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**Real Standards of Living and Public Support for  
Children: A Cross-National Comparison**

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## **Real Standards of Living and Public Support for Children: A Cross-National Comparison**

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## **Abstract**

Most cross-country comparisons of living standards focus on real Purchasing Power Parities (PPP) adjusted Gross Domestic Product (GDP) per person. These measures provide no variance in living standards within the nation, nor do they account for the amount of real incomes that families actually have to spend for themselves and their children. The Luxembourg Income Study (LIS) household microdata for 13 nations and Organization for Economic Cooperation and Development (OECD) PPP's and noncash benefit data are used to examine differences in the standard of living among children at various points in the income distribution. We include the value of noncash benefits for health care and education as well as money, and determine the value of public sector benefits compared to taxes paid for social transfers by this group. The results indicate a wide range of differences in levels of economic resources and support for children within, as well as between, nations. The levels of benefits, net of taxes paid, vary considerably across the income distribution in all countries, with noncash benefits for health and education playing a crucial role in determining which families are net beneficiaries or net taxpayers. The implications of these findings for equality of opportunity and for public policy, particularly in the United Kingdom and the United States, are drawn in conclusion.

## I. Introduction

The purpose of this paper is to summarize the economic well-being of children and the cross-national variance in their “real” standard of living. Equality of opportunity for children, and a fair chance at life’s opportunities are something that all nations aspire to provide to each and every child. The belief in economic and social mobility for youth and the chance to attain one’s aspirations are at the heart of policies affecting fertility, human development and human needs, the social exclusion or inclusion of children, and the way that we judge societies more generally. For instance, President Bush in America has recently vowed to “leave no child behind,” while Prime Minister Blair in the United Kingdom has vowed to halve child poverty in ten years. The belief that every child and youth should be provided with a decent education, basic health care, and a satisfactory standard of living permeate the United Nations Human Development Reports, the UN-UNICEF Charter on Children, and Amartya Sen’s notion that every child should be provided with capabilities to succeed in life (Sen 1992).

Still, analyses of economic and social well-being among children in most nations rest on a foundation that is inherently parochial, for they are based on the experiences of only one nation. The estimation of cross-nationally equivalent measures of living standards provides an opportunity to compare economic well-being within one nation to similarly situated persons, e.g., children, in other nations. The Luxembourg Income Study (LIS) database, which underlies this effort, contains the information needed to construct comparable levels of living for at least 12 nations. We have found that despite the United States well-known tolerance of wide economic disparities, the real living standards of America’s low-income children are troubling once they are seen in comparison with children in other nations. After Luxembourg, the United States has the highest average income in the industrialized world, but American low-income children are at a serious economic disadvantage compared to their counterparts in other nations, particularly

measured in cash income terms. We also find that low-income British children are disadvantaged relative to their counterparts in other rich nations, even given the United Kingdom GDP is 68 percent that of the United States.

This paper does not stop with cash income alone. It also adds to cash income the value of noncash benefits in the form of public support for healthcare and for education, assuming relatively equal distributions of both across income groups within each nation. On this more full income basis, we can better assess the efforts of policy to provide access to basic goods and services (purchased with cash income), education, and healthcare across a range of nations. These additions lead to modest differences in the outcomes we find when comparing nations on a cash income only basis. In conclusion, we estimate the generosity of public spending, the importance of both cash and noncash benefits in raising living standards for families with children, and find that both cash and noncash support for children varies considerably across families and nations.

The reader should note that child well-being, as it relates to equality of opportunity, is measured by the public and family resources at the disposal of children and their families. Linking these “inputs” to “outputs” such as future health status, educational attainment, and economic and social well-being, will ultimately tell us the success or failure of these efforts. But these data are not available, and even if they were, influences such as social and educational institutions, family inputs, and pure chance will ultimately determine future well-being of children. Thus, we can only measure the availability of resources to children, or lack thereof, at present, knowing that these resources are key inputs into the future well-being of children in each of these nations.

## II. Child Living Standards: Measurement and Data Issues

Differing national experiences in designing and implementing programs to achieve equality of opportunity for children and to provide them with access to basic goods and services, form a rich source of information for evaluating the effectiveness of alternative policies aimed at improving child living standards. Policymakers, in most of the industrialized countries, share common concerns about social issues affecting children, such as access to health care and education, widening wage disparities when compared to family needs, family dissolution, and child poverty. The availability of information from a number of countries makes it possible to compare the experience of one country to the experiences of others in terms of providing families with resources that can be used to support and invest in their children. This comparison can shed light on each nation's situation and help understand the successes and failures of individual national policies that attempt to achieve these goals.

We concentrate here on measuring living standards for families with children. First, there is interest in how children fare within individual nations alone. That is, how wide is the spread of incomes across families with children in various nations? How well off are families with children compared to those without? Relative measures of well-being within nations can help us answer these questions, but they are also unsatisfying, ultimately, because they cannot be fully compared across nations. That is, if one nation is richer than another, say in terms of GDP per capita, can we assume that all of this nation's children are also better off than are all of the children in other nations? How does the wider spread of incomes in some nations affect the well-being of children who live near the bottom or top of the income distribution? Finally, the question of the effect of noncash benefits on living standards and on access to basic goods, such as education and healthcare become important. Do some nations choose to provide relatively more than others in

noncash terms? How does noncash income affect the results we observe once they are added to cash incomes? These are the questions we set out to answer.

### **Comparing Real Living Standards**

Real living standards in cash terms are based on the broadest income definition that still preserves comparability across nations. The best current definition is disposable cash and nearcash income (that is, money income minus direct income and payroll taxes, and including all cash and nearcash transfers, such as food stamps and cash housing allowances, and refundable tax credits). This is the LIS definition of income which we use below, and to which we add noncash benefits.

To compare real incomes among families with children, researchers must convert national currencies and expenditures on publicly subsidized goods and services, like health care and education, into units of equal purchasing power or “purchasing power parity” (PPP) (Summers and Heston 1991; OECD 2002a). However, constructions of PPP adjusted levels of living across countries are problematic, because the results are sensitive to the quality of the microdata and to the specific set of PPP’s that are chosen. Our estimates of real income distributions are based on a single set of PPP rates, the most recent set benchmarked by the OECD for year 1996, extended back or forward to cover the period from 1992 to 1997 for which we have income microdata. We use the OECD estimates of PPP exchange rates to translate household incomes in each country into 1997 United States dollars, adjust for family size, and then compare income distributions for families with children relative to the United States median disposable income per equivalent adult. For 1997, this figure is \$28,005 per equivalent United States adult. We also use the same genre of PPP’s to measure public health and education

spending in 1997 United States dollars. Once health and education are added in, the median United States adjusted income becomes \$35,516 per person.

The PPP rates calculated by the OECD are reasonably accurate for overall aggregate national consumption, including consumption spending by governments as well as by households (Castles 1996). Thus, the PPP rates are appropriate for comparing market baskets of all final consumption, including government-provided healthcare, education, and housing. These goods are paid for in different ways in different nations, however. In some countries, health care as well as some rental housing, childcare, and education are subsidized more generously by those governments than is the case in others. Thus, disposable incomes in countries with publicly financed health and higher education systems reflect the fact that most health and education costs have already been subtracted from households' incomes (in the form of direct tax payments to the government). One implication is that in countries, where in-kind benefits are larger than average, real incomes may be understated because citizens actually face a lower, effective price level for privately purchased goods than is reflected by OECD's estimates of the PPP rate. The opposite is true for those countries whose citizens must pay larger amounts for health care and education out of their disposable incomes. Since, on average, other nations spend slightly more on overall noncash benefits than does the United States (Smeeding and Rainwater 2002, Table 1), the United States real incomes are likely to be overstated in the cash comparisons that follow. In contrast, European countries (Sweden, France, and Germany) may provide higher levels of tax-financed healthcare and education benefits, and so their real incomes are likely understated. However, the level of overall spending on noncash benefits may be different than is the child-specific level of spending, as with the particular set of child benefits specified below.

Moreover, if noncash benefits for children are more evenly spread across nations than are cash incomes, the adding of noncash income will equalize the income distribution. In order to

test this proposition, we have added the PPP adjusted value of subsidized healthcare per child and the PPP adjusted value of elementary education per child to the cash income figures from LIS, also based on OECD (2002a, 2002b) estimates. Healthcare spending for children is assumed to equal half of the government cost of healthcare per capita (or government plus employer subsidized health care in the United States). Recent cross-national research on the cost of healthcare by age groups suggests that this is the average cost of providing insurance per child in rich nations (Smeeding and Freund 2002). Education spending is estimated simply by the PPP adjusted spending per elementary and secondary school child in every country. All benefits are assumed to be valued at government cost by the recipients of these benefits and all eligible children are assumed to receive both benefits. We ignore publicly subsidized childcare, tertiary education benefits, and all other noncash benefits for youth in this paper. Still, education and health care cover the vast majority of children's noncash benefits in every nation studied.

Our measure of real living standards allows the luxury of examining incomes for children at various levels of living in society. Comparing points in the distribution allows us to compare incomes across children within nations as well as across nations, all expressed in 1997 United States PPP dollars, and all relative to the median disposable income in the United States in 1997. We use these data to compute the real income of a low-income child, the median-income child, and a high-income child in each nation. The low-income child is measured at the 10<sup>th</sup> percentile (median of the bottom quintile) while the high-income child is measured at the 90<sup>th</sup> percentile (median of the top quintile).

We further refer to the difference between children living in families with high- and low-incomes as “economic distance” in making the comparisons which follow. This distance can be measured in ratio format (e.g., the income of the 90<sup>th</sup> relative to the 10<sup>th</sup> child), in bar graph format, or with the real income distance between these points measured in PPP—adjusted dollars

per child. We like to think of the measure of economic distance as a measure of equality of opportunity within each nation. Nations with smaller economic distances (or smaller decile ratios) more “equality of opportunity” across the population of children. We also like to focus on the distance between the middle-income child and the low-income child as a measure of “fair chance.” While the measure of equality of opportunity captures the real economic distance between the high- and low-income children, nations are also vitally interested in the absolute level of resources available to the low-income child, relative to similar children in other nations. Children in nations with relatively higher real income levels for “low-income children” have given their poor children more of a “fair chance” in that nation, when compared to similar children in other nations. All of this is designed to show which nations leave their children behind, which ones give them a good start, and by how much. We then repeat these same calculations counting noncash as well as cash benefits to see how these levels of opportunity change as noncash benefits are added in.

Finally, we consider the role of the public vs. the private sector in providing benefits for children. We count not only the amount received by each child, but also the direct taxes that the family pays to the government for all social benefits—for the elderly as well as for children. We estimate tax costs by assuming that all families pay equal proportions of their taxes for social expenditures (transfers in cash and in-kind) and for exhaustive government expenditures (defense, police, environment, and other public goods) in each nation. The share of every dollar of tax paid for social expenditures, ranges from 67 cents per dollar of tax in Australia to 90 cents per dollar in Norway. The remainder is used to fund exhaustive expenditures for public goods.

## **Other Basic Measurement Choices**

For cross-national comparisons of inequality, the household is the single best unit for income aggregation. It is the only comparable income-sharing unit available for most nations. While the household is the unit used for aggregating income, the person is the unit of analysis. Household income is assumed to be equally shared among individuals within a household, including amongst children. A variety of equivalence scales have been used in cross-national comparisons, in order to make comparisons of well-being between households with differing compositions. Equivalence scales are used to adjust household income for differences in needs related to household size and other factors. After adjusting household incomes to reflect differences in household size according to the square root of household size, we compare the resulting adjusted or equivalent incomes per child. Thus, all cash incomes are measured on a per child basis. To these cash incomes, we add the value of health care and education subsidies, valued at government cost.

## **Database**

The data we use for this analysis are from the Luxembourg Income Study (LIS) database, which now contains over 100 household income data files for 28 nations covering the period 1967 to 1999 ([www.lisproject.org](http://www.lisproject.org)). In computing the trend of relative poverty, we have selected the 13 nations that are the largest and richest in the world, including Europe, Scandinavia, Canada, Australia, and the United States. We do not include nations whose reported survey incomes are drastically different from the OECD estimates of GDP per capita, to which the PPP's are normed. We also use OECD estimates of health care spending per capita and education spending per enrolled person, both in PPP adjusted 1997 dollars, taken from their *Health Expenditure* (OECD 2002a) and *Education at a Glance* (OECD 2002b) databases.

### III. Living Standards for Children in Comparative Perspective

#### Relative Well Being

We begin by comparing the distribution of incomes among children relative to those of other types of households in 13 nations (Figure 1). Children are ranked by the distance between a poor child ( $P_{10}$ ) and the median person in society ( $P_{50}$ ). Begin by noticing, in the last column, that households with children are less well off than are other households (with adults only) in most rich countries. In Scandinavia and Denmark, children are on average slightly better off than are households with only adults, but in the United Kingdom and the United States, families with children have less than 90 cents on the dollar compared to households without children. In these nations children begin with less, on average, than do childless units.

The major interest in Figure 1, however, is not in averages, but in the economic distance between rich and low-income children (economic distance and equality of opportunity), and the distance from the median-child to a typical low-income children (fair chance). The range across countries in these measures is very wide. For instance, economic distance (decile ratios) vary from about 2.0 in Sweden to 5.15 in the United States, with only the United Kingdom also having a ratio above 4.0, and with Canada (3.55) and Australia (3.44) being the next closest. Thus, Anglo-Saxon nations seem to have the least to recommend in terms of equality of opportunity and the most social distance between rich and poor children (see also Battle and Mendelson 2001, on Anglo-Saxon child benefits). All other nations are at or below the average of 3.11.

While nations differ in the extent to which children are rich, the most important differences are among poor children. The United States has by far the largest difference between poor children and the average or median child. While a child at the 10<sup>th</sup> percentile in the United

States has 35 percent of the income of the median child, the average is 55 percent. Only the American, British, Canadian, and Australian low-income children are living with incomes below 50 percent of the median child. Switzerland has the richest of the rich children in terms of the P<sub>90</sub> measure that is 181 percent of the Swiss median, but it also has a P<sub>50</sub> that is above average at 56 percent.

### **Real Levels Of Living for Children**

Although most would argue that economic well-being (at least in developed countries) is most crucially a function of the individual's relative position in the national distribution of income, real levels of living are also important in comparing living standards and well-being across nations. Here, the United States is by far the richest nation being observed in Figure 1. Despite the fact that its children are relatively worse off (Figure 1), could these children be so rich—even the poor ones—that they are better off in PPP adjusted dollars, than are the children, poor and otherwise, in the other countries? In fact, interest in real income for children goes beyond the situation of poor children alone. In comparative studies one also wants to know about the real standard of living of average and well-off children as well, in order to assess equality of opportunity and the dollar distance from top to bottom. These measures can be also understood as measures of the types of life chances that high versus low-income parents can provide for their children. Figures 2 through 5, therefore, address the issue of real incomes for children—both cash and noncash.

First of all, Figure 2 is constructed by ranking the population of children from poorest to richest, then taking the child at the 10<sup>th</sup> and then 90<sup>th</sup> percentiles and using PPP's to convert these incomes into United States dollars. All amounts are therefore expressed as a fraction of the 1997 United States overall median adjusted disposable income (\$28,005). On average, children's real incomes at the 10<sup>th</sup> percentile are 43 percent of the median, while the 90<sup>th</sup> percentile child lives in

family with an income of 132 percent of the median, producing a decile ratio of 3.11, the same as in Figure 1. Note that the richest to poorest ratios are the same in Figures 1 and 2, as both the rich and poor child's income is adjusted by the same PPP. However, since these nations are not as rich as the United States in PPP terms, both the  $P_{10}$  and  $P_{90}$  are lower—as a fraction of the higher United States median income. The real income gap or “economic distance” between low- and high-income children can now be measured in constant PPP adjusted dollars, and averages almost \$25,000 per child.

Looking first at the measure of “fair chance,” the nations with the highest  $P_{10}$  offer their children the best economic chance for future success. We agree with Mayer (1997) and others that income alone is a poor proxy for life chances for middle-class households with children. Another \$100 or \$1,000 per child for middle-income or well-to-do families makes little difference to their children's overall life chances compared to other influences (such as parents, schools, communities, and peers). But we also agree with Duncan et al. (1998) that a child being born into a family with very low income (roughly a  $P_{10}$  of 31 to 37 percent of the median) significantly decreases that child's overall life chances. Thus, we believe that the  $P_{10}$  for children—especially in real income terms—is a meaningful and important indicator of a fair life chance.

On this basis, only a child in the United Kingdom has a less fair chance, at 31 percent of the median real income, than does a child in the United States, at 35 percent of the median. Australian children are at roughly the same level of living as the American children, while the next nearest is the unified Germany at 40 percent, and then Netherlands at 42. All other nations have children's living standards that are above the average standard of 43 percent, which is 8 percentage points above the United States level. The extent of inequality among American children and their families does not offset the overall richness of the nation.

At the other end of the scale, American children in prosperous American households at the 90<sup>th</sup> percentile, have living standards 180 percent above the median United States person. Swiss children are also relatively much better off (at 165 percent of the median) than the average. The average incomes of the best off children are 131 percent of the median, while United States children are 49 percentage points above this level. No nation, save these two has a P90 above 137 percent of the US median. And, in Sweden, the high-income child actually has a living standard (measured by cash and nearcash income) just below that of the average American child.

We, again, interpret the economic distance measure as a measure of equality of opportunity. Nations with smaller economic distances (or lower real-income gaps) between rich and poor children, provide more equal chances for both their high- and low-income children. The rich, American child has 5.11 times as much income at her (or his) disposal as does the typical poor child, as in Figure 1. But now we can also see that the real income gap or economic distance between rich and poor children in the United States is \$40,327 per child, by far the largest one observed. Switzerland and Canada are the only others above the \$30,000 level, and with the other nations near or below the \$24,081 average difference. The above-average gaps between poor and rich children in these two nations must be seen, however, in light of the fact that both have above average P<sub>10</sub> ratios as well. The real income gap of \$40,327 in the United States means that low-income families have resources of about \$9,800 per child, assuming all resources are evenly split among household members. In contrast, high-income families have over \$50,100 to spend on each child.

### **Effect of Noncash Benefits**

How does the story change when one adds in the value of noncash incomes? First, we see (Table 1) that noncash benefits are on average higher than are cash benefits at the median. The

table also suggests that both cash and noncash benefits vary substantially by country when observed at the median. Only in Sweden, Finland, France, and the United Kingdom are cash benefits greater than noncash benefits for the median child. Health care benefits are smaller than education benefits everywhere. Spending on cash and noncash differ markedly across nations. For instance, the United States spends the least on cash benefits, but second most on noncash benefits. Only the Norwegians spend more for noncash benefits than does the United States. In fact, many nations spend far below the average amount on noncash benefits, and most spend far less than the United States. When the two are added together, the United States is close to the average of total benefits for all the nations combined. Measured by total benefits, Australia, Netherlands, and Germany look to be making the least effort, with their education spending being particularly low by international standards.

The effect these benefits have on the overall distribution of resources across families with children is seen in Figure 3. The first effect is to lessen the relative distance between the rich and poor child in every nation. Because health and education benefits are assumed to be the same regardless of income level, the effect is greater on low-income children than on high-income ones. Thus, the  $P_{10}$ 's rise on average by 6 points, or 14 percent, to 49 percent of the median. The  $P_{90}$ 's change by 12 points, or only 10 percent, to 131 percent of the median. The overall ratio of rich to poor falls from 3.11 based on cash alone (Figure 2) to 2.47, when noncash benefits are also taken into account (Figure 3). The dollar distances remain about equal, however as both rich and poor children are assumed to receive more or less equal benefits.

In low-cash income nations, like the United States, noncash benefits raise the fair chance measures pushing the  $P_{10}$  to 46 percent of the median—still below average, but now putting poor American children on a par with French children and above German, Australian, and Dutch children. Rich American children are still far above the median, but the decile ratio is now 3.51

and not 5.11 in the United States. In Norway, Denmark, and Sweden, the ratio of rich to poor is under 2.0. Clearly, noncash benefits have a leavening effect on the differences between rich and poor nations and therefore, highly important child well-being in low income families.

This result is particularly sensitive to the assumption that noncash benefits are the same value for rich and poor children. If instead, school spending (relative to children's needs) is lower for low-income children compared high-income ones, the result might be somewhat different. Card and Payne (1998), Wilson (2000), and Duncombe and Yinger (1997) find that public school spending in the United States may differ by up to 50 percent between rich and poor districts. If poor children, therefore, received education benefits not of \$5960, but rather \$4000, while rich children received \$7500 in benefits, the  $P_{10}$  and  $P_{90}$  ratios in the United States would be 41 and 165, respectively, in Figure 3, and the results would be much the same as if only cash benefits were counted. We know that healthcare benefits are different, since the Medicaid program which supports low income children in the United States is very different, in terms of outlays per child, than are employer subsidized programs for the middle class and well to do , but these differences are reflected in the estimates (see also Table A-1). The estimates do not reflect, however, that about 12 percent of United States children have no health insurance coverage at all (U.S. Census Bureau 2002). It seems that the within country distributions of noncash benefits are also important therefore, perhaps not only in the United States but in other countries as well.

### **For Every Dollar...**

An easier way to fully grasp the differences across nations is to compare children at high- and low-income levels directly. Figure 4 presents the "supra-chance" or the average standard of living for the high-income American child compared to the high-income child in 12 other nations. Because noncash benefits tend to be a smaller fraction of a rich person's income than of

a poor persons income, the differences between the cash and noncash figures are fairly small. For every dollar the average high-income American child has at his or her disposal, all other nations rich children have far less. Only Swiss and Canadian children are nearby, with 92 and 87 cents per dollar, respectively, when only cash is considered, and somewhat less when we include the average value of noncash benefits. All other rich children have less in spendable income by a wide margin. Parents of rich children in Sweden have resources less than 55-57 cents on the dollar, compared to a well-to-do child in the United States. American high-income children are truly advantaged by this measure of living standards. Smaller family sizes, higher earnings for married women with children, and assortive mating all help raise the standard of living among high-income United States children (Gottschalk and Smeeding 1997, 2000). The United States is likely the best place to be born a rich child, even when we consider a relatively even distribution of noncash benefits, one which likely understates the advantages of rich American children in terms of the quality of their health care and their educational opportunities.

What about a low-income child in the richest nations on earth? When we consider cash incomes only, Figure 5 should come as something of a surprise to those who believe the richness of the United States out weighs its greater inequality for families with children. For every dollar of cash income available to a low-income American child, the low-income children in *every* nation but one (the United Kingdom) are better off in real income terms. Swiss, Norwegian, Danish, and Swedish children are 37 to 57 percent better off, while other European low-income children (Belgium, France, and the Netherlands) are at least 20 percent better off. Even Australian children have a 3 percent higher living standard than do American children in real spendable dollar terms.

Once noncash benefits are added in, with the equal value to all assumption, the story changes somewhat. The differences between United States and other rich nations' low-income

children are narrower. Now British, Australian, German, and Dutch children are worse off, mainly because of their relatively low spending on education and health benefits. To be born to a low-income family in the United States is not as advantageous as to be similarly situated in other rich nations, but the differences are narrowed as long as education and health benefits are relatively equally distributed. Were they to have the distribution implied by the studies cited above, with all other nations staying the same, only British children would be worse off.

Clearly, the high overall living standards in the United States must be balanced by the fact that these advantages do not translate directly to low-income children. Race, ethnicity, and single parenthood play roles in explaining these differences, but low parental wages and lack of social income support are the two most important factors that explain this result as we now observe (Smeeding, Rainwater, and Burtless 2001). Moreover, British low-income children are at a considerable disadvantage whether measured in cash terms, and especially when noncash benefits are included.

#### **IV. The Importance of Public Support for Children**

Inequality is much higher in the United States than in other countries with similar (but indeed, lower) average incomes. American inequality differs noticeably from that in other rich countries, primarily because of differences in relative income levels in the lower tail of the American income distribution. As we have observed, an American child at the 10<sup>th</sup> percentile of the United States income distribution has an adjusted disposable income that is just 35 percent of United States median income, and between 41 and 46 percent of the median, depending on how noncash benefits are counted.

This does not mean, however, that government efforts on behalf of low-income children are not important. Indeed it means just the opposite. Table 2 represents the percentage of net public benefits—cash and total (cash plus noncash) benefits received, net of direct taxes paid for social programs—at the various percentile points of the income distributions in each nation. (Table A-1 contains the details from which these ratios were calculated). On average, more than half (52.9 percent) of the total disposable incomes of low-income families with children come from public cash transfers—up to 67.3 percent once noncash benefits are included. The fraction of total incomes that are public benefits varies more with earnings in the bottom of the income distribution than anywhere else. Countries with relatively low-income children and families with little earnings, like the United Kingdom and Australia, find that public benefits are 80 or 90 percent of total incomes at the bottom of the distribution. Countries where low-income families work—even high tax-high benefit nations like Denmark and Sweden—find that public cash benefits are one-quarter or less of total cash incomes. Counting noncash benefits, as well, raises the fraction of income that is publicly supported in every nation to at least 50 percent, including both Denmark and Sweden. The variation in benefits at the bottom is also related to two other factors—the wage level and the generosity of benefits. For instance, low-income parents work more in the United States than in most other nations, but the wages they earn are much lower (Smeeding 2002; Smeeding, Rainwater, and Burtless 2001). Also, public benefits in cash are less generous in the United States, Australia, and the United Kingdom than in other nations, thus limiting the effects of transfers on low-incomes (Smeeding 2002).

The fact remains that public benefits make up more than half of total resources for low-income children in every country shown, once noncash benefits are included. The effects on other income levels are less severe, and are even negative (meaning taxes paid exceed benefits received) in many. At the median, low-income families pay almost as much in taxes for social

programs as they receive back in cash benefits, with all families with children, save Britain, Sweden, and France, coming out net taxpayers. But when noncash benefits are included, children in all countries except Germany and the Netherlands are net beneficiaries from the tax-benefit process. Thus, noncash benefits for children may be important elements of the calculus of support for social programs among families with children in these rich nations.

Finally, well-to-do families with children are net taxpayers everywhere but France. The deficit is very large—rich parents pay over 25 percent more in incomes for direct taxes than is received in benefits for the average rich family. Once noncash benefits are counted, families on average almost break even—though the balance is still in deficit for almost all nations.

In fact, public support for both cash and noncash benefits may be strongly affected by the income position of families. Those with high incomes, who can find better private substitutes for their spending, are liable to opt out of public schemes or at least to underfund them. Noncash benefits clearly play a large and equalizing role for most families, but in systems where private health insurance or private schooling is attractive to high-income units, we might expect to see less support for public benefits (Smeeding, Osberg, Schwabish, and Lethbridge 2002).

## **V. Discussion and Conclusion**

This paper has tried to broaden the economic concept of a child's "standard-of-living" by comparing rich children to poor children within and across a range of rich nations. Relative differences in living standards vary most widely, but do not allow for full comparisons across countries. When the cash incomes of families with children—both rich and poor—are translated into "real" PPP-adjusted incomes, we find that rankings of countries and living standards for children can still be quite different depending on where in the income distribution one focuses. Clearly, the United States, the nation with the highest real GDP per capita among the nations

observed here, and the highest real disposable equivalent income per person, is also the most unequal. This inequality manifests itself in terms of both relatively and absolutely lower living standards for children at the bottom of the United States income distribution, and exactly the opposite for rich American children.

When noncash benefits are factored in, albeit roughly, the picture is modified somewhat. But the results depend crucially on the assumed levels of benefits from public education for rich and poor. If they are equally distributed, then noncash benefits can become a great equalizer. If they are more unequally dispersed, the results are much the same whether only cash income or also noncash benefits are included. Of course, a more full comparison would have included various types of public subsidies for schooling (including tertiary education) and for preschool as well; they would have taken account of the variance within nations and of other factors, e.g., the tax contributions of households who do not have children under age 18 (e.g., see Bainbridge and Garfinkel 2000). Such an exercise is however beyond the scope of this paper.

Public benefits for low-income children are still very important, particularly to poor children, and even more so in low-wage nations and in nations where low-income parents do not work very much. Not all of the poor can be expected to “earn” their way out of poverty, or to be able to afford to pay for their childrens’ education and healthcare. Single parents with young children, disabled parents, and the unskilled, will all face significant challenges earning a comfortable income, no matter how low the unemployment rate falls. Thus, access to health, education, food, and housing for low-income children depend greatly on the generosity of the public sector in all of these nations.

### **Lesson From and For the United Kingdom and the United States**

The international comparisons in this paper contain important lessons for understanding the low living standards in poor children in many countries, especially in the United States and in

the United Kingdom. A partial solution to the low-income problem, that is consistent with Anglo-Saxon values, lies in creating an income package that mixes work and benefits so that unskilled and semi-skilled workers, including single parents, can support their families above a low-income level. In the United States, such a package could include more generous earnings supplements under the EITC, combined with refundable child and day care tax credits (e.g., Sawicky and Cherry 2001). In the United Kingdom, better family tax benefits and lower benefit reduction rates on council housing would improve living standards. For both, better childcare subsidies, and the public guarantee of assured child support for single parents with an absent partner who cannot or will not provide income to their children, would be helpful. If both nations are to be successful in increasing the life chances of poor children, they will need to do a better job of combining work and benefits targeted to low-wage workers in low-income families (e.g., Ellwood 2000; Danziger, Heflin, and Corcoran 2000).

And the recent cross-national evidence is show that these policies can, in fact, be successfully enacted. The United Kingdom children had the lowest real living standards of any of the children observed here in the mid 1990s (Figures 2 and 3). But they also have a Prime Minister who has set a national goal of improving living standards and halving child poverty in Britain over the 1997-2007 decade, and who has matched his political rhetoric with some large measure of real fiscal effort that has already had an impact (Bradshaw 2001; Walker and Wiseman 2001; Micklewright 2001; HBAI 2002). Hills (2002) estimates that the Blair government increased annual spending on families with children by .9 percent of GDP from 1997 to 2002, lowering absolute child poverty from three to five percentage points and removing 1.0 million British children from poverty. If these translate into three to five point gains for the child at the P<sub>10</sub> level, the real well being of British children is now at or above that of United States children.

In contrast, the United States is led by a President whose slogan “leave no child behind” seems rather hollow when measured against the reality shown here. As we have seen, the gap between American rich and poor children is already the highest observed whether measure in cash or cash and noncash terms. If we judge a nation by how well they treat their children, the United States does not measure up well at all. In order to meet the goal of improving the living standards of poor American children and their social mobility, the United States needs to make this goal a top priority for its political and economic agenda. The realization of this goal will contribute to the integrity of their democratic values and enrich the cultural and economic fabric of their society. As the British have clearly shown, the question is not one of affordability, but rather one of priority.

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**Table 1. Non-cash Benefits at the 50th Percentile:  
1997 U.S. PPP dollars**

<b>Country</b>	<b>Cash Transfers<sup>1</sup></b>	<b>(I<sup>4</sup>)</b>	<b>Health<sup>2</sup></b>	<b>(I<sup>4</sup>)</b>	<b>Education<sup>3</sup></b>	<b>(I<sup>4</sup>)</b>	<b>Total Noncash</b>	<b>(I<sup>4</sup>)</b>	<b>Total Benefits Cash + Noncash</b>	<b>(I<sup>4</sup>)</b>
Australia	2,175	(102)	567	(37)	3,530	(59)	4,097	(55)	6,272	(65)
Canada	2,678	(126)	720	(46)	4,500	(75)	5,220	(69)	7,898	(82)
Denmark	5,558	(261)	645	(42)	6,083	(102)	6,728	(90)	12,286	(127)
Finland	6,041	(283)	512	(33)	4,369	(73)	4,881	(65)	10,922	(113)
France	5,716	(268)	735	(47)	3,436	(58)	4,171	(56)	9,887	(103)
Germany	2,191	(103)	769	(50)	3,183	(53)	3,952	(53)	6,143	(64)
Netherlands	3,350	(157)	641	(41)	3,013	(51)	3,654	(49)	7,004	(73)
Norway	3,902	(183)	749	(48)	7,690	(129)	8,439	(112)	12,341	(128)
Sweden	8,925	(418)	663	(43)	5,194	(87)	5,857	(78)	14,782	(153)
United Kingdom	4,408	(207)	521	(34)	3,017	(51)	3,538	(47)	7,946	(82)
United States	2,133	(100)	1,550	(100)	5,961	(100)	7,511	(100)	9,644	(100)
<b>Simple Average</b>	<b>4,280</b>		<b>734</b>		<b>4,543</b>		<b>5,277</b>		<b>9,557</b>	

Source: Smeeding, Osberg, Schwabish, Lethbridge (2002), Fig. 2; authors' calculations of the Luxembourg Income Study.

Notes: <sup>1</sup>Median cash benefits per child taken from LIS and expressed in 1997 PPP adjusted dollars.

<sup>2</sup>Average Public health expenditures per child from OECD in 1997 PPP adjusted dollars, with adjustments for employer provided benefits in the United States (OECD 2002a).

<sup>3</sup>Average Public elementary school expenditures per enrollee in 1997 PPP adjusted dollars (OECD 2002b).

<sup>4</sup>Index with US=100.

**Table 2. Government Support for Children:  
Net Cash (and Non-cash) Transfers (Benefits minus Taxes)  
as a Percent of Adjusted Income by Percentile Point<sup>1</sup>**

Country	Year	P10		P50		P90	
		Cash	(noncash)	Cash	(noncash)	Cash	Non-cash
Australia	1994	82.8	(88.3)	-14.7	(9.3)	-31.2	(-8.1)
Canada	1997	64.0	(73.6)	-20.5	(5.7)	-24.6	(-4.8)
Denmark	1992	22.6	(45.4)	-26.1	(2.7)	-37.3	(-9.0)
Finland	1994	62.0	(72.2)	-4.4	(13.3)	-23.4	(-5.4)
France	1994	47.2	(60.6)	21.2	(33.1)	2.5	(13.0)
Germany	1994	38.1	(55.4)	-27.0	(-4.3)	-34.1	(-15.4)
Netherlands	1994	43.0	(60.6)	-23.2	(-2.1)	-42.2	(-18.0)
Norway	1995	44.6	(63.8)	-15.0	(11.3)	-23.4	(-0.3)
Sweden	1995	26.0	(50.7)	1.6	(25.0)	-27.6	(-1.2)
United Kingdom	1995	92.5	(94.4)	4.8	(19.9)	-34.7	(-15.8)
United States	1997	58.4	(74.7)	-10.3	(16.3)	-27.6	(-4.9)
<b>Average</b>		<b>52.9</b>	<b>(67.3)</b>	<b>-10.3</b>	<b>(15.2)</b>	<b>-27.6</b>	<b>(-3.7)</b>

Source: Table A-1 and Figure 3.

Note: <sup>1</sup>Cash transfers and cash transfers plus education benefits at each level of income, net of direct taxes paid for social programs. See text for details.

**Table A-1. Personal (Market Income) and Government Support for Children by Percentile<sup>1</sup>**  
Amount for Children at the P. Point in 1997 U.S. Dollars, PPP adjusted

**A. P10**

Country	Year	MI	Cash	Taxes	Non-cash Benefits		Total		Net
		(earnings) (I <sup>2</sup> )	Transfers (I <sup>2</sup> )		Health	Education	(I <sup>2</sup> )	Transfers <sup>3</sup> (I <sup>2</sup> )	
Australia	1994	1,729 (42)	8,551 (144)	135	567	3,530	4,097 (62)	12,513 (102)	
Canada	1997	4,434 (109)	8,036 (135)	349	720	4,500	5,220 (79)	12,907 (105)	
Denmark	1992	10,401 (255)	7,081 (119)	4,655	645	6,083	6,728 (102)	9,154 (75)	
Finland	1994	4,894 (120)	9,795 (165)	1,849	512	4,369	4,881 (74)	12,827 (105)	
France	1994	6,511 (160)	5,866 (99)	43	735	3,436	4,171 (63)	9,994 (81)	
Germany	1994	6,938 (170)	5,650 (95)	1,207	769	3,183	3,952 (60)	8,395 (68)	
Netherlands	1994	6,699 (164)	8,453 (142)	2,763	641	3,013	3,654 (55)	9,344 (76)	
Norway	1995	8,334 (205)	8,467 (142)	1,684	749	7,690	8,439 (128)	15,222 (124)	
Sweden	1995	9,944 (244)	7,417 (125)	3,481	663	5,194	5,857 (89)	9,793 (80)	
United Kingdom	1995	648 (16)	8,087 (136)	86	521	3,017	3,538 (53)	11,538 (94)	
United States	1997	4,074 (100)	5,954 (100)	305	655	5,961	6,616 (100)	12,265 (100)	
<b>Average</b>		<b>5,873</b>	<b>7,578</b>	<b>1,505</b>	<b>652</b>	<b>4,543</b>	<b>5,196</b>	<b>11,268</b>	

**B. P50**

Country	Year	MI	Cash	Taxes	Non-cash Benefits		Total		Net
		(earnings) (I <sup>2</sup> )	Transfers (I <sup>2</sup> )		Health	Education	(I <sup>2</sup> )	Transfers <sup>3</sup> (I <sup>2</sup> )	
Australia	1994	26,331 (85)	2,175 (102)	3,752	567	3,530	4,097 (55)	2,520 (43)	
Canada	1997	34,430 (111)	2,678 (126)	5,964	720	4,500	5,220 (69)	1,934 (33)	
Denmark	1992	33,548 (109)	5,558 (261)	11,386	645	6,083	6,728 (90)	900 (16)	
Finland	1994	23,970 (78)	6,041 (283)	7,210	512	4,369	4,881 (65)	3,712 (64)	
France	1994	19,191 (62)	5,716 (268)	440	735	3,436	4,171 (56)	9,447 (163)	
Germany	1994	29,169 (94)	2,191 (103)	7,312	769	3,183	3,952 (53)	-1,169 (-20)	
Netherlands	1994	28,293 (92)	3,350 (157)	7,552	641	3,013	3,654 (49)	-540 (-9)	
Norway	1995	33,078 (107)	3,902 (183)	8,262	749	7,690	8,439 (112)	4,078 (70)	
Sweden	1995	22,332 (72)	8,925 (418)	7,645	663	5,194	5,857 (78)	7,136 (123)	
United Kingdom	1995	19,059 (62)	4,408 (207)	3,274	521	3,017	3,538 (47)	9,672 (167)	
United States	1997	30,900 (100)	2,133 (100)	3,841	1,550	5,961	7,511 (100)	5,803 (100)	
<b>Average</b>		<b>27,300</b>	<b>4,280</b>	<b>6,058</b>	<b>734</b>	<b>4,543</b>	<b>5,277</b>	<b>3,954</b>	

**C. P90**

Country	Year	MI	Cash	Taxes	Non-cash Benefits		Total		Net
		(earnings) (I <sup>2</sup> )	Transfers (I <sup>2</sup> )		Health	Education	(I <sup>2</sup> )	Transfers <sup>3</sup> (I <sup>2</sup> )	
Australia	1994	45,567 (71)	571 (32)	7,821	567	3,530	4,097 (53)	-3,154 (107)	
Canada	1997	54,449 (85)	2,116 (120)	9,701	720	4,500	5,220 (68)	-2,365 (80)	
Denmark	1992	43,827 (68)	5,101 (290)	15,294	645	6,083	6,728 (88)	-3,465 (118)	
Finland	1994	47,017 (73)	7,348 (418)	14,530	512	4,369	4,881 (64)	-2,301 (78)	
France	1994	37,417 (58)	2,935 (167)	1,575	735	3,436	4,171 (54)	5,531 (-188)	
Germany	1994	45,436 (71)	2,283 (130)	12,048	769	3,183	3,952 (52)	-5,812 (198)	
Netherlands	1994	43,798 (68)	3,238 (184)	13,093	641	3,013	3,654 (48)	-6,201 (211)	
Norway	1995	44,965 (70)	3,939 (224)	12,490	749	7,690	8,439 (110)	-112 (4)	
Sweden	1995	34,671 (54)	5,163 (294)	11,406	663	5,194	5,857 (76)	-386 (13)	
United Kingdom	1995	47,903 (75)	1,580 (90)	11,283	521	3,017	3,538 (46)	-6,166 (210)	
United States	1997	63,982 (100)	1,759 (100)	12,362	1,700	5,961	7,661 (100)	-2,942 (100)	
<b>Average</b>		<b>46,276</b>	<b>3,276</b>	<b>11,055</b>	<b>747</b>	<b>4,543</b>	<b>5,291</b>	<b>(2,488)</b>	

Notes:

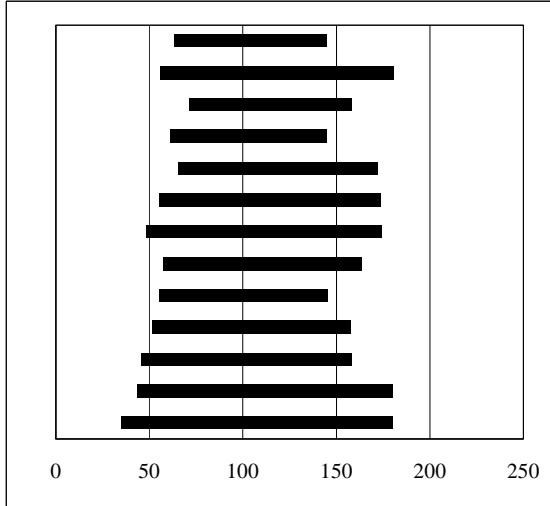
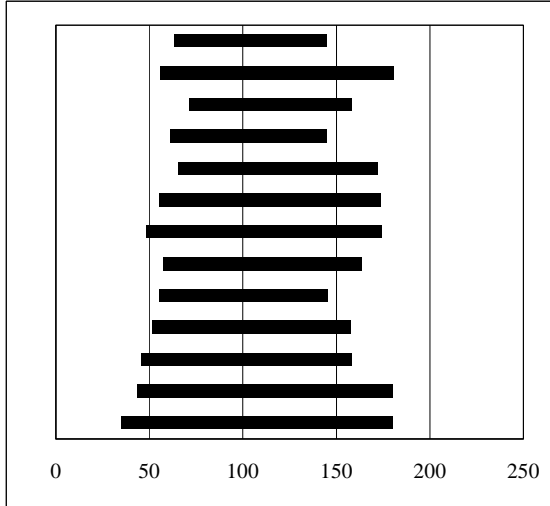
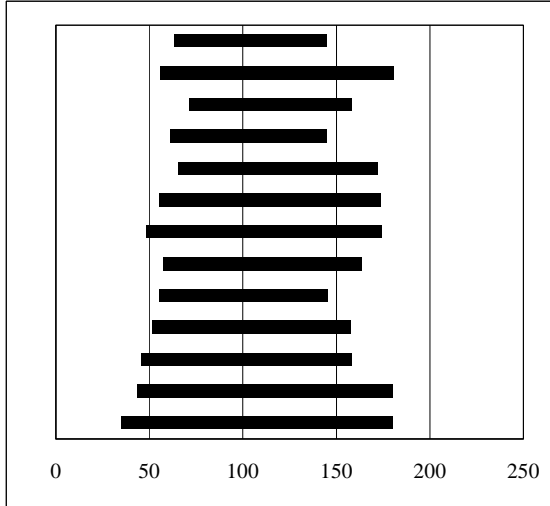
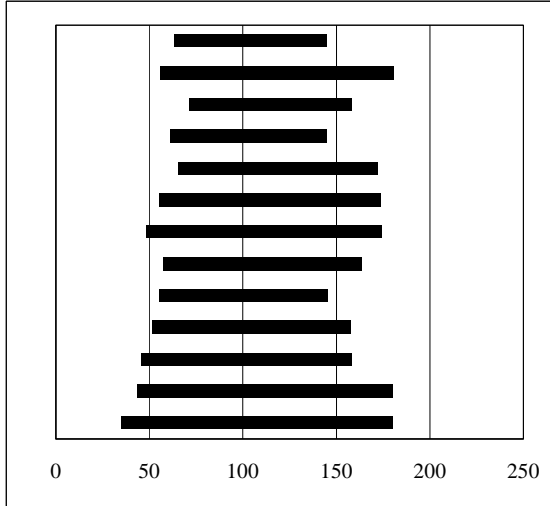
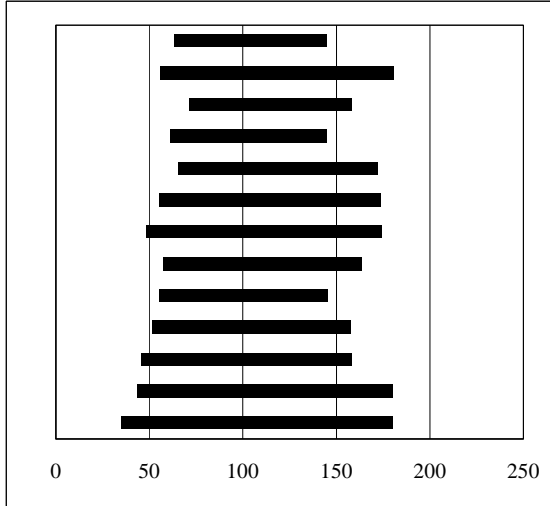
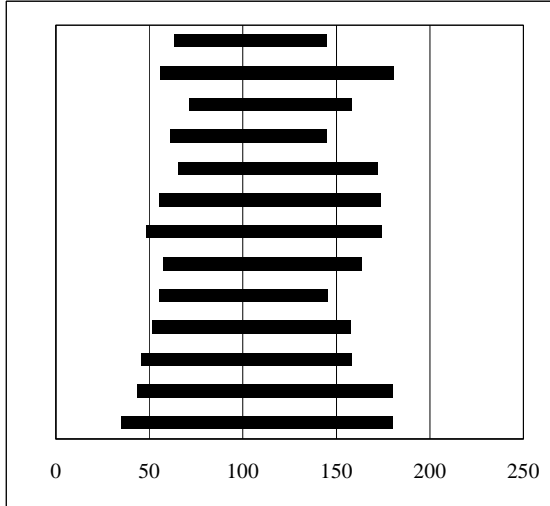
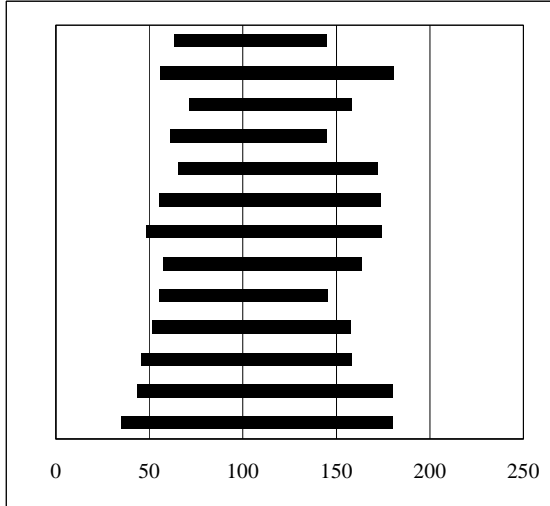
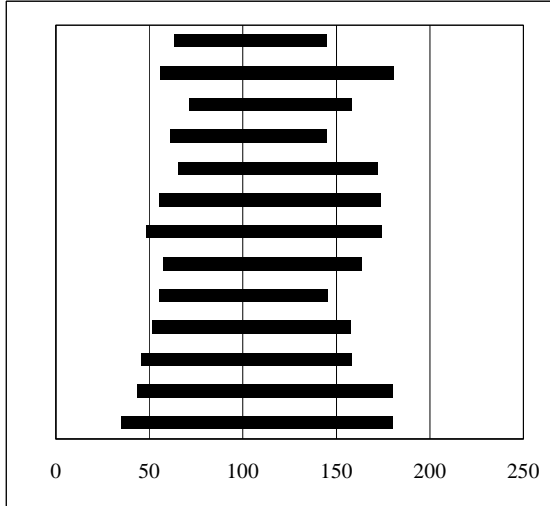
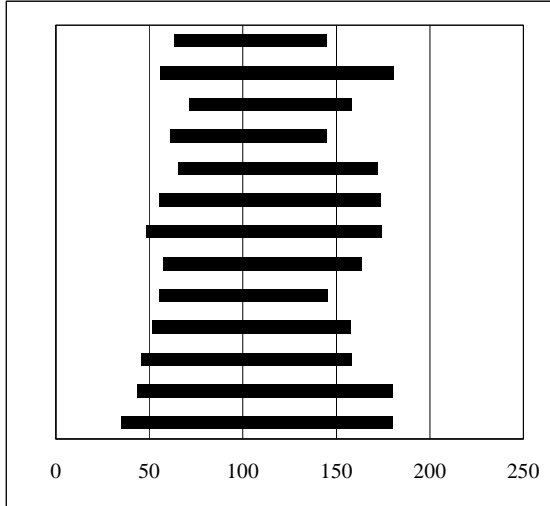
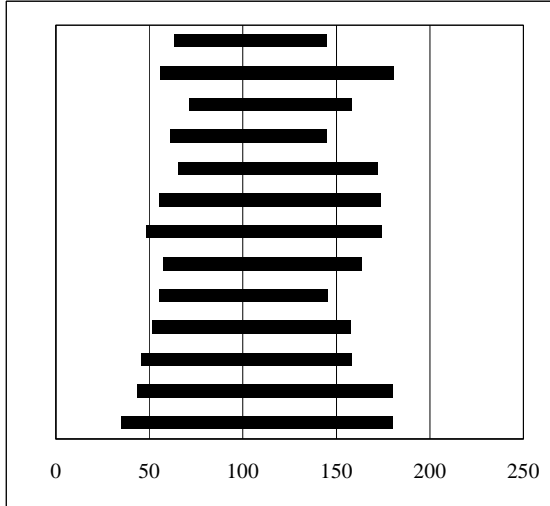
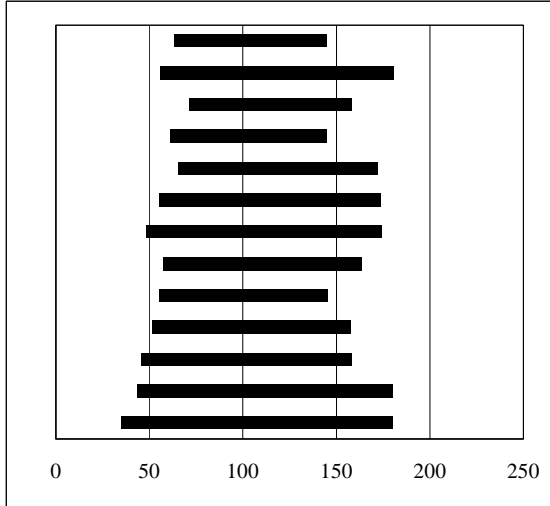
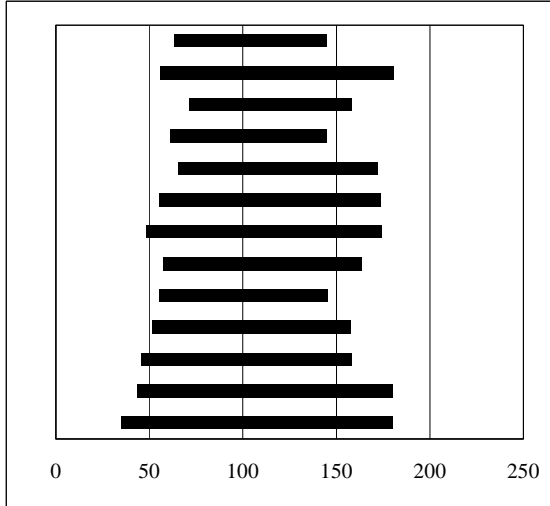
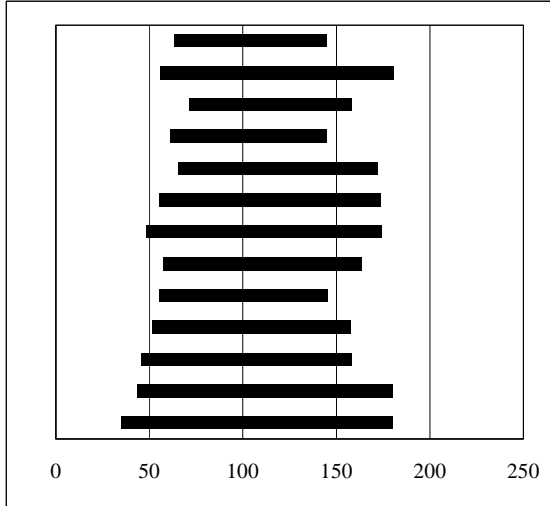
<sup>1</sup> Countries with only after-tax earnings (Belgium and Switzerland) not included.

<sup>2</sup> (I) = index with USA = 100.

<sup>3</sup> Net Transfers = Cash Transfers minus Taxes plus Total Non-cash Transfers.

Source: Smeeding, Osberg, Schwabish, Lethbridge (2002), Fig. 2; authors' calculations of the Luxembourg Income Study; OECD (2002, 2002a) for health and education benefits (in 1997 PPP adjusted dollars), plus adjustment for employer provided by health insu

**Figure 1. Relative Economic Well-being of Children in 13 Countries<sup>1</sup>**  
 (Numbers given are percent of own national median equivalent income)

	<u>Fair Chance</u>	<u>Economic Distance</u>		<u>Equal Opportunity</u>	
	P10/P50 (Low Income)	Length of bars represents the relative gap between high and low income individuals	P90/P50 (High Income)	P90/P10 (Decile Ratio)	Child Median Income as Percent of National Median Income
Norway 1995	63		145	2.29	101
Switzerland 1992	56		181	3.24	91
Sweden 1995	71		144	2.02	104
Denmark 1997	61		145	2.37	106
Finland 1997	65		172	2.66	103
France 1994	56		174	3.11	98
Canada 1997	48		174	3.55	92
Belgium 1997	57		164	2.89	101
Netherlands 1994	56		145	2.62	96
Germany 1994	52		158	3.03	93
Australia 1994	46		158	3.44	93
United Kingdom 1995	44		180	4.10	89
United States 1997	35		180	5.15	88
<b>Average<sup>2</sup></b>	<b>55</b>		<b>163</b>	<b>3.11</b>	<b>96</b>

Notes: <sup>1</sup> Figures given are adjusted dollars per equivalent person (child) in own currency as a percent of own overall national median income (P50), weighted for the number of children in each unit.

<sup>2</sup>Simple average.

Source: Luxembourg Income Study and author's calculations.

**Figure 2. Equal Opportunity and Fair Chance: Economic Distance and Real Standards of Living for Children**  
 (as percentage of overall US 1997 median equivalent income in PPP terms)

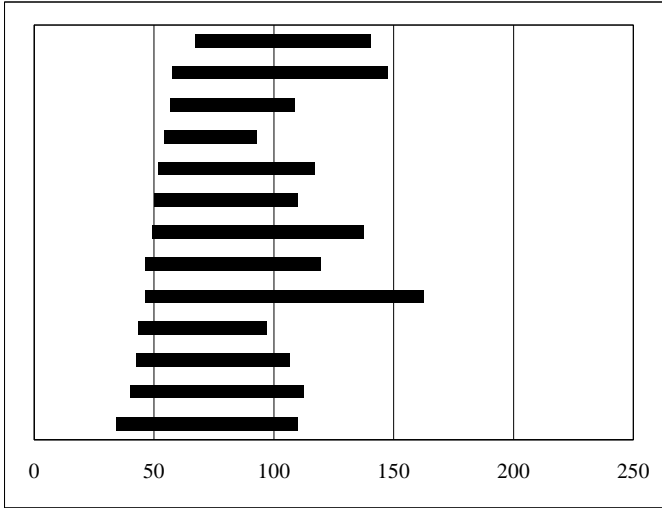
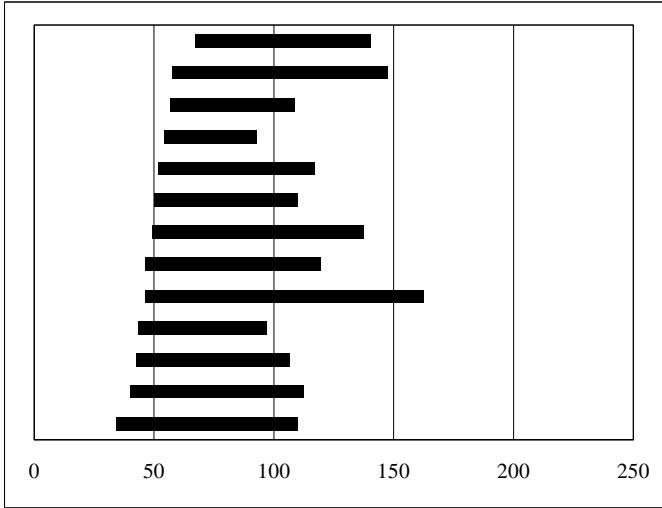
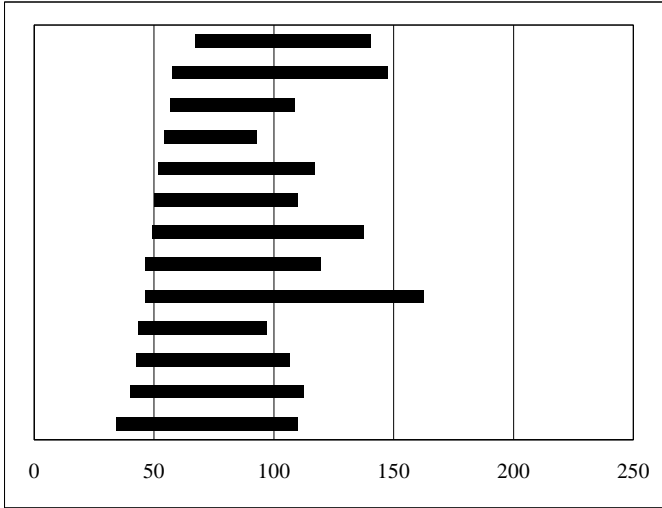
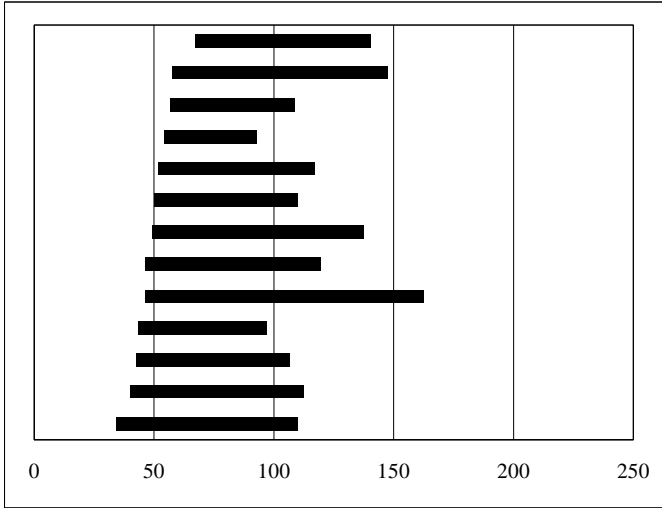
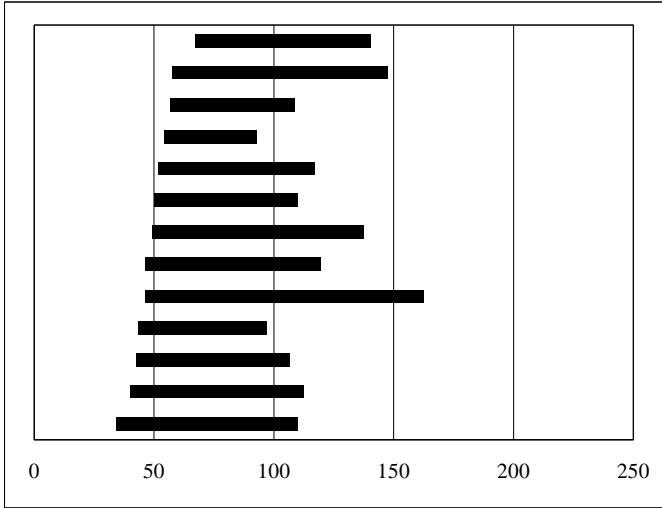
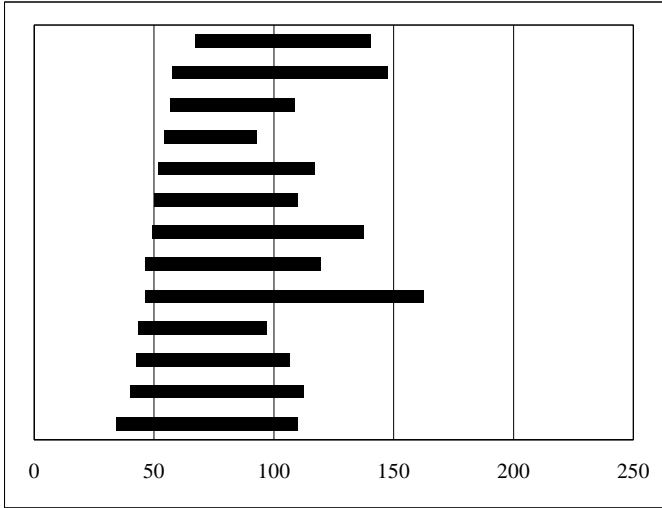
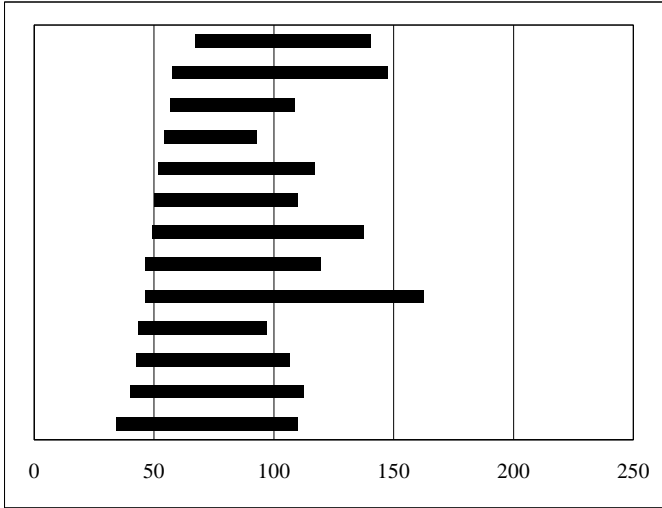
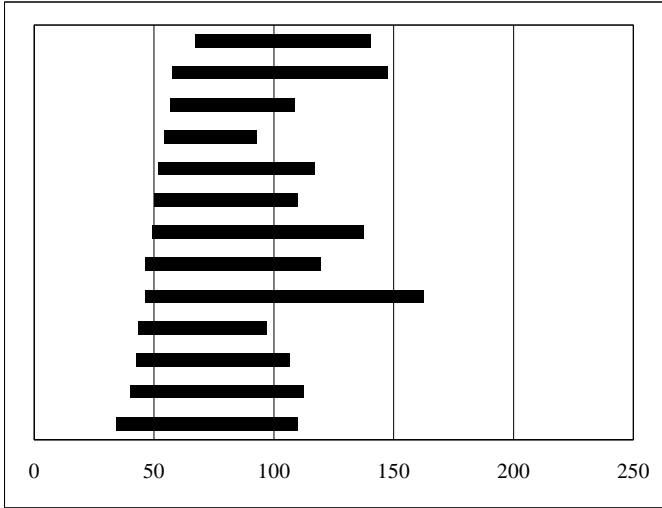
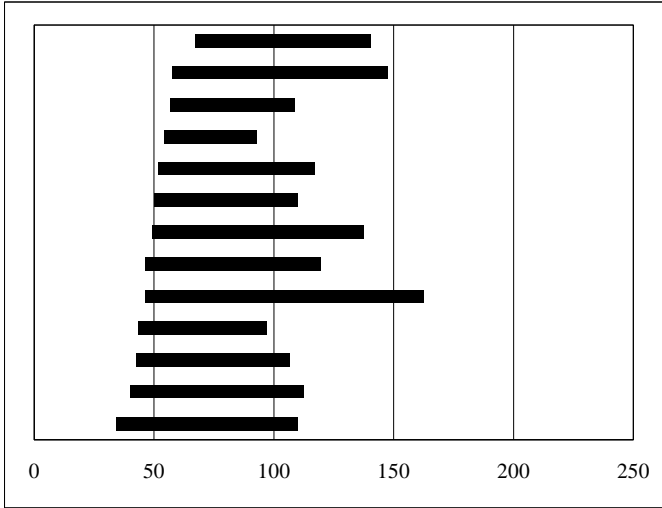
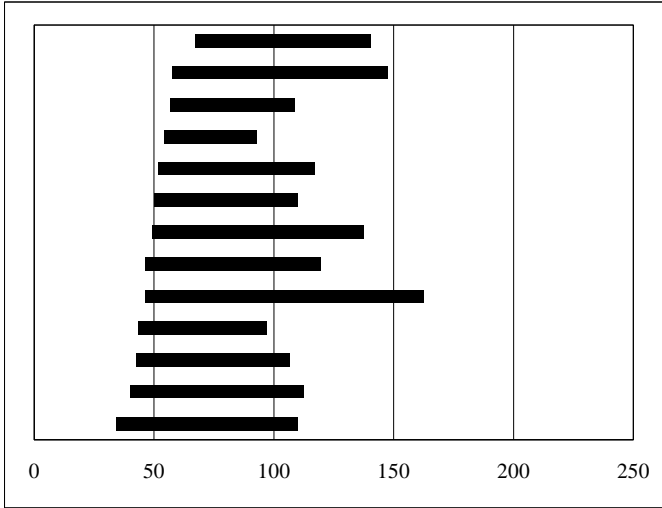
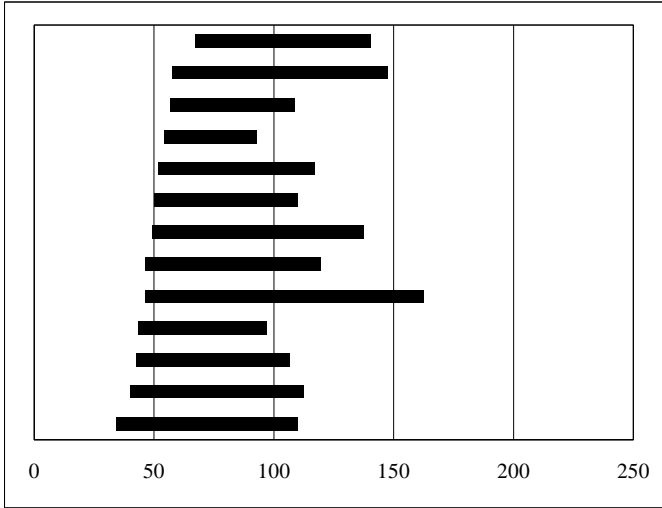
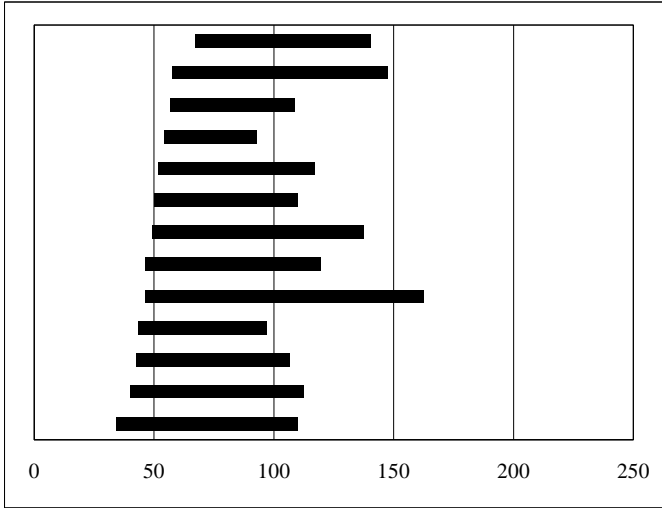
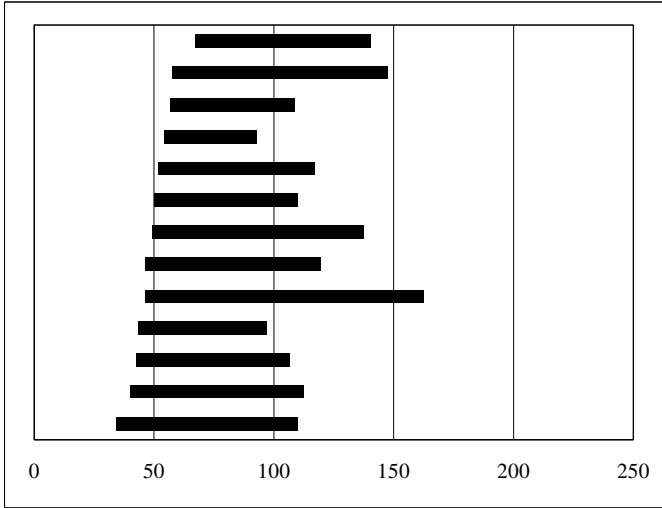
	<u>Fair Chance</u>	<u>Economic Distance</u>		<u>Equal Opportunity</u>	
	P10	Length of bars represents the relative gap	P90	P90/P10	real
	(Low Income)	between high and low income individuals	(High Income)	(Decile Ratio)	income gap
Norway 1995	55		126	2.29	19,884
Switzerland 1992	51		165	3.24	31,926
Sweden 1995	48		97	2.02	13,722
Denmark 1997	48		114	2.37	18,483
Finland 1995	46		122	2.66	21,283
France 1994	44		137	3.11	26,045
Canada 1997	44		156	3.55	31,366
Belgium 1997	44		127	2.89	23,244
Netherlands 1994	42		110	2.62	19,043
Germany 1994	40		121	3.03	22,684
Australia 1994	36		124	3.44	24,644
United Kingdom 1995	31		127	4.10	40,327
United States 1997	35		180	5.15	26,885
<b>Average<sup>2</sup></b>	<b>43</b>			<b>131</b>	<b>3.11</b>

Notes: <sup>1</sup> Figures given are adjusted dollars per equivalent person 1997 U.S. dollars, weighted for the number of children in each unit size, and relative to the overall U.S. median of \$28,005.

<sup>2</sup>Simple average.

Source: Luxembourg Income Study and author's calculations.

**Figure 3. Equal Opportunity and Fair Chance:  
Economic Distance and Real Standards of Living for Children Cash and Non-cash Income<sup>1</sup>**  
(as percentage of overall US 1997 median cash plus non-cash income)

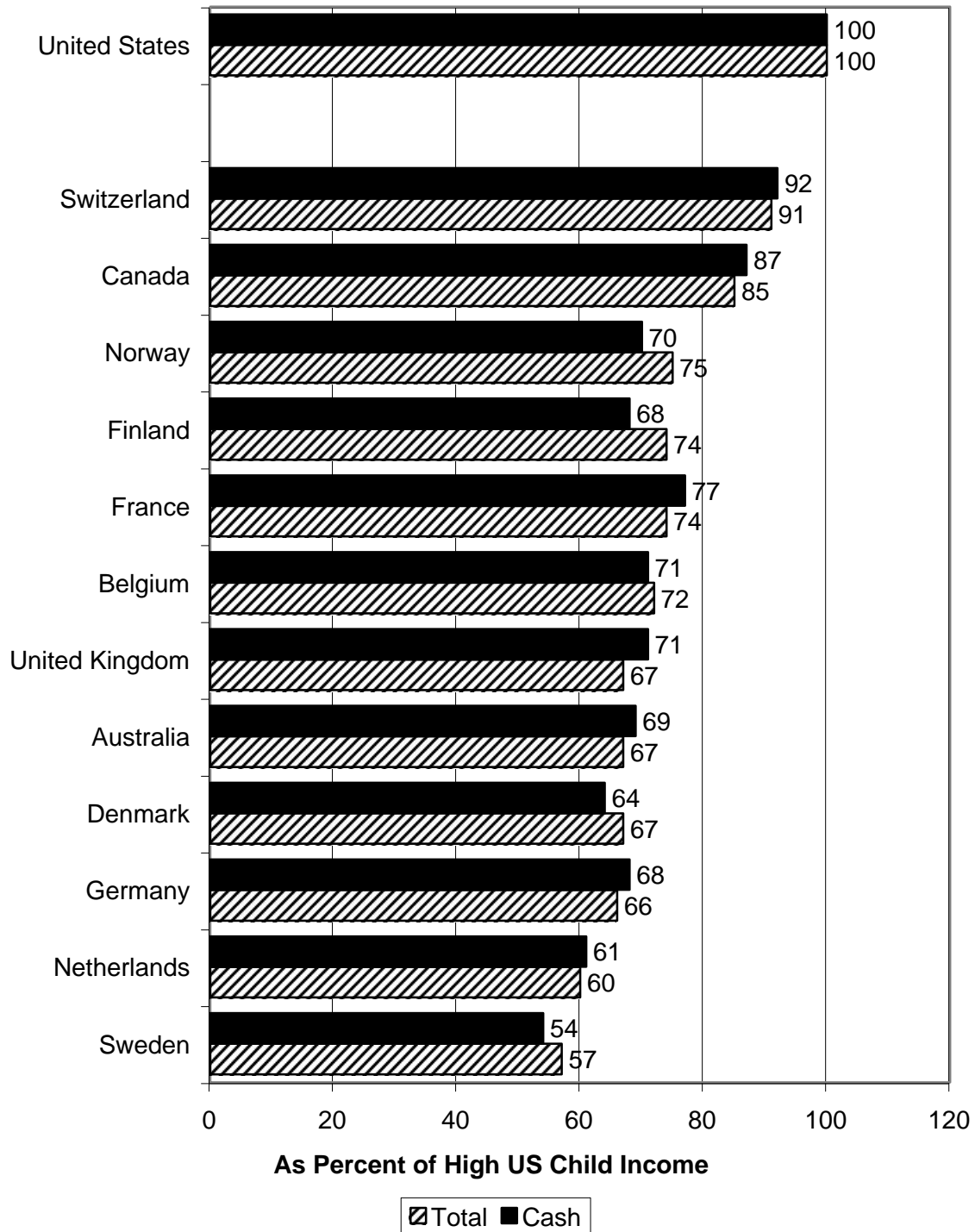
	<u>Fair Chance</u> P10 (Low Income)	<u>Economic Distance</u> Length of bars represents the relative gap between high and low income individuals	P90 (High Income)	<u>Equal Opportunity</u> P90/P10 (Decile Ratio)	real income gap
Norway 1995	67		123	1.83	19,889
Switzerland 1992	58		148	2.56	31,964
Denmark 1997	57		109	1.92	18,468
Sweden 1995	54		93	1.71	13,851
Belgium 1997	52		117	2.27	23,085
Finland 1995	50		110	2.19	21,310
Canada 1997	49		138	2.79	31,609
France 1994	46		120	2.58	26,282
United States 1997	46		162	3.51	41,199
Netherlands 1994	43		97	2.24	19,179
Germany 1994	43		107	2.50	22,730
Australia 1994	40		112	2.82	25,572
United Kingdom 1995	34		110	3.20	26,992
<b>Average<sup>2</sup></b>	<b>49</b>		<b>119</b>	<b>2.47</b>	<b>\$24,861</b>

Notes: <sup>1</sup> Figures given are adjusted dollars per equivalent person in 1997 US dollars, weighted for the number of children in each unit size. P10 and P90 are divided by overall US median of \$35,516.

<sup>2</sup>Simple average.

Source: Luxembourg Income Study and author's calculations.

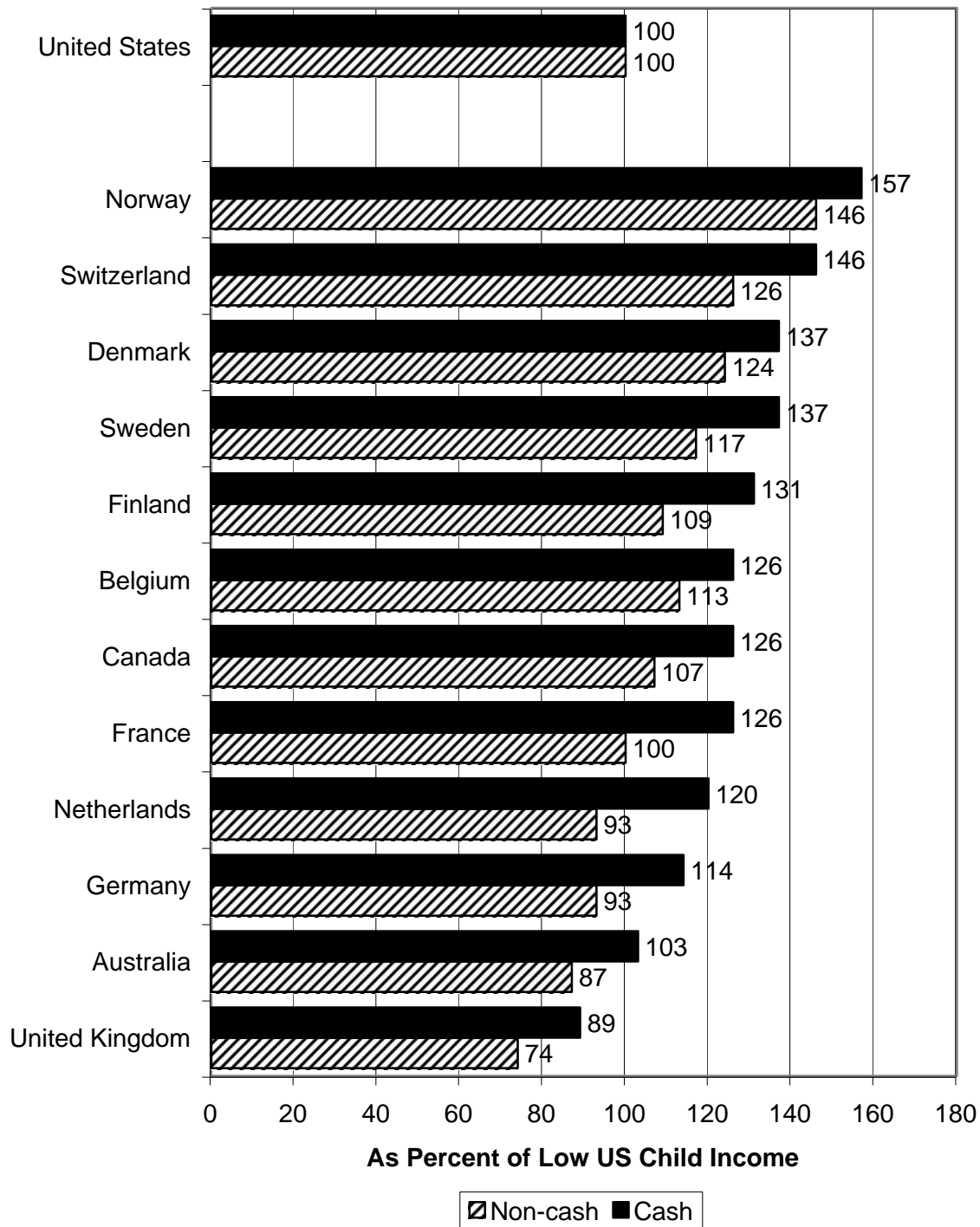
**Figure 4. Supra Chance:  
Real Incomes of the High Income Child:  
Cash and Total (Cash plus Non-cash) Income**



\* Child in a household at the 50th percentile (median) of the U.S. equivalent income distribution for households with children, all other currencies converted to 1997 US dollars using Purchasing Power Parities.

Source: Figures 2 and 3, P90 columns.

**Figure 5. Fair Chance: Real Incomes of the Low Income Child:Cash and Non-cash**



\* Child in a household at the 50th percentile (median) of the U.S. equivalent income distribution for households with children, all other currencies converted to 1997 US dollars using Purchasing Power Parities.

Source: Figures 2 and 3, P10 columns.