Low-wage work in five European countries and the United States

Gerhard BOSCH*

Abstract. Analysing research findings on Denmark, Germany, France, the Netherlands, the United Kingdom and the United States, the author shows that the incidence and conditions of low-paid employment in each country are determined by a set of institutions, including minimum wage and active labour market policies, tax and social security systems, and collective bargaining. The widely assumed trade-off between employment and wages, he argues, is not inescapable: active labour market policies for individual empowerment and institutions imposing “beneficial constraints” can prevent improved conditions at the bottom of the earnings distribution from translating into higher unemployment, while also helping to narrow inequalities.

This article presents some of the key findings of studies on low-wage work in the United States and five European countries, namely Denmark, Germany, France, the Netherlands and the United Kingdom, initiated and funded by the Russell Sage Foundation. The original research on the United States (Appelbaum, Bernhardt and Murnane, 2003) showed how firms were responding to economic globalization, deregulation and technological change and how their responses were typically affecting low-wage workers. One conclusion that emerged from this work was the notion that employers have significant discretion about the way they organize the use of their workers. Most firms in the United States responded to the economic pressures with cost-cutting efforts which resulted in deteriorating pay and working conditions. Some companies chose the alternative “high road” by improving the productivity of their workers and rewarding them accordingly through innovative forms of work organization and investment in training and new technologies. Another conclusion was that the decision to adopt the high road was shaped by institutions. Because of the United States’ weak regulation of product and labour markets, however, firms did not face great constraints if they opted for “low road” business strategies.

* Professor of Sociology, University of Duisburg-Essen, and Director of the Institute for Work, Skills and Training (Institut Arbeit und Qualifikation, IAQ), Duisburg, email: gerhard.bosch@uni-due.de.

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This research was extended by an international comparison which sought to determine whether Europe’s generally much stronger product and labour market regulations, coupled with the greater role played by the welfare state and collective bargaining, influence business strategies and reduce the incidence of low-wage work and enhance job quality for low-wage workers. The comparison of institutional structures in these countries was supplemented by case studies on specific jobs in five industries in all countries – call centres, food processing, retail outlets, hospitals, and hotels. These case studies explored the effects of variations in institutional structures on jobs which were typically low-paid in the United States. They also help to understand how inclusive or exclusive the national institutional structures are. In “exclusive” systems, the pay and other terms and conditions of employees with strong bargaining power have little or no effect on employees with weaker bargaining power within a company, within an industry or across industries. Inclusive systems extend the benefits of strong bargaining power to workers who have relatively little bargaining power in their own right. The more inclusive the set of institutions, the better protected are those at the low end of the labour market.

The remainder of this article is divided into five sections. The first presents the main findings on the level and trends of low-wage work and the principal characteristics of low-wage workers in each country. The second analyses the various wage-setting institutions which determine pay in the six economies. The third section reviews the effect of national institutions that affect labour supply. The fourth section looks at whether there is a trade-off between employment and low pay. The fifth draws some conclusions on the impact of institutions on the level and development of low-wage work.

**Incidence of low pay**

The low-pay threshold – i.e. that below which wages are considered to be low – is defined as two-thirds of the national median of gross hourly wages. Not only does this approach avoid the difficulties of defining an absolute level of low pay that is genuinely comparable across all six countries, but it also offers the practical advantage of being endorsed by the OECD and the EU and adopted in many data sets. The six countries differ greatly in the incidence of low pay (table 1). According to our coordinated analysis of separate national household surveys, the United States has the highest share of low-wage work, with about 25 per cent. Contrary to what might have been expected from its past reputation for low income differentiation, Germany was the country with the next highest share of low-wage work (22.7 per cent), followed closely by the United Kingdom. France (11.1 per cent) and Denmark (8.5 per cent) had substantially smaller proportions

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1 The comparative studies were presented in Bosch and Weinkopf (2008), Caroli and Gautié (2008), Lloyd, Mason and Mayhew (2008), Salverda, van Klaveren and van der Meer (2008), and Westergaard-Nielsen (2008). A comparative volume summarizes and extends on these five studies and the earlier study on the United States (Gautié and Schmitt, 2010). This article draws on this comparative volume, which is based on the work of 26 researchers from six countries.
of low-wage work, while the Netherlands (with 17.6 per cent) fell about midway between these two groups of countries.

Trends in the share of low-wage work differ as widely as does its incidence. In the United States, the level was already high in the 1970s and has since then varied with the economic cycle. Over the same period, the shares have been constant in Denmark and falling in France. The United Kingdom and the Netherlands saw large increases in the 1980s and 1990s with no further increases in the 2000s. In Germany, the share of low-wage work was flat or falling before the country’s reunification, but from the mid-1990s it increased steadily, even in the recent economic upswing. In contrast to countries with a minimum wage or higher trade union density, its wage dispersion extends a long way downward. In 2006, 1.9 million workers – i.e. around 6.5 per cent of the German workforce – earned less than €5 an hour (Bosch and Kalina, forthcoming). Also in the Netherlands, where sub-minimum wages can be paid to workers up to the age of 24 years, the income distribution has a “long tail” down to very low hourly wages.

Beyond direct compensation for their work, workers may also be entitled to fringe benefits, such as paid vacations, paid public holidays, health insurance, sickness pay, pensions and other forms of compensation. In the United States, many of these non-wage benefits are paid for privately and entirely at the discretion of employers, though workers are eligible for Social Security pension benefits, for example, as a result of their payroll-tax contributions.

All European welfare states require firms to continue to pay their employees when they are sick. The cost of sickness pay is often shared between firms and the State. In addition, in all European countries, employment is directly linked with mandatory health, old-age, unemployment and accident insurance, for which both employees and employers pay contributions. In some EU countries, certain welfare entitlements are financed by the State (mainly in Denmark) and in some cases, such as the United Kingdom’s National Health Service, entitlements are linked with citizenship (or residence) status, not employment. These rights are mandatory and cannot be denied to the low-paid, which means that alongside

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<tbody>
<tr>
<td>Percentage of employees below low-pay threshold</td>
<td>8.5</td>
<td>11.1</td>
<td>22.7**</td>
<td>17.6</td>
<td>21.7</td>
<td>25.0</td>
</tr>
<tr>
<td>Percentage of working-age population below low-pay threshold</td>
<td>6.2</td>
<td>6.4</td>
<td>11.8</td>
<td>11.2</td>
<td>13.6</td>
<td>16.3</td>
</tr>
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* Excluding apprentices in Denmark and Germany. ** If East and West are treated separately, 22 per cent.
Source: Mason and Salverda (2010), based on CCP/IDA for Denmark; INSEE/Enquête sur l’emploi for France; German Socio-Economic Panel for Germany; CBS/Loonstructuuronderzoek for the Netherlands; NSO/Annual Survey of Hours and Earnings for the United Kingdom; and BLS/Current Population Survey for the United States.
the minimum hourly wage, there is also a minimum social wage, which is often substantial.

In the United States, a considerable proportion of average labour costs (about 37 per cent in 2000) are non-wage costs (EBRI, 2006), which are substantially lower for low-wage workers, who generally have lower levels of non-wage benefits such as health care and paid time off. While the share of non-wage labour costs in the United States is not far below Germany’s 43.3 per cent or even France’s 45 per cent or so, many social benefits (e.g. paid holidays and sickness pay) are not legally regulated in the United States, reducing the (statutory) minimum social wage. The National Compensation Survey, for example, shows that low-paid and part-time workers are frequently excluded from non-wage benefits. Only 76 per cent of employees in the United States are entitled to paid holidays and only 57 per cent receive sickness pay. Among employees earning less than US$15 per hour, these percentages are even lower, at 67 per cent and 46 per cent, respectively. The figures for part-timers are 37 and 22 per cent, respectively (Department of Labor, 2006).

European Directives on a number of key dimensions of employment conditions, such as annual leave, sickness leave and equal pay, and the entitlements of part-time, temporary and agency workers, have ensured that the five European countries examined here have a lot more in common with each other than they do with the United States. Thus, for low-paid workers, the differences in social wages between the United States, on the one hand, and the five European countries, on the other, are significantly larger than the differences in private wages alone. If the low-wage threshold used in table 1 had been computed on the basis of social rather than private wages, the proportion of low-wage workers would probably be even higher than 25 per cent in the United States, and the gap with the European countries would probably be wider (Mason and Salverda, 2010). It is not surprising that the absence of welfare provisions for the low-paid in the United States also contributes to greater overlap between low pay and household poverty than is found in Europe (OECD, 2006, figures 2.9 and 2.10).

If the government sets a minimum social wage, all firms are generally obligated to pay it, as is the case in Europe. In the United States, by contrast, many employers, operating in highly competitive and price-sensitive markets, see little possibility of paying non-wage benefits above the minimum wage since their competitors are not likely to follow suit.

The vulnerable groups are similar across all of the countries considered here. Mason and Salverda’s (2010) multivariate analysis indicates that the probability of being in low-paid employment is greater in all six countries for women compared to men, for workers up to 30 years of age compared to older workers, for the low-skilled compared to the better skilled, and for foreigners compared to nationals. There are, however, remarkable inter-country differ-

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ences in the quantitative importance of these effects. For example, adult women clearly suffer less relative to men in Denmark than they do elsewhere. At the same time, Denmark has the strongest age effect: only in Denmark do young people make up the majority of the low-paid. However, the highest incidence of low-paid work in the 15–24 age group occurs in the Netherlands, mainly because of the country’s lower minimum wages for this group. Part-time employment, especially with 15 hours and less, increases the probability of being low-paid in the Netherlands, the United Kingdom, the United States and Germany. Although the concentration of low-paid work is seemingly higher among the low-skilled, some well-educated and skilled workers account for non-negligible proportions of the low-paid in all six countries. More recent analysis of data on skill structure in Germany, with its strong dual system of vocational training, shows that the share of skilled workers among the low-paid even increased from 67 per cent in 1995 to 74 per cent in 2006 (Bosch and Kalina, forthcoming). Obviously, low-wage work is not only unskilled work, and the one-dimensional hypothesis of skill-biased technological change cannot explain this high share, or its growth in recent years.

From a social policy perspective, short periods in low-wage employment are less problematic than a situation where low-wage jobs are concentrated among certain groups and those concerned have no prospect of moving into more highly paid employment. Earnings mobility was researched in the national monographs using different national data sets. These analyses revealed relatively high mobility rates out of low pay in Denmark, where many of the low-paid are young, and in France, especially for workers with intermediate or higher skills. In the United States, the United Kingdom, the Netherlands and Germany, upward mobility is much lower, with a risk of cycling between low pay and no pay. Mason and Salverda’s (2010) analysis largely supports these results, also showing that women and part-timers have less chance of moving up and face a higher risk of falling back into low pay if they do move up. Also, the probability of moving from low pay to non-employment is higher for women than for men.

Workers in hotels, restaurants and personal services run a higher risk of low pay in all six countries. While hotels and restaurants have the highest incidence of low pay in all countries, the overall incidence is lower in Denmark and France than in the other four countries. A shift share analysis by Mason and Salverda (2010) shows that the generally lower incidence of low pay within industries in Denmark and France is what drives the large differences in low pay between those countries and the United States. The lower incidence of low pay in Germany, the Netherlands and the United Kingdom relative to the United States is strongly related to differences in sectoral structures (smaller shares of employment in low-paying industries). The industry studies used national data which allowed detailed disaggregation of industries and jobs. They show how strongly the share of low-wage work across countries varies within the same industry and activity (Appelbaum, 2010). For example, 38 per cent of nursing assistants in hospitals in the United States are low-paid compared with 21 per
In all countries, hotel room attendants are at the bottom of the pay scale. But in Denmark and France, where the wage floor is close to the low-wage threshold, the share of low-wage work for all workers in hotels is 20–25 per cent as against 45–75 per cent in the other four countries. In Denmark, only 4 per cent of the workers in the meat industry earn low wages. The average hourly wage in this industry is about €30 compared to €6 to €12 in the other countries (Grunert, James and Moss, 2010).

**Industrial relations and wage setting**

Countries which rely on “institutions” such as collective bargaining or minimum wages tend to have less wage inequality (Freeman, 2007). This pattern is typically determined by a set of institutions, rather than a single one. Linkages between institutions differ from country to country, and different sets of institutions can have a similar impact on wages and other terms and conditions of employment. However, the single most important institution appears to be coverage by collective agreements.

The close negative relationship between the incidence of low pay and coverage by collective agreements (OECD, 1997, chapter 3) can be observed in the six countries in this study (see table 2). Not only do the three countries with the lowest incidences of low pay (Denmark, France and the Netherlands) have greater coverage than the countries with the higher incidence (the United States, the United Kingdom and Germany), but coverage in the former group has increased or remained stable since 1980, whilst it has decreased in the latter (OECD, 1997, p. 71; Freeman, 2007, p. 27). Historically, the United Kingdom and Germany had high levels of coverage (until the early 1980s and the mid-1990s, respectively) which, after substantial transformations of institutions and of employer and state strategies, subsequently declined. Germany, where coverage is still relatively high, seems to be closer to France and the Netherlands than to the United Kingdom and the United States. But the decline in coverage took place mainly in labour-intensive industries – such as those studied by the low-wage project of the Russell Sage Foundation.

The extent of collective bargaining coverage depends on the institutional settings of the different countries. Four types of institutional linkages can be distinguished (Bosch, Mayhew and Gautié, 2010):

1. **Low inclusiveness because of low trade union density.** In the two liberal market economies (the United States and the United Kingdom), coverage is mainly influenced by trade union density. Employers’ organizations at the industry and higher levels are weak and concerned mainly with lobbying rather than participation in the collective bargaining process. In these two countries the benefits of collective bargaining do not extend to non-unionized workers, though unions do succeed in improving the wages and working conditions of their members (Schmitt et al., 2007).
High inclusiveness because of high trade union density. As in the United States and the United Kingdom, in Denmark collective bargaining coverage is mainly determined by trade union density, but in this case, density is high across the whole economy. More than 70 per cent of the workforce is unionized, and density has remained fairly stable over recent decades. Due to strong union power, most firms that are not parties to an agreement also pay the negotiated rates. As a result, coverage is even higher than union density. High union density can partly be explained by the so-called Ghent system, in which the unions run unemployment insurance funds, financed mainly by the state. This creates strong incentives to join a union.

High inclusiveness because of extended collective agreements and strong employer organizations. In France and the Netherlands, trade union density has been falling but without the negative impact on coverage this has had in the United Kingdom and the United States. In fact, collective bargaining coverage has actually increased even as density has declined, due primarily to increased employer organization and strong support by the State. In France, as in the Netherlands, agreements are legally required to be non-discriminatory in the sense that such agreements as are negotiated cover both unionized and non-unionized workers in any given company. In addition, the state declares most agreements to be generally binding throughout the relevant industry.

Low inclusiveness in spite of high employer-organization density and high coverage. As in France and the Netherlands, high employer-organization density has not translated into high bargaining coverage. The state has a strong role in regulating the labor market, but this role is not used to enforce collective agreements. In France, the absence of non-discrimination clauses in collective agreements means that non-unionized workers can be excluded from the benefits of agreements, and the state has no role in enforcing collective agreements.

3 Furthermore, in France, in spite of very low density, unions still have considerable bargaining power since they are, at least in the public services, able to mobilize workers for industrial action.
density is the main institutional factor behind the medium to high coverage observed in Germany. However, in contrast to France and the Netherlands, Germany’s employer-organization density is shrinking. Collective agreements on minimum pay levels are declared generally binding in only a few industries, so that decreasing employer-organization density has directly reduced collective bargaining coverage.

Only in Denmark, the country with the smallest share of low-wage workers, have unions pursued a “solidaristic” wage policy (as they have in other Scandinavian countries). The Danish trade unions have thus succeeded in reducing wage differentials both between industries and between different groups of workers (by sex, skill and region) within industries. This has been possible only because of the strength of the umbrella union organization.\(^4\)

Such strong intervention in the overall distribution of earnings is not a feature of the other countries with multi-employer negotiations. In France, the Netherlands and Germany, pay differentials between industries have remained high. Unions in the typical labour-intensive low-wage industries have been too weak to negotiate wages much above a low floor. In these countries, collective bargaining therefore has to be supplemented by statutory national minimum wages (NMW) to limit the incidence of low pay. In the United Kingdom and the United States, NMWs are the only institution setting a minimum wage floor.

The minimum wage takes different forms in the six countries studied. In France and the Netherlands, for example, collective agreements fix minimum wages at the industry level, which the Government then usually extends to uncovered workers throughout the industry. These agreements not only set a minimum wage but also establish a complete pay scale with different rates for different types of jobs and employee characteristics (mainly skills and seniority). In many cases, additional industry-specific premiums and bonuses and some fringe benefits are also established. In Germany, in a small number of industries such as construction, cleaning and postal services, the Government makes the collectively agreed minimum wage binding throughout the industry but generally does not extend other terms of the collective agreement.\(^5\) In Denmark, in 2005, the social partners agreed to introduce an exceptionally high minimum wage of €12 per hour (€13.80 if vacation pay is included) for all industries,\(^6\) which is enforced by unions and employers. Lastly, the United Kingdom, the

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\(^4\) As a consequence, unions in the highly productive industries, such as manufacturing, have not pressed for wage increases fully corresponding to the growth of productivity. Instead, the gains from productivity growth were relatively equally distributed across the economy. As a result, in Denmark, workers receive decent pay in industries that are typically low-wage in most other countries.

\(^5\) These agreements may provide different rates for different groups of workers, e.g. for unskilled and skilled workers in construction.

\(^6\) Overall, collective bargaining in Denmark is a powerful instrument for preventive intervention in the national earnings distribution, which eases the redistributive burden imposed on the welfare state. Such preventive intervention also supports the citizen status of low-wage earners. They are tax payers, whilst all workers – not just those earning low wages – are recipients of universal welfare transfers such as child allowances.
United States, France and the Netherlands have legislated NMWs.\textsuperscript{7} The latter’s coverage does not differ much across the four countries: almost all industries and firms are covered, albeit with some special rates for young workers that constitute legal “exit options”. In the Netherlands, these youth rates are very low and, in that sense, the NMW in that country is less “inclusive” than it is in France, the United Kingdom and the United States.

In the mid-2000s, the level of the NMW relative to average wages differed between France, the Netherlands, the United Kingdom and the United States. In 2006, the gross wage of a full-time minimum wage earner was just under half the average wage of a full-time worker in France and the Netherlands (47 and 46 per cent, respectively),\textsuperscript{8} and only about one-third in the United Kingdom and the United States, at 35 and 34 per cent, respectively (Allen and Regnard, 2007). These contrasts are the consequence of very different policies pursued during the past 15 years or more. The NMW was frozen in the United States between 1996 and 2007 and increased very moderately in the Netherlands during the same period. The value of the NMW therefore decreased in these two countries in both real and relative terms. By contrast, the NMW has increased substantially in France and the United Kingdom (since its introduction in 1999). In France, the NMW (the so-called SMIC) is legally indexed to consumer prices and (partially) to the hourly wages of blue-collar workers. Thus, even without any specific government intervention, the purchasing power of minimum wage earners is preserved and even increases over time. Because the NMW “bites” harder in France, it is not surprising that the proportion of employees receiving the minimum wage is highest in France at 16.8 per cent compared to 2.2 per cent in the Netherlands, 1.8 per cent in the United Kingdom and 1.3 per cent in the United States (Allen and Regnard, 2007).\textsuperscript{9} NMW policies may have a direct impact on the overall incidence of low-wage work by reducing wage inequality, at least at the bottom of the wage distribution. There is indeed strong evidence that the introduction of a NMW (as in the United Kingdom) or increases in its relative level (as in both the United Kingdom and France) reduce wage dispersion below the median and below the low-wage threshold.\textsuperscript{10} Yet, since the United Kingdom’s NMW is still well below the low-wage threshold, its impact on the incidence of low-wage work has so far been quite limited. The story is very

\textsuperscript{7} In France in 2005, in more than 50 per cent of the industry agreements, the minimum pay rate was below the NMW and therefore not implemented.

\textsuperscript{8} In the Netherlands, the proportion of 46 per cent refers to full-time employees aged 23 years or older.

\textsuperscript{9} The figure for France is not directly comparable with the figures for other countries. It covers all those workers whose basic wage (excluding bonuses or premia, e.g. for seniority) is the SMIC. But the total hourly compensation of many “SMIC” earners is much higher than the hourly SMIC. In 2002, for instance, over 18 per cent of SMIC earners had an effective total hourly compensation 30 per cent higher than the SMIC (DARES, 2009, pp. 10–11).

\textsuperscript{10} In the United Kingdom, the NMW has narrowed the gap between the 50th and the 10th percentiles of the wage distribution by 5 percentage points (Metcalf, 2007); and for care home workers, the introduction of the NMW caused significant compression at the lower end of the wage distribution (Machin, Manning and Rahman, 2003).
different in France, where the low-wage threshold was only about 5 per cent higher than the SMIC in the early 2000s, and where the share of low-wage work has declined in the past ten years. In the United States, the real and relative decline of the minimum wage may have been a key factor in the widening of inequalities in the bottom half of the wage distribution in the 1980s and 1990s (Di Nardo, Fortin and Lemieux, 1996; Manning, 2003, chapter 12). Meanwhile, the absence of a NMW in Germany and the strong differentiation of the NMW by age in the Netherlands explain the long “tail” in the income distribution down to very low rates of pay in these two countries, which is effectively cut off by the minimum wages in the United Kingdom and France.

The incidence of low pay may also depend on employer “exit options” – de jure or de facto exemptions, exceptions or loopholes in otherwise inclusive pay-setting institutions. Such “exit options” take many forms including: the ability of employers to withdraw from national collective agreements (as many small and medium enterprises have chosen to do in Germany); “sub-minimum youth wages” (in the Netherlands, the United Kingdom, and in the retail sector in Denmark); non-standard work arrangements, such as temporary contracts, temporary agency employment, part-time work, and Germany’s “mini-jobs”; and outsourcing, including the use of “posted” employees who work under the labour law of their country of origin rather than that of the country where they are actually employed. In some cases, exit options are legal and formal; in others, they result from the lack of enforcement of existing laws (see, for example, Vanselow et al., 2010, on the widespread violation of legal and collectively bargained labour standards in the hotel sector, likely related to the extensive use of immigrants in the sector).

In Germany, the growing use of various “exit options” – the decline in employer participation in collective agreements, the rise in outsourcing, and the dramatic expansion of temporary agency work, “mini-jobs” and posted workers – has been the principal factor behind the rise of low-wage work since the mid-1990s (Bosch and Kalina, 2008).

Shaping of the labour supply

In order to pay low wages to some workers, employers must have access to a pool of workers who are willing to work for such wages. In all six countries, institutions play an important part in determining the composition and the level of low-wage work. The comparative analysis by Gautié et al. (2010) shows women to be less over-represented among low-wage workers in the United States, Denmark and France, where they tend to work “standard” hours (figure 1) and are not “trapped” in mostly low-paid, marginal part-time work. In Denmark and France, women’s strong attachment to the labour market is facilitated by high public expenditure on childcare, which is above the OECD average (Immervoll and Barber, 2005). These public subsidies also help to set relatively high standards of childcare, which have a positive impact on the upward earnings mobility of the next generation. In the United States, low-wage families have a strong
incentive to choose cheaper and usually lower-quality day care with a negative impact on intergenerational earnings mobility. It also seems that the need for low-paid women in the United States to work long hours is stronger than in Europe because many services which are provided publicly in Europe have to be paid for privately in the United States and because there is more overlap between low pay and poverty than in Europe. In the other three countries, the male-breadwinner model still dominates the institutional setting. All three countries invest less than France and Denmark in public childcare. In Germany, the tax and social security systems provide the strongest incentive to work short hours since the additional income of a “mini-job” is not taxed and does not disqualify married partners from their derived entitlements to health care.

The representation of young workers among the low-paid partly depends on lower wages for the young, which may reflect their limited work experience and the combination of working and learning under apprenticeship systems, for example. In the United Kingdom, if learning and work are combined, a lower minimum wage, a so-called development rate, can be paid. The conditions and generosity of student grants also play an important part in shaping the supply of student labour. Because of insufficient grant levels, many students combine work and study in the United Kingdom, Germany and the Netherlands. In Denmark, the young – particularly students – account for the biggest share of low-wage work, because school-leavers with poor grades can gain access to higher education with some work experience.

11 In table 1, apprentices are excluded from the data for Germany and Denmark – the two countries with strong apprenticeship systems. In Germany, about 6 per cent of the workforce are apprentices, nearly all of whom would be counted as low-paid.
The supply of low-wage workers also depends on the pressures put on the unemployed to accept low-wage work and help for the unemployed to improve their skills and their individual bargaining power on the labour market. In this respect, the countries under study display two distinct models: one which helps to avoid, and another which “helps” to accept low-wage work. In Denmark, the net replacement rates paid to the unemployed are much higher and paid for longer than in the other countries (see table 3). The more generous unemployment benefit system is supplemented by higher expenditure on active labour market policy per unemployed. Training plays a particularly important role not only in active labour market policy but also in general education policies in Denmark, which provides generous grants for further training for adults. This has fostered the development of a “training culture”, which explains why Denmark’s participation rates in further vocational education and training are by far the highest in the OECD, not only for the younger and more highly skilled population groups but also, and particularly, for less skilled groups (OECD, 2008a, Indicator C5). This approach could be labelled “empowerment strategy” in that it aims to provide workers with human capital to enhance their “individual bargaining power” (Gautié et al., 2010). In the other, “work-first” model, unemployment benefits are low and paid only for a short period. Job-search assistance and monitoring put pressure on the unemployed to return to work as quickly as possible and accept low-wage work (with in-work benefits in the United States and the United Kingdom, and increasingly also in Germany). France and the Netherlands are somewhere in between these two models. With its 2004 “Hartz-laws”, Germany has moved further towards the “work-first” model.

Obviously, there are limits to what a pure supply-side empowerment strategy can achieve. There is no evidence of a correlation between the size of the less skilled labour force and the share of low-wage work (ibid.). If one takes formal schooling and the proportion of the population with upper-secondary education as an indicator, it turns out that Denmark as well as Germany and the United States score highly. Literacy scores may be a better measure of real competencies. All persons in the bottom quintile of respondents to the International Adult Literacy Survey (IALS) could be defined as low-skilled. Using IALS data for the mid-1990s, Mühlau and Horgan (2001) estimated that some 29 per cent of the working-age population in the United Kingdom and 23 per cent in the United States were low-skilled, compared to only 15 per cent in Germany and 13 per cent in the Netherlands. Although the probability of being in a low-paid job is much higher for the low-skilled, significant proportions of skilled workers are also in low-wage employment (see previous section). It would thus seem that while high skill levels are a necessary precondition for an empowerment strategy, as in Denmark, they are not sufficient in themselves to avoid low-wage employment.

12 Persons with lower secondary education (25 to 64 years) can expect 719 hours of training in Denmark, 130 hours in Germany, 450 hours in France, 216 hours in the Netherlands, and 102 hours in the United Kingdom. Because of the low number of observations, no data are available for the United States (OECD, 2008a, table C5.1a).
No simple wage–employment trade-off

It has often been argued that in the face of skill-biased demand shifts there is an inescapable trade-off between employment and wages for low-skilled workers. Less inequality in Europe should therefore be linked with lower employment, and greater inequality in the United States with higher employment. From the small sample of countries analysed here, one cannot draw definite conclusions about possible trade-offs in other countries. Given this limitation, however, the data on employment rates and trends do not support this theory (Appelbaum et al., 2010). Contrary to conventional wisdom, in Denmark and the Netherlands, both countries with strong welfare states and high levels of collective bargaining, employment rates are higher than in the liberal economies of the United States and the United Kingdom, where wage inequality is much wider (table 4).

Table 3. Unemployment benefits and expenditure on active labour market policy, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Minimum duration of unemployment benefits (in months)</th>
<th>Net replacement rate, including social benefits*</th>
<th>Total expenditure on active labour market policy/unemployment rate**</th>
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<tbody>
<tr>
<td>Denmark</td>
<td>48</td>
<td>90.2</td>
<td>0.36</td>
</tr>
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<td>France</td>
<td>23</td>
<td>76.1</td>
<td>0.09</td>
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<td>Germany</td>
<td>12</td>
<td>59.7</td>
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<td>24</td>
<td>80.1</td>
<td>0.28</td>
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<td>United Kingdom</td>
<td>6</td>
<td>64.3</td>
<td>0.10</td>
</tr>
<tr>
<td>United States</td>
<td>6</td>
<td>62.0</td>
<td>0.03</td>
</tr>
</tbody>
</table>

* Based on OECD Tax benefit calculator for a single person, without children, earning 60 per cent of the average wage: [net total income while unemployed (gross UB + housing and family benefits – income tax – social contributions)/net total income while employed (gross earnings + in-work benefits + housing and family benefits – income tax – social contributions). ** Calculated by Gautié et al. (2010) based on OECD (2007).

One might expect high minimum wages to price at least the low-skilled out of the market. However, the employment rate of persons (25–64 years) with less than upper-secondary education is highest in Denmark (63 per cent) while the Netherlands and France are at the same level as the United States (58 per cent). The United Kingdom has the highest employment rate among the low-skilled (66 per cent) in spite of the introduction of a minimum wage, while the lowering of wages below the level of the British minimum wage did not improve employment prospects among the low-skilled in Germany, who have the lowest employment rate of the six countries, at 54 per cent (OECD, 2008b, table D). This confirms the results of a recent OECD analysis which found that income inequality is negatively correlated with labour force participation and employment rates (OECD, 2006, p. 165).

These findings, based on univariate analysis alone, suggest that institutional settings in some European countries help to escape the trade-off between employment and pay. Yet they do not preclude that such a trade-off may exist in other settings (for example in France). It seems plausible, though, that employment rate outcomes depend heavily on the mix of particular institutions and policies.
Policies related to work-sharing and the structure of welfare expenditures seem to be especially important in explaining some of the differences in employment rates. Average working times in Europe are considerably shorter than in the United States. Calculated in terms of United States working hours, European employment rates would drop substantially, especially in the Netherlands and Germany – with their high proportions of women working short part-time hours – and in France, with its 35-hour week. The United States, with its high wage differentiation, is obviously able to create a larger volume of paid working hours per person of working age than the other countries (table 5). The theory of the wage–employment trade-off could explain this. However, it does not explain why the differences in volume of work per person between the United States and the European countries do not translate into higher unemployment in the latter. In the Netherlands and Denmark, the unemployment rates have indeed been at the same level as in the United States, or even lower, in recent years. One answer to this puzzle may lie in the notion of a backward-bending labour supply curve. In traditional economic theory, labour supply declines as wages fall – since it is no longer worthwhile working – and increases again as wages rise. This theory assumes that an individual can decide whether and how much he or she should work. Of course, this is not what happens in reality. Indeed, when wages fall below a level that can provide a standard of living regarded as appropriate, households may increase their labour supply and not reduce it until wages hit a level where begging or criminal activity becomes more worthwhile. When wages increase very rapidly, the labour supply initially rises, since workers are keen to take advantage of the opportunity for significantly higher income. However, when wages are rising quickly, free time also becomes relatively more important. In such circumstances, households can afford to reduce their labour supply again in order to have more free time. As a result, the supply and demand curves intersect at two different points, with very different equilibrium wages (Prasch, 2000). Strong institutions taking wages (especially at the lower end) and working hours out of competition seem to be the precondition for moving towards the equilibrium with shorter working hours and higher

Table 4. Employment rates of working-age men and women (15–64 years), 1994–2007 (%)

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th></th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>67</td>
<td>73</td>
<td>6</td>
<td>78</td>
<td>81</td>
</tr>
<tr>
<td>France</td>
<td>51</td>
<td>60</td>
<td>9</td>
<td>66</td>
<td>69</td>
</tr>
<tr>
<td>Germany</td>
<td>55</td>
<td>63</td>
<td>8</td>
<td>74</td>
<td>75</td>
</tr>
<tr>
<td>Netherlands</td>
<td>53</td>
<td>68</td>
<td>15</td>
<td>75</td>
<td>80</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>62</td>
<td>66</td>
<td>4</td>
<td>75</td>
<td>78</td>
</tr>
<tr>
<td>United States</td>
<td>65</td>
<td>66</td>
<td>1</td>
<td>79</td>
<td>78</td>
</tr>
</tbody>
</table>

Source: OECD (2008b, table C).
wages. They restrict labour supply and prevent wages from falling. Denmark and
the other three continental European countries with short, collectively agreed
or statutory (France) working hours are closer to the upper intersection point
with higher hourly wages and a smaller volume of work, while the United States
and the United Kingdom are closer to the lower intersection point, with longer
working hours and low wages – especially at the lower end. Shorter hours of
work also correspond to the working-time preferences of Europeans who mostly
would prefer to work a few hours less per week (Bielenski, Bosch and Wagner,
2002).

The structure of welfare regimes (Esping-Andersen, 1990) may help to
combat the so-called “cost disease” of services (Baumol, 1967), which might
have two negative effects on employment. First, the cost of less wage differenti-
ation is higher prices for labour-intensive services, which might in turn hinder
service-sector growth. Second, high prices for services will induce women in par-
ticular – especially those with low income expectations – to choose household
work over market work and create disincentives for work. The conservative
welfare states of continental Europe tend to provide strong incentives for
women to stay at home once they are married by focusing their welfare systems
on the male breadwinner, while the Scandinavian welfare state concentrates
expenditures on public subsidies for social services – e.g. childcare, education
and elderly care – which counteract the disincentive effects of low wage differ-
entiation and a large tax wedge, especially for women. In the liberal model of
the United States and the United Kingdom, the high wage differentiation helps
to create service jobs. Indeed, inter-country differences in the employment rates
of women can to a large extent be explained by differences in welfare regimes
(Bosch and Wagner, 2005, p. 87).

Finally, a trade-off between wages and employment could be avoided by
increasing the productivity of workers through improvements in work organiza-
tion and investments in skills and technology. Indeed, some of the five industry
cases identified support for such high-road strategies in countries with smaller
shares of low-wage work. For example, front-line jobs in meat processing are

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual working time</th>
<th>Employment rate, 15–64 years (%)</th>
<th>Employment rate in United States equivalents</th>
<th>Difference between rates (column 3 minus column 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1,594</td>
<td>77.3</td>
<td>68.5</td>
<td>−8.8</td>
</tr>
<tr>
<td>France</td>
<td>1,457</td>
<td>64.4</td>
<td>52.2</td>
<td>−12.2</td>
</tr>
<tr>
<td>Germany</td>
<td>1,353</td>
<td>68.9</td>
<td>51.8</td>
<td>−17.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,336*</td>
<td>74.1</td>
<td>55.1</td>
<td>−19.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,655</td>
<td>72.3</td>
<td>66.5</td>
<td>−5.8</td>
</tr>
<tr>
<td>United States</td>
<td>1,798</td>
<td>71.8</td>
<td>71.8</td>
<td>0</td>
</tr>
</tbody>
</table>

* 2006. Source: Author’s calculations based on OECD (2008b, tables B and F).
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more capital-intensive in Denmark and France where this industry pays higher wages than in the other four countries (Grunert, James and Moss, 2010). In Germany’s retail trade, most salespersons are skilled and take on jobs which are typically done by supervisors in other countries (Carré et al., 2010). Another example is hospitals: the low-skilled and poorly paid jobs of “nursing assistants” in the United States translate into better paid jobs in all European countries (Méhaut et al., 2010). In Denmark, France and Germany the jobs of call centre agents are less fragmented and broader than in the other three countries although this does not always imply higher pay in Germany.

At the other extreme, in spite of wide differences in wages, work organization and job content were quite similar for hotel cleaners across all six countries (Vanselow et al., 2010). There seems to be a “range of indeterminacy” in which wages can be set without negative employment impacts (Lester, 1964). The literature on the employment effects of minimum wages offers some support for this hypothesis: reviews of empirical research have come to the conclusion that the effect of differences in minimum wages on the employment of adults has generally been negligible (OECD, 1998, p. 47; Metcalf, 2007; Machin, Manning and Rahman, 2003). This could be explained by the lack of bargaining power of low-paid workers in monopsonistic labour markets. Manning argues that “one should not get hung up on the prefix ‘mono’: no employer exists in isolation … and one should think of a model of oligopsony or ‘monopsonistic competition’ … There are many frictions in the labour market which give employers the power to set wages like mobility costs or lacks of transparency about labour market opportunities. If the market power of employers is strong then this explains the amazing wage differentials between workers doing equal work like the wage gaps between men and women, small and bigger firms, good or bad employers” (2003, p. 360).

Conclusions

In the late 1980s and early 1990s most economists assumed there was an inescapable trade-off between employment and wages for the low-skilled in the face of skill-biased demand shifts. It was widely accepted that this – sometimes called “unified theory” – explained low employment rates and low inequality in Europe and high inequality and high employment rates in the United States. The United States was regarded as the model, and it was recommended that European governments should deregulate labour markets to solve their unemployment problem. But recent research has shown that there is more than one institutional means of promoting high employment rates (OECD, 2006). In the three European countries with small shares of low-paid employment (Denmark, France, 13 The idea that monopsony power of employers may be widespread in advanced economies is also put forward by Erickson and Mitchell (2007), who see “monopsony as a metaphor for the emerging post-union labour market”. They argue that employee voice needs to be restored to counter the undesirable consequences associated with strong macroeconomic performance, such as wage inequality and reduced worker rights.
Netherlands), we found inclusive pay systems that also cover employees with weak bargaining power.

An important instrument for overcoming the trade-off seems to be an empowerment strategy based on an active labour market policy and lifelong investment in education and training to strengthen the individual bargaining positions of the unemployed. If these investments in human capital reduce the supply of low-skilled work as fast as demand for it falls, there is no need for more wage inequality. Our research indicates that in some European industries the “beneficial constraints” (Streeck, 1997) imposed by more labour and product market regulation are pushing companies towards high-road business strategies based on innovations in work organization and increased capital intensity. In other industries, however, this has not happened. In some cases, such industries might have lost employment; in others, employment has not been affected because of monopsonistic labour market situations.

Our research also shows that employment rates – especially for women – depend substantially on the structure of welfare regimes. In the conservative welfare states of continental Europe, high social expenditures still primarily subsidize women’s household work, which keeps female employment rates down. The Scandinavian model, by contrast, finances social services: not only do its publicly provided cheap social services encourage women to work, they also provide the lower paid with equal access to high quality childcare, education and health services. Such careful treatment of human capital through social services positively interacts with empowerment strategies in the labour market. Although the higher social wage in Europe might have a negative impact on demand, this is offset by the high investments in public service jobs.

Finally, employment rates calculated in United States working hours were found to be lower in all European countries than they are in the United States. This differential, however, does not translate into higher unemployment because of European preferences for shorter working hours, which institutions such as collective agreements and working time regulations might have helped to develop and articulate.

It seems safe to conclude that labour market outcomes cannot be explained by any single institution. Employment outcomes are the product of a set of institutions that shape both the supply side and the demand side of the labour market. In the presence of institutional complementarity and virtuous circles, employment rates are higher. Even in countries with small proportions of low-paid workers, the problem that remains to be solved is how to avoid the long-term negative effects of low pay on workers’ careers and on the next generation. A good solution is to concentrate low pay on short periods in the life of young workers, as in Denmark. Since upward earning mobility is highest for young workers, Denmark achieves more equity than other countries by passing low-wage jobs around, “so to speak, like boring committee assignments or military service, but that would not have aggregate effect” (Solow, 2008, p. 2).
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