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Abstract

In the social policy debate, fundamentally different ideas prevail about the interlinkages between such key variables as employment, low pay, social transfers and poverty. This paper presents basic empirical evidence on the validity of these ideas and the policy prescriptions that follow from them, mainly drawing on cross-country comparative analysis. We show that clear and striking cross-country correlations prevail, but not, as is often so readily suggested, between low pay (wage compression) and employment performance, or between employment performance and poverty. Instead we find a strong and positive cross-country correlation between the incidence of low pay and the incidence of relative poverty, and we also find a strong but negative cross-country correlation between the level of social spending and the incidence of poverty. In addition, the incidence of low wage employment and social expenditure are also strongly and (negatively) related. We examine these correlations in more depth, particularly the link between the level of social spending and poverty. Since there is such a clear and strong negative link between the level of social expenditure and the level of poverty, it is tempting to think that more social spending offers an easy route to less poverty. However, a simple simulation exercise using the 1997 wave of the European Community Household Panel suggests that putting more money in social transfer systems as they currently exist in the EU would have a surprisingly small effect on poverty rates. The final section of the papers sets out an agenda for further research.
1. Introduction

Welfare states in OECD countries appear to be deadlocked. Despite generally falling unemployment figures, and stable social expenditures, poverty and income inequality have not come down during the nineties, but rather seem to have increased in a number of OECD countries. (Förster, 2000; Atkinson, 1999). The more figures for the United Kingdom and the United States indicate a stabilisation and even something of a reversal during the mid to late 1990s. The overwhelming impression, however, is of progress in the field of poverty reduction having stalled.

Views on how to get out of this apparent deadlock remain as wide-ranging as ever. Observing the debate, it is striking that widely different assumptions are entertained about the interlinkages between such key variables as employment, low pay, social transfers and poverty. Take, for example, the link between work and poverty. An important section of opinion basically assumes that more people in work equals less people in poverty and, by implication, that a high level of social spending is not a prerequisite for a low level of poverty. (This view was epitomized by Dutch social policy during the 1990s, which the Dutch government itself summed up as: ‘work, work and work’.) Others, by contrast, assume that there effectively exists a trade-off between employment (that is, non-subsidized employment) and poverty. The idea is that high levels of non-subsidized employment can only be achieved at the cost of a large low-paid (service) sector and increased, though perhaps temporary, ‘poverty in work’.

It is the purpose of this paper to present basic empirical evidence on the validity of such assumptions. Particularly, we look at some cross-country correlations between key variables, such as employment, low-wage incidence, social expenditures and poverty. We show that clear and striking cross-country correlations prevail, but not, as is often so readily assumed, between low pay (wage compression) and employment performance, or between employment performance and poverty. Instead we find a strong and positive cross-country correlation between the incidence of low pay and the incidence of relative poverty, and we find an equally strong but negative cross-country correlation
between the level of social spending and the incidence of poverty. There also appears to be a strong positive cross-country correlation between low pay and social spending. The causal mechanisms behind these remarkably consistent relationships remain, however, rather obscure. For example, the strong cross-country correlation between low pay and poverty is, contrary to what is generally thought, not due to a strong link between low pay and poverty at the individual level. The explanation, therefore, must be more complex and probably runs through the correlation between the incidence of low pay and the level of social spending (which directly affects the level of protection offered to the non-employed.)

This paper continues with a more detailed look at the link between social spending and poverty. Since there is such a clear and strong negative link between the level of social expenditure and the level of poverty, it is tempting to think that more social spending offers a route out of the impasse of persistent poverty. However, a simple simulation exercise using the 1997 wave of the European Community Household Panel suggests that expanding welfare state expenditures within existing social transfer systems would have a surprisingly small effect on poverty rates.

A note on terminology. The principal variable in this paper is poverty. Throughout this paper we use a relative poverty threshold and we do so because we are interested in how well countries succeed in protecting those who are, relative to the average standard of living, least well off in income terms. Perhaps it would be more accurate to use the term “low income” instead of poverty, but in line with common practice in the literature and in order to avoid awkward formulations, we will continue to use the word ‘poverty’. The definitions of other concepts will be clarified throughout the text.
2. Cross-country correlations

2.1 The link between employment and poverty

Within any country, poverty among those with paid work is far lower than among those without such work - certainly if one looks only at the non-elderly. However, across countries such a clear link between employment and poverty is lacking, as shown in figure 1, which plots poverty rates for the working-age population\(^1\) against employment rates for the late 1990s. (Actually, the relationship is weakly positive, implying that more employment is linked with more, not less poverty.) It is striking that the relative poverty rate for the working-age population in the United States is almost twice as high as in Germany or France, and almost four times as high as in Belgium, although a far higher proportion of the working-age population is employed in the United States.

Figure 1. Employment performance and poverty

![Figure 1](image)


Within the sample of countries presented in figure 1, only Austria and Sweden combine a high employment rate (over 70\%) with a low poverty level.

\(^1\) The working age population comprises all individuals between 16 and 64.
Sweden (as well as other Scandinavian countries) has in the past pursued very active employment policies, and has a large subsidised employment sector, unlike the United States and Canada. At the other extreme we find Italy, where employment is low and poverty is high. However, many continental European states, including France and Belgium, have relatively low poverty rates despite a relatively elevated level of non-employment.

Similarly, across time countries that have done well in terms of employment growth have not necessarily done well in terms of poverty. Figure 2 shows that the top 5 performers in terms of employment growth during the mid 1980s to mid 1990s period have seen rise in their relative poverty rates. Most striking is the example of the Netherlands where a dramatic rise in employment has gone accompanied with a substantial rise in relative poverty.

Figure 2. Changes in employment and poverty rates, mid 1980s-mid 1990s (percentage points difference)

Notes: Poverty is relative poverty rates for working-age individuals.

What are the reasons behind the lack of a relationship between employment and poverty, across countries and across time? A first reason is that job growth does not always benefit jobless households. In a number of countries, employment
growth over the past decades has not been to the benefit of workless households. This is illustrated in figure 3.

Figure 3. Changes in non-employment rates at the individual and the household level, mid 1980s-mid 1990s (percentage points difference)

Most remarkably, in the ‘job miracle’ countries, the Netherlands and Ireland, massive employment growth at the individual level has not lead to comparable employment growth at the household level. Even more striking perhaps is the example of the United Kingdom. As first pointed out by Paul Gregg and Jonathan Wadsworth (1996), the much touted rise in the UK employment rate during the 1980s and 1990s masked a polarization between what they called work-rich and workless households. The proportion of working-age individuals in work had risen in the UK, but so had the proportion of households with not a single person in work. Job growth had mainly benefited households with already one person in work. De Beer (2001) has documented a similar dynamic in more detail for the Netherlands. He shows that job growth there has mainly benefited new labour market entrants and previously single earner households.

A second possible reason why employment and poverty are not closely related is that additional jobs are bought at the price of more wage inequality.
Indeed, a familiar argument is that countries like the United States achieve a high employment rate at the cost of large-scale poverty in work. Similarly, there exists a perception that some countries, like the UK or even the Netherlands, have achieved their progress to a large extent through an expansion of “bad” jobs: insecure, low-paid service sector jobs. And indeed, figure 4 shows that in the UK, Canada and the USA, a large proportion (20% or more) of all employees earn relatively low wages (less than 60 percent of the median). Yet, the overall link between employment and low pay incidence is weak or non-existent, as other countries (notably Sweden) manage to have high employment levels with very few persons on low pay.

Figure 4. Low pay incidence and employment performance

![Graph showing the relationship between low pay incidence and employment rate across countries.](image)


2.2 The link between low wages and poverty

Figure 5 shows that there is a clear and fairly strong relationship across countries between the incidence of low pay and poverty among the working-aged. The seemingly obvious interpretation of this relationship would be that the persons earning a low wage are also those who tend to be in poverty. However, this is only part of the explanation. While it is true that poverty rates tend to be
higher in countries with a comparatively high incidence of low pay, the actual incidence of poverty among low-paid workers themselves tends to be lower than generally thought, even in countries where low-paid work is widespread. As Figure 6 shows, in most European countries less than 10 per cent of low-paid workers (by a relative definition set at 66 per cent of gross median earnings) live in relative poverty (Marx and Verbist, 1998). The United States is somewhat of an exception – poverty in work is quite a substantial problem there. The principal explanation for the generally weak overlap between low pay and poverty is that most low-paid workers live in multi-earner households. This is certainly the case for low-paid women and youngsters, who make up the majority of low-paid workers. (It is possible, however, that low-paid workers are “forced” to live in a multi-earner household, and especially those most prone to end up in poverty, and that consequently latent poverty among the low-paid is much higher than observed poverty. On the other hand, the income from a low-paid job sometimes provides the much-needed second household income that otherwise single earner households require to attain a reasonable standard of living. If a better-paid job is not a feasible alternative, low-paid work actually reduces poverty).

**Figure 5. Incidence of low pay and poverty**

![Graph showing incidence of low pay and poverty](source: Low pay: OECD (1996) Employment Outlook; poverty: Förster (2000); data for mid 1990s.)
By far the most vulnerable group in every country are and remain the non-employed at working-age, particularly those living in households without a person in work. Poverty rates for workless households are extremely high in most countries (cf. figure 5). The average poverty rate for workless households with a working-age head in the 16 OECD countries included in Förster (2000) is 36 per cent, versus 13 per cent for households with one worker and 3 per cent for households with two workers. However, there are important variations across countries in the incidence of poverty among workless households. In North America the poverty rates (as measured around the mid 1990s) for these households are extraordinarily high: 75 per cent in the US or 61 in Canada. Although European countries also do badly when it comes to providing adequate minimum income protection to workless households, the proportions in poverty are much lower: in Germany almost 45 per cent of workless households live in poverty, in the Netherlands, France and Sweden around 25 per cent.

Figure 6. Poverty incidence among the low-paid and individuals in workless households, data for early to mid 1990s

These relationships suggest that the high poverty level in some countries with high (non-subsidised) employment is connected with an inadequate minimum protection for those who are out of work despite the high employment rate (e.g. unemployment benefits and social assistance). Figure 7 shows that indeed across
OECD countries social expenditure and the incidence of low pay are strongly negatively related, which may come as something of a surprise. Alvarez (2001) calls the finding (which he documents extensively) that wage-egalitarian societies present the highest levels of welfare effort and redistribution "the puzzle of egalitarianism".

Generally speaking, there might three kinds of reasons behind this puzzle. First, the direction of causality may go from an extensive welfare state to a condensed waged distribution. This is the line followed by Alvarez (2001), who argues that second-order effects of social expenditure are a large part of the explanation of the puzzle: the higher taxes and transfers of large welfare states influence labour-supply in such a way that a more condensed wage distribution results. (High wage earners substitute leisure for money income in response to taxes, while generous benefits reduce labour supply among those commanding low wages through high reservation wages). Secondly, low wage inequality may somehow give rise to a well-developed welfare state. This kind of mechanism may seem less plausible, as one might expect that high wage inequality and a large number of low wage earners would create a demand for income redistribution (Alvarez, 2001: 3). On the other hand, a highly unequal distribution of market wages may make it politically and technically difficult to pool risks, and to develop social insurance systems, especially replacement income schemes involving a floor (cf. Cantillon, 2002). Thirdly, an extensive welfare state as well as a limited degree of wage inequality may both be the results of a third variable. As Atkinson (1999: 67-68) suggests, countries may be characterized by notions of equity that are widely shared within any society, but that differ across societies. A society in which the value of solidarity is widely shared may at once support pay norms, collective agreements and adequate minimum wages, as well as quasi-universal and generous benefits.
Figure 7. Incidence of low pay and social expenditure

![Figure 7](image_url)

Notes: Social expenditure is non-education expenditure for the working-age population only. Sources: Low pay: OECD (1996) Employment Outlook; Social expenditure: Bradbury and Jäntti (1999)

2.3 The link between social expenditures and poverty

This leads us to the link between social expenditures and poverty, which is shown in figure 8. The strong and negative relationship between social expenditure and income poverty (as well as income inequality) has now been well established in empirical studies (cf. Cantillon et al., 1997; Bradbury and Jäntti, 2001; Atkinson, 2000; Beblo and Knaus, 2001; Oxley et al., 2001). As Oxley et al. (2001: 392-396) show, some countries achieve better 'efficiency' in terms of child poverty reduction (i.e. poverty is reduced more for each Euro or Franc spent) through targeting more on low-income groups. However, 'effort' and 'targeting' are negatively related, and thus "countries with higher 'efficiency' due to targeting have traded a good part of this away by reducing 'effort'".
However, welfare states differ in more respects than the size of total expenditures and the degree of targeting. If those were the only important characteristics, the policy recommendation would be simple: increase expenditure (and/or improve targeting for those countries which already spend a lot). However, things are not this straightforward. A simple simulation exercise using the 1997 wave of the European Community Household Panel suggests that expanding welfare state expenditures within the existing social transfer systems would have a surprisingly small effect on poverty rates.

This simulation was done in the following way. In each country, the social transfers received by working-age households were increased by the same proportion, such that they constituted 18 percent of aggregate income of all working-age households. (This is slightly more than the actual percentage of the best-performing EU Member State, viz. Denmark.) At the same time, all income other than transfers was also adjusted proportionally, but in the opposite direction,
such that average and aggregate total household income remained constant. Next, poverty rates were recalculated from the micro-data. This simulation is equivalent to an across-the-board and proportional increase in all social transfers, paid for by a proportional tax or contribution (bonus) on all other income sources.

Table 1 shows the result of this simulation. The most eye-catching, and perhaps surprising result of the simulation is that the simulated convergence in social transfers expenditure does not produce a convergence in poverty outcomes; and would even contribute little to nothing to such a convergence. The difference between the highest and the lowest poverty rate increases slightly from 16.1% to 16.4%, and the standard deviation in the poverty rate across countries also goes up from 4.6% to 5.5%. There are some countries where poverty would be greatly reduced by an increase in social transfers, notably Ireland. Also in France and Germany, we observe substantial reductions in poverty. But for most countries, poverty does not go down much, or not at all, or even increases, and this is in particular the case for some high-poverty countries such as Italy and Greece.3

Table 1. Simulated poverty outcomes when the share of transfers in aggregate income of working-age households is 18%

<table>
<thead>
<tr>
<th></th>
<th>Share of social transfers</th>
<th>Poverty rate</th>
<th>Gain in poverty rate / increase in share of social transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Simulated</td>
<td>Actual</td>
</tr>
<tr>
<td>Denmark</td>
<td>16.0%</td>
<td>6.2%</td>
<td>5.40%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>12.4%</td>
<td>11.5%</td>
<td>8.00%</td>
</tr>
<tr>
<td>Belgium</td>
<td>13.6%</td>
<td>12.3%</td>
<td>10.70%</td>
</tr>
<tr>
<td>Austria</td>
<td>11.2%</td>
<td>12.4%</td>
<td>8.60%</td>
</tr>
<tr>
<td>Sweden</td>
<td>15.9%</td>
<td>12.5%</td>
<td>11.40%</td>
</tr>
<tr>
<td>Germany</td>
<td>7.9%</td>
<td>14.6%</td>
<td>5.70%</td>
</tr>
<tr>
<td>France</td>
<td>9.9%</td>
<td>17.4%</td>
<td>7.40%</td>
</tr>
<tr>
<td>Greece</td>
<td>4.4%</td>
<td>18.4%</td>
<td>20.20%</td>
</tr>
<tr>
<td>Ireland</td>
<td>12.3%</td>
<td>19.9%</td>
<td>8.90%</td>
</tr>
<tr>
<td>Spain</td>
<td>7.5%</td>
<td>20.2%</td>
<td>17.10%</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.8%</td>
<td>20.3%</td>
<td>17.70%</td>
</tr>
<tr>
<td>Italy</td>
<td>7.9%</td>
<td>20.6%</td>
<td>21.90%</td>
</tr>
<tr>
<td>UK</td>
<td>10.7%</td>
<td>22.3%</td>
<td>16.80%</td>
</tr>
</tbody>
</table>

2 Using a poverty line defined as 60 percent of median equivalent household income in each country, with the modified OECD equivalence scale, which as weights of 1.0, 0.5 and 0.3 for the first adult, other adults and children below 16, respectively.

3 In Van den Bosch (2002) the effects of the simulated increase in social transfers on the poverty gap are also shown and discussed. While there are some important and interesting differences with results based on the poverty rate (headcount), the important the results are the same.
For some countries, notably Sweden, the limited effect is partly due to the circumstance that their social spending was already close to 18% benchmark. The main reason, though, for the smaller than expected response of poverty statistics is that in most countries poverty outcomes are far less sensitive to increases in social transfers than the cross-country graphs would suggest. For the data presented here (viz. in columns two and three of table 1), we find a regression coefficient of -0.94 ($r^2=0.46$) for the cross-country relationship between the share of social transfers and the poverty rate. The fifth column of Table 1 show the gain in the poverty rate divided by the simulated change in the share of social transfers, both expressed in terms of percentage-points. These coefficients can be regarded as sensitivity estimates, and are comparable to the regression slope coefficient of -0.94. Only for Ireland and France do the sensitivity coefficients exceed the cross-country slope estimate. In the other countries, the sensitivity estimates are below or far below the latter. In Italy and Greece, they are even positive, indicating that an increase in the share of social transfers implies that, in the balance, income is redistributed away from the poor and towards the non-poor.

In order to gain a broader perspective on the results, this exercise was repeated in each country for a number of percentages, ranging from 0% to 20%, in steps of 2 percentage-points. For each percentage, poverty rates were recalculated from the micro-data (though the poverty thresholds were not adjusted) and graphed in figure 9. The curves indicate that in the southern European countries, poverty among working-age individuals and children is remarkably insensitive to social transfer spending. More detailed analyses in Van den Bosch (2002) suggest that this is due to two mechanisms which cancel each other out: as expenditure is increased, most social transfer beneficiaries escape poverty, but at the same time a relatively large proportion of households for whom earnings is the most important source of income are pulled into poverty by the increase in taxes / contributions. In other countries also, social transfers appear to cease having an effect on poverty after a certain level of spending is reached. However, the poverty 'plateau' thus reached differs across countries (it is surprisingly high in the UK). This suggests that in the EU Member States a relatively large but differing proportion of the poor are not reached by the social transfer systems.
3. Conclusion

In the social policy debate, fundamentally different ideas prevail about the interlinkages between such key variables as employment, the number of low-wage earners, social transfers and poverty. These diverging ideas and assumptions give rise to very different policy recommendations. The purpose of this paper was to present basic empirical evidence regarding these assumptions, primarily using cross-country correlations. The correlations and non-correlations reported in this paper are summarised in figure 9.
Looking at cross-country correlations, we do not find the expected relationship between employment and poverty, nor between low wages and employment. We do find fairly strong relationships between low wages and poverty, between social expenditure and poverty, and also (perhaps surprisingly) between low wages and social expenditure. On closer inspection, none of these relationships turns out to be as simple as one might think, and the causal mechanisms remain rather obscure. Even in countries with a high number of low wage earners, poverty among this group remains limited, and is concentrated among workless households. The strong cross-country association between high welfare state effort and low poverty would suggest that increasing spending in currently low-effort countries would lead to a downward convergence in poverty outcomes. However, simulating an increase in social expenditures for all EU Member States within existing systems produces the surprising result that this would contribute little to nothing to such a convergence in poverty rates. Despite some recent research into this matter, the finding that wage-egalitarian societies present the highest levels of welfare effort and redistribution remains an intriguing puzzle.

This paper represents very much work-in-progress. Therefore it is too early to draw conclusions. What we can do is to suggest a research agenda, or rather the general direction in which research into the relationship between welfare state
effort (input) and poverty and income distribution outcomes should go. First of all, descriptions of welfare states should go beyond the level of expenditure. This was of course already suggested by Esping-Andersen (1990: 19), who wrote, "Expenditures are epiphenomenalism to the theoretical substance of welfare states". However, the welfare state typologies introduced by him and others (e.g. Korpi and Palme, 1998) are also unsatisfactory for two reasons.

First of all, these typologies present pictures of welfare states that are too homogeneous. Different programs within the same welfare state may well present quite different characteristics. What we need, therefore are quantitative and differentiated, yet synthetic, indicators for separate social protection arrangements. They should reveal the level and composition of the income packages that persons can realize, given various choices or situations as regards family formation and labour supply. In-work and out-of-work replacement rates are an example of such indicators. Such indicators could be developed on the basis both of model family type simulations (e.g. Bradshaw et al., 1993; OECD, 1999), but also, as a few promising recent papers show, using micro-simulation tax-benefit models (e.g. Berger et al., 2001; Immervoll and O'Donoghue, 2002).

Secondly, we should avoid the kinds of analyses where the welfare state is seen as an institution that corrects market outcomes, after the market has finished its workings. The commonly made comparisons between pre- and post-transfer incomes are an important example of such analyses. The study of market outcomes should be an intrinsic part of welfare state research. Wage inequalities are probably to a large extent not exogenously given, but influenced importantly by various welfare state arrangements. Alternatively, both a high level of social expenditure and a compressed wage distribution perhaps emanate from widely shared value systems emphasizing solidarity and equality. Such values might at once support pay norms and collective agreements (Atkinson, 1999, p. 68), as well as universal and generous benefits. If the relation between low wages and welfare state effort is upheld in other research, this may point to a way out Iversen and Wren's (1998) trilemma of the service economy.
Bibliography


