

Goodin, Robert E.; Headey, Bruce; Muffels, Ruud

**Article — Digitized Version**

## Poverty, Inequality, and Income Redistribution in the 'Three Worlds of Welfare Capitalism: United States, Germany, and the Netherlands, 1985 to 1989

Vierteljahrshefte zur Wirtschaftsforschung

**Provided in Cooperation with:**

German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* Goodin, Robert E.; Headey, Bruce; Muffels, Ruud (1997) : Poverty, Inequality, and Income Redistribution in the 'Three Worlds of Welfare Capitalism: United States, Germany, and the Netherlands, 1985 to 1989, Vierteljahrshefte zur Wirtschaftsforschung, ISSN 0340-1707, Duncker & Humblot, Berlin, Vol. 66, Iss. 1, pp. 92-101

This Version is available at:

<https://hdl.handle.net/10419/141166>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# Poverty, Inequality, and Income Redistribution in the 'Three Worlds of Welfare Capitalism': United States, Germany, and The Netherlands, 1985 to 1989

By Robert E. Goodin, Bruce Headey,  
Ruud Muffels, and Henk-Jan Dirven\*

## Summary

*International comparisons of the performance of welfare states have generally been undertaken from a static perspective, using cross-sectional data. Few analyses assess the medium- or long-term effects of welfare states on equity and economic efficiency. In this paper we use panel data to analyze the annual and five-year (1985-89) effects of the American, German and Dutch welfare states on poverty and income inequality. The three countries represent Esping-Andersen's (1990) 'three worlds of welfare capitalism.' Our main findings are that the Dutch and German welfare states redistribute income to substantially reduce poverty and inequality, and do so to a considerably greater extent over a five-year period than one-year. The American welfare state is much less redistributive, although it reduces poverty over five years more than one.*

## 1. Introduction

Our aim is to assess the impact of governments on poverty and inequality in the 'three worlds of welfare capitalism' (Esping-Andersen 1990). Available panel data relate to the United States, Germany and the Netherlands 1985-94, although in the present paper results are given only for 1985-89. The United States, Germany and The Netherlands are the only three Western countries for which ten continuous years of panel data have been collected, and it is sheer good fortune that one comes from each of Esping-Andersen's 'three worlds.' In his widely accepted typology the United States is regarded as the prototypical liberal welfare state, and Germany is the leading case of the corporatist welfare state. The Netherlands is classified as a social democratic welfare state, although with some corporatist features (1990: chapter 2).

Almost all previous international comparisons of poverty and inequality have been based on annual data, notably data collected through the Luxembourg Income Study (Atkinson, Rainwater, and Smeeding 1995; Mitchell 1991; Smeeding et al. 1993). Studies are just beginning to appear based on several years of panel data (Burkhauser and Poupore forthcoming; Duncan 1994). Short-term evidence has broadly confirmed Esping-Andersen's topology, although criticisms have been made on conceptual grounds (Castles and Mitchell 1990; Ringen 1991a).

Plainly, medium- and long-term poverty and inequality matter a great deal more than short-term poverty, at least in

Western countries where short spells of poverty are not usually life-threatening. The intellectual and political founding fathers of the three types of welfare state had differing objectives (summarized below) but most did not advocate redistributive tax, transfer, and labor market interventions only or primarily to prevent short-term poverty. They intended to improve the standard of living and life chances of low-income people in the long term (Goodin 1988).

It is of course not reasonable to assume that results of short-term studies can be extrapolated to make accurate estimates of long-term poverty and inequality. One particular country (or type of welfare capitalism) could have greater poverty and inequality than another in the short term, but the positions could be reversed in the medium or long term, due to different degrees of volatility of labor market incomes and/or differing patterns of income redistribution by government.

In this paper we compare poverty, inequality and redistributive impact of governments in the United States, Germany and The Netherlands for annual and five-year periods. The annual comparisons may be viewed as dealing with the short term, and the five-year period (1985-89) with the medium term. We shortly hope to extend the analysis to ten years and thus also assess longer term poverty and inequality.

Most of the hypotheses tested in the paper are derived from Esping-Andersen's (1990) seminal book (see also Korpi 1993; Marshall 1977; Titmuss 1974; Therborn 1986). Justice cannot be done here to the richness of his account, but, briefly, he regards the United States, along with Australia, Britain and Canada, as liberal welfare states which seek to provide a decent minimum standard of living for households unable to generate adequate income in the labor market. The intention is to target benefits accurately toward only those households defined as being in need. A two-tier system operates, historically based on a distinction between the deserving poor who, due to age, disability or family circumstances, could not be expected to earn an adequate living in the labor market, and the undeserving poor, who receive lower or more strictly tested benefits in order not to discourage labor force participation. Unemployment benefits may be related to previous earnings for a limited period of time (e.g., six months) but then revert to minimum assistance levels. In the liberal welfare state there is no clear or direct intention to promote equality. Those benefits which are universal (i.e., available to all who meet the eligibility criteria) are set at a low flat rate. The aim is relief of abject poverty, not even relative poverty, and certainly not promotion of greater income equality.

\* A book on the issues covered in this paper will be published by Cambridge University Press in 1998. The authors thank Ewa Karafilowska, for superb statistical and computing advice. Goodin is affiliated with the Australian National University, Headey with the University of Melbourne in Australia, Muffels with Tilburg University in The Netherlands, and Dirven with the Central Bureau of Statistics in The Netherlands.

The corporatist welfare states, including Germany, Austria, France and Italy, are characterized by social stratification based on broad occupational categories. In Germany, usually cited as the prototypical case, the three main occupational categories are *Beamte* (tenured civil servants), *Angestellte* (salaried employees), and *Arbeiter* (workers). The state is actively involved in educational, training, and apprenticeship programs to prepare people for these three types of career, but its labor market interventions do not extend toward guaranteeing the right to work (e.g., through job retraining or subsidized work) as in the social democratic welfare state (see below). In the corporatist state people at risk of poverty are expected to rely partly on the family, the church and other social groups (or 'corporations') to which they belong. The state legislates social insurance that provides continuity of income (income maintenance) at something close to the level of the breadwinner's normal labor income. This level of income is likely to be higher than the decent minimum income provided in the liberal welfare state, but it leads to pejorative references to a 'male breadwinner's welfare state' (Flora 1986; Saunders 1994). Certainly, one aim is to maintain the existing social status of families, which in practice means the status of the main breadwinner's job. The aim is not expressly to reduce poverty and income inequality, but there is likely to be less poverty than in the liberal welfare state because of high income maintenance/replacement levels. Benefits are socially stratified, not universal and flat. A high value is placed on maintaining social stability and this is to be done by retaining attachments to one's social groups. Esping-Andersen's (1990) expectation is that income redistribution in corporatist states will be negligible, but we predict substantial redistribution because it is impossible to maintain previously employed people at an income close to their previous level without large scale transfers.

In the social democratic welfare state, of which Sweden is the prototype, the aim is explicitly to promote equality and national (not just corporate) social solidarity. Taxes, benefits, encouragement of reduced differentials in occupational earnings ('wage solidarity') and active labor market programs (job retraining and subsidized jobs for those who might otherwise be unemployed) are all used to promote income equality and a standard of living which provides for all citizens the opportunity to participate in a mainstream lifestyle and to exercise full 'social citizenship.' Spells of poverty are likely to be short as the state intervenes to prevent 'social exclusion.' Benefits are universal and at a fairly high level, in contrast to the low flat-rate benefits of the liberal welfare state. Furthermore, the individual, not the household, is the intended beneficiary. This is not a 'male breadwinner's welfare state' but a state in which employment of women is actively encouraged. Employment and social insurance benefits flow to individuals as of right rather than to male breadwinners as heads of household. Esping-Andersen (1990) regards universal, generous benefits, directed toward individuals

and not dependent on previous earnings, as indicating 'decommodification' (demarketization) and allowing considerable personal autonomy.

In line with Esping-Andersen's classification, we treat The Netherlands as a social democratic welfare state. However, we only think of it as social democratic in terms of income redistribution and equality. It is clear that The Netherlands does not have Swedish-style labor market policies (Therborn 1986).

In this paper our focus is mainly on equity issues, on the redistributive impact of government in reducing poverty and inequality. In future work we will also be concerned with efficiency issues which are playing an increasingly prominent part in public debate, issues relating to the impact of the welfare state on labor force participation, savings, investment, and ultimately, economic growth (Beckerman 1979; Mitchell 1991). In this paper we just touch on efficiency issues in comparing the rates at which people escape poverty through the Dutch, German and American labor markets.

## 2. Research Questions and Hypotheses

Our main research questions are:

- How effective are the three types of welfare state in reducing poverty in the short term (annual data) and the medium term (5 years)?
- How effective are the three types of state in reducing annual and five-year income inequality?

### Hypotheses Concerning Comparisons of Welfare States

*Poverty.* The social democratic welfare state (the Netherlands) has lower levels of both short- and medium-term poverty than the corporatist welfare state (Germany), which in turn has lower levels of poverty than the liberal welfare state (the United States).

*Inequality.* The social democratic welfare state has lower levels of income inequality than the corporatist welfare state, which in turn has lower levels of inequality than the liberal welfare state.

*Redistribution by government.* The social democratic welfare state engages in more income redistribution and hence does more to reduce poverty and inequality than the corporatist welfare state, which in turn engages in more income redistribution than the liberal welfare state.

### Hypotheses Concerning Comparisons of the Short and Medium Term

*Poverty.* In all three countries poverty rates are lower in the medium term (5 years) than the short term (1 year).

*Inequality.* In all three countries levels of inequality are lower in the medium term than the short term.

*Redistribution by government.* In all three countries the redistributive impact of government will be less in the medium than the short term.

It should be understood that references to poverty and inequality in these hypotheses apply to postgovernment (posttax, posttransfer) equivalent incomes. Redistribution by government is the percentage difference in poverty (inequality) when pre- and postgovernment incomes are compared (Kakwani 1986; Ringen 1991b). These and other measures are described in the following section.

### 3. Methods

#### The American, German and Dutch Panels

The American Panel Study of Income Dynamics (PSID) began in 1968 and has continued ever since. There are now over 27,000 respondents on file, one per household. Initially, the poor were oversampled, partly because the study was sponsored by the Office of Economic Opportunity. This and other sample biases (some due, of course, to panel attrition) are adjusted by both cross-sectional and longitudinal weights, which are routinely provided by the data managers. The PSID, like the German and Dutch panels, is updated by including split-offs in the samples, that is, people who leave their original household and form a new one (e.g., children who get married).

The German Socio-Economic Panel Study (GSOEP) began in 1984 in West Germany and was extended to East Germany in 1990. The initial sample included over 16,000 respondents, with everyone aged 16 and over in sample households being interviewed. Special oversamples of five foreign (guest worker) populations were included: Italians, Greeks, Yugoslavs, Spaniards and Turks. Weights are used to adjust for this and other sample biases.

The Dutch Socio-Economic Panel also began in 1984 with over 19,000 respondents. As in the German panel, all household members aged 16 and over are interviewed. Initially, interviews were carried out twice a year in April and October, but in 1991 it was decided to switch to annual interviews.

In 1992 the German Institute for Economic Research (DIW) and Syracuse University produced a matching file for the German and American panels in which key variables relating to income, labor force experience, taxes and transfers were coded identically to facilitate international comparisons. In 1996 we began work to create a comparable Dutch file. At present the only years for which we have Dutch, German and American comparable data are 1985-89; hence the coverage of this paper.

#### Income

All measures of income relate to equivalent income, obtained by dividing household disposable income (i.e., income after direct taxes and transfers) by household size.

Equivalent income may be regarded as the best available measure of a person's material standard of living, or to be more exact, of his/her potential consumption level (Ringen 1991b; Smeeding et al. 1993). The International Experts scale, which is approximately equal to the OECD equivalence scale, represents a partial consensus about appropriate equivalence weights (Buhmann et al. 1988; Hagenaars 1991). Household disposable income includes labor income, asset income, private transfers and public transfers. Owner-occupiers' net rent and noncash government benefits are not included. No account is taken of the impact of indirect taxes.

#### Redistributive Impact of Government

To estimate the redistributive impact of government on poverty and inequality, we need a measure of pregovernment equivalent income. Ideally, this should be based on income before both taxes and benefits. In practice, pretax estimates of income are not yet available for the Dutch panel, so our measure of pregovernment income is pretransfer income divided by the same equivalence scale<sup>1</sup>. Our measures of the redistributive impact of government on poverty and inequality are then straightforwardly based on formulae developed by Kakwani (1986) and Ringen (1991b).

$$\text{Redistribution by government} = \frac{\text{pretax transfer equivalent income} - \text{posttransfer equivalent income}}{\text{pretax transfer equivalent income}} \times 100 \%$$

This formula is used, for example, to estimate the reduction in inequality produced by government, where pregovernment inequality is given by the Theil coefficient (see below) of pretransfer equivalent incomes and postgovernment inequality is the Theil coefficient of postgovernment incomes.

The measures of both pre- and postgovernment income are far from ideal. At a conceptual level, it is plain that any conceivable measure of pregovernment income could not be said to indicate what the income distribution would look like if government did not exist. Clearly if Western governments did not exist, or performed much more minimal roles

<sup>1</sup> Use of this measure, instead of pretax pretransfer equivalent income, means that we overestimate pregovernment inequality. Further, our international comparisons relatively overstate *pregovernment poverty* and *understate pregovernment inequality* in the high taxing countries — The Netherlands and Germany — and, comparatively speaking, overestimate for the United States. In practice, however, the results given in the paper appear little affected by this bias. We have recalculated all results for the United States and Germany using pretax pretransfer incomes and find that our substantive conclusions about these two countries are not much affected. For example, in Table 2 pregovernment estimates of poverty are about 2 percent lower in the United States and about 3 percent lower in Germany. It seems likely that the degree of bias in the Dutch results would be similar to the German, or perhaps a little larger.

than they do now, incentive structures would be vastly different, so the distribution of private or pregovernment incomes would be different (Ringen 1987). At a more mundane level, it would clearly be preferable if our pregovernment income measure gave incomes prior to deduction of direct taxes. It is believed, however, that the tax systems of Germany, The Netherlands and the United States are approximately proportional (OECD 1991; Pechman and Mazur 1984).

### Poverty

In Western countries poverty is almost always defined in relative rather than absolute terms, although the United States official poverty line is usually regarded as an absolute measure (Citro and Michael 1995). Survey research has shown that people see themselves and are seen by others as poor and excluded from a mainstream lifestyle if their incomes are below about 50 percent of median income in the society in which they live (Hagenaars 1986; Muffels 1993; Rainwater 1974; van Praag, Hagenaars, and van Weeren 1982). So poverty has come to mean social exclusion (Townsend 1979) or relative deprivation (Runciman 1966). Our main measure of relative poverty is the conventional OECD measure: a person is defined as poor if his/her postgovernment equivalent income is less than 50 percent of median equivalent income.

### Income Inequality

Two measure of income inequality are used: the decile ratio and the Theil coefficient. The decile ratio is simply the 90th percentile of income divided by the 10th percentile. It is a useful overview measure for international comparisons (Atkinson and Micklewright 1992). More valuable for assessing the impact of taxes and benefits on inequality is the Theil coefficient, which has the advantage of being additively decomposable (Shorrocks 1980).

### Weighting

Annual results given in the paper are weighted with the appropriate cross-sectional weights included in the matching file, while five-year results are adjusted using the 1985-89 longitudinal weights. Five-year results are also adjusted for inflation. All analyses include only respondents whose households reported a positive postgovernment income for the year or years in question. In other words, respondents who reported no income from any source, or a negative income, are excluded on the grounds that the data may be unreliable.

## 4. Results

Results are presented in two sections relating to poverty and inequality. In each section we give one-year (short-term) and five-year (medium-term) results and assess the redistributive impact of government.

## Poverty

First, some descriptive information is presented about the actual level of median incomes and the poverty line in the United States, Germany and The Netherlands in 1987, the mid-year of the period covered.

It will be recalled that the poverty line is by definition half of median equivalent income. A preliminary pointer to the plight of the American poor is that their equivalent income in 1987 was 33.5 percent below the median equivalent income for the country as a whole. In Germany the comparable poverty gap figure was 19.5 percent and in the Netherlands 27.6 percent. See the note to Table 1. And, as we see in the next table, there are many more American poor.

Table 1  
United States, Germany, and The Netherlands  
Median Incomes and Poor Incomes, 1987

	United States	Germany	The Netherlands
Median disposable income (postgovernment)	\$ 28,189	DM 42,926	f 38,174
Median equivalent income	\$ 16,460	DM 25,396	f 21,063
Poverty line	\$ 8,230	DM 12,698	f 10,532
Median equivalent income of poor	\$ 5,473	DM 10,218	f 7,624
Poverty gap <sup>1)</sup> (percent)	33.5	19.5	27.6
<sup>1)</sup> The poverty gap is defined here as the median rather than the mean percentage by which poverty incomes fall below the poverty line. Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.			

Poverty rates within each of these countries, both before and after government, were about the same each year in the late 1980s, which was a period of steady growth with no economic recession. Stable annual poverty rates of this kind have often led to the erroneous conclusion that the same individuals stay poor year after year. As Tables 3 and 4 show, this is not the case.

The central finding of Table 2 is that in the social democratic welfare state, The Netherlands, about 90 percent of the pregovernment poor are transferred out of poverty, leaving only about 3 to 4 percent finally poor. In Germany, the corporatist state, about 70 percent of the people who would otherwise be poor are transferred out, leaving about 8 percent poor. In the United States, in sharp contrast, less than one quarter of the pretransfer poor get enough government assistance to move out of poverty, leaving about 18 percent poor in these years (18 percent is a higher figure than given by official American poverty data, which show about 13 percent poor in these years. The official poverty line is based on food costs and adjusts for

household size quite differently from the measure used here.)

The question addressed in Table 3 is whether the same people stay poor year after year or whether the poverty population is relatively transient. Also, how much difference does government make to the persistence of poverty?

The Dutch welfare state is more effective in reducing persistent poverty than the German welfare state, and both are much more effective than the American state. In The Netherlands virtually nobody (actually two people in a sample of 19,000) was poor in all five years and only 1.9 percent were poor twice or more. That is, almost everybody who would otherwise have been poor on the basis of their pregovernment income is transferred out of poverty. In the German corporatist welfare state the impact of government is also remarkably strong. Close to 90 percent of those who would otherwise have been poor in every year (1985-89) were transferred out of poverty and only 8.6 percent were poor in two or more years. In the United States only about a third of those who would otherwise have been poor five times are transferred out by government, and 21.9 percent were poor twice or more.

In all three countries the persistence of poverty is quite low (see Table 4 for a fuller account). This finding continues to surprise otherwise well-informed people, but is becoming almost commonplace for students of poverty (Duncan 1994). What was initially thought to be a special feature of

Table 3

**Persistence of Poverty:  
Do the Same People Stay Poor or Not, 1985 to 1989**  
in percent

Occurrences of Poverty	Pregovernment <sup>1)</sup>	Postgovernment	Transferred Out
United States			
Never poor	63.8	70.2	10.0
Once poor	8.3	7.9	-4.8
Twice poor	5.5	5.1	-3.6
Three times poor	4.3	3.5	-18.6
Four times poor	5.4	4.9	-9.3
Five times poor	12.9	8.4	-34.9
Germany			
Never poor	62.2	84.2	35.4
Once poor	7.7	7.3	-5.2
Twice poor	4.5	3.2	-28.9
Three times poor	4.5	2.0	-55.6
Four times poor	3.7	1.6	-56.8
Five times poor	17.3	1.8	-89.6
The Netherlands			
Never poor	63.3	91.9	45.2
Once poor	6.0	6.2	3.3
Twice poor	3.4	1.3	-61.8
Three times poor	3.7	0.4	-89.2
Four times poor	4.4	0.2	-95.5
Five times poor	19.2	0.0	-100.0

<sup>1)</sup> The people in postgovernment columns are not necessarily a subset of those in the same row in the pregovernment columns.  
Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.

Table 2

**Annual Poverty Rates Before and After Government**  
in percent

	Pregovernment <sup>1)</sup>	Postgovernment	Transferred Out
United States			
1985	23.6	18.0	23.7
1986	23.5	18.2	22.6
1987	24.0	18.4	23.3
1988	24.3	18.5	23.9
1989	23.2	17.8	23.3
Germany			
1985	27.6	8.0	71.0
1986	27.9	7.4	73.5
1987	27.0	7.3	73.0
1988	27.3	8.0	70.7
1989	27.7	8.6	69.0
The Netherlands			
1985	27.1	2.1	92.3
1986	27.3	4.1	85.0
1987	28.1	4.1	85.7
1988	29.1	4.1	85.9
1989	29.3	3.4	88.4

<sup>1)</sup> Pregovernment income = pretransfer income.  
Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.

the United States economy appears likely to be true of all Western countries (Duncan 1983, 1993, 1994).

Table 4 gives a more precise analysis of how long spells of poverty typically last in these countries. The weakness of the evidence in Table 3 is that both left and right censoring have occurred; that is, we do not know when the spells of poverty of those who were already poor in 1985 actually began and we do not know when those who were still poor in 1989 ended their spells. In Table 4 spell analysis is used to estimate typical lengths of completed spells (see also Bane and Ellwood 1986; Headey, Krause and Habich 1994; Stevens 1994). For each country, the left hand column shows how long spells of poverty would have lasted if people had to rely solely on private (pregovernment) income to escape poverty. The central column shows how long spells actually lasted, taking into account the redistributive effects of government, and the third column shows the percentage reduction in spell lengths due to government. Results need to be interpreted with caution since a five-year period is too short for highly reliable estimates of spells.

In The Netherlands about 8 percent experienced poverty during these years, although over a third would have been poor before government (Table 3). Spells of poverty were

Table 4

**How Long Do Spells of Poverty Last? Survival Rates  
in percent**

Still Poor After	Pregovernment	Post-government	Reduction by Government
United States			
One year	55.0	53.3	3.1
Two years	41.9	35.1	16.2
Three years	33.9	27.7	18.3
(N) <sup>1)</sup>	(3,045)	(3,089)	
Germany			
One year	56.4	42.1	25.4
Two years	46.6	28.3	39.3
Three years	39.9	23.8	40.4
(N) <sup>1)</sup>	(1,743)	(1,134)	
The Netherlands			
One year	70.4	21.1	70.0
Two years	63.7	11.5	81.9
Three years	53.5	3.8	92.9
(N) <sup>1)</sup>	(552)	(271)	
<sup>1)</sup> Refer to poverty spells not people. Note: The survival rates in Table 4 are based only on analysis of completed spells. Inclusion of right censored data, as in the widely used Kaplan-Meier approach, appears to lead to over-estimates of survival rates when only five years of data are available (Headey, Krause and Habich 1994) Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.			

typically short: only 21 percent were still continuing after one year, 12 percent after two years and 4 percent after three. However, relatively few people escaped poverty via the labor market (see the high survival rates in the pregovernment column; 54 percent of pregovernment spells were still continuing after three years). In other words, most spells were ended by the government, and the people concerned then remained on government benefits which continued to keep them out of poverty. It seems clear from the small total of (postgovernment) spells ( $n=271$ ) that very few people reentered poverty and had multiple spells during this period.

Compared to Germany and the United States, relatively few Dutch spells of poverty ended without government intervention. Without government 70 percent of spells would still have been continuing after one year and 54 percent after three. These results perhaps suggest that in a relatively generous welfare state there are reduced incentives to try to end poverty by rejoining the labor market or getting a better paying job. Of course, some of the people who remained on government benefits were elderly or were unable to work. Nevertheless, it is worth recording that a higher percentage of Dutch heads of household of prime working age (aged 30 to 55) had pregovernment incomes which were below the poverty line during this period than was the case in Germany or the United States. Thus, in the Netherlands 15.7 percent of heads of prime working age

had pregovernment incomes which, on average, were below the poverty line in 1985-89<sup>2</sup>. The corresponding German and American figures were 8.7 percent and 13.7 percent, respectively. (The comparison is much the same if analysis is restricted to male heads.)

The United States-German comparison is also fascinating. About twice as many Americans as Germans experienced poverty in this period (30 percent compared with 16 percent; see Table 3). After three years, 72 percent of spells had finished in the United States and 76 percent in Germany. But whereas in the United States more exits from poverty appear to have been due to an increase in labor (or at least pregovernment) incomes, in Germany relatively more exits seem due to government. However, this result does not hold when analysis is confined to households headed by men of working age, so at this stage it would not be reasonable to infer that the United States labor market moves people out of poverty more efficiently than that of Germany.

Overall, the inference has to be that the United States labor market is more efficient at ending poverty than the Dutch, whereas the Dutch government is much more effective and equitable in achieving lower final poverty rates than the American. Germany is in-between on equity but not necessarily in terms of labor market efficiency. The evidence is not conclusive but points toward a classic equity versus efficiency tradeoff (Okun 1975).

Another valuable perspective on medium-term poverty is obtained by cumulating people's incomes and asking what percentage were five years poor in the sense that their average equivalent incomes during 1985-89 were below 50 percent of median for that period.

Comparing results in Table 5 with the annual poverty figures in Table 2, it becomes clear that fewer people are

Table 5

**A Five-Year View:  
Poverty Rates Based on Five Years of Cumulated Income  
in percent**

	Pre-government <sup>1)</sup>	Post-government	Transferred Out
United States			
Five years cumulated income: 1985-89	22.4	16.5	26.3
Germany			
Five years cumulated income: 1985-89	24.8	5.3	78.6
The Netherlands			
Five years cumulated income: 1985-89	27.5	0.4	98.5
Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.			

<sup>2</sup> That is, their cumulated equivalent incomes for 1985-89 were below 50 percent of the median cumulated income for that period.

medium-term poor than short-term poor. In the United States the difference is quite small; 16.5 percent were medium-term poor, whereas the annual figures were around 18 percent. In Germany and The Netherlands the differences are substantial. In Germany, 5.3 percent were medium-term poor compared with annual figures around 8 percent a reduction of a third and in The Netherlands five-year poverty was only 0.4 percent compared with annual figures of 3.5 to 4.0 percent.

Table 6

**The Effectiveness of Government in Transferring  
Different Household Types Out of Poverty, 1985-89<sup>1)</sup>**  
in percent

	Percent Pregovernment Poor	Percent Postgovernment Poor	Percent Transferred Out
United States			
Heads under age 30	31.3	30.5	2.6
Heads aged 30 to 55	13.7	11.8	13.9
Heads aged 65 and over	67.4	32.3	52.1
Single mothers	77.9	61.0	21.7
White	17.3	11.5	33.5
Black	52.2	45.7	12.5
German	—	—	—
Foreign	—	—	—
Germany			
Heads under age 30	15.9	14.0	11.9
Heads aged 30 to 55	8.7	4.0	54.0
Heads aged 65 and over	85.9	11.7	86.4
Single mothers	32.4	25.4	21.6
White	—	—	—
Black	—	—	—
German	25.5	5.2	79.6
Foreign	17.6	8.5	51.7
The Netherlands			
Heads under age 30	9.9	1.9	80.8
Heads aged 30 to 55	15.7	0.1	99.4
Heads aged 65 and over	97.4	0.0	100.0
Single mothers	60.6	2.2	96.4
White	—	—	—
Black	—	—	—
German	—	—	—
Foreign	—	—	—

<sup>1)</sup> The income measure is five years of cumulated equivalent income, 1985 to 1989.

Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.

An important finding is that the impact of governmental redistribution measured on a five-year basis is larger than on an annual basis. In the United States, 26.3 percent were transferred out of five-year poverty by government, compared with around 23 percent on an annual basis. In Germany the comparable figures are 78.6 percent and 70 percent, while in The Netherlands 98.5 percent of those who would otherwise have been five-year poor were transferred out by government, compared with annual figures around 85 or 90 percent.

The conclusion is that governments do a more effective job of combating poverty in the medium term than the short term, and since most observers would probably agree that the medium term matters more, this is an encouraging finding.

Studies of annual poverty usually provide detailed results about which types of households are most likely to be poor and which get most and least assistance from government. On the same lines, we now give preliminary results relating to five-year poverty. The income measure is five years of cumulated equivalent income.

In The Netherlands no type of household had a substantial poverty rate. Among households with heads under age 30 (mainly students) the poverty rate was 1.9 percent, and in single mother households the rate was 2.2 percent. In other household types poverty rates were lower still. Of course, if it had not been for government intervention some household types would have had high five-year poverty rates. As in all Western countries, most people over 65 would have been poor but for superannuation and other benefits. Among Dutch households with heads over 65, 97.4 percent were in „pregovernment poverty” but all were non-poor due to government benefits. Among single mothers the pregovernment poverty rate was 60.6 percent and among households headed by people of prime working age (aged 30 to 55) the figure was a surprisingly high 15.7 percent (see discussion of Table 4 above).

In Germany and the United States, as in The Netherlands, the old are the group most likely to be transferred out of poverty by government. Young households (head under age 30) and single mother households have the lowest „transfer-out” rates. In the United States blacks are less likely to be transferred out than whites, and, as expected, this result holds up when other variables (age of household head and single motherhood) are controlled. In Germany foreigners have less chance of being transferred out of poverty than Germans, but logit and regression analyses indicate that this is because they are, on average, a younger group and not apparently because of foreignness per se. Or, to put it differently, fewer are eligible for superannuation.

### Income Inequality

Some welfare states aim to reduce inequality and not just to combat poverty, so we conclude this section with a brief



Table 7

**Post-Government Income Inequality  
in the United States, Germany, and The Netherlands:  
Overview, Decile Ratios<sup>1)</sup>**

	Annual (1987) Decile Ratio	Five Years (1985-89) Decile Ratio
United States	6.0	5.1
Germany	3.2	2.9
The Netherlands	3.0	2.5

<sup>1)</sup> Pregovernment decile ratios would be meaningless since people in the 10th percentile have zero income.  
Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.

review of the impact of governments on the overall income distribution. Table 7 gives annual and five-year decile ratios and shows, as expected, that income distributions in all three countries were more equal in the medium than the short term.

Again, the cross-national differences are very large. In the United States, in 1985-89, those in the 90th percentile received 5.1 times the equivalent income of those in the 10th percentile. In Germany the ratio was 2.9 and in The Netherlands 2.5.

Reducing inequality over time is, of course, partly due to volatility of labor and asset incomes. Is it also due to government? Table 8 shows pre- and postgovernment Theil coefficients and indicates how much income redistribution results from government intervention. Contrary to expectations based on computer micro simulation research (Falkingham, Hill, and Lessof 1993; Harding 1993), two of these three governments reduce inequality more over five years than one. Over the 1985-89 period, the Dutch government was responsible for a 75 percent reduction in inequality, 5 percent more than it achieved on an annual basis. In Germany too, redistribution was about 5 percent more over five

years than one. In the United States, where the redistributive impact of government is much less, there was virtually no difference between the annual and five-year figures.

## 5. Discussion

This section focuses on equity and efficiency issues arising from our findings about the three types of welfare states.

In regard to equity, our first conclusion has to be that the social democratic (Dutch) and corporatist (German) welfare states are highly effective in reducing poverty and inequality. This is even more true for their medium-term (five-year) than their short-term (annual) performance. So, from an equity point of view, some welfare states work well; they are substantially or even massively redistributive. Far from being failures, as some left-wing commentators have claimed, they appear to be, in equity terms, remarkable feats of social engineering.

A second conclusion is that Esping-Andersen's (1990) hypotheses about the effects of the three types of welfare capitalism on poverty and inequality have been confirmed. The Dutch welfare state is more redistributive than the German and both are much more redistributive than the American liberal welfare state. Furthermore, whereas the impact of government is more redistributive in the medium than the short term in The Netherlands and Germany, this is less true in the United States. Poverty is somewhat lower over five years in the United States, but this is primarily due to the labor market, rather than to government redistribution.

This brings us to efficiency issues. It appears that the relative generosity of the Dutch (but not necessarily the German) welfare state comes at a cost in labor market efficiency (Smeeding et al. 1985; Korpi 1985). The evidence on poverty persistence and poverty survival rates in Tables 3 and 4 indicates that people are less likely to escape poverty through the labor market in The Netherlands, and perhaps in Germany, than in the United States. The evidence is open to the interpretation that some individuals or households, who in the United States would find paid work or more hours of paid work, are in The Netherlands opting for less work, more leisure and government benefits. Of course, this is far from certain. Employment growth has been slower in The Netherlands (and also in Germany) than in the United States, so it is harder for low-skill, low-income people to find jobs. This could, however, also be partly due to welfare state provisions, as well as labor market regulation.

As ever, it becomes a question of equity-efficiency tradeoffs. What balance should governments strike between running a relatively generous welfare state that reduces inequality and keeps almost everyone out of poverty, and having a labor market that generates more jobs, including more low-income jobs? It has not escaped anyone's attention that the United States has enjoyed relatively high employment growth in recent years, but at

Table 8

**Inequality: Annual and Five Year Impact  
of Government Redistribution, Theil Coefficients**

	United States		Germany		The Netherlands	
	1987	1985-89	1987	1985-89	1987	1985-89
Pregovernment income	0.312	0.298	0.328	0.253	0.332	0.300
Postgovernment income	0.244	0.235	0.141	0.097	0.100	0.076
Redistribution by government	21.8	21.1	57.0	61.7	69.9	74.7

Source: Authors' calculations and GSOEP, PSID, and DSEP, 1985-1989.

the same time it is not a very cohesive society. Other liberal welfare states, including Britain, Australia and Canada, may also be experiencing increased social conflict. The more redistributive states, on the other hand, probably have a better chance of maintaining social cohesion but may pay a price through some loss of economic efficiency.

It is worth noting that, in the 1985-1989 period, the United States, Germany and The Netherlands had economic growth rates of 14.5 percent, 12.1 percent and 9.8 percent respectively for the five years combined. Also, most people's equivalent incomes improved in all three countries. But although the United States had the highest rate of growth, only 61.3 percent of Americans were better off at the end of the period than the beginning, compared with 67.5

percent of Germans and 72.1 percent of Dutch people (OECD 1990). So the fruits of growth were distributed rather as the findings in this paper might lead us to expect. The United States had the highest rate of growth, but the fewest people benefitted. The Netherlands had the lowest rate of growth but most people benefitted. Germany was in-between on both counts.

In future work we hope to extend our research to cover a ten-year period (1985-94) in order to assess the longer term as well as the medium- and short-term effects of the welfare state. It will also be essential to use the panel data to undertake analyses of the equity and efficiency effects of specific taxes and benefits, and their impact on households at different stages of the life cycle.

## References

- Atkinson, A. B., and J. Micklewright. 1992. *Economic Transformation in Eastern Europe*. Cambridge: Cambridge University Press.
- Atkinson, A. B., Lee Rainwater, and T. M. Smeeding. 1995. *Income Distribution in OECD Countries: The Evidence from the Luxembourg Income Study*. Paris: OECD.
- Bane, M. J. and D. Ellwood. 1986. "Slipping Into and Out of Poverty: The Dynamics of Spells," *Journal of Human Resources*, 21: 1-23.
- Beckerman, W. 1979. *Poverty and the Impact of Income Maintenance Programmes in Four Developed Countries*. Geneva: ILO.
- Buhmann, B., L. Rainwater, G. Schmaus, and T. M. Smeeding. 1988. "Equivalence Scales, Well-Being, Inequality and Poverty: Sensitivity Estimates across Ten Countries Using the Luxembourg Income Study (LIS) Database," *Review of Income and Wealth*, 34: 115-42.
- Burkhauser, Richard V. and John G. Poupore. Forthcoming. "A Cross-National Comparison of Permanent Inequality in the United States and Germany," *Review of Economics and Statistics*.
- Burkhauser, Richard V., Joachim R. Frick, and Johannes Schwarze. Forthcoming. "Alternative Perspectives on Economic Well-Being: A Cross-National Comparison of Single-Year Income, Permanent Income, and Wealth as Measures of Economic Well-Being," *The Review of Income and Wealth*.
- Castles, F. G. and D. Mitchell. 1990. "Three Worlds of Welfare Capitalism or Four?," *Public Policy Discussion Paper No.21*. Canberra: Australian National University.
- Citro, C. F. and R. T. Michael. 1995. *Measuring Poverty: A New Approach, A New Approach*. Washington DC: National Academic Press.
- Duncan, Greg J. 1983. *Years of Poverty, Years of Plenty*. Ann Arbor: Institute for Social Research, University of Michigan..
- Duncan, Greg J., B. Gustafsson, R. Hauser, G. Schmauss, H. Messinger, R. Muffels, B. Nolan, and J. C. Ray. 1993. "Poverty Dynamics in Eight Countries," *Journal of Population Economics*, 6(3): 215-34.
- Duncan, Greg J. 1994. "Using Panel Studies to Understand Household Behaviour and Well-Being." In Stephen Jenkins, Arie Kapteyn, and Bernard van Praag (eds.), *The Distribution of Welfare and Household Production: International Perspectives*. Cambridge, MA: Cambridge University Press.
- Esping-Andersen, E. 1990. *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University.
- Falkingham, S., J. Hills, and C. Lessof. 1993. "William Beveridge versus Robin Hood: Social Security and Redistribution Over the Life Cycle," *Discussion Paper WSP/88*, Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics.
- Flora, P. (ed.). 1986. *Growth To Limits: The Western European Welfare States since World War II*. Berlin: de Gruyter.
- Goodin, R. E. 1988. *Reasons For Welfare*. Princeton: Princeton University.
- Hagenaars, A. J. M. 1986. *The Perception of Poverty*. Amsterdam: North Holland.
- Hagenaars, A. J. M. 1991. "The Definition and Measurement of Poverty." In L. Osberg (ed.), *Economic Inequality and Poverty: International Perspectives*. New York: M.E. Sharpe Inc., pp. 134-56.
- Harding, A. 1993. "Lifetime Vs. Annual Tax-Transfer Incidence: How Much Less Progressive?" *Economic Record*, 69: 179-91.
- Headey, B. W., P. Krause, and, R. Habich. 1994. "Long and Short Term Poverty: Is Germany a Two-Thirds Society?" *Social Indicators Research*, 31: 1-25.
- Kakwani, N. 1986. *Analysing Redistribution Policies*. Cambridge: Cambridge University Press.
- Korpi, W. 1983. *The Democratic Class Struggle*. London: Routledge & Kegan Paul.
- Korpi, W. 1985. "Economic Growth and the Welfare State: Leaky Bucket or Irrigation System?," *European Sociological Review*, 1: 97-118.
- Marshall, T. H. 1977. *Social Policy in the Twentieth Century*. London: Hutchinson.
- Mitchell, D. 1991. *Income Transfers in Ten Welfare States*. Aldershot: Avebury.

- Muffels, R. J. A. 1993. "Welfare Economic Effects of Social Security. Essays on Poverty, Social Security and Labour Markets: Evidence from Panel Data," Series on Social Security Studies, Report No. 21, Tilburg University, The Netherlands.
- OECD. 1990. Main Economic Indicators. Paris: OECD.
- OECD. 1991. Revenue Statistics of OECD Member Countries 1965-90. Paris: OECD.
- Okun, A. M. 1975. Equality and Efficiency: The Big Trade-Off. Washington: Brookings.
- Pechman, J. A. and M. S. Mazur. 1984. "The Rich, the Poor and the Taxes They Pay: An Update," *The Public Interest*, 77: 28-36.
- Rainwater, L. 1974. What Money Buys: Inequality and the Social Meanings of Income. New York: Basic Books.
- Ringen, S. 1987. The Possibility of Politics. Oxford: Clarendon.
- Ringen, S. 1991a. "Do Welfare States Come in Types?" Social Policy in Australia: Options for the 1990s, Vol. 1, Reports and Proceedings, No. 96, Social Policy Research Centre, University of New South Wales, pp. 35-47.
- Ringen, S. 1991b. "Households, Standard of Living and Inequality," *Review of Income and Wealth*, 37: 1-13.
- Runciman, W. G. 1966. Relative Deprivation and Social Justice. London: Penguin.
- Saunders, P. 1994. Welfare and Inequality: National and International Perspectives in the Australian Welfare State. Cambridge: Cambridge University Press.
- Shorrocks, A. F. 1980. "The Class of Additively Decomposable Inequality Measures," *Econometrica*, 48: 613-25.
- Smeeding, Timothy M., Richard Hauser, Lee Rainwater, Martin Rein, and Gaston Schaber. 1985. Poverty in Major Industrialised Countries, Luxembourg Income Study Working Paper No.2. Luxembourg: Center for Population, Poverty and Policy Studies.
- Smeeding, T. M., P. Saunders, J. Coder, S. Jenkins, J. Fritzell, A. J. M. Hagenaars, and M. Wolfson. 1993. "Poverty, Inequality and Family Living Standards across Seven Nations: The Effect of Non-Cash Subsidies for Health, Education and Housing," *Review of Income and Wealth*, 39: 229-56.
- Stevens, A. H. 1994. "The Dynamics of Poverty Spells: Updating Bane and Ellwood," *AEA Papers and Proceedings*, 84: 34-37.
- Therborn, G. 1986. Why Some People Are More Unemployed Than Others — The Strange Paradox of Growth and Unemployment. London: Verso.
- Titmuss, R. 1974. Social Policy. London: Allen & Unwin.
- Townsend, P. 1979. Poverty in the United Kingdom. London: Penguin.
- Van Praag, B. M. S., A. J. M. Hagenaars, and J. van Weeren. 1982. "Poverty in Europe," *Review of Income and Wealth*, 28: 345-59.