

# What have we learned about poverty and inequality? Evidence from cross-national analysis

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When American poverty research began in earnest 40 years ago, analysts had little reliable information to help explain the relative prevalence of poverty across rich countries. If low-income status was estimated at all in other countries, it was measured using a different yardstick than the one used in the United States. Data sources in many countries were too fragmentary or incomplete to allow accurate measurement of household resources. American scholars and policymakers were uncertain whether poverty was more or less prevalent in the United States compared with other rich countries. They knew even less about the relative effectiveness of American policies in alleviating poverty and narrowing the gap between rich and poor.

Both the micro-census survey data and the conceptual methods for assessing poverty have improved in the past four decades, in the United States and in other countries. The Luxembourg Income Study (LIS) has assembled many countries' micro-census files and converted them into a form that allows incomes at the household level to be meaningfully compared across nations. The Organization of Economic Cooperation and Development (OECD) has published and analyzed cross-nationally comparable data on wage rates, labor earnings, and employment, shedding light on the most important source of income for typical households. One crucial result of this progress has been a vast improvement in our understanding of U.S. poverty and inequality. In 1966, about 12.4 million Americans under age 18, or 17.6 percent, were classified as poor under the official U.S. poverty guidelines. Was this rate distressingly high? Or reassuringly low? With no cross-nationally comparable information on the prevalence of poverty in other countries, the only two benchmarks for comparison were U.S. poverty rates in earlier years and poverty rates among other U.S. sub-populations. The number of poor children fell 23 percent between 1964 and 1966, and poverty among children was considerably lower than it was among Americans 65 and older, who had a 1966 poverty rate of 28.5 percent. Both these comparisons would have suggested that child poverty was a relatively modest problem in the United States. As we now know, however, child poverty in America is exceptionally high in comparison to other rich countries (see Table 1). The availability of interna-

tionally comparable micro-census data on household composition, income and its components, and labor market outcomes has helped us understand why child poverty is a serious social problem in the United States. This essay considers what we have learned from cross-national analyses of the sources of poverty, and it describes what these analyses can still teach us about the both the effects of public redistribution policies on the distribution of income and their impact on economic and social behaviors.

## Measuring poverty

In order to compare inequality or poverty across countries, it is necessary to develop income concepts that make such comparisons feasible and informative. In many ways, the cross-national analyses improved on measurement concepts that had been developed earlier to measure income and low-income status within a single country. The U.S. Census Bureau publishes distributional statistics based on its concept of "families," unrelated individuals, and households. Except for the poverty tabulations, which make an allowance for the effects of family size on needs, most of the Census Bureau's distributional statistics reflect straightforward tabulations of family or household income, without any adjustment for the number of persons who are supported by a given income. In contrast, the cross-national literature has always used the concept of "size-adjusted" or equivalent income per person when performing distributional tabulations. A standard procedure in this literature is to treat all income received by people who live together in a household as equally available to each member of the household. This total income amount is typically divided by the square root of the number of household members to derive the size-adjusted or equivalent income per person. Although this procedure could be improved, it is an important advance over the Census Bureau's standard procedure.

A second major advance in the cross-national analysis literature was the development of standard income definitions. These definitions are typically more comprehensive than the ones developed for analysis of incomes within individual countries. In the cross-national literature, analysts almost always investigate the distribution of "disposable cash and near-cash income," sometimes referred to as "disposable household income." This is the sum of market income (cash earnings from labor and

**Table 1**  
**Inequality and Poverty in Nineteen Rich Countries**

Country	(1) Year	(2) Gini Coefficient	(3) Gini Rank	(4) Percent Poor (Disposable Income below 50% of National Median Income)		(6) Percent Poor using U.S. Thresholds
				All Ages	(5) Children	
				United States	2000	
United Kingdom	1999	0.345	2	12.4	15.3	12.4
Spain	2000	0.340	3	14.3	16.1	
Greece	2000	0.338	4	14.4	12.9	
Italy	2000	0.333	5	12.7	16.6	
Ireland	2000	0.323	6	16.5	17.2	
Australia	2001	0.317	7	13.0	14.9	
Canada	2000	0.302	8	11.4	14.9	6.9
Switzerland	2000	0.280	9	7.7	8.9	
France	2000	0.278	10	7.3	7.9	
Belgium	2000	0.277	11	8.0	6.7	6.3
Germany	2000	0.264	12	8.3	9.0	7.6
Austria	2000	0.260	13	7.7	7.8	5.2
Luxembourg	2000	0.260	13	6.0	9.1	
Sweden	2000	0.252	15	6.5	4.2	7.5
Norway	2000	0.251	16	6.4	3.4	
Netherlands	1999	0.248	17	7.3	9.8	7.2
Finland	2000	0.247	18	5.4	2.8	6.7
Denmark	1992	0.236	19	7.2	5.0	

**Source:** Luxembourg Income Study (<http://www.lisproject.org/keyfigures.htm>, downloaded Oct-2006) and T. M. Smeeding, "Poor People in Rich Nations: The United States in Comparative Perspective," *Journal of Economic Perspectives* 20, no. 1 (Winter 2006): 69–90, Table 2.

capital), means-tested transfers, social insurance payments, and near-cash benefits (such as food stamps and rent subsidies) minus estimated income tax and payroll tax payments. When this concept of household income is divided by the square root of the number of household members, we have an estimate of the equivalent income per person in the household. Personal income inequality can then be calculated by estimating a statistical measure of the size distribution of income across persons. The second column in Table 1 shows recent LIS estimates of the Gini coefficient for 19 rich OECD countries.<sup>1</sup> For each country except Denmark, the inequality estimate covers annual income received in a year between 1999 and 2001.

The LIS definition of spendable household resources is obviously incomplete. It ignores income flows from home ownership and disregards the value to individuals of health insurance that is paid by someone else. The definition misses a large percentage of capital income flows that ultimately benefit household members (for example, investment earnings of a funded pension plan or insurance policy in which a household member has a claim). In addition, it ignores the powerful effects of differences in neighborhood amenities (such as crime-free streets or good public infrastructure) and disparities in educational opportunity. In order to develop a comprehensive understanding of the distribution of well-being in different countries, researchers will need better data and new welfare measures.

The problem of measuring the value of health insurance poses a particularly difficult challenge for accurately measuring individual and household well-being. The U.S. national income accounts show that medical care represents more than 15 percent of personal consumption, a much larger share than in the 1960s or the 1980s. In spite of the steep increase in the share of all consumption devoted to medical care, such spending accounts for about the same percentage of Americans' out-of-pocket spending today as in 1960. The reason is that most Americans are now covered by health insurance, and the cost of insurance is financed largely by employers and the government. Tabulations of the Medical Expenditure Panel Survey show that the difference between the cost of medical care received and the out-of-pocket outlays for medical care (including health insurance premiums) is bigger, both absolutely and relatively, for the poor than it is for the middle class and the well-to-do. That is, the cost of medical care received by the poor is much higher relative to what they pay for that care, compared to those with higher incomes. If this spending were fully reflected in household income statistics, the incomes of low-income households would be increased by a much larger percentage amount than the incomes of the middle class or rich. A comprehensive income definition would therefore show less inequality than under the standard definition if this income element were added to "disposable cash and near-cash income."

Differences in national arrangements for financing health care and education mean that money income is more important in determining overall consumption and individual well-being in some countries than in others. Income differences are likely to produce wider differences in health care in places where families must finance health care out of their own pocket than in places where such costs are financed largely from taxes. As just noted, however, low-income families in the United States often receive free or generously subsidized health care, while many of the affluent pay premiums for their insurance and must make co-payments for the care they receive. As a result, it is hard to be sure whether inequality in disposable income overstates inequality in consumption more in the United States or in countries where public health insurance is provided to everyone for free. Given the growing importance of health care consumption in nearly all the rich countries, it is important to learn about the practical effects of this issue on the distribution of well-being, both in the United States and in other rich countries.

Even bearing in mind the many limitations of “disposable cash and near-cash income,” it is obviously a more comprehensive definition of income than the one used to estimate low-income status under the official U.S. poverty guidelines. The income concept used in the official guidelines ignores near-cash sources of income and fails to account for the burden of income or payroll taxes. The U.S. poverty guidelines are based on the idea of an absolute low-income threshold, one that is defined in terms of a fixed consumption bundle. The guidelines offer a measure of U.S. poverty that is widely accepted among news reporters and the public, if not the social science community. The official thresholds were used by Timothy Smeeding in estimating the cross-national poverty rates shown in column 6 of Table 1.<sup>2</sup> International comparisons of poverty are usually based on a relative concept, however. A majority of cross-national studies define the poverty threshold as one-half of national median income (or, more precisely, one-half of median equivalent disposable cash and near-cash income). This is the standard used to estimate poverty in columns 4 and 5 of the table.

### **Cross-national differences in inequality**

Before the 1980s, scholars had little idea of the extent of inequality differences across rich countries. Knowledgeable labor economists probably assumed that the Scandinavian wage bargaining model combined with low unemployment rates generated less earnings inequality in Scandinavia than decentralized wage bargaining and low unionization produced in the United States. National income and public budget statistics showed that some countries redistributed more money through their tax and benefit systems, but it was not obvious whether these systems were particularly effective in redistributing from rich to the poor. Sawyer offered a pioneering analysis of

cross-country inequality differences, but his analysis depended on published distributional statistics, and these were not estimated using consistent population samples, income definitions, or survey methods.<sup>3</sup> The first reliable international comparisons of income inequality were produced by the LIS. The inequality and poverty statistics in Table 1 are the most recent ones available covering the years indicated in column 1.

In common with other published tabulations, the ones displayed in Table 1 show the United States holds the top rank in the inequality tables. It has the highest Gini coefficient, the highest overall poverty rate, and the highest child poverty rate. Even though U.S. per capita income is considerably higher than that of other rich countries, the United States also has a higher absolute poverty rate than any country except the United Kingdom. (To perform calculations of absolute poverty rates, Smeeding converted income amounts from every country into U.S. dollars using OECD estimates of purchasing-power-parity exchange rates.) Average income in the United States is between 23 percent and 45 percent higher than average incomes in the other eight countries where it is possible to calculate poverty rates under the U.S. definition. But U.S. income disparities are so large that Americans who have a low rank in the distribution derive meager rewards from living in the richest country.

### **Explanations for high U.S. poverty**

The availability of cross-nationally comparable income and labor market data allows us to evaluate alternative explanations of high U.S. poverty and inequality. One obvious possible explanation is the exceptional size of income payments received by Americans who hold important positions in industry, the professions, entertainment, and sports. It is hard to evaluate this explanation using household survey data, however, because few survey files contain accurate information about the incomes of top income recipients. Indeed, the estimates of the Gini coefficient displayed in Table 1 are calculated by essentially ignoring the actual income reports of people in the top 2 percent and bottom 2 percent of income recipients, because these reports are either top-coded or believed to be inaccurate in many countries.

A related explanation is that wide pay disparities in the United States make its income distribution very unequal. It is certainly true that American labor market regulation and institutions permit wider pay disparities than are observed in countries with a higher minimum wage or more powerful labor unions. Wage tabulations published by the OECD and other organizations show that a larger percentage of working Americans earn wages far below the median wage than is the case in other rich countries. Surprisingly, however, big pay disparities do not directly explain the big disparities in U.S. incomes below the 98th percentile. The percentage of Americans who work

at wages below two-thirds of the median wage represents a bigger fraction of all American workers than is the case in, say, France or the United Kingdom. On the other hand, a larger percentage of Americans work. A person with no earnings at all is further from the national median wage than a person who works and earns a wage that is two-thirds or even one-half of the median wage. In many European countries, the phenomenon of nonwork contributes approximately as much to higher inequality as a very unequal wage structure contributes to American inequality.

Tabulations of the LIS income files suggest that market income inequality in the United States is not exceptionally high, at least in the bottom 98 percent of the income distribution. ("Market income" consists of pre-tax income from labor and from a household's property and wealth. It does not include transfers from the government.) In the mid-1990s, for example, market income inequality was approximately the same in the United States as in Sweden and lower than market income inequality in France, Belgium, Germany, and the United Kingdom.<sup>4</sup> The main reason why disposable income is more unequal in the United States than in other rich countries is that the U.S. system of taxes and transfers does less to reduce inequality than do the systems of other countries. In the United States, taxes and transfers reduce the Gini by 23 percent (from 0.48 to 0.37). In the other twelve countries for which we have data, the reduction averages 39 percent. If the U.S. tax and transfer system redistributed as much income as the systems of the other OECD countries, the dispersion of disposable incomes would be about the same in the United States as in France or Canada.

Many people may be surprised to learn that market incomes are no more unequal in the United States than in France or Germany. The main explanation is that, while people who hold jobs are more unequally compensated in the United States than in other industrial countries, not having a job is more common in most other countries. When we include individuals with zero earnings in the distribution, the Gini coefficient for earnings in the United States looks similar to that of other rich countries. Americans who have retired are also more likely than their counterparts in many other rich countries to receive income from employer-sponsored pensions, retirement savings accounts, and labor earnings. Retirees in many other countries are more likely to rely solely on public pensions. Between 1996 and 2002, about 95 percent of Americans lived in households that derived part of their income from market sources. In a number of countries with lower disposable income inequality, the percentage of households without any market income is higher.

The cross-national differences in tax and transfer systems help to account for these facts. Almost all working-age American families have some market income because limited government redistribution makes it hard to

live comfortably without any market income at all. Elsewhere in the OECD government redistribution is more generous. Nonemployment can be more attractive, especially in continental Europe. Figure 1 shows the relationship between the labor utilization rate and government transfers in seventeen OECD countries. The labor utilization rate is the average number of hours worked by fifteen- to sixty-four year olds measured as a percentage of U.S. average hours.<sup>5</sup> Transfers are defined as government spending on public pensions and nonhealth transfers to the working-age population. They are measured as a percentage of a nation's gross domestic product. Two countries with the same labor force participation rate, unemployment rate, and average work week would have identical rates of labor utilization. In the late 1990s Japan was the only OECD country with a higher labor utilization rate than the United States. The figure shows a strong negative association between government transfers and labor force utilization. (The correlation is -0.79.) Although this correlation is unlikely to be entirely causal, it seems reasonable to conjecture that generous transfers can reduce the employment and average work hours of a nation's adults.

Since the United States imposes heavier financial penalties on working-age adults who do not work, it has employment rates and working hours that are among the highest in the OECD. This may produce some gain to the United States in the form of higher total output, but low wage rates and intermittent unemployment leave many Americans with net incomes that are low in relation to median U.S. income and the official poverty threshold. America's harsh penalties for nonwork discourage able-bodied adults from remaining jobless. Do they also discourage other behaviors that contribute to low market incomes? Here the evidence is less clear. The United States has above-average rates of out-of-wedlock child-bearing, especially among teenagers and women in their early twenties. The economic consequences of out-of-wedlock births are particularly severe in societies that do not provide generous income support to working-age parents. In spite of the financial penalties, child bearing outside of marriage is common in the United States, and this fact is a major reason that child poverty rates are higher in the United States than they are in other rich countries.

Americans' economic well-being is largely determined by their capacity to support themselves with their own earnings. Cross-national comparisons of the pay structure show that wage differentials are importantly determined by differences in education and measurable skill, and the pay differences are bigger in America than elsewhere. Educational pay premiums have increased in the past quarter century, not only in the United States but throughout the industrialized world, boosting the payoff to investments in education and skill. Strikingly, however, gains in educational attainment have been much faster elsewhere in the OECD than in the United States.



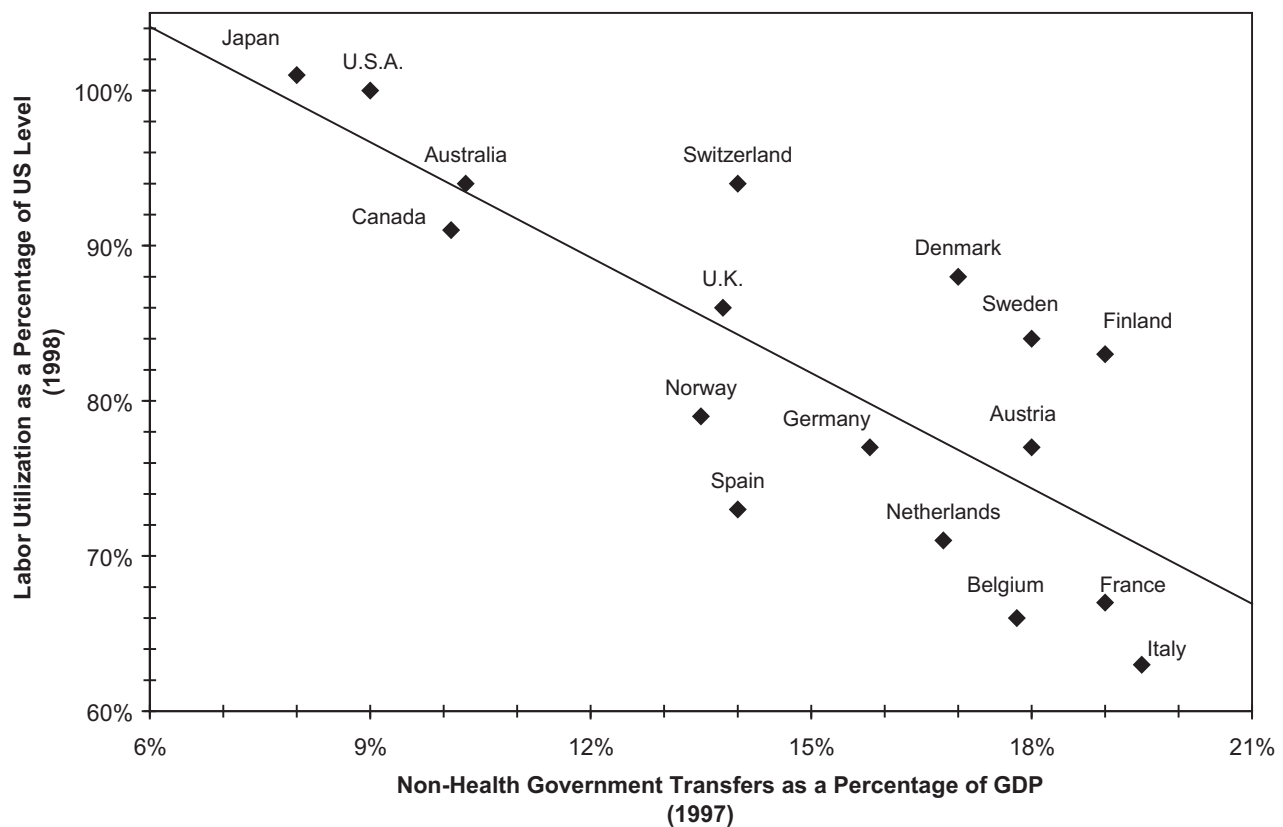


Figure 1. Social spending and utilization of labor in OECD countries, 1997–1998.

Sources: Transfers - Organization for Economic Cooperation and Development, *Society at a Glance: OECD Social Indicators* (Paris: OECD, 2001); Labor Utilization - S. Scarpetta, A. Bassanini, D. Pilat, P. Schreyer, "Economic Growth in the OECD Area: Recent Trends at the Aggregate and Sectoral Level," Economics Department Working Paper 248 (Paris: OECD, 2000).

Americans once led the world in high school and college completion, but young adults in several other countries now have higher college graduation rates than those in the United States. Even countries that lag the United States have experienced much faster gains in post-secondary schooling over the past two decades.<sup>6</sup> The powerful financial incentives for Americans to accumulate extra schooling appear to have relatively weak effects in promoting college completion.

### Economic mobility

As we have seen, inequality is exceptionally high in the United States compared with other rich countries. Does rapid income mobility offset the impact of high inequality? The unlovely effects of high inequality may seem more tolerable if children have good opportunities to move up the income ladder. When children are expected to earn very different incomes from their parents, parents may be more willing to accept a lowly position in the income distribution.

There has been a rise in the number and quality of studies that examine the relationship between the earnings of

parents and their adult children. Better data sets have become available for analysis, and researchers have learned how to avoid some of the statistical pitfalls that bedeviled early studies.<sup>7</sup> One result of the new evidence is a higher estimate of the correlation between parents' and children's earnings. Cross-national studies of earnings mobility have also improved over time. Researchers have assembled data sets that are similar across countries, and they have applied identical statistical methods to measure each country's intergenerational mobility. This technique can only be applied in a handful of countries which have high-quality data on parents' and children's earnings. The results usually show that earnings mobility is lower in the United States than it is in other rich countries. An international research team recently compared father-son and father-daughter earnings mobility in the United States, the United Kingdom, and four Scandinavian countries.<sup>8</sup> Although they did not find statistically significant differences across countries in father-daughter earnings mobility, they found a statistically significant gap between the United States and Britain and a significant gap between Britain and the four Scandinavian countries in the earnings mobility of fathers and sons. Earnings mobility was lower in the United States than in Britain, and it was lower in Britain

than it was in the four Scandinavian countries. Particularly disturbing is the finding that the biggest cross-country gap occurred at the bottom of the earnings distribution. American sons whose fathers earned low wages were unlikely to earn wages that brought them into the middle or the top part of the earnings distribution. In addition, both American and British sons of high-wage fathers were unlikely to earn wages near the bottom of the earnings distribution. Both at the high and low ends of the American earnings distribution, there is an unusually small amount of father-son earnings mobility. This evidence suggests that high inequality in the United States is unlikely to be offset by high mobility.

A problem with this kind of analysis is that it ignores much of the income and earnings mobility experienced by families that move to the United States, especially from countries where incomes are far below those in the United States. Few data sets contain good information on immigrants' incomes both before and after they immigrate. Even if such data were available, researchers would find it difficult to compare immigrants' positions in their home countries with the positions they occupy in United States. College graduates from many poor countries can earn better wages cleaning houses and driving taxis in the United States than they can earn teaching school or managing a business in their countries of origin.

The income gains from international immigration are far from trivial. The United States remains one of the world's richest countries. Most Americans who receive middle-class incomes enjoy a standard of living that compares favorably to the one they would enjoy in other countries, even other rich countries. For Americans who are themselves immigrants or who are the children or grandchildren of immigrants, the gap in U.S. and foreign living standards may seem particularly large. More than one American in five is an immigrant or is the child of an immigrant parent. About one-quarter of young adults are immigrants or the children of immigrants. For the great majority of these Americans, the move to the United States was associated with a leap in family well-being. Except for Australia and Canada, the other OECD countries have less immigration than the United States. Immigration to the United States is dominated by immigration from very poor countries, and immigrants from these countries can experience a tenfold increase in wages upon arrival in the United States.

The fact remains, however, that people born in the United States do not enjoy exceptional opportunities for upward mobility compared with people born in other rich countries. The wages of American fathers and sons are more similar than wages earned by fathers and sons in other countries. This may imply that family background matters more in the United States than it does elsewhere, at least among native-born residents. Especially at the bottom of the income distribution, American institutions

are less successful than those in other rich countries in equalizing the opportunities available to children. In sum, the cross-national evidence on income disparities and economic mobility presents a much less encouraging picture of the U.S. poverty problem than the one that was widely accepted when poverty analysis was in its infancy. American inequality is high compared with similar countries, and the prevalence of poverty is strikingly higher than it is abroad. Except for the upward mobility that comes with immigration into the United States, upward mobility across generations is conspicuously less common than it is in other countries where we can accurately measure mobility. The cross-national evidence suggests that American institutions are very successful in generating wealth and high employment rates. They are much less successful in reducing deprivation and improving the life chances of children who are born in disadvantaged circumstances. ■

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<sup>1</sup>The Gini coefficient is a standard statistic for measuring economic inequality. It ranges from 0 (when all people have identical incomes) to 1 (when all income is received by a single individual).

<sup>2</sup>T. M. Smeeding, "Poor People in Rich Nations: The United States in Comparative Perspective," *Journal of Economic Perspectives* 20, no. 1 (Winter 2006): 69–90.

<sup>3</sup>M. Sawyer, "Income Distribution in OECD Countries," *OECD Economic Outlook* (Paris: OECD, 2006).

<sup>4</sup>G. Burtless and C. Jencks, "American Inequality and Its Consequences," in *Agenda for the Nation*, ed H. J. Aaron, J. M. Lindsay, and P. Nivola (Washington, DC: Brookings Institution, 2003).

<sup>5</sup>G. Burtless and C. Jencks, "American Inequality and Its Consequences."

<sup>6</sup>OECD, *Education at a Glance: 2006* (Paris: OECD, 2006).

<sup>7</sup>Some recent estimates and useful citations to older evidence may be found in B. Mazumder, "Fortunate Sons: New Estimates of Intergenerational Mobility in the U.S. Using Social Security Earnings Data," *Review of Economics and Statistics*, May 2005, 87(2), pp 235–255.

<sup>8</sup>M. Jäntti, B. Bratsberg, K. Røed, O. Raaum, R. Naylor, E. Österbacka, A. Björklund, and T. Eriksson, "American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United," *IZA Discussion Papers 1938* (Institute for the Study of Labor, 2006).