

Identifying Bad Jobs across Europe

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Introduction

Given the importance of job quality, it is surprising that there is relatively little focus on it in academic and economic policy debate. While there is fairly comprehensive and almost real-time information on the number of jobs created and disappearing, much less is known on the attributes of these jobs. While there is concern over job quality, especially in those jobs at the bottom of the wage distribution (Lucifora and Salverda, 1998; Bazen et al., 1998; Marx and Salverda, 2005; Lucifora et al., 2005; Muñoz de Bustillo and Antón, 2007; Eurofound, 2010; Gautié and Schmitt, 2010; Grimshaw, 2011) beyond wages, understanding of these jobs is very limited.

Jobs represent much more than money – wages are not even the attribute of work most valued by workers (Clark, 2005). However job quality, understood from a multidimensional perspective comprising not only earnings but other conditions of work and employment, has received much less attention. In this respect, government initiatives for measuring job quality have been remarkably absent, while academia and some international organizations – particularly the International Labour Organization – have attempted to develop different indicators (for an review of existing proposals, see Muñoz de Bustillo et al. 2011a). Unfortunately, because it is still an immature field, there is no consensus on what job quality is and how it is to be measured, and thus little understanding of bad jobs.

The aim of this chapter is to try to fill this gap by determining the incidence and identifying the main characteristics of poor quality jobs across EU countries using a multidimensional indicator of job quality developed by the authors. We outline and discuss this measure elsewhere (Muñoz de

Bustillo et al., 2011b) and its application to the 2005 wave of the *European Working Conditions Survey*. This chapter has five sections. After these introductory remarks, the next section is devoted to presenting the main features of our index of job quality. The third section illustrates the overall distribution of job quality across Europe while the fourth uses the measure to estimate the incidence of bad jobs across EU countries according to three different approaches. In the fifth part, the main characteristics of low-quality jobs are explored. The final concluding section summarizes the findings and raises new issues.

A new measure of job quality for the EU

The importance of having a reliable measure of job quality is increasingly recognized in academic and policy circles, and a number of different job quality indexes have been proposed both at national and international levels (see Muñoz de Bustillo et al., 2011a). However, for different reasons related to both conceptual problems and statistical availability, none of these indexes has been accepted as a standard measure of job quality. Measuring job quality remains a difficult task. First, it requires agreeing on what job quality is. Often, indicators of job quality include elements such as productivity or unemployment, important by themselves but clearly unrelated with the quality of jobs. Second, because job quality is multidimensional in nature, consensus is not only difficult to reach but also difficult to transform into a single indicator. Third, the construction of such an indicator is constrained by the lack of suitable data. However, these difficulties need to be seen in context; we should not forget that indicators that we take for granted today (e.g. GDP, the consumer price index or the unemployment rate) had the same problems in the past which were overcome through scientific discussion and the political allocation of resources to generate the data needed.

The index of job quality used in this work, which we have named Job Quality Index (JQI), has been built on the following principles (for more information and a detailed discussion, see Muñoz de Bustillo et al., 2011b):

- It is restricted to information about the attributes of jobs, not of the workers who hold them (even if the information is reported by the workers themselves). It does not include contextual information (on institutional settings, unemployment levels, etc.). Furthermore, it refers to variables that measure results rather than procedures (unless such procedures themselves have a direct impact on the well-being of workers).
- It includes five dimensions that broadly correspond to the five main traditions of the study of job quality (or the impact of job attributes on

the well-being of workers), identified through a detailed literature review (Muñoz de Bustillo et al., 2011b), namely, pay, intrinsic characteristics of the job, terms of employment, health and safety and work–life balance. These five dimensions are in turn formed by different components, subcomponents and finally individual variables taken from the *European Working Conditions Survey 2005* (EWCS 2005) (for details on the survey, see Parent-Thirion et al. 2007), as shown in Figure 2.1. Except at the highest level of aggregation (that is, from the five dimensions to the overall index), the aggregation of information is carried out through weighted arithmetic averages, following the structure of the model shown in Figure 2.1.

- The index is computed at the individual level in order to allow analysis of specific groups of workers, as well as the intersection of the different dimensions and components of job quality at the individual level. In contrast to most of the indicators proposed in the specialized literature, this feature makes it feasible to study the dispersion of job quality and thus to evaluate what happens at the bottom of the distribution.
- The aggregation of these dimensions into a single index is made using a weighted geometric average. This methodology presents two important advantages over the most frequent method of arithmetic averaging: first, the contribution of each dimension to the overall index is not linear but decreasing (that is, an increase in a dimension from a low initial value produces a larger expansion of job quality than the same increase from a high initial value); second, the contribution of each dimension depends on the values of all the other dimensions (that is, even if the sum of scores is the same, a job with more balanced values in the five dimensions would have a higher quality than a job with very high values in two dimensions but very low in the other three). This approach means that our index of job quality assumes decreasing returns for the different work and employment attributes, and imperfect substitutability among the different attributes (with penalization for significant imbalances between them).

The nested structure of the index, including the weights given to the different areas of job quality, is reproduced in Figure 2.1.

The EWCS sample used in this chapter is representative of all employed persons in the EU countries specified in the charts and, unless otherwise specified in the analysis, includes the employed and self-employed and full-time and part-time, male and female workers. The index has two major weaknesses associated with the data used in its application. The first is the subjective nature of some of the variables provided by the EWCS and the second the small sample size, 1000 individuals per country (a lower size in the case of small countries), which limits considerably analysis at the country level, although not the European level. Another potential issue relates to the

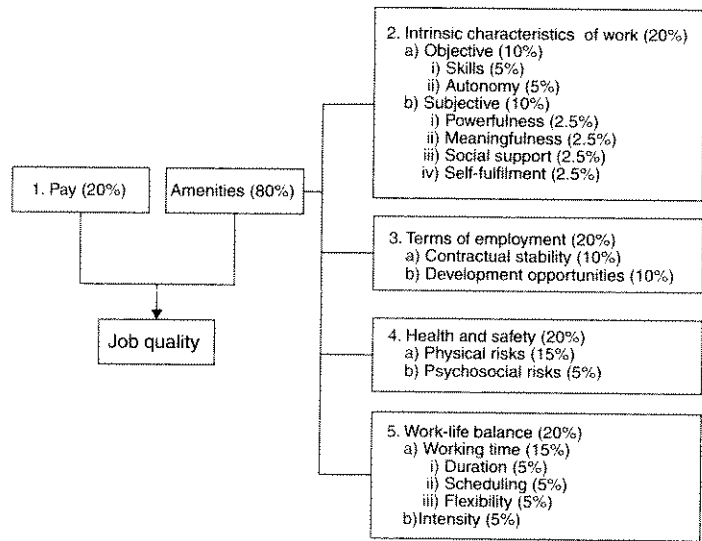


Figure 2.1 The structure of the JQI

arbitrary nature of the weighting of the dimensions. In this respect, and in order to see to what extent the results are contingent on the specific weights applied, we have performed a sensitivity analysis, evaluating the amount of change in the relative position of countries in the overall index resulting from the following changes: first, in the aggregation procedure, using an arithmetic mean instead of a geometric mean; and second, in the weight given to the different dimensions, giving each dimension, in following rounds, a weight of twice the rest of the attributes (0.33 *versus* 0.17). The results obtained suggest that, with a few exceptions limited to some Eastern Europe countries and Portugal and Greece, the ranking of countries is remarkably stable (see Muñoz de Bustillo et al., 2011b, section 6.2.4).

Job quality across the EU

Figure 2.2 depicts the main features of the distribution of job quality across Europe according to our JQI: the thick black bar in the middle of each country line represents the average value, the box around it represents the inter-quartile range (the distance between values of job quality in the 25th and the 75th percentiles in each country) and the whiskers represent the distance

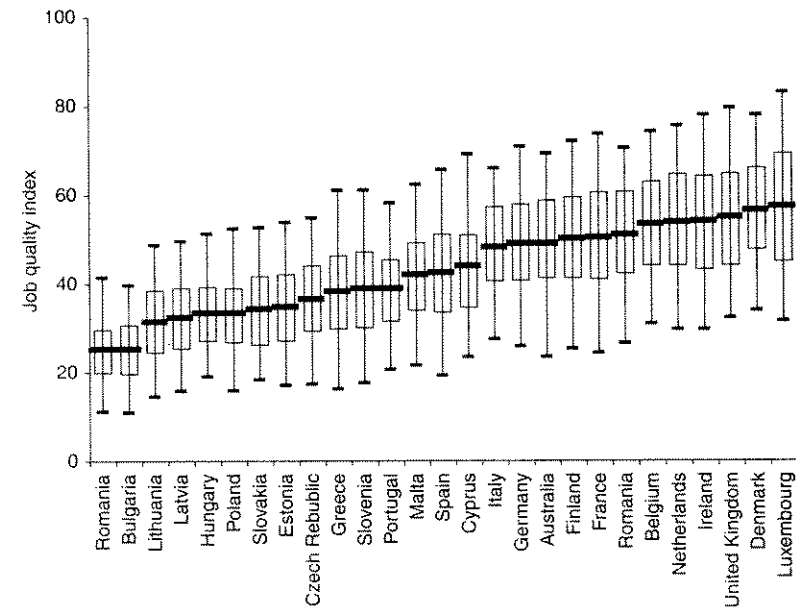


Figure 2.2 Main features of the JQI by country, 2005

Source: Muñoz de Bustillo et al. (2011: 206).

between the values of job quality of the 5th and 95th percentiles in each country. The countries have been sorted from low to high average job quality, left to right. Those states that occupy the bottom of the job quality ranking displayed in Figure 2.2 are all Eastern European countries that joined the EU in 2004 or later (the two most recent members, Romania and Bulgaria, occupy the very bottom of the list). Southern Europe is next, with mid-low levels of job quality. Continental European countries generally have mid-high values, and the top positions are occupied by Nordic countries, the UK and Ireland. There are some outliers to these general patterns: the value of Slovenia puts it within Southern rather than European countries; Finland has slightly lower values than the other Scandinavian states; Netherlands gets a value as high as the Nordic countries; and the very top of the list is occupied by a very distinct country – Luxembourg. Despite such outliers, our JQI maps well onto the institutional clusters of countries identified previously as ‘welfare regimes’ or ‘institutional families’ (Esping-Andersen, 1990, Arts and Gelissen, 2002), with these clusters having clearly differentiated levels of job quality according to our index.

Pay is one of the five top-level dimensions of our index, and although it has been adjusted to Purchasing Power Parity (PPP), the differences between countries in this dimension are much larger than in any of the other four. Hence, it is useful to plot separately the first dimension and the rest, which is done in Figure 2.3. The average value of the pay dimension (which reflects differences in pay levels in PPP across Europe, rescaled to 0–100 with the lowest bound being the lowest decile of pay in the lowest-paying country and the highest bound the highest decile of pay in the highest-paying country) is represented in the horizontal scale, and a reduced index based only on the other four dimensions is represented in the vertical scale. We call this reduced index the ‘amenities index’ in reference to Adam Smith’s theory of compensating wage differentials (since it is a measure of the ‘disamenities’ of jobs, for which wages are supposed to compensate). We can immediately see that the spread of the pay dimension (in the horizontal axis) is much wider than that of the amenities index (scores of 2 to 55 against 44 to 61), and although the average values of both indices are highly correlated (the value of R^2 is 0.58), there are some important outliers with an interesting interpretation: for instance, the position in terms of amenities for Greece and Spain is much lower than in terms of pay, while the opposite happens in Slovakia, the Netherlands and Denmark.

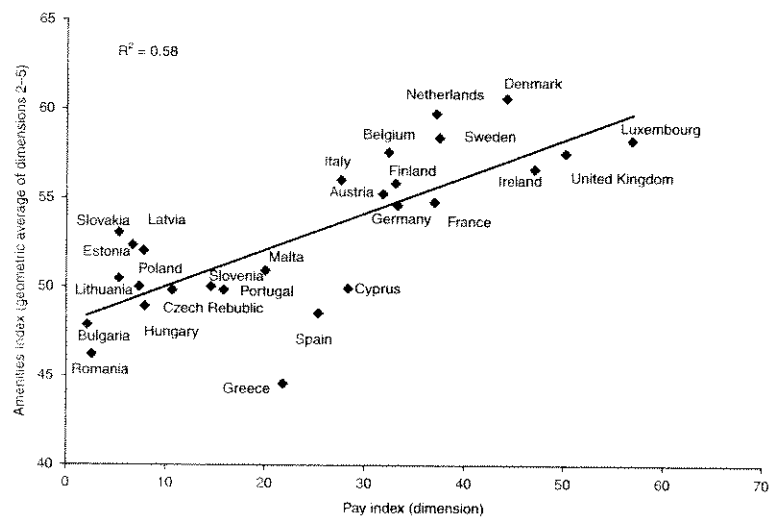


Figure 2.3 Correlation between the average values of the pay dimension and the average values of the amenities index, 2005

Source: Muñoz de Bustillo et al. (2011b: 210).

the rest of this chapter, we refer to both the overall job quality index and the amenities index in order to make our conclusions less dependent on differences in pay across Europe.

As Paul Osterman notes elsewhere in this volume, it is often argued that there is a trade-off between job quantity and job quality, according to which improvements in job quality can lead to a reduction in the rate of job creation and an increase in unemployment. In this respect, the data presented in Figure 2.4 suggests that, at least in the European context, job quantity and job quality go hand in hand, as those countries with higher levels of job quality as measured by the JQI exhibit, on average, lower unemployment rates. It is outwith the scope of this chapter to investigate the causality and rationale behind such a relationship, but it is important to point out that, empirically and at the country level, there is no association between higher job quality and higher unemployment and vice versa.¹ This result is in line with the analysis of job quality carried out in *Employment in Europe* (EC, 2008), according to which,

... the higher score [in terms of working conditions] tends to be associated with better labour market outcomes (i.e. higher employment rates and lower youth unemployment ratios) as well as favourable outcomes in terms of productivity levels. These results imply the existence of synergies, instead of a trade-off between qualitative and quantitative outcomes in the labour market. (EC 2008: 156)

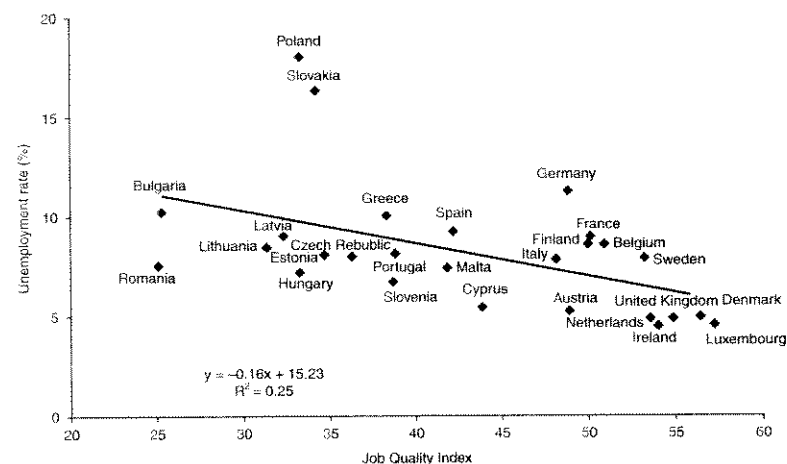


Figure 2.4 JQI and the unemployment rate across the EU, 2005

Identifying bad jobs in Europe

This section draws on the JQI to identify and quantify bad jobs in the different EU countries. Three different strategies are used: first, we adopt a pseudo-absolute approach, considering as bad jobs those held by workers whose job quality value is below 60 per cent of median job quality in the EU; second, we consider a relative measure, based on a threshold of less than 60 per cent of the median job quality in each country and at the individual level; third, a 'job' approach is employed, identifying those jobs that account for the lowest 20 per cent of the labour market in terms of job quality.

The first two strategies are an adaptation of the standard methods used in comparative poverty analysis. The simplest distinction among methodologies for measuring deprivation in any well-being indicator across countries refers to the dichotomy between absolute and relative approaches (Atkinson 1998). In the former case, the researcher establishes a threshold common to all individuals irrespective of the society where they live, whereas, in the latter, the level under which a person is considered to experience deprivation depends on the living standards where he or she lives.

In the particular case of our JQI, there are no *a priori* criteria about which level of job quality is to be considered as minimally acceptable – in contrast to analyses of poverty in which minimum dietary requirements or baskets of basic goods can be inferred. Therefore, in order to establish an absolute *bad job* threshold invariant across countries we simply use the 60 per cent of the median job quality across the whole EU. In other words, our 'absolute' approach is actually relative from a European perspective. Since we want to see how far the results are driven by wages, which is the dimension with the largest variance, we reproduce the analysis using the amenities index, based only on the four non-pecuniary dimensions.

According to this pseudo-absolute definition, the percentage of workers with bad jobs in the EU is 12.7 per cent, a figure which goes down to 4.8 per cent when the earnings dimension is excluded from the calculations (see Figure 2.5). What is really interesting is the proportion of these EU-defined *bad jobs* across countries. Bad jobs are strongly concentrated, firstly, in Eastern Europe, particularly in Bulgaria and Romania, with more than half the employed population holding a bad job according to this first definition and, secondly, in Mediterranean countries such as Greece, Spain, Portugal and Malta (with more than 10% of workers having bad jobs). At the other extreme of the ranking, differences are very narrow and the share of bad jobs very low, with Denmark and Luxemburg at the bottom. When carrying out the analysis without the earnings dimension, the picture is slightly different. Firstly, there is a remarkable compression and reduction of the figures, which are much lower and less dispersed than when considering the overall index (because the dispersion of the pay dimension is considerably higher than the rest). Secondly,

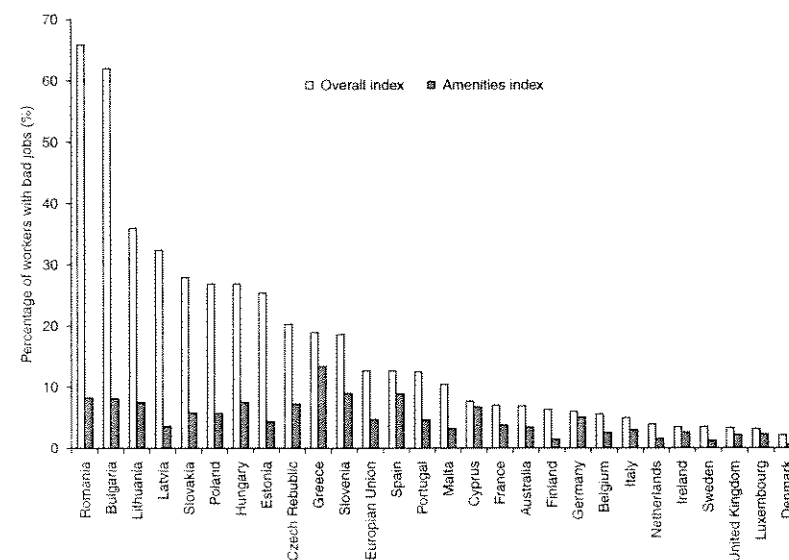


Figure 2.5 Percentage of workers holding bad jobs in the EU using the absolute approach, 2005 (%)

although there is a high correlation between both measures, there are non-negligible differences with the previous ordering. Greece, Slovenia and Spain become the countries with a highest percentage of bad jobs across Europe (19, 19 and 13% of workforces respectively), with most Eastern European countries between 5 and 10 per cent, Continental Europe around five per cent and the Scandinavian and Netherlands with less than two per cent.

A second alternative consists in constructing a truly relative measure, using the same threshold of 60 per cent of the median value of our JQI but in this case defined at the country level (Figure 2.6). The contrast with Figure 2.5 is quite interesting. First, the dispersion of results is much lower because using a national threshold neutralizes the enormous differences in pay levels: the range of values goes from 12–5 per cent (whereas using the absolute measure it went from 65–2%). Second, the countries align less neatly with the usual European institutional clusterings: although Southern and Eastern Europe tend to have higher shares of workers in bad jobs than Northern European countries, there are many exceptions. For example, France is now near the bottom, while Hungary and Slovakia are closer to Denmark than to other Eastern European countries. Lastly, although the amenities index also has less dispersion in this case, the difference is much lower (because as mentioned earlier, using the relative approach neutralizes the cross-country differences in terms of wages).

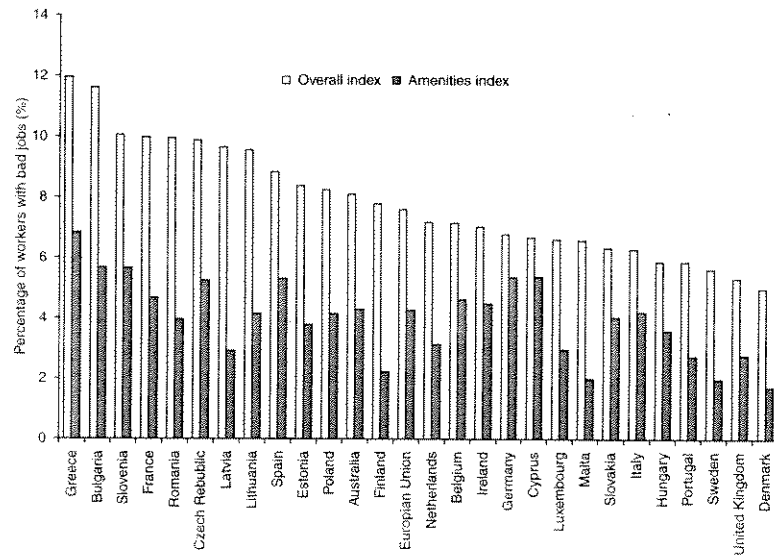


Figure 2.6 Percentage of workers holding bad jobs in the EU using the relative approach, 2005 (%)

It is interesting to assess, even on a preliminary basis, how the proportion of bad jobs according to the JQI compares to the figures obtained using more usual earnings-related indicators and the share of low paid workers. In Figure 2.7 we plot the percentage of employees with bad jobs according to our JQI and the share of low paid employees in 24 EU member states (taken from Eurofound 2010: 32, based on the *EU Statistics on Living Conditions 2007* and defined as those full-time employees with hourly earnings below 60 per cent of the median at national level). As the graph reveals, the association between the percentage of employees with poor-quality jobs according to the JQI is remarkably low (the R^2 is less than 1%). This result also applies when we use the amenities index instead (R^2 is less than 6%). Keeping in mind the discrepancies between both kinds of figures (which correspond to different years and surveys), this confirms that a measure of 'bad jobs' based on a multidimensional indicator of job quality captures a different phenomenon than the usual measures of low pay, which opens the way for a detailed analysis of the discrepancies: the decomposable nature of our index should allow us to identify what components of job quality are behind such a discrepancy. We leave such analysis for further research.

The concept of 'bad jobs' refers to jobs and not to individuals, yet most analyses of this issue are carried out at the individual level. The reason is that normally the data used are gathered at the level of individual workers, not at the level of jobs. However, we can approximate such a job-based analysis

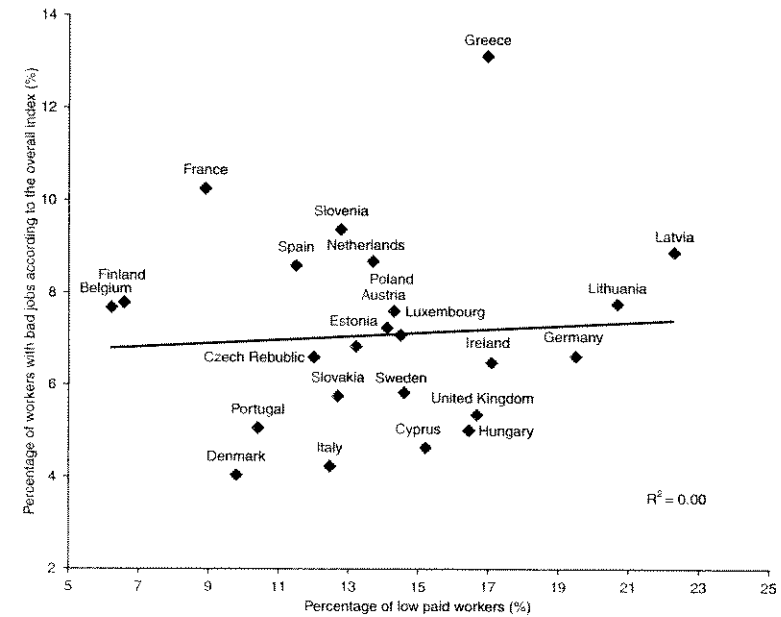


Figure 2.7 Correlation between the percentage of employees with bad jobs in 2005 and the percentage of low paid employees in 2007*

*Both samples only include full-time employees.

of job quality by aggregating the individual-level job quality information for each possible combination of occupation and sector (using the NACE and ISCO classifications at the two-digit level). This combination, which corresponds well with the usual understanding of what a job is (clerks in the construction sector etc.), can then be used as the basic unit of analysis (for more details of this approach see Fernández-Macías 2012). Such an approach is particularly suited to our objectives here since we want to *identify* the bad jobs in Europe and quantify them. That is the basis of our third approach to the identification and quantification of bad jobs in Europe. We computed the weighted average level of job quality according to our index for each job in Europe, defining 'job' as each possible combination of sector and occupation at the two-digit level (defined this way, there would be 1,680 distinct jobs in the EU labour market, although in practice there are fewer because some potential combinations of occupation and activity are too scarce to be captured in the EWCS sample). Then, we ranked all the jobs from high to low job quality, and the jobs that account for the bottom 20 per cent of employment were defined as bad jobs. Table 2.1 shows the ten biggest 'bad jobs' thus defined, which account in total for roughly ten per cent of the EU working population: they include unskilled labourers in agriculture,

Table 2.1 Bad jobs by sector and occupation in the EU, 2005. The ten biggest 'bad jobs' (jobs within the lowest job quality quintile in the EU)

| Sector (NACE) | Occupation (ISCO) | Average JQI | Percentage of EU employment (%) | Cumulative percentage of EU employment (%) |
|---|---|-------------|---------------------------------|--|
| Agriculture, hunting and related activities | Skilled agricultural and fishery workers | 43.2 | 3.2 | 3.2 |
| Hotels and restaurants | Personal and protective services workers | 40.2 | 1.4 | 4.6 |
| Other service activities | Sales and services elementary occupations | 42.8 | 1.1 | 5.7 |
| Agriculture, hunting and related activities | Agricultural, fishery and related labourers | 39.5 | 0.7 | 6.3 |
| Construction | Industrial labourers | 39.8 | 0.6 | 7.0 |
| Hotels and restaurants | Sales persons and demonstrators | 38.2 | 0.6 | 7.6 |
| Hotels and restaurants | Sales and services elementary occupations | 37.7 | 0.6 | 8.2 |
| Manufacture of food and beverages | Other craft and related trades workers | 42.5 | 0.5 | 8.7 |
| Manufacture of metal, except machinery | Metal trades workers | 42.5 | 0.5 | 9.2 |
| Health and social work | Services elementary occupations | 43.3 | 0.5 | 9.7 |

low-skilled service workers in hotels and restaurants, manual workers in construction and manufacture of food and metals, and low-skilled workers in other services. Tables 2.2 and 2.3 include the distribution of these workers across broadly defined sectors and occupations (one-digit ISCO and NACE). European bad jobs are disproportionately present in agriculture, hotels and restaurants, and other services (these three sectors account for 50% of all

Table 2.2 Distribution by one-digit sectors of 'bad jobs'

| | Share in sector (%) | Distribution across sectors (%) |
|-----------------------------|---------------------|---------------------------------|
| Education | 0.4 | 0.2 |
| Public administration | 0.5 | 0.2 |
| Financial sector | 2.0 | 0.3 |
| Electricity | 3.8 | 0.3 |
| Real estate | 4.6 | 1.5 |
| Retail | 5.1 | 4.0 |
| Health | 8.3 | 2.9 |
| Transport and communication | 8.4 | 2.5 |
| Construction | 14.0 | 5.5 |
| Other services | 27.7 | 12.2 |
| Manufacturing | 35.0 | 33.9 |
| Hotels and restaurants | 72.1 | 13.5 |
| Agriculture and fishing | 85.0 | 22.8 |
| All sectors | 20.0 | 100.0 |

Table 2.3 Distribution by one-digit occupations of 'bad jobs'

| | Share in occupation (%) | Distribution across occupations (%) |
|--|-------------------------|-------------------------------------|
| Technicians | 0.1 | 0.1 |
| Professionals | 0.2 | 0.1 |
| Managers | 0.6 | 0.3 |
| Clerks | 0.8 | 0.5 |
| Service workers | 18.5 | 11.8 |
| Craft occupations | 21.1 | 14.8 |
| Plant machine and operators and assemblers | 49.2 | 20.1 |
| Elementary occupations | 59.0 | 35.0 |
| Agricultural workers | 90.2 | 17.3 |
| All occupations | 20.1 | 100.0 |

employment in bad jobs); by occupation, they are most present in elementary occupations, operators and assemblers and agricultural workers (which account for more than 50%).

Figure 2.8 presents the results that can be directly contrasted with Figures 2.6 and 2.7: it quantifies the share of the labour force in each country which works in these EU-defined bad jobs. While the figure for the total EU is 20 per cent, the rest of the information from the graph shows how the employment structure in each European country differs from the overall EU pattern in terms of the share of bad jobs in the labour market. What makes

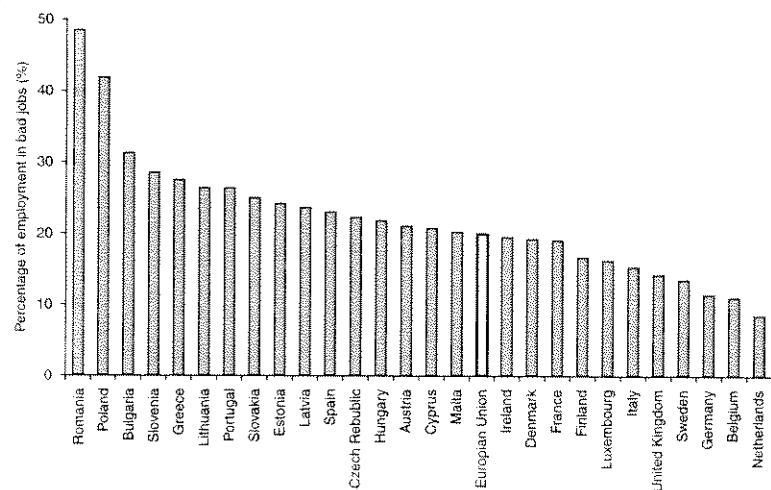


Figure 2.8 Percentage of workers holding bad jobs using the 'jobs' approach in the EU, 2005 (%)

this new approach appealing is that we know that the jobs we are talking about are exactly the same in all countries, so we are really comparing like with like: whereas less than nine per cent of Dutch workers are in those particular jobs, nearly 50 per cent of Romanian workers are in the specific combinations of occupations and sectors that lie at the bottom of the European employment structure.² Whereas in the previous analysis two per cent of Danish workers had jobs below a EU-defined threshold of minimum job quality (or five per cent when the threshold was defined within Denmark), in this case nearly 20 per cent of Danish workers (that is, near the EU average) have the jobs that across the EU occupy the lowest fifth of the job quality continuum. While the previous two approaches reveal how many people had jobs that could be defined as low quality, this last approach allows the identification of how many bad jobs exist in each employment structure.

In practice, the picture painted by this last approach is not very different from that of the previous two, but there are interesting discrepancies. First, the amount of variation is somewhere between the two previous approaches: the structural discrepancies across European countries in terms of the amount of bad jobs are quite significant, going from less than nine to nearly 50 per cent. Second, this new approach is similar to the other two in the ranking of countries above but not below the average: as in the two previous cases (and maybe even clearer), Eastern and Southern Europe have the highest proportions of bad jobs; but the countries with fewer bad jobs under this 'structural' definition are not the Scandinavian countries (in particular, Denmark and

Finland are near the middle of the ranking) but the industry-heavy Northern Continental European countries (Netherlands, Belgium and Germany).

The contrast between the results using the usual individual approach and the structural 'jobs' approach has interesting implications. It shows that the differences in the number of bad jobs across countries does not result only, or even mainly, from different conditions of work and employment in the same type of jobs: to a large extent, they result from the fact that the productive structures of the poorest countries are much heavier in jobs that are bad across Europe. In other words, even if we could magically remove all the differences in quality across Europe for the same types of job (so that an agricultural labourer would have the same job quality in Denmark and in Bulgaria), there would be still large differences in the number of bad jobs in the different countries (because poor countries have a larger proportion of employment in jobs which are bad everywhere).

Characterizing bad jobs in Europe

Once we have identified and quantified low-quality jobs across Europe, the next step is to characterize them. For this purpose, we only use the definition of 'bad jobs' on the basis of an absolute European threshold (the first one), as using three different definitions of 'bad jobs' in this section would only result in an excessive multiplication of figures that would unnecessarily complicate the interpretation.³ Nevertheless, in this section we present all the analysis both for the overall job quality index and for the amenities index in order to take into account the possible distorting effect of the large differences in the pay dimension of our index when using an absolute threshold for defining bad jobs. In practice it makes little difference in most cases.

Figure 2.9 shows a simple descriptive analysis, with the percentage of EU workers with different characteristics that have jobs of bad quality according to our pseudo-absolute definition. There are slightly more women than men with bad jobs, though only for the overall job quality index: if we look at jobs which are bad in terms of amenities (non-pecuniary job attributes such as working hours, autonomy or physical strain) the share of women affected is slightly less than men. This finding is interesting because it is one of the few cases in which the results of the overall JQI and the amenities index are contradictory: what it suggests is that men are slightly more likely to have 'unpleasant' jobs than women (that is, jobs with lower amenities), but that their pay compensation is so much higher that when all job attributes are taken into account they are less likely to have poor quality jobs. By age, there is a clear differentiation between the youngest workers (less than 30 years of age) and the rest, with nearly 18 per cent of the former holding bad jobs

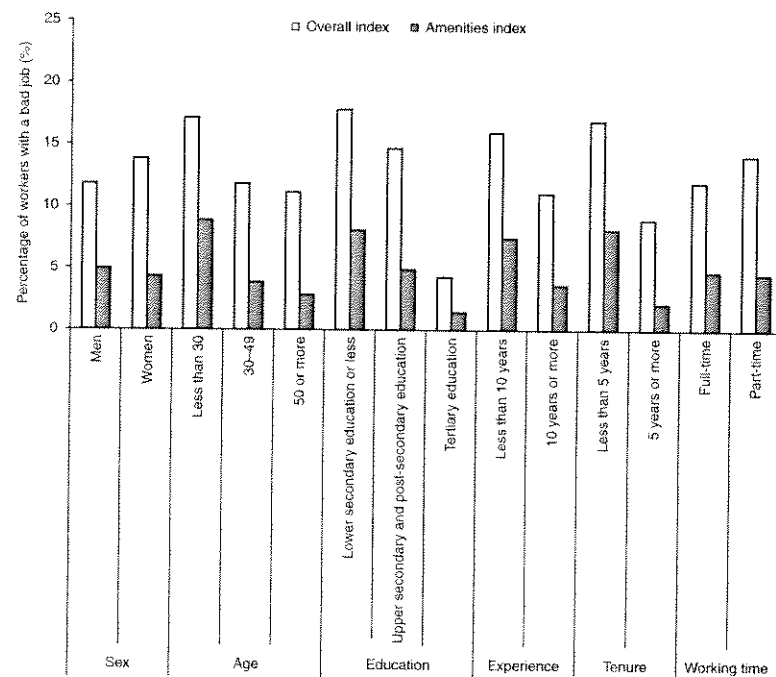


Figure 2.9 Workers holding bad jobs in the EU according to different characteristics, 2005 (%)

compared to 11 per cent of the latter. These results on gender and age are in line with those observed in terms of low pay by Eurofound (2010). The variables related to human capital show the expected results: the percentage of workers holding bad jobs decreases with educational level, experience and tenure. Regarding working time, the share of labourers with low-quality jobs is higher among part-time than among full-time workers. Interestingly, this difference vanishes when the pay dimension is not considered. In relation to the occupational level (not included in the figure), the highest levels of bad jobs correspond to sales and service workers (only in the case of the overall index but not for the amenities index) and blue-collar workers. Finally, those sectors of activity with a larger presence of poor-quality jobs are agriculture and other primary activities (only in terms of the index including earnings), hotels and restaurants and manufacturing, whereas the lowest percentages are found among financial intermediation, real estate, renting and business and electricity, gas and water supply.

Since these figures show only bivariate relations, it could be the case that the differences between categories are the result of their different composition

in terms of another variable, which could lead to misinterpretations. For this reason, it is useful to perform a multivariate analysis that determines the influence of each factor, other things being equal. This analysis is performed using a probit regression, where the probability of holding a low-quality job is modelled as a function of sex and human capital variables, that is, sex, age, education, experience and tenure. In addition, in order to control for country-specific effects, we include country dummies in the model. We do not include occupation and sector of activity among the covariates as selection into them is far from being random. Nevertheless, we have repeated the analyses including such variables and the results are basically the same, with the dummies for occupation and sector confirming the findings of the descriptive analysis. The results of the estimation are presented in terms of the average marginal effects of each variable in Table 2.4 and this allows us to depict a more precise profile of low-quality jobs in the EU.⁴

As the table reveals, firstly, women experience a slightly higher probability of holding a bad job (3 percentage points) than men in terms of the overall index. Nevertheless, when only amenities are considered, the effect of sex loses its statistical significance (confirming that the main difference between men and women is pay). Secondly, when controlling for other observable characteristics, age does not affect the probability of having a poor-quality job; although

Table 2.4 Determinants of the probability of holding a bad job across the EU, 2005

| | Overall index | | Amenities index | |
|-----------------------------------|-------------------------|----------------|-------------------------|----------------|
| | Marginal effect | Standard error | Marginal effect | Standard error |
| Female | 0.022 | 0.006*** | -0.003 | 0.005 |
| Less than 30 | 0.016 | 0.010 | 0.017 | 0.006*** |
| 50 or more | 0.013 | 0.009 | 0.002 | 0.007 |
| Lower secondary education or less | 0.048 | 0.008*** | 0.027 | 0.006*** |
| Tertiary education | -0.088 | 0.010*** | -0.046 | 0.007*** |
| Work experience | 0.000 | 0.000 | 0.000 | 0.000 |
| Tenure | -0.004 | 0.000*** | -0.004 | 0.000*** |
| Observations | 24,404 | | 24,404 | |
| Test of joint significance | F(33, 3,966) = 61.88*** | | F(53, 3,966) = 13.57*** | |
| Correctly predicted (%) | 85.2 | | 82.8 | |

*** significant at 1% level; ** significant at 5%; * significant at 10% level. 26 country dummy variables are included in the model specification. Average marginal effects of a probit model are reported in table. The reference category is a male worker aged between 30 and 49, with upper secondary or post-secondary education and living in Germany. A bad job is defined as that with an index below 60 per cent of the median value across the EU.

in the case of the amenities index being a young worker (less than 30 years old) slightly increases such risk (by 1.4 percentage points). Thirdly, education has a significant effect, particularly in the case of the overall index, as the probability of having a bad job decreases with the worker's education level. Fourthly, whereas work experience is not significant, once we control for other observable factors, tenure is significantly associated with a lower risk of having a bad job (ten years of tenure reduces the probability by 3 percentage points). If we apply the amenities index, the results are again quite similar.

Conclusion

It is widely known that workers value many job attributes other than monetary rewards (e.g. Clark 2005). Yet little information on job quality, beyond a narrow focus on wage and some aspects of labour contracts, is available for public debate. Methodological difficulties with respect to a more encompassing measure of job quality and a lack of agreement on what job quality actually is have hindered progress in this field. Especially damaging is the lack of more comprehensive information about the nature of jobs at the lower end of the spectrum.

This chapter has tried to identify and quantify bad jobs across EU countries from a more encompassing perspective. We have drawn upon a multidimensional job quality index developed by us elsewhere (Muñoz de Bustillo et al., 2011b), which, we have argued, offers reasonable methodological properties and advantages over previous proposals when applied to the EWCS (2005), which has a questionnaire that allows us to measure most dimensions of job quality in detail.

In so doing, we have explored the issue of bad jobs from three different perspectives: a pseudo-absolute one, using a threshold of 60 per cent of the median job quality at the EU level; a purely relative approach, based on a cut-off line at 60 per cent of the median value at the national level; and a 'jobs'-centred strategy, which looks at the combinations of occupation and sector with the lowest values in terms of job quality.

Overall, the analysis presented in this chapter suggests that deprivation in terms of multidimensional job quality is a concept wider and richer than low pay. From an absolute perspective nearly 13 per cent of European jobs can be considered 'bad' jobs (8% if we use a nationally defined threshold). The dispersion of non-wage job attributes is lower than that observed in earnings, making the distribution of job quality more egalitarian than that of labour income. The percentage of workers with poor quality jobs tends to be lower than that of low paid workers.

Two additional findings are worth emphasizing. Firstly, irrespective of the approach followed, Eastern and Southern European countries tend to

exhibit the largest shares of bad jobs (more than half of jobs in Romania and Bulgaria, for example), while Scandinavian states usually show the best scores. Secondly, the 'jobs'-based approach suggests that the incidence of bad jobs responds to both structural differences (that is, the particular jobs present in an economy) and cross-country differences in quality for the same jobs. Bad jobs are concentrated in a handful of sectors and occupations (unskilled labourers in agriculture, low-skilled service workers in hotels and restaurants, manual workers in construction and manufacture of food and metals, and low-skilled workers in other services). Finally, women and workers with low education face a higher risk of holding a 'bad' job, while tenure has the opposite effect.

The approach presented here is far from definitive. On the one hand, the data used impose some important limitations that cannot be solved until more adequate surveys covering the conditions of work and employment are carried out – the sample size of the EWCS is currently too narrow, wages are measured in a very unsatisfactory way and information on the degree of employee involvement and participation at work (what used to be called industrial democracy) is lacking. On the other hand, there is still much to discuss with respect to our understanding of what job quality is and how it is to be measured. But our hope is that our proposal will contribute to advancing in such direction. Ultimately, it has to be remembered that in our data-driven world, as Lord Kelvin once said, often what is not measured does not exist. It is important therefore that we generate a measure for job quality so that policy can be directed to improving it.

Notes

- 1 It could be argued that low unemployment countries had a different mix of good and bad jobs, making the average job index similar or even higher than high or medium unemployment countries. In order to test that possibility, we have done the same exercise using a distribution-corrected Index of Job Quality, defined as $JQI \times (1 - \text{Gini index})$. The results remain roughly the same.
- 2 This approach ignores the fact that job quality varies systematically across countries for the same type of jobs (Gautié and Schmitt 2010), which allows us to focus on the structural differences in employment across countries from a truly European perspective. Of course, the two previous approaches do not ignore such differences and therefore provide a necessary complementary perspective on this issue.
- 3 To test the robustness of using only the first approach, we carried out the same analysis with the other two alternatives and the results are not substantially different. These analyses are available for interested readers upon request to the authors.

We have also estimated a regression of both the overall and amenities indexes on worker's characteristics by Ordinary Least Squares, obtaining remarkably similar results. These calculations are available from the authors upon request.

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Job Quality in the US: The Myths That Block Action

Paul Osterman

Introduction

Far too many American adults work in low wage jobs, and a wide range of ideas have been proposed for improving their circumstances. These ideas include enforcing and raising employment standards, strengthening employee voice and working with firms to upgrade work. Many of these interventions are tested and there is good reason to think that taken together they could have a substantial impact. However, there is widespread political reluctance to take these steps, including widespread reluctance among intellectual elites, particularly those in the economics profession. Although some of this reluctance might be ascribed to self-interest by individuals and institutions that benefit from low wages, a fairer reading of the situation is that many good-spirited people are constrained by a set of ideas regarding the supposed negative consequences of intervening in the job market. The goal of this chapter is to examine the myths that constrain action and to show that they are incorrect and that we can move forward with respect to job quality with few negative consequences.

The challenge

What is a decent job and how can we define it? Answers take two tracks. A large literature in sociology and economics asks about the correlates of reported job satisfaction. What job traits – wages, autonomy, prestige, security and so on – are correlated with the degree of contentment people express about their work (Jencks et al., 1988; Clark, 2004; Handel, 2005)? This research is interesting but not really on point for us. We want to know about minimum standards. What baseline should we insist that all jobs provide?