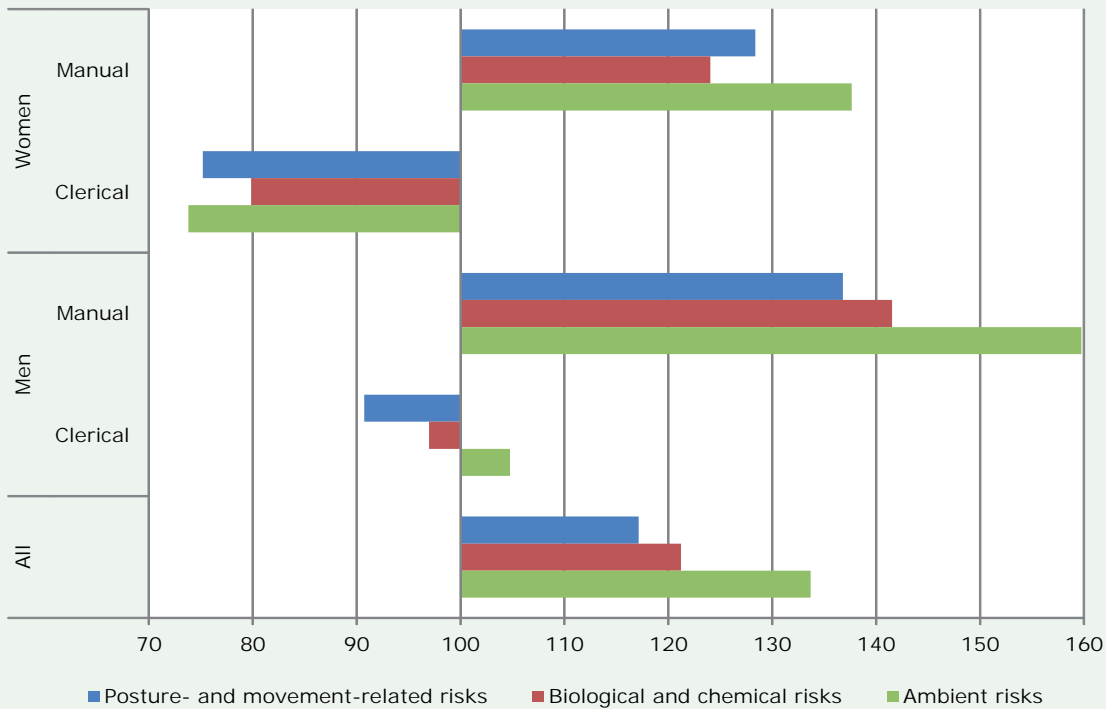
A good social environment is characterised by the existence of social support and the lack of abuse at work. Social support can help workers deal with high levels of work intensity. Workers in the metal industry are, on average, slightly above the EU28 trend on this indicator (Figure 15).

Figure 15: Index of good social environment (EU28 = 100), by gender and workplace size



Women and men do not differ much overall, but show a different pattern across different-sized workplaces. For men, the social environment shows a negative correlation with workplace size: men in smaller

Figure 16: Indices of exposure to physical risks (EU28 = 100), by gender and occupation



workplaces report a better social environment. For women, on the contrary, the social environment tends to be best in large workplaces, followed by medium-sized workplaces, and is worst in small ones.

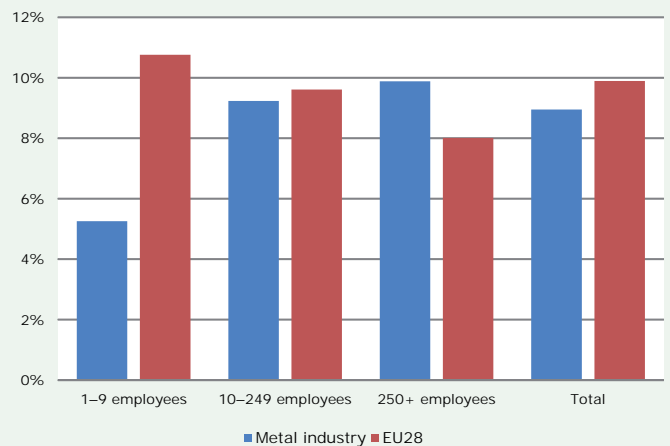
Physical risks

In terms of exposure to physical risks, the metal industry shows a clear pattern of very high risks for manual workers and much lower risks for clerical workers (Figure 16).

Men in manual occupations in the sector report a level of posture- and movement-related risks, biological risks and ambient risks well above the EU28 average. Women in manual jobs also report high physical risks of all kinds but at lower levels than men in manual jobs. Female clerical workers in the metal industry have risks well below the EU28 average, and male clerical workers in the sector also have lower risks than the EU28 average, with the exception of exposure to ambient risks which is slightly above the EU28 average.

One in eleven workers in the metal industry report that they were not very well or not at all well informed about work place risks, compared to only one in ten in the EU28 (Figure 17). The percentage of workers who are not sufficiently informed increases with workplace size and is higher among workers in large workplaces than in the EU28.

Figure 17: Not very well or not at all well informed about health and safety risks at work, by workplace size

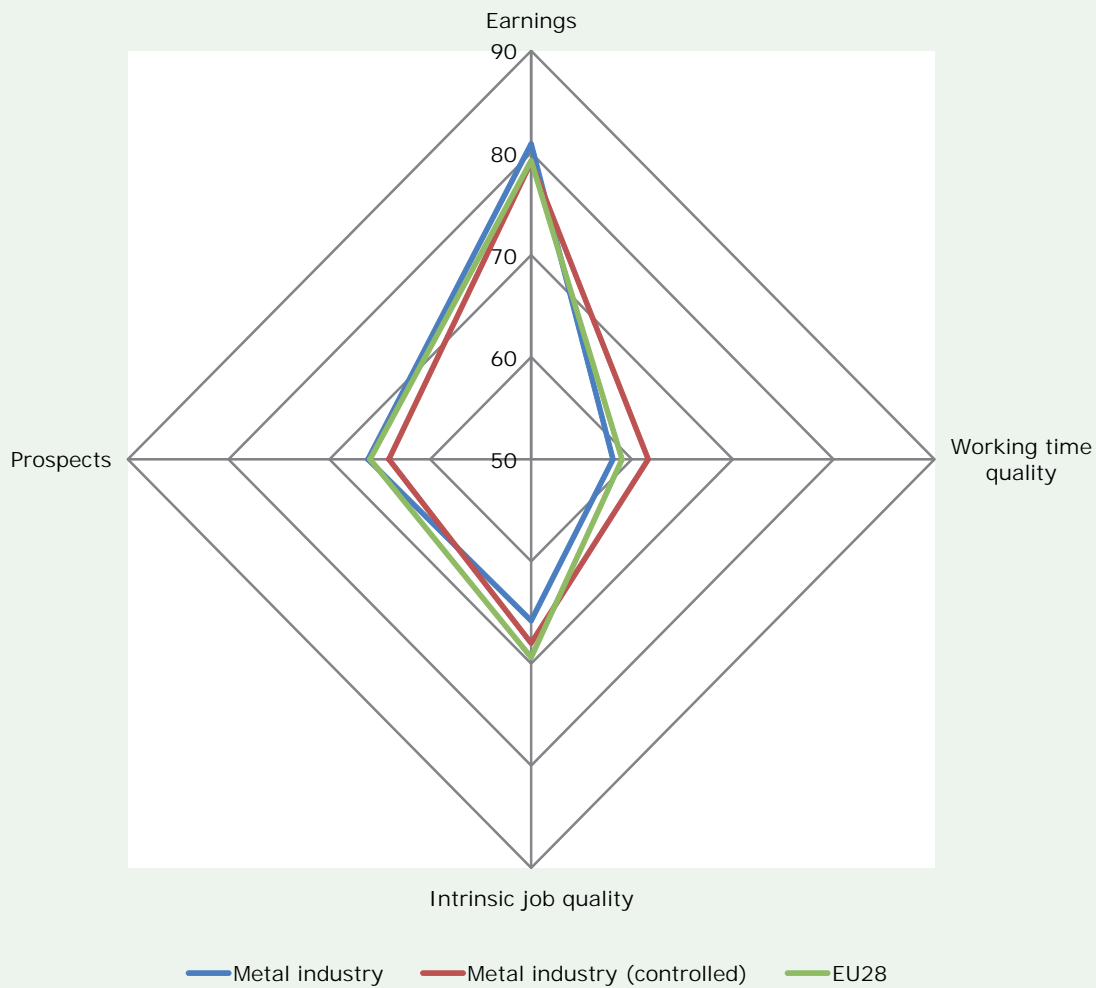


Job quality

In the report Trends in job quality in Europe, the authors constructed four indices of job quality: earnings, prospects, intrinsic job quality and working time quality. The indices are built using job characteristics that are unambiguously associated with workers' well-being.

Figure 18 summarises job quality in the metal industry sector. It shows the average score for the sector on each of the indicators, with and without controlling for the structural characteristics of the sector's workers (age, gender, workplace size, education level and country), and for the EU28.

Figure 18: Job quality in the metal industry compared with EU28



Note: Scores on all four indicators range from 0 to 100

Job quality in the metal industry is slightly lower than in the EU28 as a whole. Workers in the metal industry have higher earnings, lower working time quality, worst intrinsic job quality and better prospects. However, when controlling for the structural characteristics of the sector such as gender, age, country, education and workplace size, the results change and some differences disappear. Therefore, no statistically significant difference can be found between the sector and the EU28 average in earnings or working time quality. On the other hand, the indices of intrinsic job quality and prospects in the metal industry are lower than the EU28 average.

Health and sustainability of work

Working conditions can impact both positively and negatively on the health of workers and on the sustainability of their jobs.

Figure 19 shows that the metal industry compares somewhat negatively with the EU28: a higher proportion of workers report poor self-reported health, health at risk because of work, work affecting health negatively, and a lower percentage of workers believe that they will be able to do their job at the age of 60. On the other hand, a lower percentage of workers report having worked when sick (presenteeism) and there are no differences in absences due to work accidents.

Differences in health being at risk and work affecting health negatively disappear after taking into account the variation in workplace size, as workers in the metal industry tend to work in larger workplaces than the average EU28 worker.

Figure 19: Health and sustainability of work

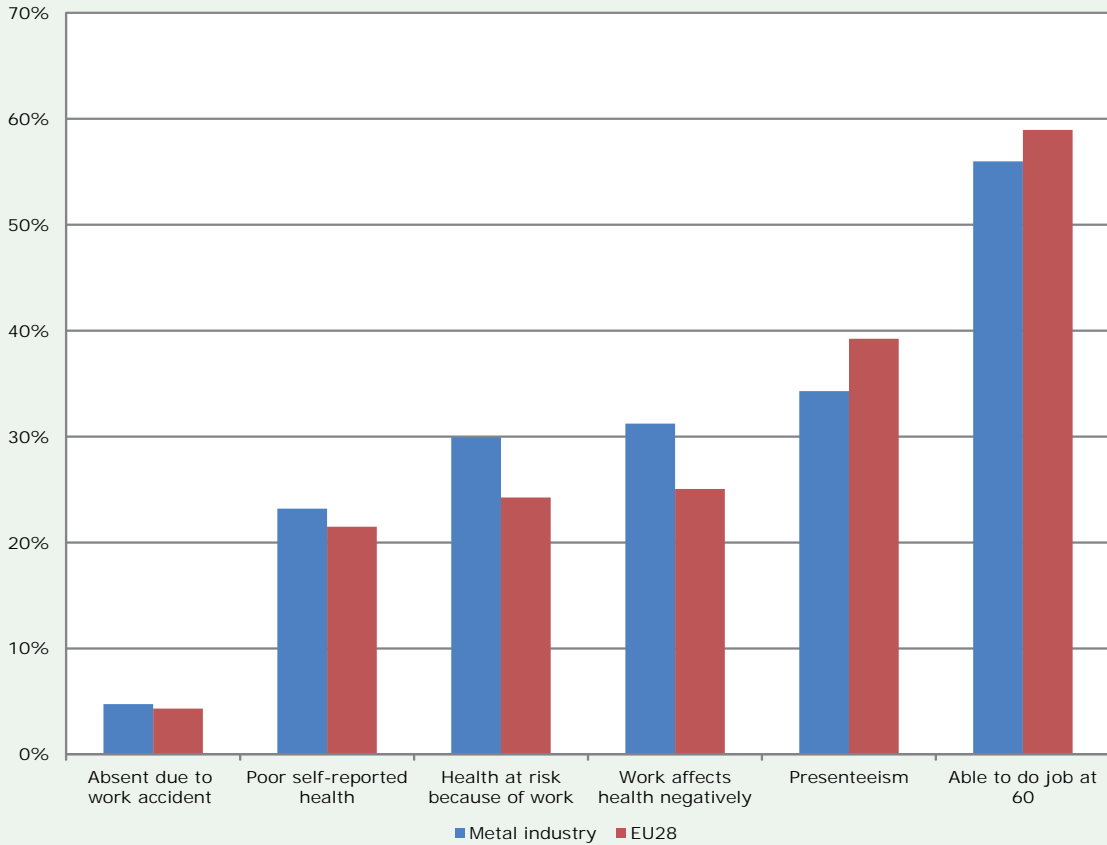
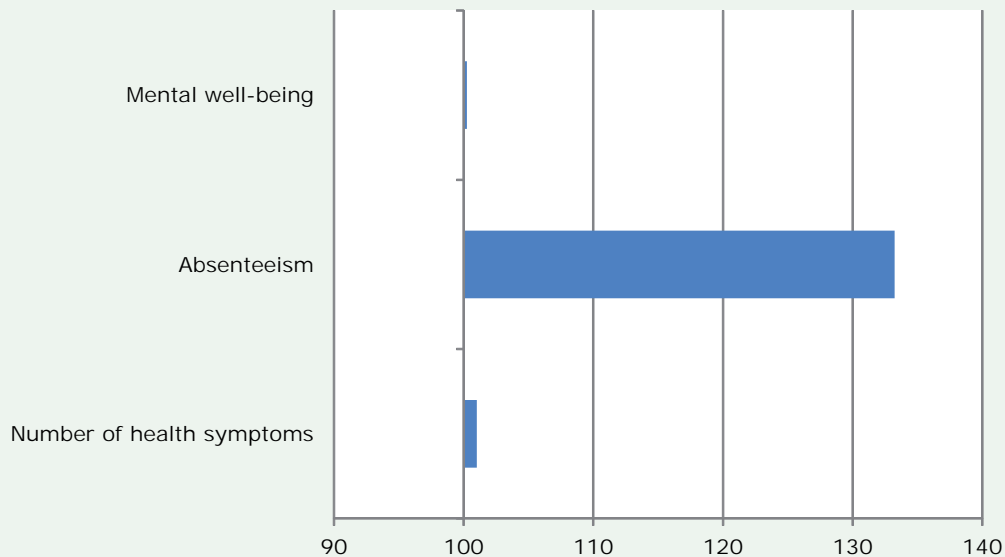


Figure 20 shows that scores in the metal industry are close to the EU28 average in relation to a number of health symptoms and mental well-being. Absenteeism is much more common in the metal industry than in the EU28 as a whole. However, when controlling for gender, age, education, workplace size and country, the difference in absenteeism decreases and is no longer statistically significant. Therefore, high absenteeism seems to be caused by having a lower proportion of highly educated workers in the metal

industry and a higher proportion of employees working in larger workplaces than the EU28 average.

It is important to keep in mind that the impact of work on health is a very gradual process that can take a long time and cannot be fully captured in a cross-sectional survey. The results in this section are likely to underestimate the often negative health effects that physically and psychologically strenuous working conditions can have.

Figure 20: Indices of health symptoms, mental well-being and absenteeism (EU28 = 100)



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European Working Conditions Survey

Eurofound developed its European Working Conditions Survey (EWCS) in 1990 in order to provide high-quality information on living and working conditions in Europe. Five waves of the survey have been carried out to date, enabling long-term trends to be observed and analysed.

The EWCS interviews both employees and self-employed people on key issues related to their work and employment. Fieldwork for the fifth EWCS took place from January to June 2010, with almost 44,000 workers interviewed in their homes in 34 countries – EU28, Norway, the former Yugoslav Republic of Macedonia, Turkey, Albania, Montenegro and Kosovo. The 5th EWCS was implemented by Gallup Europe, who worked within a strong quality assurance framework to ensure the highest possible standards in all data collection and editing processes.

The questionnaire covered issues such as precarious employment, leadership styles and worker participation as well as the general job context, working time, work organisation, pay, work-related health risks, cognitive and psychosocial factors, work-life balance and access to training. A number of questions were included to capture the impact of the economic downturn on working conditions.

For more information on the EWCS, see <http://www.eurofound.europa.eu/surveys/ewcs/index.htm>

Sectoral analysis

The report *Working conditions and job quality: Comparing sectors in Europe* and the series of 33 sectoral information sheets aim to capture the diversity prevalent across sectors in Europe in terms of working conditions and job quality. The report pinpoints trends across sectors in areas such as working time and work-life balance, work organisation, skills and training, employee representation and the psychosocial and physical environment. It identifies sectors that score particularly well or particularly poorly in terms of job quality and sheds light on differences between sectors in terms of health and well-being.

For more information, see <http://www.eurofound.europa.eu/surveys/ewcs/2010/sectorprofiles.htm>

Further information

Gijs van Houten, Research Officer
gvh@eurofound.europa.eu

European Foundation for the Improvement of Living and Working Conditions
Wyattville Road, Loughlinstown, Dublin 18, Ireland
Telephone: (+35 1) 204 32 00
Email: information@eurofound.europa.eu
Website: <http://www.eurofound.europa.eu/>

