

Chapter 3.  
**Social Rights, Welfare Generosity, and Inequality<sup>1</sup>**

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Comparative analyses of welfare state reforms have relied overwhelmingly on public spending as the indicator of program commitment and change. Yet many welfare state scholars have long criticized the use of this type of data, emphasizing the importance of non-spending features of welfare state institutions, in understanding the full impact of national social programs. Despite this criticism, large-n comparative analysis of welfare state dynamics using alternative institutional measures of national welfare state are surprisingly rare. Such alternatives are essential to assess accurately the extent and impact of contemporary policy reform. Ultimately, this is necessary to have an impact on the nature and scope of reform.

The Comparative Welfare Entitlements Dataset (CWED) is intended to fill this gap. CWED contains systematic coding of important characteristics of three major social insurance programs that impact individual life-chances: unemployment insurance, sick pay insurance, and public pensions. These characteristics are tracked annually over eighteen OECD countries between 1970 and 2002. This chapter describes the dataset's main features, focusing particularly on the creation of an aggregate indicator, a benefit generosity index, which should be suitable for large-n (or small-n) comparisons.

Following a description of the main features of the generosity indicator, the chapter

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<sup>1</sup> The data discussed in this paper is available at the CWED website: <http://sp.uconn.edu/~scruggs/welproj.htm> . Support for the collection of this data was provided by the National Science Foundation (SES-0095367).

presents an overview of national trends before turning to an analysis of the relationship between benefit generosity and redistribution.

The results suggest three main points. First, many countries have experienced some retrenchment in major social insurance programs from their peaks, though almost all welfare states are more generous at the start of the twenty-first century than they were three decades ago. In some cases, retrenchment has been a comparatively recent development, while in other cases declines in generosity have been underway for more than a decade. Second, though the small, northwestern European countries do continue to be generous at the start of the twenty-first century than most other countries we looked at, the differences are much less pronounced than they were in the 1980s or early 1990s. Thus, developments over the last few years seem to suggest some downward-sloping convergence, though not a proverbial a race to the bottom. The final main point, which emerges from the empirical analysis is that welfare benefit generosity is, on balance, a better overall predictor of redistribution than is spending.

### **Problems with Comparative Social Spending**

There are several widely used cross-sectional time series indicators of welfare states in the comparative political economy literature. The most popular are general government spending and transfer spending, both of which have long been used in the comparative analysis of social policy and political economy (e.g., Wilensky and Lebeaux 1958, Wilensky 1975, Cameron 1978, Korpi 1983, Garrett 1998, Iversen and Cusack 2000, Swank 2002, Huber and Stephens 2001, Lindert 2004 **ADD CHAPTERS HERE.**) More recently, the OECD's social expenditure database has been used to compare sub-categories of social spending (Castles 2002, 2004, Lindert 2004 **ADD CHAPTERS**

HERE?). Even case study comparisons often use this spending data. For example, Paul Pierson's (1996) influential work frequently relies on spending trends to provide evidence of his main contention that the politics of welfare retrenchment differs from the politics of expansion.

Undoubtedly, researchers rely on spending measures because they are available, appear directly comparable, and vary across countries and time (cf. De Deken and Kittel forthcoming). Yet researchers have also acknowledged that spending data have significant drawbacks as measures of the reach or generosity of welfare states. These criticisms have become more pronounced in evaluations of welfare state change and retrenchment (Gilbert and Moon 1988, Esping-Andersen 1990, Castles and Mitchell 1993 Clayton and Pontusson 1998 Goodin, *et al.* 1999; Clasen and Sigel 2007). As a guide to understanding the impact of the welfare state on individual life-chances or exposure to risk, spending data reveal little about the level of social protection against risk. As Esping-Andersen famously remarked: "it is difficult to imagine that anyone struggled for spending *per se*" (1990:21). But several other shortcomings of spending data as an indication of welfare generosity are worth considering. Three are highlighted here: dependency structure, differential rates of economic growth, and tax systems.<sup>2</sup>

### **The Welfare Dependency Structure**

Aggregate spending as a measure of effort almost always relies on a spending ratio (e.g., spending divided by GDP) in empirical models in the literature. That is, most regression results explain variations in the size of government spending *relative* to the

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<sup>2</sup> Another factor that is not discussed here is the role of forced private social spending (Adema and Ladaïque 2005) This is a category which De Deken and Kittel (forthcoming) note casts serious doubt on the comparability of social spending series like the OECD's Social Expenditure Database.

size of the economy. Spending measures do not typically account for the size of the dependent population, even though this is critical in determining how generous any spending level (or spending ratio) is. This problem arises both in cross-sectional views and in historical accounts. The implications of Esping-Andersen's classic example of unemployment expenditure in the UK in the early 1980s—spending ratios went up even though benefits entitlements to individuals were severely and permanently restricted, because unemployment rates rose faster than the benefits were cut—has gone basically unheeded now for more than a decade and a half.

Compared to unemployment rates, the retiree ratio presents a more severe challenge to measuring generosity with spending ratios. Almost every OECD country has experienced considerable growth in the over 65 to working age ratio in recent years. Stagnant spending ratios in the face of identical demographic shifts will have very different consequences for the degree of retrenchment depending on the pre-existing scope of the public system. For example, assume that the number of retirees doubles (from the same base) and the social spending ratio is unchanged. In a public pension system that only provides for 40% of retiree income the retrenchment is considerably less compared with a system that provides for 80% of retiree income.<sup>3</sup>

### **Differences in Economic Growth**

National time series of public spending ratios also underestimate real welfare expansion in poorer OECD countries compared with wealthier ones, insofar as the latter tend to grow faster. Compare Ireland and the United Kingdom. Based on spending ratios,

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<sup>3</sup> Note that simply controlling for the over 65 population on the right hand side does not do anything to differentiate the two cases. By construction, the retiree population is the same; what differs is the scope of the public system.

Ireland has experienced significantly more welfare retrenchment since 1980 than has the UK. Irish spending ratios are lower as far back as the 1960s. However, such cross-national differences are almost certainly attributable more to differences in economic growth rates, structural change, and demographic developments than to more program of retrenchment in Ireland. Ireland has grown at an average rate of 6.2% since 1983, the UK about 2.7%. Assume that real spending in both countries grew by 3% per year over then until 2007; the spending ratio of the UK would have grown by around 10% in the UK, while it would have fallen by more than 50% in Ireland.

Combined with the previous point about aging populations, the comparison between the two countries becomes even more stark. Ireland's retirement age population ratio actually fell in this period as did its unemployment rate. Indeed, the effects of differences in aging and unemployment are doubly pernicious. Higher numbers of retirement age and unemployed people raise spending pressure and lower total output, putting upward pressure on spending for a given level of state commitment to individual social protection. Thus, it is possible that any observed spending declines (i.e., in purchasing power, not ratio, terms) were more than compensated by a decline in the "needy" population, leaving generosity to rise considerably.

## **Taxation**

Differences in the tax treatment of transfers-- due to special credits and exemptions or simply to different tax rates-- further distort the degree to which a given spending ratio will translate into different real levels of disposable income for recipients. While the tax system is increasingly being used as a transfer mechanism—the United

States Earned Income tax Credit and the United Kingdom's Working Family Tax Credit being notable examples—it can also be used to claw back apparent increases in social spending (Howard 1997). Adema and Ladaique (2005) and Scruggs (forthcoming) note that increases in gross expenditure can be offset considerably by changing the tax treatment of transfers (e.g., making benefits taxable) or by increasing consumption taxes.

It is true that all of these measurement biases in spending data could be ameliorated with careful controls for relevant factors on the right hand side of a regression equation. However, this does not make spending a measure of generosity; these are still models that explain variation in spending ratios. Analysis of what the implications of a spending model are in terms of retrenchment or generosity, even with controls for factors implied above, are largely non-existent in the literature, because the belief that these are retrenchment models is so embedded in the current approach to understanding welfare state dynamics. But the idea that spending ratios are a good proxy for welfare state commitments is a bit like asserting that this year's property insurance claims tells you the number of people with insurance.

### **From Welfare Spending to Welfare Commitments**

An alternative to evaluating welfare state commitments is an entitlement or social rights approach. The essence of this approach is that the conditions stipulated in national social insurance programs, which are the most important sources of non-life insurance for the bulk of the population in all industrial countries, better encompasses the extent of welfare state generosity. This is essentially the approach advocated by Korpi (1989), promoted in Esping-Andersen (1990), and widely embraced as an ideal in comparative

social policy (Castles 2002, Green Pedersen and Haverland 2002, Hicks 1999, Kitschelt 2001). This requires information on institutional elements of programs that are sometimes considered qualitative details of welfare policies. In fact, they are just the institutional features that are the “rules of the game,” as potentially subject to measurement as anything else. They just have not been quantified.<sup>4</sup>

Social insurance regimes can be thought of as sets of commitments. These commitments extend beyond the number of actual claims at any point in time. The behavioral effects of commitments, may, furthermore, alter the balance of political and economic power between segments of the population or among economic classes.<sup>5</sup> (Indirect behavioral effects, of course, are often explicitly considered in formal economic models, though these models tend to make pretty narrow assumptions about the social welfare implications that such rights will have on equilibrium outcomes.)

Viewed as a commitment, the generosity measures presented in the next section are useful for understanding many traditional questions in the sociology and economics (and politics) of labor markets. The generosity of commitments affects things like bargained wages, quit rates, unemployment duration, labor market matching, or other micro-level phenomena that aggregate spending levels do not. In other words, looking at institutional commitments rather than monetary outlays should be of greater use in thinking about and empirically testing many (if not most) political economy models.

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<sup>4</sup> The Social Citizenship Indicator Project under the direction of Walter Korpi at the Swedish Institute for Social Research reportedly has collected similar data for a similar set of countries for more than two decades (Korpi and Palme 2004). However, because this data is not publicly available to the scholarly community, it has not been widely used in the comparative welfare state literature.

<sup>5</sup> The power resources school tends to view social insurance as the *product* of social mobilization, though it implicitly recognizes the role of institutions in altering the balance of political and market power. It is not necessary, of course, to adopt a class explanation of origins to accept that social insurance affects behavior.

## Comparative Welfare Generosity

This section outlines our approach to measuring benefit generosity contained in the Comparative Welfare Entitlements Dataset. The index functions here as an alternative indicator of the extent of public commitment to welfare, and as a more appropriate gauge of the extent of welfare generosity than in aggregate spending. The index is very similar in spirit to Esping-Andersen's decommodification index—an icon in the comparative social policy literature. Our major improvements on the decommodification index are a) better accuracy and consistency of measurement, b) a more robust approach to aggregating different program dimensions c) presenting annual data over a long period of time, and d) full documentation of the underlying data collection methods and d) public availability and accessibility of the results.<sup>6</sup>

Table 1 provides a breakdown of the social insurance program characteristics that are used to compute the generosity index. Net income replacement rates (RRs) are calculated based on the legal formulae for benefit calculation using a typical worker or household unit earning typical wages, incorporating details of the income tax and social insurance tax system. Data on program coverage address the universalism of the programs. The data cover eighteen countries: Australia, Austria, Belgium, Canada,

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<sup>6</sup> Non-statutory benefits, even if applicable to most of the workforce (e.g., supplementary pensions negotiated and implemented by social partners and extended by decree) are excluded, but legal requirements, like compulsory sickpay from employers, are included. Scruggs and Allan (2006a) and Scruggs (2007) provide a comparative analysis of important substantive and methodological problems with Esping-Andersen's index. Details about the elements of the index, sources, and details of calculation of replacement rates are available in the data files and codebook, all of which are available at the CWED website.

Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States.<sup>7</sup>

Table 1 here

The characteristic variables described in Table 1 are combined to form indices of program generosity using the following procedure. Take the cross-country mean and standard deviation for each characteristic (except coverage and take-up) in 1980. (The choice of a base year is ultimately arbitrary; but 1980 is the year Esping-Andersen used to compute his influential welfare state decommodification index and is thus convenient for comparative purposes.) Obtain the standardized “g-score” for each characteristic in all years (1971-2002) by subtracting the benchmark year mean and dividing by the benchmark year standard deviation.<sup>8</sup> These scores are constrained to be a maximum of 2 standard deviations from the mean. Then, in order to make all values positive, add two to each score to produce a score between 0 and 4.

$$[\text{Value}_{(i,t)} - \text{mean}(\text{Value})_{1980}] / \text{sd}(\text{Value})_{1980} + 2 = \text{g score}_{(i,t)}$$

We create separate program generosity scores for each of the three main social insurance programs considered here: unemployment, sickness, pensions. This is done by adding all of the computed g-scores for each program characteristic, and multiplying that value by

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<sup>7</sup> Eventually, the data set will be expanded to include similar information on family and maternity benefits and extended to cover more OECD countries.

<sup>8</sup> In a few cases, extreme values were dropped in computing the benchmark values. Precise information on the benchmark values and computation of benchmark scores can be found in the source code used to generate the scores (available from the CWED site) and also described in Scruggs (2007) and Scruggs and Allan (2006).

the coverage ratio. In the case of sickpay and unemployment, the coverage ratio is the number of insured workers divided by the total labor force; for pensions, it is the percentage of retirement age people in receipt of some form of public pension.<sup>9</sup> To further illustrate with an example, the unemployment insurance program score is:

$$[\text{Single replacement rate (RR)}_{\text{UE g-score}} + \text{Family RR}_{\text{UE g-score}} + \text{Qualifying Period}_{\text{UE g-score}} + \text{Waiting Period}_{\text{UE g-score}} + \text{Benefit Duration}_{\text{UE g-score}}] * \text{UE coverage ratio}$$

Finally, the benefit generosity score is the sum of the three program scores. (We also use a labor market program generosity score later which is the sum of unemployment and sickness scores only.) The decision simply to sum the three program scores is, as with almost all efforts to create aggregates without an obvious numeraire, contentious. In part, the decision is based on precedent: Esping-Andersen's previously mentioned (and inaptly named) decommodification index sums the three program scores. The decision is also based on the fact that we have already "weighted" the programs based on their coverage of the target population in the country. (Indeed, we find that in some cases, changing coverage of the population over time affects the generosity scores in non-trivial ways.)

Scores on the generosity index are given for three periods in [Figure 1](#) (1971-3, 1983-6, and 2000-2). We use three-year averages here to focus attention on long-run

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<sup>9</sup> It is important to emphasize that the coverage ratio for unemployment and sickpay does *not* refer to the percentage of the unemployed or sick in receipt of (i.e., what we call "taking up") benefits, but to the portion of people that are currently insured. Because some currently unemployed or sick have exhausted their benefit entitlement or not qualified for benefits before becoming unemployed or ill, take-up rates for unemployment or sickpay are generally lower than coverage rates. One reason that we did not use take-up rates for these program is that they are extremely hard to compute and interpret over time with the available national administrative data.

trends. Most welfare states are at least as generous in the early 21<sup>st</sup> century as they were in the early 1970s. The mid 1980s represented a general shift towards greater generosity among all countries examined here, and there was some evidence of convergence. The mean generosity score rose from 22.6 to 29, and the measure of convergence (standard deviation divided by the mean) for the eighteen countries declines from .30 to .27.

During this time the previously less generous countries-- Japan, Ireland, Switzerland, the United States-- gained some ground on historically more generous countries (Scandinavia plus the Netherlands).

Comparing the 1983-6 period with 2000-2, the generosity scores illustrate a clear pattern of downward convergence. The mean score declines and the coefficient of variation shrinks further, and scores in three out of four countries are lower in 2000-2 than in 1983-6. Moreover, during the 1980s and 1990s *retrenchment* is most pronounced in the more generous countries. Except for oil-rich Norway, all countries with generosity scores above the median in 1983-6 saw generosity fall, eight of them by more than one point. Among the nine least generous countries, only four experienced a decline in generosity, and only two of the nine saw generosity scores fall by more than one point.

Do these results suggest that contemporary welfare states are in a prolonged period of retrenchment? On one hand, it is important to note that on average, welfare state generosity is higher in the early twenty-first century than it was in 1970s, and scores are more tightly clustered around that higher mean. Only two countries, Germany and Switzerland, have lower generosity scores for 2000-2 than they do in 1971-3, and even these are marginally lower.

On the other hand, because of the slow-changing nature of earnings-related public pension systems (still present to some degree in almost of these countries), our current generosity scores may *underestimate* retrenchment for current workers. Since we calculate pension scores on the basis of what a current retiree receives, not what current workers expect in a decade or more, public pension reforms enacted in several countries during the 1990s (e.g., Japan, Sweden and Italy) promise to reduce gradually the benefits of future retirees. Another way to view it is that the pension component of the scores may be headed down further over the next two or three decades. Of course, these changes could be reversed by subsequent reforms.

Figure 1 here

The use of spending data in the absence of measures of program generosity has sometimes been justified by the assertion that spending and benefit generosity are closely correlated empirically. Of course, the problem is that there has not been comprehensive indicator of generosity available to substantiate that claim.<sup>10</sup> The benefit generosity index allows for one. We ran correlations for generosity and three popular spending ratios for 1999: total spending, transfer spending (both from OECD's Historical Statistics), and total social expenditure (from the OECD's Social Expenditure Database). We would certainly expect there to be some association between spending and generosity, if for no other reason than the fact that pension spending is a large part of

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<sup>10</sup> The OECD Jobs Study unemployment benefit series has sometimes been used as a basis for making claims about program generosity in the way we mean it. While it may be correlated with other elements of generosity, that benefit series refers directly to a category of spending that is *very* small in relation to other categories.

state spending and most people can expect to draw a pension. The correlations for 1999 are, respectively, .74, .50, .56. These are all reasonable, but hardly constitute being considered closely correlated.<sup>11</sup> At best, spending measures explain about half of the variation in the generosity index.

### **Inequality, Redistribution and Welfare Generosity**

Are differences in generosity associated with differences in income inequality?

This section provides some preliminary empirical results based on simple scatter plots and a re-estimation of two recent empirical models of fiscal redistribution (Bradley, *et al.* 2003 and Moller, *et al.* 2003). Our results suggest that not only is generosity a more appropriate indicator of welfare program commitments, but it is also a better predictor of redistributive outcomes than is spending.

All of the redistribution indicators are derived from the Luxembourg Income Study. LIS data provide useful comparative surveys of the distribution of income in many advanced democracies (e.g., Kim 2000, Smeeding, Rainwater and Burtless 2001). In addition to the contributions in this volume, numerous studies utilizing LIS data shed light on the determinant of reductions of income poverty and inequality. This chapter concentrates on three main indicators of inequality and redistribution.

1. *Reduction in relative poverty rates.* Poverty is defined as the percentage of the household equivalents living below 50% of the median national income.<sup>12</sup> Poverty

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<sup>11</sup> Of course, one might argue that the deficiency lies in the generosity measure, not the spending one. The larger point, however, is that spending and the generosity index are not empirically the same thing.

<sup>12</sup> Household equivalency assigns each member of a household with household income X, and income level equal to  $X/\sqrt{N}$ , where N is the number of people in the household. Thus, a single person living alone with income Y has the same equivalent income as each of four persons living in the same household and with household income 2Y.

- reduction is computed as the difference between poverty rates (50% of national median) based on market income and on disposable income.
2. *Reduction in absolute poverty rates* Poverty here is defined as the percentage of equivalent individuals with total income levels below the United States' poverty line in a given year (Scruggs and Allan 2006b, Kenworthy 1999). National currencies are converted to dollars using OECD purchasing power parities.
  3. *Reduction in gini coefficient using market and disposable income* This indicator is discussed in several important papers (Hicks and Swank 1984, Korpi and Palme 1998, Milanovic 2000, Bradley *et al* 2003; Pontusson 2005). It is also defined using equivalency conversions discussed above

It is important to point out that what sometimes referred to in the LIS data as “market income” is, in fact, post-tax (but pre-transfer) income. When this is the case, reduction in poverty rates will be biased upward, for two reasons. First, the poverty threshold will be lower because measured income is lower (it excludes all taxes). Second, some people with both market and post-tax, post transfer incomes above poverty, may fall below the poverty line post-tax, pre-transfer. Meanwhile, in such cases, reductions in the gini coefficient will be biased upwards. Since incomes are bounded from below (no one is taxed below zero income) and there is some progressiveness in the tax system, the computed “pre-fisc” gini coefficient will be lower than the true pre-fisc gini. To avoid

these problems, our calculations only include in our sample country-years with truly pre-fisc income.<sup>13</sup>

## **Bivariate Correlations**

We begin by presenting scatter plots of the relationship between redistribution and benefit generosity. Data for all other figures in this section are from the most recent year for which LIS data are available, generally 1999 or 2000. For each of the three main indicators, we present two plots, one with redistribution among the entire population, the other with redistribution within only in the “working age population”. For poverty, this is defined as households headed by a person under 65; for the gini coefficient, it is households headed by a person between 25 and 59.

Figure 2 and Figure 3 depict the relationship between benefit generosity and reductions in the relative poverty rate via the tax and transfer system, i.e., the percentage decline in market and post-transfer poverty. For redistribution in the national population (Figure 2), the percentage reduction in poverty appears to be closely related to benefit generosity ( $r \sim .80$ ,  $n=13$ ). A plot of post-fisc poverty against generosity (not shown) has a similar shape, suggesting that there is a high (negative) correlation between post-fisc poverty and the percentage reduction in poverty, but little correlation between pre-fisc poverty and subsequent poverty reductions. On average, income poverty rates decline by over 60% as a result of the tax and transfer system. The smallest reduction is in the United States (28%) followed by Australia (41%), while the largest reductions are in France (79%) and Sweden (78%).

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<sup>13</sup> This eliminates all values for Italy, Austria, Ireland and the 2000 value for Belgium. Results in Bradley et al. and Moller include some of these cases. Where we identify that they were included, we also include them in that regression analysis.

Figure 3 shows the relationship between generosity and reduction in poverty among households headed by people under 65. Poverty reduction is less on average than for the whole population (less than 50%), but this is not too surprising. Many pensioners derive substantial portions of their income from public pensions (i.e., transfers). Again, the United States and Australia have the lowest reduction (18% and 41%, respectively) while Finland and France have the highest rates (70% and 68%, respectively).

In evaluating poverty reduction in this segment of the population, we modify the generosity measure, removing the pension score, since pension generosity is unlikely to affect market poverty rates in the working age population. The correlation is only moderate ( $r=.47$ ), but Switzerland is a significant outlier, with a poverty reduction score that is much lower than its comparatively generous social insurance system would suggest. If Switzerland is disregarded, the relationship is similar to that in [Figure 2](#). What makes Switzerland truly exceptional, however, is the absence of market income poverty, which is 8.5%, only 60% of the rate of the next lowest country, Norway with a 13% market poverty rate. (The highest poverty rate is 24%.)

Figures 2 and 3 here

One criticism of relative poverty rates as a measure of inequality is absolute standards of living are arguably more important than relative standards. An unequal distribution with a high average income may be preferred by all people in a society compared with relative equality but low average income. Absolute poverty thresholds here are based on the US poverty threshold in 1986, and threshold is adjusted annually

for differences in purchasing power parity (Scruggs and Allan 2006b). This controls for differential inflation rates across countries over time.

According to this criterion, tax and transfer systems only lower poverty rates slightly more than they reduce relative poverty. Absolute poverty reductions are only marginally correlated with reductions in relative poverty-- the correlation between the two is about .50 for both the whole population and non-elderly population—but this is due largely to the effect of income. (Controlling for income increases the correlation to about .70.) Australia has the lowest reduction in absolute poverty. Norway has by far the highest reduction: absolute poverty in the total population falls from 20.3% to 2% as a result of the tax and transfer system, while in the under 65 households poverty falls from 11% to 3%. Figures 4 and 5 show the relationship between generosity and reductions in absolute poverty rates. The correlation between reductions in absolute poverty and benefit generosity is .60 and .64, for total population and under 65 households respectively). This is consistent with expectations.

Figures 4 and 5 here

Figures 6 and 7 display the relationship between benefit generosity and the reduction in the gini coefficient from the tax and transfer system. Increasing benefit generosity is positively associated with a reduction in the gini coefficient ( $r=.62$  and  $.65$ , respectively). These result are also consistent with expectations.

Figures 6 and 7 here

## **Multivariate Models of Redistribution**

The relationships discussed above suggest that more generous benefit systems are associated with greater reductions in poverty and inequality. However, bivariate correlations do not take into account other factors that might lead to more redistribution. This requires a multivariate analysis. In this section, we re-estimate empirical models developed in two recent articles on redistribution (Moller, et al 2003 and Bradley, et al 2003). We also estimate an empirical model explaining reductions in absolute poverty rates, which relies on the basic model in Moller, et al. In estimating all of these models, we rely on the available panel data for all countries considered in our earlier cross-sectional scatter plots. In order to maximize the comparability of these results with those in previous studies, we include the country years used in those studies.<sup>14</sup>

Table 2 provides a summary of the variables used in each model. The set of independent variables for the estimates is based on the “combined” political and control models in Bradley, et al and Model 6 in Moller et al.<sup>15</sup> The main purpose here is to assess a) whether generosity provides greater explanatory power than the spending measure, and b) whether the relationships suggested in the bivariate analysis above are robust in panel data and other correlates of redistribution. (Both the Bradley and Moller studies rely on a spending measure that they refer to as “welfare generosity,” which, as explained below, is basically a synthetic measure of spending.) Both papers also estimate redistribution using

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<sup>14</sup> There is a discrepancy between the number of cases reported in regression tables in Bradley et al and the country years presented in their tables. We included only those years specifically listed.

<sup>15</sup> Vocational training is omitted because the data were not available. The low salience of this variable in the Bradley, et al paper—its substantive and statistical significance is low and is omitted in their “reduced” model—suggest that the omission should not severely impact our results.

only the non-elderly population, so we only present results for that subset of the population.

Table 2 here

As Table 2 details, most of the independent variables can be found in the “Comparative Welfare States Dataset” (Huber, et al. 2004). *Income per capita* is from the Penn World Table and is measured in thousands of dollars. *Wage dispersion* is the ratio between pre-fisc incomes at the 90 and 10 percentiles.<sup>16</sup> *Unemployment rate* and *percentage of single mother households* are self explanatory. *Capital market openness* refers to the *absence* of four legal restrictions to the capital account as discussed in Quinn (1997). The range is between 2 and 4. *Wage coordination* is the degree of centralization of wage bargaining in a given year. *Christian democratic cabinet* and *Left cabinet* each refer the cumulative portion of cabinet seats held by a Christian Democratic/Left Party. *Veto points* refers to the number of power dispersing institutional arrangements in a country’s basic political system (Huber, Ragin, and Stephens 1993). *Welfare spending* is of the sum of the standardized values of a) total revenue as a portion of GDP and b) transfer spending as a portion of GDP.

*Benefit generosity* refers to the generosity index discussed throughout this chapter. In estimating gini redistribution, we used the full generosity index—including

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<sup>16</sup> There is some ambiguity in the Bradley paper about what this ratio is. The description in the table page 207 suggests that it is the wage ratio for full time workers, but figures for this variable are not, to our knowledge available for many of the observations in their dataset. The text of the paper (page 212) suggests that they used the *post-fisc* ratio derived from the LIS data files. However, our regression results were only close to theirs if we used the pre-fisc 90/10 ratio in the LIS files. Since that seems in keeping with their description of what they were interested and has available values for all years, we used that.

unemployment, sickness and pension scores—as a regressor. For the poverty rate reduction models, we use only the sum of unemployment and sickness. We make this distinction for two reasons. First, some portion of the pension system is funded from general taxes, going from the working population to those in retirement. Since both of the sets of results that we are replicating estimate models wherein redistribution is measured only in the working age population, and since general taxes are at least moderately progressive, a more generous pension system should exert a negative effect post-fisc income distribution in the working age population. Second, more generous public systems substitute for some private saving, which will show up in the LIS data as less inequality.<sup>17</sup>

The first part of Table 3 provides results of our replication of the Bradley, et al paper. Following their approach, all results are based on models with OLS coefficients and robust-cluster standard errors; the latter correct for within-unit error correlation. The first column is their reported estimates. The next two sets of estimates demonstrate that the impact of using the benefit generosity index is superior to the spending measure. Using generosity in the model increases the fit of the model considerably. Second, the standardized beta is higher when the benefit generosity index is substituted for the spending measure. Third, when spending is added to the benefit generosity specification-- so that the effects of both variables are interest are entered simultaneously-- the fit of the model is unchanged, the spending coefficient is substantively small (compare it to the

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<sup>17</sup> LIS counts any money that might go to private savings as disposable income, but money going to a public pension is a tax deducted from disposable income. Thus, a more generous public pension for the middle class means lower measured disposable income for them. (Whether the net effect is more or less lifetime income is not relevant.)

result in column 2) and statistically insignificant, and the benefit generosity coefficient is more or less unchanged.<sup>18</sup>

Table 3 here

Table 4 applies the same procedure to the Moller, et al results for reductions in the poverty rate, and also shows results for the absolute poverty rate model. Their model is slightly different, but the results show a similar pattern to what we saw in Table 3. Substituting the benefit generosity index for the spending measure improves the fit of the model and gives a larger standardized beta coefficient. Entering both variables (spending and the generosity index) into the model also supports the idea that generosity is a stronger predictor, though both are correlated with each other. The spending coefficient drops considerably and is not statistically different from zero, but the generosity index coefficient drops only slightly. However, the uncertainty of the latter estimate increases (the p value is about .11) to insignificance.<sup>19</sup>

The last two columns of Table 4 show results for reduction show absolute poverty. The model adds per capita income as a regressor under the assumption that richer countries will more easily reduce absolute poverty, all else equal. The model explains very little of the variation in absolute poverty, and only coefficients for unemployment rate and per capita income are statistically significant. Among working

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<sup>18</sup> Our results reduce, but do not eliminate the positive impact of a history of left incumbency on redistribution.

<sup>19</sup> The variance inflation factor score for the two welfare variables is over 5. The standard t-test tables for n-k d. f. are not appropriate for gauging the statistical significance when the robust-cluster correction is employed.

age households, greater unemployment and higher income are associated with more poverty reduction via the tax and transfer system.

Table 4 here

### **Conclusion**

A major goal of this paper is to advance a more appropriate indicator of welfare state effort and commitment than spending ratios. The benefit generosity index introduced here provides comparative welfare state research with a conceptually superior way to account for the extent of, and changes in, social insurance against risks—arguably the most essential purpose of a welfare state. One can argue that the index does not encompass enough welfare programs, though it does capture very important ones (and ones that comprise much welfare spending). However, our efforts have convinced us that the answer is to extend institutional measures like ours, rather than continue to rely on spending ratios.

More substantively, the results in this chapter establish two things about welfare states in advanced democracies. First, the era of the 1970s to the mid 1980s was generally one of considerable expansion in the generosity of major social insurance benefit programs. Since that time, however, the generosity of programs has stagnated or contracted, and more so in those welfare states that were, in the 1980s, most generous: the Nordic countries. These results will no doubt open a new chapter in the debate about causes of stagnation and retrenchment, since, in contrast to spending ratios, they do seem to be less sanguine about the strength of the terms of welfare state commitments. The

second major finding presented is that countries with more generous welfare commitments, as indicated by the generosity of their programs, have fiscal systems that reduce poverty and overall inequality more than do countries with less generous benefit systems.

Both of these findings will hopefully also provoke both a theoretical and empirical re-examination of the determinants and effects of the welfare state. An increasing body of historical and theoretical work is honing in on the fact that welfare programs are often fundamentally about how risks are distributed. By moving past a focus on the size of the welfare budget, we can move a step closer to examining patterns of social protection, not of social spending.

## References

- Adema, Willem and Maxime Ladaïque (2005) *Net Social Expenditure: 2005 Edition* OECD Social Employment and Migration Working Papers 29
- Bradley, D., Huber, E., Moller, S., Nielsen, F. & Stephens, J. D. (2003) Distribution and Redistribution in Postindustrial Democracies. *World Politics* 55, 193-228.
- Cameron, David. 1978. 'The Expansion of the Public Economy: A Comparative Analysis.' *American Political Science Review* 72:1243-61.
- Castles, Frank (2002) 'Developing New Measures of Welfare State Change and Reform' *European Journal of Political Research*. 41:613-41.
- Castles, Frank and Mitchell, Deborah (1993) 'Three Worlds of Welfare Capitalism or Four?', in Frank Castles (ed.) *Families of Nations*. Brookfield, VT: Dartmouth.
- Clasen, Jochen and Nico Sigel, eds. (2007) *Investigating Welfare State Change: The "Dependent Variable Problem" in Comparative Analysis* Cheltenham, UK /Northhamtom, MA: Edward Elgar
- Clayton, Richard and Jonas Pontusson. 1998. 'Welfare-State Retrenchment Revisited: Entitlement Cuts, Public Sector Restructuring, and Inegalitarian Trends in Advanced Capitalist Societies.' *World Politics* 51:67-98.
- De Deken, Johan and Bernhard Kittel (2007) "Putting the Chainsaw into Social Expenditure" In Jochen Clasen and Nico Sigel, eds. *Investigating Welfare State Change: The "Dependent Variable Problem" in Comparative Analysis* Cheltenham, UK /Northhamtom, MA: Edward Elgar.
- Esping-Andersen. Gøsta (1990) *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University Press.
- Garrett, Geoffrey (1998) *Partisan Politics in the Global Economy*. Cambridge: Cambridge University Press.
- Gilbert, Neil and Ailee Moon. 1988. 'Analyzing Welfare Effort: An Appraisal of Comparative Methods.' *Journal of Policy Analysis and Management* 7:326-40.
- Goodin, Robert, Bruce Headey, Ruud Muffels, and Henk-Jan Dirven. 1999. *The Real Worlds of Welfare Capitalism*. Cambridge: Cambridge University Press.
- Green-Pedersen, Christoffer and Markus Haverland. 2002. 'The New Politics of the Welfare State and the New Scholarship of the Welfare State.' *Journal of European Social Policy* 12:243-51.
- Hicks, Alexander (1999) *Social Democracy & Welfare Capitalism: A Century of Income Security Politics*. Ithaca, NY: Cornell University Press.
- Hicks, Alexander and Duane Swank (1984) "Governmental Redistribution in rich Capitalist Democracies" *Policy Studies Journal* 13 (2): 265-286
- Howard, Christopher. (1997) *The Hidden Welfare State: Tax Expenditures and Social Policy in the United States*. Princeton: Princeton University Press.

- Huber, Evelyn, Charles Ragin and John Stephens (1993) Social Democracy Christian Democracy Constitutional Structure and the Welfare State. *American Journal of Sociology* 99 3 711-49
- Huber, Evelyn Charles Ragin, John D. Stephens, David Brady, and Jason Beckfield, (2004) Comparative Welfare States Data Set, Northwestern University, University of North Carolina, Duke University and Indiana University,.
- Huber, Evelyn and John Stephens. 2001 *Development and Crisis of the Welfare State*. Chicago: University of Chicago Press.
- Kenworthy, Lane (1999) 'Do Social-Welfare Policies Reduce Poverty? A Cross-national Assessment', *Social Forces* 77 (3):119-39
- Kim, H. (2000). Anti-Poverty Effectiveness of Taxes and Income Transfers in Welfare States. *International Social Security Review* 53 (4), 105-129.
- Kitschelt, Herbert (2001) "Partisan Competition and Welfare State Retrenchment: When Do Politicians Choose Unpopular Policies?" In *The New Politics of the Welfare State*, ed. Paul Pierson. Oxford: Oxford University Press.
- Korpi, Walter and Joakim Palme (1998) "The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality and Poverty in the Western Countries." *American Sociological Review*. 63: 661-87.
- Lindert, Peter (2004) *Growing Public* Cambridge University Press.
- Mahler, Vincent and David Jesuit (2006) "Fiscal Redistribution in the Developed Countries: New Insights from the Luxembourg Income Study," *Socio-Economic Review* 4.
- Milanovic, Branko. (2000) "The Median Voter Hypothesis, Income Inequality and Income Redistribution: An Empirical Test with the Required Data." *European Journal of Political Economy*
- Moller, Stephanie, David Bradley, Evelyn Huber, Francois Nielsen, John Stephens. 2003 Determinants of Relative Poverty in Advanced Capitalist Democracies" *American Sociological Review* 68(1): 22-51.
- Pierson, Paul. (1996) 'The New Politics of the Welfare State.' *World Politics* 48:143-79.
- Pontusson, Jonas (2005) *Inequality and Prosperity: Social Europe versus Liberal America*. Ithaca, NY: Cornell University Press
- Quinn, Dennis 1997 "Correlates of Change in International Financial Regulation" *American Political Science Review* 91(3): 531-551.
- Scruggs, Lyle (2007) "Welfare State Generosity Across Space and Time" In Jochen Clasen and Nico Sigel, eds. *Investigating Welfare State Change: The "Dependent Variable Problem" in Comparative Analysis* Cheltenham, UK /Northhamtom, MA: Edward Elgar
- Scruggs, Lyle and James Allan. (2006a) "Welfare State Decommodification in Eighteen OECD Countries: A Replication and Revision" *Journal of European Social Policy* 16(1): 55-72.

---

(2006b) Welfare State Decommodification and Poverty in  
Advanced Industrial Democracies (with James Allen) *Comparative Political  
Studies* (in press)

Smeeding, T.M., L. Rainwater, and G. Burtless. 2001. "United States Poverty in a Cross-  
National Context." In S.H. Danziger, and R.H. Haveman (eds.), *Understanding  
Poverty*. New York: Russell Sage Foundation; Cambridge, MA: Harvard  
University Press, pp. 162-189.

Swank, Duane (2002) *Globalization, Political Institutions and Policy Change in  
Developed Welfare States*. New York: Cambridge University Press.

Wilensky, Harold (1975) *The Welfare State and Equality*. Berkeley: University of  
California Press.

Wilensky, Harold and Charles Lebeaux (1958) *Industrial Society and Social Welfare*.  
New York: Russell Sage.



Figure 1: Trends in Benefit Generosity

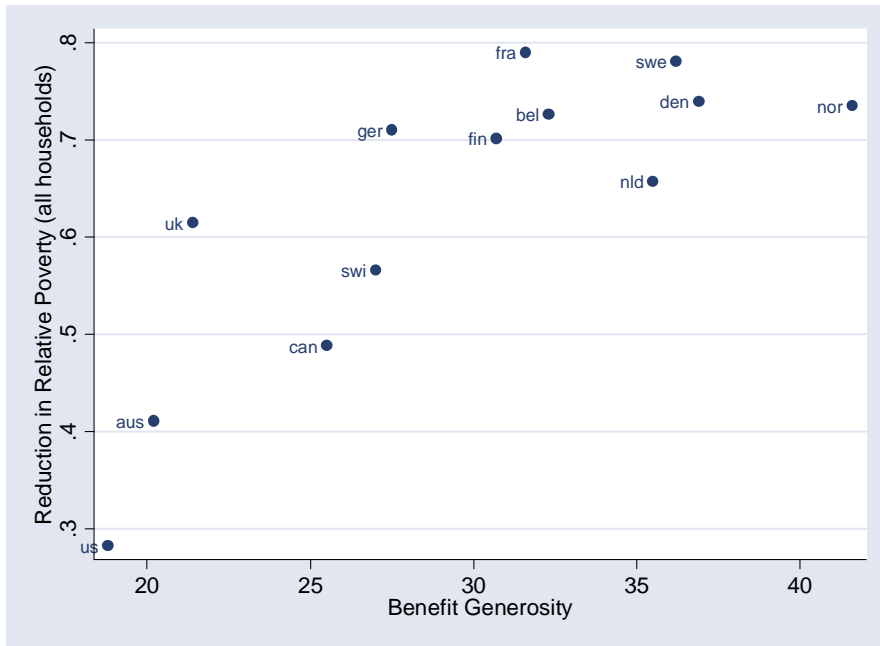


Figure 2: Benefit Generosity and Relative Poverty Reduction



Figure 3: Labor Market Generosity and Relative Poverty Reduction

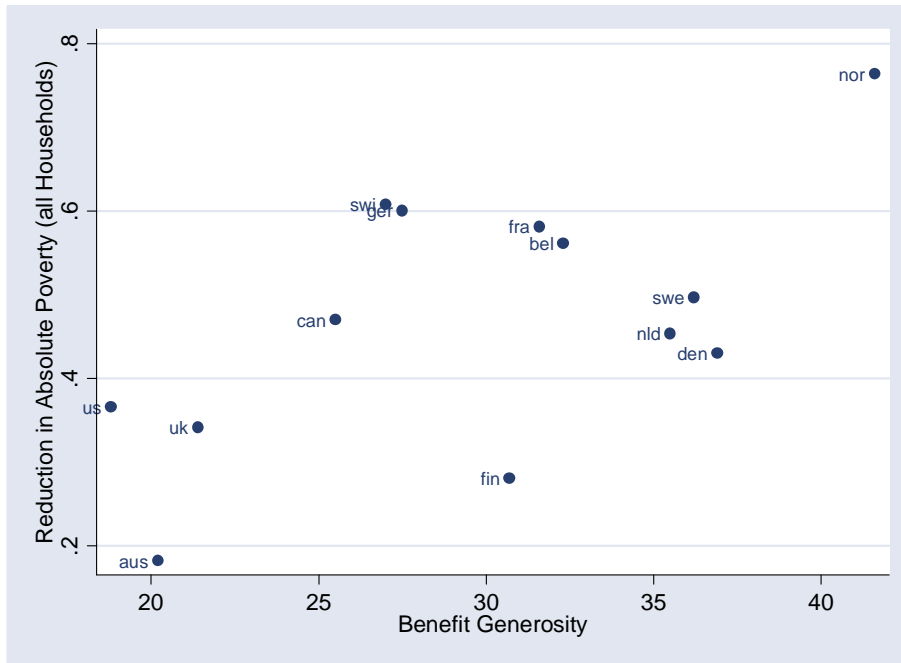


Figure 4: Benefit Generosity and Absolute Poverty Reduction

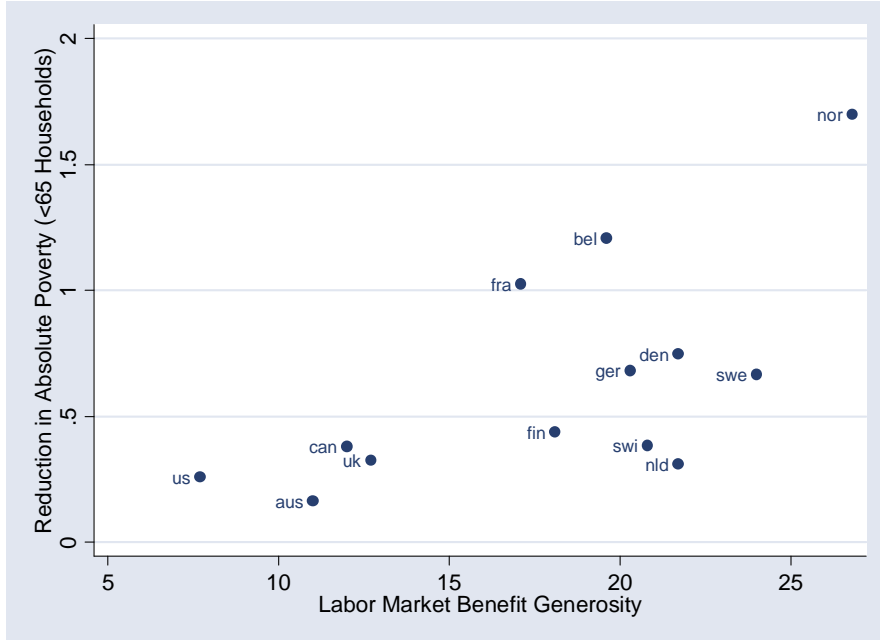


Figure 5: Labor Market Benefit Generosity and Reduction in Absolute Poverty

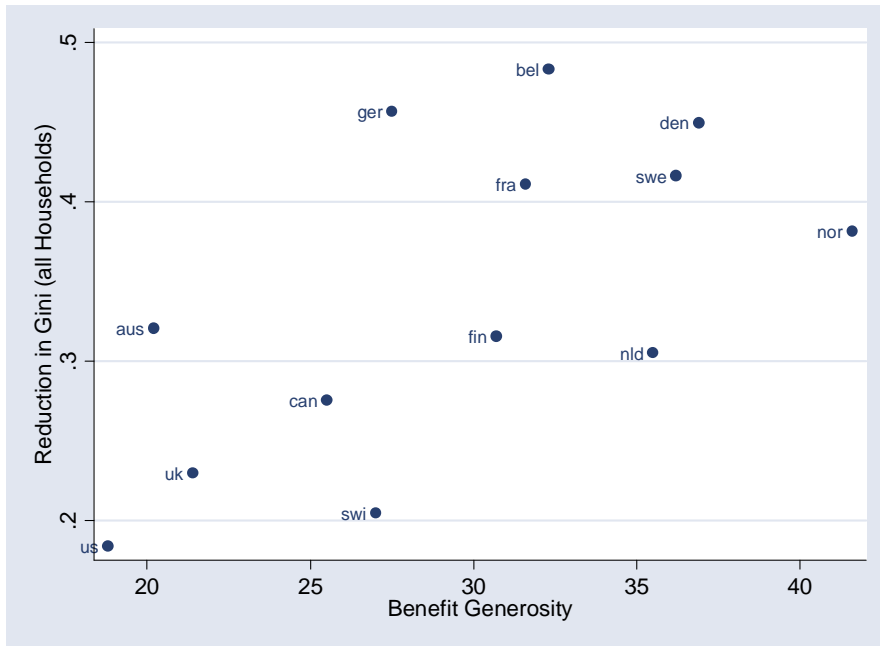


Figure 6: Benefit Generosity and Reduction in Income Inequality

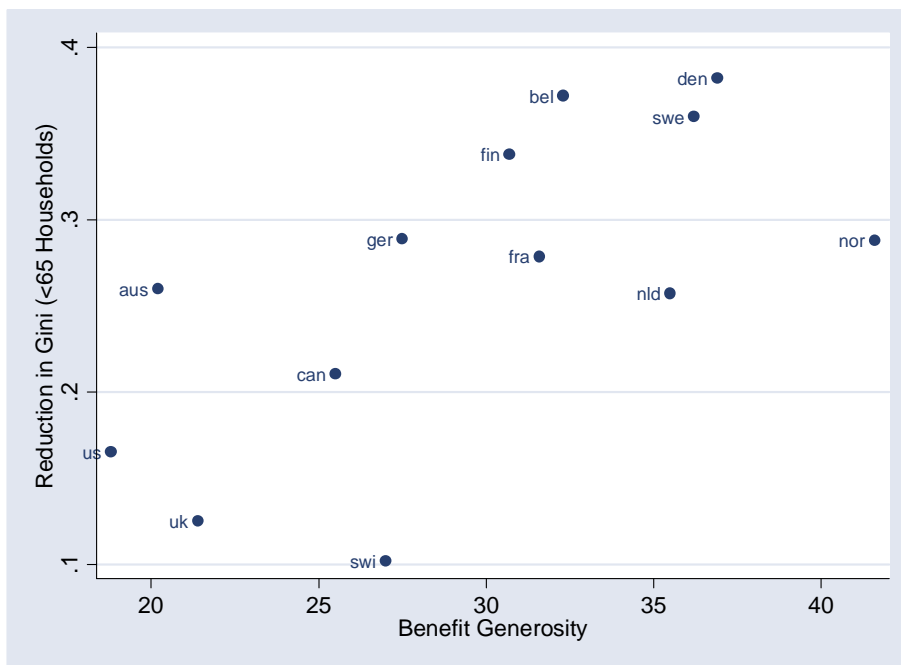


Figure 7: Benefit Generosity and Reduction in Income Inequality

Table 1: Dimensions of the Decommodification Index

Core Program	Program Characteristic	Definition
Unemployment	Single Replacement Rate	After tax benefit for single, fully insured 40-year old earning average production worker (APW) wage divided by after tax wage of employed APW
	Family Replacement Rate	After-tax benefit for a family of four (one APW earner, non-working spouse and two children) divided by after tax wage of employed APW
	Qualifying Period	Weeks of insurance/employment required to qualify for benefit
	Waiting Days	Number of days before benefits start
	Duration of Benefit	Weeks of benefits payable for fully insured (single) 40 year old
Sickness Benefit	Coverage Ratio	Percentage of the labor force covered by unemployment insurance
	Single Replacement Rate	See definitions under unemployment insurance
	Family Replacement Rate	
	Qualifying Period	
	Waiting Days	
Duration of Benefit		
Retirement Pension	Coverage Ratio	Portion of population above retirement age receiving pension
	Minimum Replacement Rate (single)	
	Minimum Replacement Rate (couple)	
	Standard Replacement Rate (single)	
	Standard Replacement Rate (couple)	
	Qualifying Period	
	Contribution Ratio	

Table 2: Variables used in different regression models

Variable	Source	Moller, et al. (poverty rate)	Bradley, et al (gini)	Absolute poverty rate
<i>Dependent variables</i>				
Relative poverty reduction (under 65 households)	LIS data files (author)	x		
Absolute poverty reduction (under 65 households)	LIS data files (author)			x
Reduction in gini coefficient (25-59 households)	LIS data files (author)		x	
<i>Independent variables</i>				
Per capita Income	Penn World Table		x	x
Wage Disperison	LIS data files (author)		x	
Unemployment rate	OECD	x	x	x
Female headed households with children	LIS data tables		x	
Capital Market Openness	Quinn		x	
Wage Coordination	Kenworthy (in HRS)	x		x
Christain Democratic Cabinet (cumulative from 1945)	Swank (in HRS)		x	
Constitutional Veto Points	Lijphart (in HRS)	x	x	x
Left Cabinet (cumulative from 1945)	Swank (in HRS)	x	x	x
Welfare Spending	OECD (in HRS)	x	x	x
Benefit Generosity	CWED (author)	compared with welfare spending		

CWED- Scruggs, Comparative Welfare Entitlement Data

HRS- Huber Ragin, Stephens, Comparative Welfare State Data

Table 3: Results for reduction in gini coefficient for head of household age 25-59

	Bradley, et al estimates							
Income Dispersion	-.12 (.10)	-.01	.000 .000	.00	-.005 (.29)	-.03	-.005 (.27)	-.03
Income per capita	-0.17 (1.16)	-0.11	-.11 (.36)	-.04	-0.587 (1.97)+	-.21	-.55 (2.16)*	-.20
Unemployment	0.74 (3.26)**	.29	.957 (2.52)*	.32	1.378 (4.74)**	.46	1.345 (4.68)**	.45
Single female households with c	.39 (2.41)*	.23	.376 (1.55)	.20	.624 (2.72)*	.33	.61 (2.67)*	.32
Capital Market Openness	-1.23 (1.13)	-.09	-2.19+ (1.65)	-.15	-1.356 (1.04)	-.09	1.428 (1.10)	-.10
Christian Democrat Cabinets	-.21 (2.22)*	-.29	-.138 (.71)	-.18	-.10 (.65)	-.13	-.106 (.66)	-.13
Left Cabinets	.21 (1.73)+	.27	.321 (2.67)*	.39	.265 (2.50)*	.32	.259 (2.08)*	.32
Spending	2.83 (5.88)**	.61	2.20 (3.16)**	.45			.178 (.16)	.04
Benefit Generosity					.587 (3.82)**	.53	.558 (2.17)*	.51
Constant	20.28 (3.87)**		20.3 (5.02)**		5.61 (1.02)		6.49 (.74)	
Observations	59		57		57		57	
R-squared	.82		.73		.77		.77	

Robust t statistics (absolute value) in parentheses

+ significant at 10%; \* significant at 5%; \*\* significant at 1%

**The Performance of**

	Medals					Points				
		1st	2nd	3rd	4th	5th	1st	2nd	3rd	4th
Deployment	12	18	29	23		27	26			
	(5)*	(3)*	5	(6)*	3	(4)*	6	(2)*	0	2
Volunteer	19	27	0	3		-1	-2			
	(1)	(1)	.8	(1)	0	(1)	0	(1)	0	-.2
Volunteer	-21	-4	-4	-4		6	6			
	(3)*	(4)*	-5	(5)*	-5	(5)*	-4	(2)	0	0
Medals	6	-2	-2	-3		6	6			
	(5)*	(7)	-.2	(1)	-.8	(1)	-.8	(2)	2	2
Points	40	33		9		26				
	(6)*	(3)*	3	(4)	9	(8)	.8			
Point Cost (Low/High)			16	5	13		5			
			(2)*	(1)	4		(4)	.5		
Improvement						2	2			
						(2)*	2	(2)*	3	
Total	25	43	28	26		51	62			
	(5)*	(5)*	(2)*	(1)		(2)	(3)*			
Costs	6	5	5	5		5	5			
Point	9	8	5	5		2	2			

**Participants**

\*significant, \*\*significant

Medals earned only 25 days, points 65