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AMERICAN INCOME INEQUALITY IN A CROSS-NATIONAL PERSPECTIVE: WHY ARE WE SO DIFFERENT?

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POST CONFERENCE DRAFT

American Income Inequality in a Cross-National Perspective: Why Are We So Different?*

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I. Introduction: What Can We Learn from Cross-National Studies of Income Distribution?

Increasingly the rich nations of the world face a common set of social and economic issues: the cost of population aging, a growing number of single parent families, the growing majority of two-earner families, increasing numbers of immigrants from poorer nations, and in particular, rising economic inequality generated by skill-based technological change, international trade and other factors. All of these nations have also designed systems of social protection to shield their citizens against the risk of a fall in economic status due to unemployment, divorce, disability, retirement, and death of a spouse. The interaction of these economic and demographic forces and social programs generates the distribution of disposable income in each of these nations.

The experiences of nations in dealing with issues of economic and social inequality is the subject of this paper. Thanks to the emergence and availability of cross-nationally comparable databases, we are in a position to directly compare the experiences of rich nations in coping with the growth of market income inequality. Comparisons of these experiences may help us to understand how the United States is similar to and different from other nations. It may also help us trace these differences to their economic, demographic, and policy-related sources. The institutions put in place in other nations to help mitigate the forces of market-driven economic inequality are also of interest. Cross-national research has taught us that *every* nation must design its own set of social policies tempered by its institutions, values, culture, and politics. But it has also shown that we can learn important features of policy design by looking to other nations who seem to do a better job combating social injustice and the poor outcomes of market-based economic inequality than does the United States. It will be seen that policies designed to generate economic equality need not result in lower rates of economic growth or increased economic inefficiency. In fact, a set of policies to

help combat growing economic inequality are available to our nation. What is needed is the leadership to make these opportunities a reality.

We begin by asking ourselves why we care about economic inequality? How do both large and also widening differences between the top and the bottom of the income (and economic well-being) distribution effect socially important outcomes? We then turn briefly to the parameters we use to measure economic inequality and their strengths and weaknesses, before examining the results in Section IV. It will be seen that the United States tolerates a very high degree of economic inequality, that we differ most from other nations in the relative and absolute income position of our low income families, and that income inequality in the United States has continued to increase at a rapid rate.

Next we turn to explanations of these differences in Section V, finding that both the proportion of workers with low wages and the relative generosity of social programs help explain the economic position of low income families in rich nations. We conclude by suggesting a package of policies designed to remedy the poor economic position of those at the bottom of the United States income distribution.

The results I am pulling together here come from a number of recent publications examining the cross-national facts of economic inequality in the United States and elsewhere. While, my co-authors have helped compile much of this evidence, I assume full responsibility for its treatment in this context.[1] While differences still exist in my mind (and those of my co-authors) as to the exact nature and consequences of rising economic inequality, I am taking this particular opportunity to push the issues of "so what," "why" and "what can be done about it." In this context, it is my normative treatment of the issues and weighing of the evidence that is presented here today, not theirs.

II. Why Do We Care?

An economist's natural reaction to increased economic inequality is "so what?" More accurately, an economist will first inquire, "has economic inequality actually increased?" and second, "why should one be concerned about economic inequality, or does inequality generate social evils?"

The answer to the first "evidential" question is much easier. Virtually no one denies that economic inequality in America (and in many other nations) has increased. Inequality in earned income, in market income (earnings, property income, and private pensions) and in after tax and transfer disposable income has increased in America and elsewhere (Danziger and Gottschalk 1995; Gottschalk and Smeeding 1997a, 1997b). Over the past 15 to 25 years, consumption and expenditure inequality has increased along with income inequality in America (Johnson and Smeeding 1997), as has inequality in total compensation—wages, salaries, and benefits (Little 1994) and inequality in the wealth distribution (Hurst et al. 1996). This inequality has also spread to living conditions and housing and neighborhood patterns (Massey 1996; Jargowsky 1996). Virtually no serious empirical economist argues that economic inequality in the United States has not increased over the past 25 years.

This is not to say that there are no differences of opinion in the extent of the increase in inequality or its implication for policy. Much of the increased inequality experienced in America has been accomplished by the former middle classes moving "up" in the income distribution leaving others behind. The extent to which persons and households actually saw their real incomes decline depends on the measure of inequality, time period, and price deflator. Estimates range from 35 percent (Karoly 1995) to 10 to 15 percent (Burkhauser et al. 1996). My own work with Greg Duncan and Willard Rodgers (Duncan, Rodgers, and Smeeding 1993) suggests that about 25 to 30 percent of persons who left the middle class during the 1980s and early 1990s fell from the middle class into poorer economic circumstances while 70 to 75 percent of those who left reached a higher economic

plane. None of these papers argue that economic inequality has not increased, just about who moved where.

Moreover, while all of us would argue that economic growth and low unemployment rates are good for the poor as well as for the rich, there is little credible evidence that this increase in inequality is purely cyclical and not secular. Finally, accurate and unbiased studies of income and earnings mobility over time and across nations have reached two robust conclusions: (a) economic mobility is no greater in the United States than in other nations, and (b) economic mobility in the United States has not increased with rising inequality and may have, in fact, fallen in recent years (see Aaberge et al. 1995 and Gottschalk 1997, for a summary of this evidence). The literature also differs as to the policy implications of increased economic inequality. Some, but not all, argue that the distributional winners should compensate the losers (Freeman 1997; Danziger and Gottschalk 1995; Smeeding 1996).

With the answer being, yes, economic inequality in America has secularly increased in recent decades (albeit with a cyclical component), it is fair to ask the second question, so what? For the past several years several teams of social and behavioral scientists have been hard at work at this question. One problem seems to be indifference in public policy to the general issue of inequality, largely because it is an abstract statistical concept (Lowenstein 1996). However, public opinion reacts, there is a growing body of research that goes beyond public opinion to try and assess the measurable relationship between economic inequality and other important social goods. And while conclusive answers to "so what" are still difficult to find, the evidence we review here is very recent and growing. Several recent medical journals report that high and increasing economic inequality is highly correlated with high and increasing mortality (Kaplan et al. 1996; Kennedy et al. 1996). The potential link between income inequality and poor health seems to be declining social cohesion and lack of

shared social goals (Kawachi and Kennedy 1996; Kawachi et al. 1997). Declining social cohesion has many correlates: declining investment in human capital (education, health care) in low income areas; increasing social distrust as manifest by declining confidence in government and in one another; increased rates of property crime, and violence in low income areas; increased economic insecurity; and impaired functioning of democracy as seen by voting patterns and related evidence (Massey 1996; Kawachi and Kennedy 1997).

At the same time that we find widening "social distance" between the incomes of rich and the poor, we find a parallel increase in the residential concentration of the rich and the poor (Massey 1996; Jargowsky 1996). Left to fester, these inequalities will produce lower rates of economic growth and an increasing draw on public resources for prisons, police services, and other remedial public social services with a high social and economic cost. Simply put, if the rich and the poor share no common economic and social reality, there will be little or no agreement common social goals or vehicles for achieving these goals. The geographic and political breadth of the United States may already attest to this lack of shared goals, via the growing sentiment and actuality of the "devolution" of social and health programs from the federal government to the states. But, inequalities within states and local jurisdictions themselves suggests that these differences go beyond our national geography and also operate at state and local levels of government (Massey 1996).

While models have yet to separate cause from effect, the growing regularity of these correlations between United States economic inequality and poor social outcomes does provide cause for concern. Too much inequality can be bad for the United States as a society. Not only are absolute measures of income and their growth important, but also too great a "social distance" between the top and the bottom of the income distribution may be associated with poor social outcomes.

The cross-national evidence on patterns of economic inequality, poor health and other outcomes across nations is even less well established. While some authors find a strong negative link between cross-national patterns of income inequality and mortality, others are less convinced (Wennemo 1993; Rodgers 1979; Wilkinson 1990, 1992, 1996; Saunders 1996). And, even more recently, the assumed positive relationship between economic inequality and economic growth has been brought into question (Benabou 1997).

While the international evidence is spotty, it may well be that very recent changes in economic inequality have not yet shown their effects on important social phenomena such as health status, economic growth and social exclusion. One reason for not finding such patterns is the fact that not all rich nations have experienced a substantial widening of income inequality, and to be sure, none have yet reached the overall level of inequality found in the United States.

III. Measuring Economic Inequality: The Basics

Before moving to the results, we need to briefly review the sources of our evidence and their strengths and weaknesses. There are currently no international standards for income distribution which parallel the international standards used for systems of national income accounts. Hence, researchers need to decide what they want to measure and how far they can measure it on a comparable basis. The Luxembourg Income Study (LIS) which underlies much of this paper offers the reader many choices of perspective in terms of country, income measure, accounting unit, and time frame. But its relatively short time frame (1979-1993 for most nations, but 1968-1995 for five countries) and limited number of observation periods per country (three to five periods per country at present) currently limits its usefulness for studying longer term trends in income distribution. The purpose of this section of the paper is to explain the choices we have made in our use of LIS. The

choices we and others have made to study longer term trends in income distribution are discussed in Gottschalk and Smeeding (1997a, 1997b) and Gottschalk, Gustafsson, and Palmer (1997).

Our attention is focused here on the distribution of **disposable money income**, that is income after direct taxes and including transfer payments. Several points should be noted:

a. income rather than consumption is taken as the indicator of resources, although there may be both theoretical and empirical arguments favoring use of the latter;

b. the definition of income falls considerably short of a comprehensive definition, typically excluding much of capital gains, imputed rents, home production, and most of income in-kind (with the exception of near-cash benefits);

c. No account is taken of indirect taxes or of the benefits from public spending (other than cash and near-cash transfers) such as health care, education, or most housing subsidies;

d. the period of income measurement is in general the calendar year with income measured on an annual basis (although the United Kingdom evidence relates to weekly or monthly income).

Thus, variables measured may be less than ideal and results may not be fully comparable across countries. For example, one country may help low-income families through money benefits (included in cash income), whereas another provides subsidized housing, child care, or education (which is not taken into account). While, a recent study (Smeeding et al., 1993) finds that the distribution of housing, education and health care benefits reinforces the general differences in income distribution for a subset of the western nations examined here, there is no guarantee that these relationships hold for alternative countries or methods of accounting (Gardiner et al. 1995). Still this study shows that countries which spend more for cash benefits tend to also spend more for noncash benefits. Because noncash benefits are more equally distributed than are cash benefits, levels of inequality within countries are lessened, but the same rank ordering of these countries with respect to inequality levels that is found here using cash alone, persists when noncash benefits are added in. And while we use

income, not consumption as the basis for our comparisons, due to the relative ease of measurement and comparability of the former, there is evidence that consumption inequalities are similar to income inequalities in major European nations (deVos and Zaidi 1996).

Market income, which includes earned income from wages and salaries and self-employment, cash property income (but not capital gains or losses) and other private cash income transfers (occupational pensions, alimony, and child support) is the primary source of disposable income for most families. To reach disposable income, governments add public transfer payments (social retirement, family allowances, unemployment compensation, welfare benefits) and deduct personal income tax and social security contributions from market income. Near-cash benefits—those which are virtually equivalent to cash (food stamps in the United States and housing allowances in the United Kingdom and Sweden) are also included in the disposable income measure used here.

The question of distribution "among whom" is answered among individuals. When assessing disposable income inequality, however, the unit of aggregation is the household: the incomes of all household members are aggregated and then divided by an equivalence scale to arrive at individual equivalent income. For the most part, the household—all persons sharing the same housing unit regardless of familial relationship—is the common unit of analysis. However, for Sweden and Canada more restrictive nuclear family (Sweden) and economic family (Canada) definitions of the accounting unit are necessary (see Buhmann et al. 1988; Atkinson, Rainwater, Smeeding, 1995, Chapter 2, for additional details).

The approach adopted here, based in large part on data from the Luxembourg Income Study (LIS), overcomes some, but not all, of the problems of making comparisons across countries and across time that plagued earlier studies. Some problems, e.g., the use of data from different types of sources, still remains. But all of the data are drawn from household income surveys, or their

equivalent, and in no case is synthetic data used. One major advantage of LIS is the availability of micro-data. The aim of the LIS project has been to assemble a single database containing survey data from many countries that is as consistent as possible. Access to the micro-data means that it is possible to produce results on the same basis, starting from individual household records, and to test their sensitivity to alternative choices of units, definition, and other concepts. It is therefore possible to make any desired adjustment for household size. Aggregate adjustments, such as that from pre-tax (market income) to post-tax (disposable) income are not necessary, although in some cases imputations are necessary at the household level. The data all cover, at least in principle, the whole non-institutionalized population as well. These data are supplemented here by data provided by two major nations not yet members of LIS (Japan and New Zealand). In both of these nations, national experts at their Central Statistical Offices calculated income inequality measures under the supervision of the LIS staff (Ichikawa 1996). The rest of the calculations were made by the author and the LIS project team.

While the aim of the LIS project is to increase the degree of cross-national comparability, complete cross-national comparability is not possible, even if we were to administer our own surveys in each nation. Comparability is a matter of degree, and all that one can hope for is to reach an acceptably high level. In economic and statistical terms, the data is noisy, but the ratio of signal to noise is still very high. Ultimately the reader must decide the acceptability of the evidence before them. To skeptics we can offer that most of the cross-national results provided here have been reviewed by a team of national experts—statisticians, social scientists, and policy analysts—prior to their publication by OECD and in other forums. And, because the LIS data is ultimately available to the research community at zero economic cost, researchers are free to repeat these calculations themselves.

IV. Where Do We Stand?

The LIS data sets are used here to compare the distribution of disposable income in 22 nations around 1990 (Gottschalk and Smeeding 1997a; Smeeding 1996). We focus on both relative (Figure 1) and absolute (Figure 2) income differences. The relative inequality patterns found here correspond roughly to the results found in Atkinson, Rainwater, and Smeeding (1995), which use earlier years' LIS data in most cases. Our choice of inequality measures are four: the ratio of the income of the person at the bottom and top 10th percentile to the median (P_{10} and P_{90}, respectively); the ratio of the income of the person at the 90th percentile to the person at the 10th percentile—the decile ratio—(a measure of "social distance"); and the gini coefficient.[2]

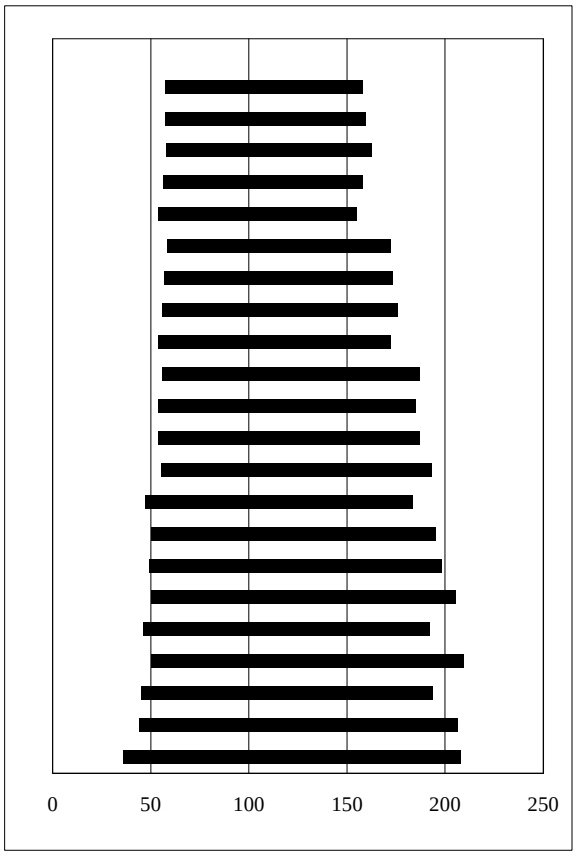
Relative Differences in Inequality across Nations

In the United States, to begin with, we find the low income person at the 10th percentile in 1991 (P_{10}) with an income 36 percent of the median (Figure 1). A high income person at the 90th percentile (P_{90}), in contrast, has 208 percent of the median. The United States decile ratio is 5.78 meaning the income of the high income person is almost six times the income of the low income person, even after we have adjusted for taxes, transfers, and family size.[3] In contrast, the average low income person has 52 percent of the income of the middle person in the average country; the average rich person has 183 percent as much, and the decile ratio shows an average "social distance" between rich and poor of 3.6 times P_{10}.

Figure 1. Decile Ratios and Gini Coefficient for Adjusted Disposable Income[1]

(numbers given are percent of median in each nation and Gini coefficient)

	P10 (Low Income)	Length of bars represents the gap between high and low income individuals	P90 (High Income)	P90/P10 (Decile Ratio)	Gini Coefficient[2]
Finland 1991	57		158	2.75	.223
Sweden 1992	57		159	2.78	.229
Belgium 1992	58		163	2.79	.230
Norway 1991	56		158	2.80	.233
Denmark 1992	54		155	2.86	.239
Luxembourg 1985	58		172	2.95	.238
The Netherlands 1991	57		173	3.05	.249
Italy 1991	56		176	3.14	.255
Germany 1989	54		172	3.21	.261
Austria 1987	56		187	3.34	NA
Switzerland 1982	54		185	3.43	.311
New Zealand 1987/1988	54		187	3.46	NA
France 1984	55		193	3.48	.294
Canada 1991	47		183	3.90	.285
Taiwan 1991	50		195	3.90	.300
Spain 1990	49		198	4.04	.306
Israel 1992	50		205	4.12	.305
Japan 1992	46		192	4.17	.315
Ireland 1987	50		209	4.18	.328
Australia 1989	45		193	4.30	.308
United Kingdom 1991	44		206	4.67	.335
United States 1991[3]	36		208	5.78	.343
Average[4]	52		183	3.60	.279



Source: Gottschalk and Smeeding (1997a) and Smeeding (1996); Japanese data courtesy of Ishikawa (1996); New Zealand data comes from Atkinson, Rainwater and Smeeding (1995) Chapter 4.

[1]Adjusted disposable income includes all forms of cash income net of direct tax using the household as the unit of aggregation and adjusting for household size differences using a square root equivalence scale.

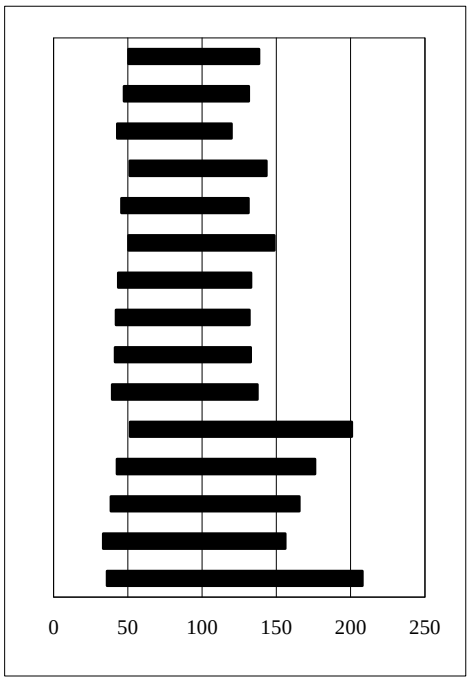
[2]Gini coefficients are based on incomes which are bottom coded at 1 percent of disposable income and top coded at 10 times the median disposable income.

[3]For United States 1994: P10 equals 34, P90 equals 219, the P90/P10 ratio equals 6.42, and the Gini coefficient is 0.368 (Author's calculations).

[4]Simple average.

Figure 2. Real Income Distribution: Decile Ratio Comparisons
(numbers given are percent of United States median income in 1991 United States dollars)[1]

	P10[2] (Low Income)	Length of bars represents the gap between high and low income individuals	P90[3] (High Income)	P90/P10 (Decile Ratio)	Ratio of Real National Median To Real US Median
Finland 1991	50		138	2.75	88
Sweden 1992	47		132	2.78	83
Belgium 1992	43		120	2.79	74
Norway 1991	51		143	2.80	91
Denmark 1992	46		131	2.86	85
Luxembourg 1985	50		149	2.95	86
The Netherlands 1991	44		133	3.05	77
Italy 1991	42		132	3.14	75
Germany 1989	41		133	3.21	77
France 1984	39		137	3.48	71
Canada 1991	52		201	3.90	110
Japan 1992	43		176	4.14	92
Australia 1989	38		165	4.30	86
United Kingdom 1991	33		156	4.67	76
United States 1991	36		208	5.78	100
Average[4]	44		146	3.34	83



Source: Author's calculations using the Luxembourg Income Study database.

[1]Unit of aggregation is the household and units are weighted by the number of persons in the household. Incomes are adjusted by E=0.5 where adjusted disposable income (DPI)=actual DPI divided by household size (s) to the power E: Adjusted DPI = DPI/s^E.

[2]Relative income for individuals who are below 90 percent of the individuals in the country and more affluent than 10 percent of the individuals in the country. Numbers give real income (1991 United States dollars) as a percent of the United States median.

[3]Relative income for individuals who are more affluent than 90 percent of the individuals in the country and below 10 percent of the individuals in the country. Numbers give real income (1991 United States dollars) as a percent of the United States median.

[4]Simple average, excluding United States.

Countries fall into clusters, with inequality the least in Scandinavia (Finland, Sweden, Norway) and Northern Europe (Belgium, Denmark, Luxembourg, The Netherlands). Here P_{10}'s average 57 percent of the median and decile ratios range from 2.75 to 3.05. Central and Southern Europe comes next (Italy, Germany, Austria, Switzerland, France) with decile ratios from 3.14 to 3.48. New Zealand and Canada are mixed in here as well. The Asian nations of Taiwan and Japan, Spain, Israel and Ireland come next with decile ratios from 3.90 to 4.18. Finally, the English speaking countries of Australia (4.30), Britain (4.67) and the United States (5.78).

The United States has the highest decile ratio due in large part to its very low relative incomes at the bottom of the distribution. The closest ratios to our P_{10} value of 36 are the United Kingdom (44), Australia (45), and Canada (47). Only one other nation (Spain) has a value below 50. At the top of the distribution incomes in the United States are not so different from those in other high inequality nations. Our P_{90} of 208 is below that found in Ireland (209) and close to that found in Israel (205) and the United Kingdom (206).

While percentile ratios as measures of social distance have some obvious appeal (e.g., insensitivity to top coding, ease of understanding), they have the disadvantage of focusing on only a few points in the distribution and lack a normative basis. Figure 1 presents an alternative Lorenz-based summary measure of inequality, the Gini coefficient. Using this measure, country rankings change little, inequality is still lowest in Scandinavia, then central Europe, Southern Europe, Asia with the English speaking countries having the highest inequality and the United States the highest among these.

In sum, there is a wide range of inequality among rich nations. Measures of social distance and overall inequality indicate that the United States has the most unequal distribution of adjusted household income among all 22 countries covered in this study.[4] The Scandinavian and Benelux

countries have the most equal distributions with the United Kingdom coming closest to the degree of inequality found in the United States. The place that the United States differs most from other nations is in the lowest part of the income distribution. Here our low income families are at a distinct disadvantage compared to similarly situated units in other nations.

Absolute Differences in Income Inequality across Nations

Since countries differ substantially in terms of real GDP per capita, most authors have made comparisons across nations in nominal or relative terms, i.e., United States or Swedish low income units relative to United States and Swedish median income. Measures of real or absolute income differences across nations are much more difficult because they require comparisons of purchasing power of currencies across nations. One problem is that the purchasing power parities used to compare real levels of GDP per capita or total consumption (including government spending on health, education, transportation) across nations are not designed for adjusting measures of disposable personal income such as those examined here. Nonetheless, such comparisons are at least implicitly made by analysts who argue that the higher the average standard of living in a particular nation, the better off are its citizens. For example, because the United States real GDP per capita in 1993 was $24, 750 as compared to say $17,750 in the United Kingdom, $15,230 in Finland, $18,050 in The Netherlands, and $18,070 in Italy, the United States is, "on average," better off than these nations (World Bank 1995). What is interesting is to ask how far that average advantage carries when one takes account of the wider dispersion in overall distribution in the United States? What has been implicitly assumed by analysts is that the higher United States average standard of living extends to all levels of the income distribution.

We investigate this question by converting the median incomes of a set of rich nations on which the percentile points in Figure 1 are based, into real United States 1991 dollars using the Penn

World Tables' purchasing power parities (Summers and Heston 1991) in Figure 2. We then recompute median, high, and low incomes as a fraction of the United States median. We also repeat the decile ratio from Figure 1. Because we have adjusted both P_{10} and P_{90} by the same purchasing power parity, the decile ratio is unchanged.

The real dollar gaps between the United States and other nations in Figure 2 are much closer at the bottom end of the scale than are those in Figure 1, because almost all of the nations shown in Figure 2 are "poorer" than the United States in terms of real GDP per person. Stated differently, both low and high disposable incomes fall as a percent of the United States median income in most nations. On average, a low income person now has a real income that averages 44 percent of the United States median as compared to 52 percent of their own median (compare to Figure 1). As is often claimed, the United States has the highest median ("average") standard of living of the countries compared here based on adjusted median income (with the exception of Canada). The rankings of nations at the 50th percentile are therefore similar to those found when using GDP per capita (e.g., World Bank 1995).

However, the wider distribution of United States incomes means that "low -income" persons living in households at the P_{10} level in the United States still had lower living standards than did similarly situated persons in almost all of the 15 other nations shown here, the United Kingdom being the only exception. Despite the fact that the median American enjoyed a standard of living far above the median German (whose disposable income per equivalent adult was only 77 percent as high), Belgium (77 percent as high), or Swede (83 percent as high), low-income Americans—at P_{10}—had living standards that were 13 percent below that of low-income Germans, 17 percent below low-income Belgiums, and 24 percent below the average income of the bottom quintile Swede. Only the

British, French, and the Australians had real incomes that were near or below those of the Americans at the bottom end of the income distribution.

Real income comparisons move in both directions, of course. At the other end of the scale, "high income" Americans enjoyed real living standards far above those experienced in other nations. At the P_{90} level, the real income of Americans was 42 percent more than the average incomes of the rich in the other nations studied (208 versus 146).

Although we would argue that economic well-being in the most developed countries is most crucially a function of the individual's relative position in the distribution of income, real levels of living are also important in comparing income and well-being. Such comparisons allow one to balance off differences in income distribution with differences in real overall spendable income. The claim that "America enjoys the highest standard of living in the world" must be evaluated alongside the equally valid claim that America enjoys the greatest level of real income inequality in the post-industrialized world—with their rich far better off than rich in other nations and their poor not so well off as are the poor in other nations.

And low absolute levels of living may also have great social costs. For example, the highly negative effects of a low absolute standard of living for young children is now well established (e.g., see Duncan et al. 1997). Young American children living in households with incomes at 75 percent of the United States poverty line or below (i.e., roughly the P_{10} level) are at severe risk of poor health, subsequent poor educational performance, and diminished abilities and achievements more generally. And our LIS data show that among families with children, real economic status at P_{10} is below all of the other nations shown here (Rainwater and Smeeding 1995). Hence, the social costs of low absolute incomes for families with children may be quite high.

In closing, we must reiterate the crudeness of the purchasing power parity ratio when applied to the disposable after tax income concept. Because countries differ in the way that they finance goods, such as health care and education, and because they differ in the extent to which specific types of consumption are tax subsidized, e.g., owned versus rented housing, these purchasing power parities are less than ideal for adjusting disposable income for total control over resources—"standards of living"—across countries. The "real income" measures above should therefore be seen as measures of net spendable income rather than measures of total consumption, the largest difference between the two concepts being goods and services such as health care, child care, and education which are provided at different prices and under different financing schemes in different nations. To the extent that other nations' low income citizens need to spend less out-of-pocket for these goods than do Americans, our low income citizens are at an even larger real income disadvantage than is shown in Table 2 compared to their peers in comparable high income nations.

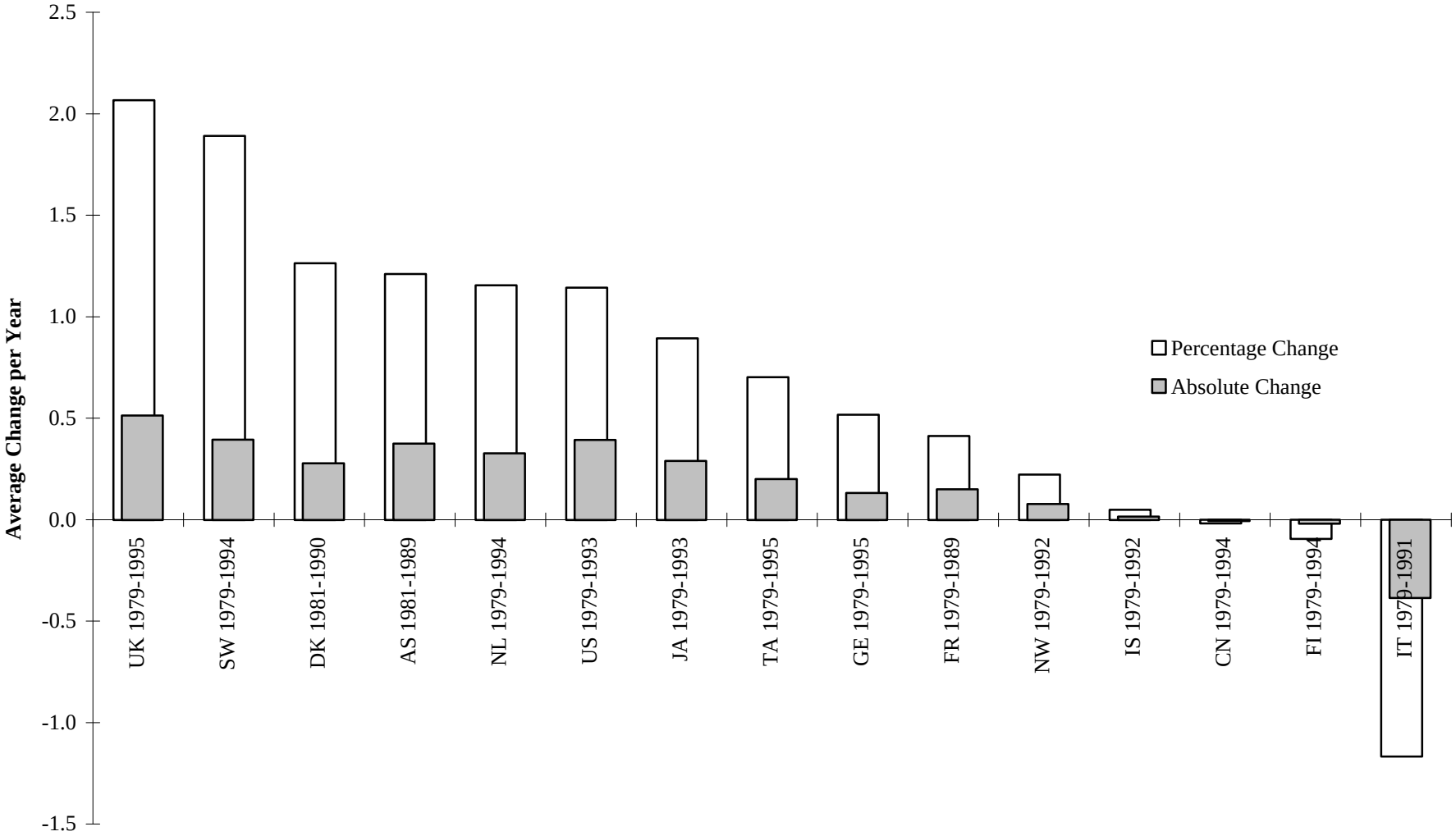
V. Trends in Inequality

Do the differences in inequality in OECD countries in the late 1980s and early 1990s reflect convergence to a common level of inequality or are the less equal countries (the United States, the United Kingdom, and Australia) becoming even less equal? To answer these questions we compare recent trends in inequality (from 1979 onwards). Because the LIS data cover only two to four data points in each nation, we rely on published data from other sources to assess the trend in income inequality (Gottschalk and Smeeding 1997a, 1997b). While differences in units, income measures equivalence adjustments and other factors in different studies make it difficult to compare levels of inequality across these studies, the trends will be comparable as long as surveys and inequality measures remain constant within countries over time.

The recent empirical evidence concerning trends in income inequality in different nations is summarized in Figure 3. Countries are listed in order of yearly percentage changes in disposable income inequality (as measured by the change in the Gini coefficient) from largest to smallest change. Also shown is the absolute yearly change in the Gini over this same period.[5]

The largest percentage changes in income distribution took place in the three countries that also experienced large increases in earnings inequality, Australia, the United States, and the United Kingdom, and in three countries with small increases in inequality of labor market income, Denmark, Sweden, and The Netherlands. While household income inequality increased in several countries, the degree and timing of changes were markedly different. In the United States the largest increases in inequality occurred in the early 1980s and continued into the early 1990s. In the United Kingdom income inequality fell through the mid-1970s but the Gini coefficient rose by more than 30 percent between 1978 and 1991, and has remained roughly constant since. This is almost double the increase over a similar period in the United States, and more than double the decline in the United Kingdom from 1949 to 1976 (Karoly 1995; Atkinson 1996). In Sweden all of the increases came since 1989; in Denmark they occurred during the late 1980s, and in The Netherlands from the mid-1980s to the mid-1990s. While the large relative change in Gini in the United Kingdom might be ascribed to the fact that it started from an average base Gini in 1979, the absolute increase in inequality is also larger in the United Kingdom than in any other nation. The Swedish, Danish, and Dutch distributions had relatively high percentage changes in their Ginis in part because they began from a lower base Gini. But Sweden also experienced a high absolute change equal to that found in the United States. Still, the Dutch, Danish, and Swedish income distributions have remained considerably more equal than either the United States or the United Kingdom (see Figure 1). And

Figure 3. Trends in Disposable Income Inequality Gini Coefficients



Source: Gottschalk and Smeeding (1997b).

[1]Average percentage change per year equals the percentage change in the Gini coefficient over the time frame indicated divided by the number of years in the interval. Average absolute change per year equals the absolute change in the Gini coefficient over the interval multiplied by 100 and divided by the number of years in the interval.

Denmark and The Netherlands display a much smaller absolute increase in their Ginis than did the United States, Sweden, Australia, and the United Kingdom (see Figure 3).

Japan, Taiwan, and Germany form another group of countries with moderate increases in family income inequality. What is remarkable about the other five countries is that they have, so far, experienced little or no increases in the dispersion of family income. In Italy, measured income inequality has declined substantially since 1979. Increases in disposable family income inequality were much less widespread than were increase in inequality of individual earnings or of household market income (earnings of all members plus other market sources such as interest, dividends and rents), suggesting that taxes and transfers muted some of the market driven changes in inequality over this period (see Gottschalk and Smeeding 1997a, 1997b; Smeeding 1996). Indeed, detailed studies of other nations such as Canada suggest that even very large countries can enjoy a relatively low level of income inequality if they pursue the proper policies (Card and Freeman 1993; Hanratty and Blank 1993; Banting and Beach 1995).

There also appears to be no clear relation between the trend over the 1980s and the overall level of inequality at the start of the period. Inequality increased both in the United States, with a high level of inequality even before the increase, and in Sweden, Denmark, and The Netherlands, which started from much lower levels of inequality in the 1980s. Inequality fell by 10 percent in Italy but rose by an even larger amount in the United Kingdom, both EC nations occupying intermediate positions in the mid-1980s. Nor is there a consistent country group story. Among the Nordic countries, Sweden and Denmark experienced a rapid rise in inequality in the early 1990s, while Finland did not. In Europe we find large secular increases in inequality in the United Kingdom, Denmark, and The Netherlands but smaller increases in Belgium, Germany, and France. Canada experienced no measurable increases in inequality of family income while the United States

experienced much larger increases, despite similar changes in earnings inequality (Card and Freeman 1993; Banting and Beach 1995). Only in Japan and Taiwan do we find similar changes in similarly situated nations over roughly the same period.

Whether the other countries will follow the trends in the United States, the United Kingdom, Australia, and Sweden is an open question. There is increased pressure from high unemployment and rising earnings inequality in most of the nations shown here (OECD 1996), and very recent signs that they are having predictable effects in some nations (e.g., The Netherlands). However, creative employment policy, tax and transfer policy, and other factors (e.g., increased labor force participation by married women) has so far prevented these market influences from affecting the distribution of disposable income in many other nations.

VI. Why Are We So Different?

We have seen that the United States has the highest overall level of income inequality among the 22 nations studied here. We have also seen that income inequality has increased in the United States and in several other nations. The question we must now address is not an easy one: why **is** the United States different?

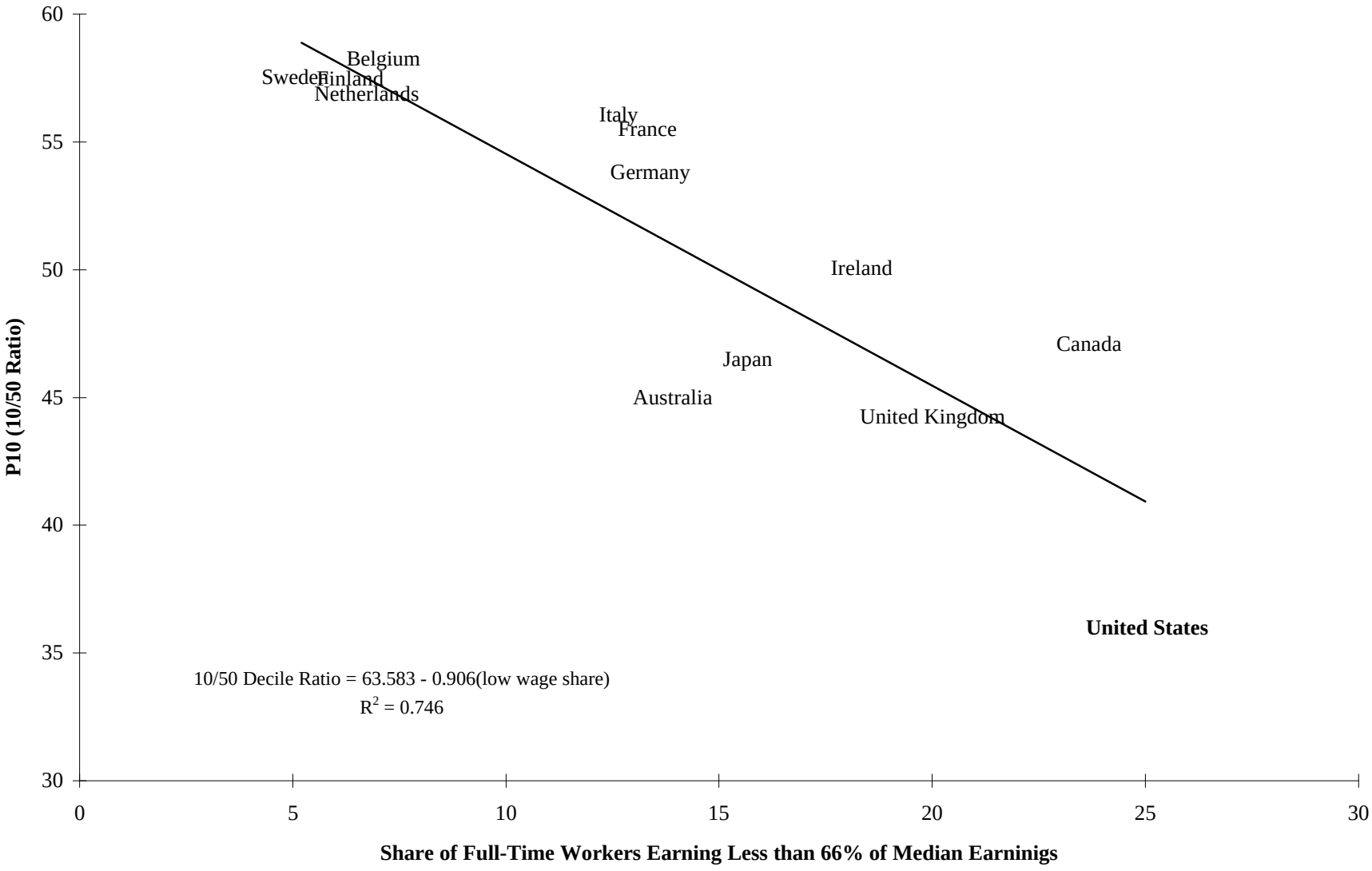
The story of why we observe these differences in levels and trends in income inequality is necessarily incomplete because of the confluence of market, demographic, institutional, and policy forces and behavioral change on the part of individuals, families, and households. The inclusion of multiple income sources received by multiple individuals thwarts attempts to identify the causal links that lead to variations across countries and over time in the distribution of total post-tax and transfer family income (Gottschalk and Smeeding 1997a; Atkinson 1996). There is ample evidence that family members take account of all sources of income available to the family in deciding not only how much

each member might work in a market setting, but also how to structure living arrangements. Moreover, governments themselves react differently to market income changes via changes in redistribution (tax and transfer) policy, and via other policies (e.g., macroeconomic policy or micro-policies such as government employment). This leads to decision making processes that are much too complex to be treated in a unified causal framework at this time.

We begin to unravel the why question by concentrating on the largest point of difference between the United States and the other nations observed here, the ratio of the incomes at the bottom of the distribution to the median, or P_{10}. Based on previous research, we believe this difference is attributable to two factors: (a) relatively low wages in the United States compared to other nations, and (b) the relative weakness of the United States income support system for families with children and for the aged at these income levels (Rainwater and Smeeding 1995; Gottschalk and Smeeding 1997a; Smeeding, Rainwater, and Torrey 1993). Rather than assess these relations based wholly on the LIS database, we compare the P_{10}'s from LIS with recent OECD data on both low wages and social expenditures (OECD 1994, 1996) to see how they are related.

Figure 4 presents a simple linear regression of P_{10} (the 10/50 ratio) from Figure 1 on the share of full time workers earning less than two-thirds median national earnings. Because earnings make up about 70 percent of all household income, we would expect that they have a strong effect on inequality. In fact, there is a strong and statistically significant relationship, low income is highly correlated with the frequency of low wage workers. But, the United States and Australia lie below the line (and Canada above it) indicating that something other than market income forces are driving the relationship in these three nations. Moreover, earlier research has shown that cross-national patterns of poverty and P_{10} are much better explained by low wages than by unemployment rates

Figure 4. P10 (10/50 Ratio) and Low Wage



Sources: OECD (1996), Smeeding (1996), and author's calculations.

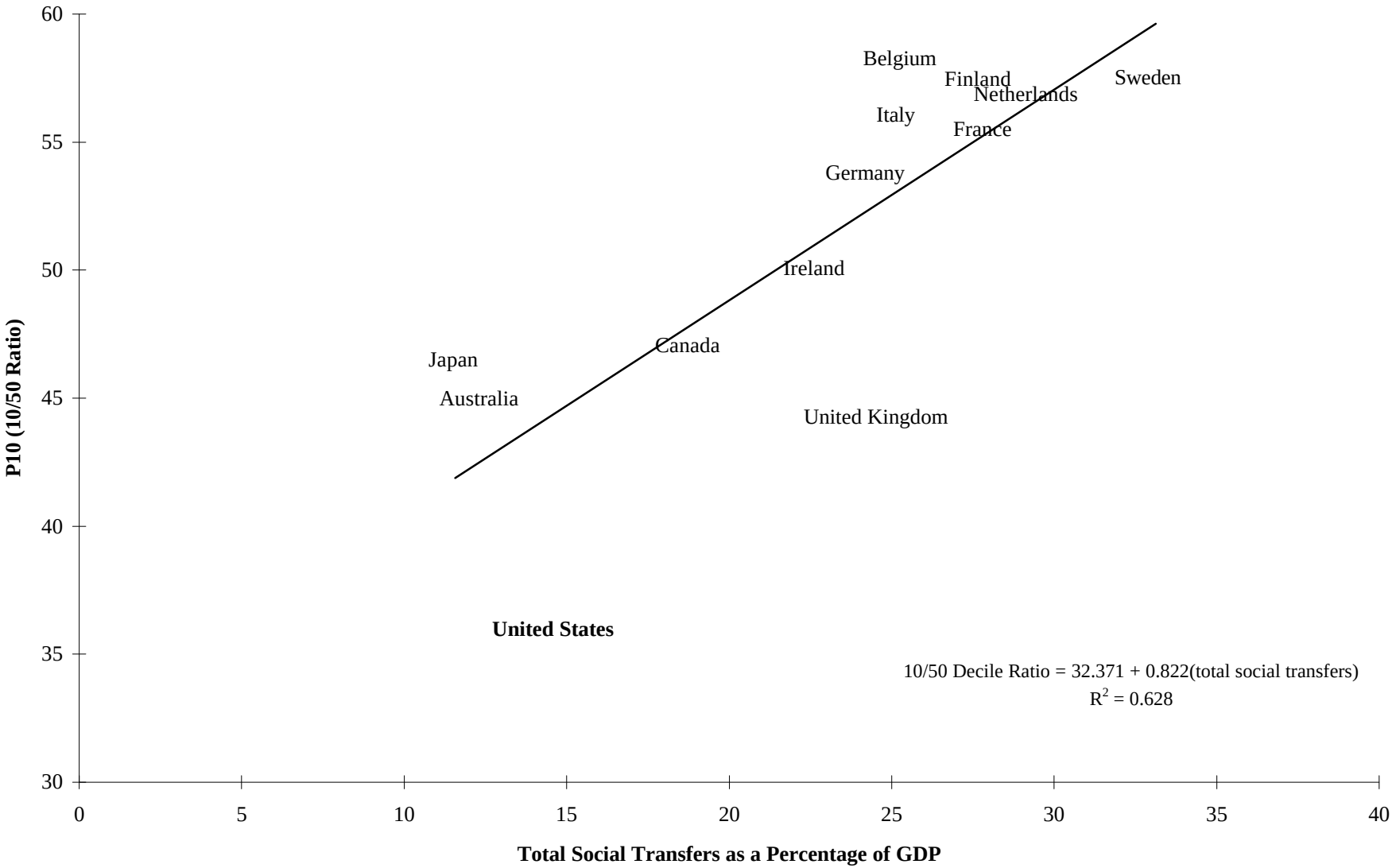
(Smeeding 1997). Hence, low wages are an important factor predicting low relative incomes across nations.

A second explanatory factor for P_{10} is the level of social spending across nations. In ever nation, the distribution of disposable income is more equal than is the distribution of market income due to government tax and transfer policy. Large percentages of otherwise low income households in the countries studied here receive half or more of their disposable incomes from government transfers (Atkinson, Rainwater, Smeeding 1995). And national income and employee payroll taxes also tend to have a progressive effect on the income distribution in these nations (Gottschalk and Smeeding 1997c). Following the same strategy, we regress P_{10} on total social expenditures as a fraction of GDP for the 13 nations for which we have consistent data on social spending (Figure 5). Again we find a strong and significant relationship with the United States again far below the line, indicating that its social transfers should be related to a higher P_{10} ratio than what we observe. I take this as a sign that United States social transfers are less well targeted on low income households than are those in other nations. The United Kingdom seems also to share this feature.

Of course, both social transfers and low wages may explain the United States P_{10} position and the regression shown in Appendix Table A-1 indicates that this is indeed the case. Both low wages and social transfers significantly affect low income status, with the coefficient on wages being larger than that on transfers. I interpret this to mean that low wages are perhaps a more important determinant of low P_{10} than are transfers. But both are significant and important determinants of income inequality at the bottom end of the distribution.

Turning briefly to explanations of trends in inequality across nations, I would argue that changes in earned income inequality appear to be the prime force behind changes in market income inequality during the 1980s in the nations studied here (Gottschalk and Smeeding 1997a). With

Figure 5. P10 (10/50 Ratio) and Total Social Transfers



Source: Smeeding (1996), OECD (1994), Gottschalk and Smeeding (1997a), and author's calculations.

earnings at or above roughly 70 percent of market income in most modern nations, this is to be expected. Other market forces (such as capital income) and nonmarket forces, both demographic and social, also affected market income inequality, though to a lesser degree. In fact, due to the relatively short period over which we are measuring the trend in inequality (1979 to 1990 or shortly thereafter) demographic factors such as growing numbers of single parents or population aging have little affect on the trends found here. Changes in labor market incomes appear to be the prime factor driving inequality trends in rich nations.

Again, market income changes may not tell the whole story. By the mid-1980s, more than 25 percent of all households in major OECD nations depended on something other than earnings as the primary source of their incomes. In nations such as the United Kingdom, The Netherlands, and Sweden, this figure reached 30 percent of income (Atkinson, Rainwater, and Smeeding 1995). The redistributive effects of government may therefore be important in explaining trends in inequality as well as the level of inequality at any point in time.

However, my reading of the evidence indicates that the trends in disposable income inequality mirror the trends in earned income inequality in most nations (Gottschalk and Smeeding 1997a). In some countries, especially Finland, but also in Canada, and Germany, government redistribution appears to have muted the trend in market income inequality, but these nations are in the minority. In most other nations, the effect of taxes paid and transfers received were largely offsetting to the changes in the distribution of pre-tax and transfer incomes. This would occur automatically in countries with progressive tax and transfer systems and the bulk of this effect is likely to be from these sources rather than from other sources.[6] Thus, the effect of taxes and transfers on the trend in inequality cannot be ignored. However, social policy via taxes and transfers seems to be much more important in explaining differences in the level of income inequality across nations than in explaining

the trend in inequality. Hence, I conclude that it is market driven forces, largely wages but perhaps also income from capital (interest, rents, dividends) that is driving the observed trend in disposable income inequality in most rich nations.

VII. What Can We Do About It?

Clearly there are features of other nations' social policy structures which would produce better outcomes for United States low income households were we to implement them. But not all such features are transferable to the United States. Moreover, United States policy solutions need to be made in the context of the federal budget situation, recent welfare reform legislation and other features of the contemporary United States policy situation. With these factors in mind, short term changes in United States policy need be inexpensive and better targeted at the populations most in need of assistance: low wage workers and at risk families with children who by and large need to exist on low wage earnings. These groups are growing rapidly, and to the extent that the recently enacted welfare reform legislation is successful, the future working poor will dominate the welfare poor even among single parent families.

The first and foremost policy innovation in the United States toolbag is the Earned Income Tax Credit (EITC). Europeans, Scandinavians, Australians, and Canadians all see the EITC as America's contribution to the social policy arena. Given a strong labor demand, the ability of the EITC to help otherwise working poor families avoid poverty is seen as a way to make work pay at the bottom of the distribution. But the EITC alone is not enough to make a large difference in labor market generated inequality, and there is limited support to further increase the generosity of this single instrument.

Additional policies need be pursued to raise the incomes of low wage working families with children. Virtually every nation other than the United States has some form of family allowance or child tax credit built into its tax transfer system. These subsidies are usually independent of parents' income levels (at least until far above the median income, e.g., Canada's system). They can be implemented through the tax code at fairly low cost. Were we to target them to working poor families alone, they could be enacted in the form of an expanded and *refundable* child care tax credit. Alternatively, children's personal income tax exemptions could be turned into children's tax credits and made refundable, again helping low income earners realize a higher net income than their earnings alone would allow. These policies, run through and by the IRS and the income tax withholding system, can be targeted at low income earners outside the welfare system. Politically this has great advantages; welfare has been reformed and there is no reason to open this stigmatizing can of worms again until we have assessed the impacts of what has been done, both positive and negative. The solution for working persons is to make work pay and the tax system is the way to do this.

Single parents and older women living alone are two additional groups which need our assistance outside of the work arena (Smeeding 1997). Single parents have but one earner (and generally one parent) to provide for their families. Modest levels of *guaranteed* child support (e.g., $2,000 for each first child and $1,000 for each additional child) could be provided in cases where absent parental support is not forthcoming due to low wages or inability to work. The single parent would have to provide a child support order and comply with other program rules (e.g., the welfare to work rules in a given state), but then they would be eligible for this stipend. And we still have a substantial elderly poverty problem for older single women, largely widows, compared to that found in other nations (Burkhauser and Smeeding 1994). The low cost solution is to provide a larger survivor benefit and a lower initial couple benefit through Social Security.

The above are all short-run policies that are relatively inexpensive and which can be accomplished within the parameters of current efforts to balance the federal budget. A more expensive long run policy strategy is to invest in workers by raising the skill levels of those from the least advantaged backgrounds. Policies here run the gamut from preschool investments, through better elementary and secondary schools, to expanded subsidies for higher education for disadvantaged students (Freeman 1997). It also includes studying the school to work transition process in Germany and other nations where employer subsidized skill based training is more successful than in the United States (Blau and Kahn 1997). While a comprehensive human capital-building policy strategy is undeniably expensive, the cost of not pursuing this agenda may be even higher (Children's Defense Fund 1996).

VIII. Summary and Conclusion

We find a wide range of levels of income inequality across the 22 nations studied here. The range of inequality among OECD nations is very large and the United States has the highest level of inequality owing in particular to the distance between its low income households and the average or median United States household. Comparisons of real income differences across countries are also instructive and can add a great deal in cases where one wishes to compare nations with similar overall levels of production and economic output (per capita GDP) to one another. Here we find that the wider degree of income inequality found in America offsets its overall wealth to such a degree that low income Americans have standard of living below those found in almost all other rich nations. Income inequality in several key rich countries has been increasing over the past 15 years. The largest percentage increases have been found in Britain followed by Sweden and Denmark. The largest absolute changes have been in the United Kingdom, Sweden, and the United States. Thus, the United

States which had the most unequal income distribution in 1979, also had the most unequal distribution in 1993 with inequality growing rapidly up through the mid-1990s.

We find that both low wages and low social spending help to explain the relative and absolute poor living standards of low income Americans. And, believing that the winners should compensate the losers, I have outlined remedies for these problems, both short and long run. Other nations (e.g., Canada) have shown that market based inequalities can be successfully addressed if there is a collective will to do so. What is lacking is not the roadmap, but rather the political leadership to sponsor progressive legislation and to see it passed into law and implemented.

Table A-1. Inequality, Low Wage Workers and Social Transfers

Country	Year	10/50 Decile Ratio	Percent Low Wage Workers	Total Social Transfers	Non-Aged Social Transfers
Australia	1989	45.0	13.8	12.2	3.3
Belgium	1992	58.2	7.2	25.4	8.6
Canada	1991	47.0	23.7	18.8	7.6
Finland	1991	57.5	5.9	27.1	13.3
France	1984	55.4	13.3	27.8	9.0
Germany	1989	53.6	13.3	24.1	7.9
Ireland	1987	50.0	18.2	22.5	10.2
Italy	1991	56.0	12.5	25.0	3.2
Japan	1992	46.4	15.7	11.6	1.8
Netherlands	1991	56.8	6.6	29.0	13.1
Sweden	1992	57.4	5.2	33.1	14.4
United Kingdom	1991	44.2	19.6	24.0	8.1
United States	1991	36.0	25.0	14.6	3.5

10/50 Ratio = 50.372 - 0.633 (low wage) + 0.416 (total social transfers)

standard error:	*(5.874)*	*(0.175)*	*(0.173)*	$R^2 = 0.839$
t-statistic:	*(8.576)*	*(-3.611)*	*(2.396)*	

10/50 Ratio = 59.535 - 0.793 (low wage) + 0.310 (non-aged social transfer)

standard error:	*(4.723)*	*(0.195)*	*(0.311)*	$R^2 = 0.769$
t-statistic:	*(12.607)*	*(-4.058)*	*(0.999)*	

Source: Decile Ratios, authors calculations from LIS database; Low Pay all but Ireland, OECD (1996, Table 3.2) Social Transfer, OECD (1994, Table 1b). Belgium social transfer data are from 1991; Canada, Japan, Sweden, and United States social transfer data are from 1990.

Endnotes

1. My recent work with Anthony Atkinson and Lee Rainwater (1995) and with Peter Gottschalk (1997a, 1997b) have helped assemble the data which underlies this essay. Also, my own recent pieces (Smeeding 1996; 1997) have provided some of the background material.

2. The gini coefficient ranges from 0, perfect equality, to 1.000, perfect inequality.

3. We use United States evidence for 1994 here because it is the year closes to the other years shown here. More recent United States evidence for 1994 indicates even more inequality. See note 3 to Figure 1.

4. Of **all** the LIS nations, only Russia has a higher decile ratio than does the United States. And even in Russia, the P_{10} is 35, not far different from the United States value of 36. In Russia, the decile ratio is 6.84 and the Gini 393 (Smeeding 1996).

5. Percentage and absolute change are both important. Percentage change may be misleading in cases such as The Netherlands or Denmark, where the base Gini is much lower than in other nations. Because we have data for different periods in different nations, we standardize by dividing by the number of years over which we measure change. The raw data which underlies these changes are presented in Gottschalk and Smeeding (1997b).

6. How much of these changes came from explicit policy changes as compared to changes in the economic behavior of households is an important question that remains to be answered.

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