

2000. Even if all datasets were for the same year, different business conditions will produce different cyclical outcomes across datasets.

- **time consistency.** LIS pays a great deal of attention to intraperiod or cross-sectional consistency of data. We seek the best dataset for each period. Time trend analyses of income inequality when datasets change, or when datasets are substituted for one another are not recommended. For instance, while time trends in inequality from LIS normally track those found in any given nation, one should also compare these to the time trend data produced in each country itself (see Atkinson, Brandolini, Smeeding, and van der Laan 2000).

These criteria have been applied to each nation's data supplied to LIS. How they have been balanced in each country differs, but can be inferred from the specific country discussions that follow shortly below.

Costs of Data and Basic "LISification" Procedures

It is important to note that LIS makes it a point not to pay for the datasets that it obtains from its users. In fact, LIS has never paid for a dataset beyond the marginal cost of shipping the data. Datasets are either freely donated by the nation in question, or they are paid for by the LIS domestic financial sponsor. In return, LIS provides each nation with the value added by the comparability it provides and by the return of a "LISified" data file to the data originator. Once collected, we feel that data should, in fact, be a public good and thus we urge our member countries to treat it in the same way that LIS treats it.

The data harmonization, or "LISification" process involves several steps. First, LIS is usually concerned with a limited set of the total number of variables on a dataset. The basic LIS household variable list and demographic variable list is included in Table 4. From this list are derived basic subaggregations of household income according to the LIS definitions (e.g., see Atkinson, Rainwater, and Smeeding 1995; Smeeding and Weinberg forthcoming). We also have individual person records as well as household records, but the variable list is basically what is provided in Table 4, section A. The aggregates in section B of Table 4 are derived from adding

and subtracting the list of variables in 4A. In addition, LIS collects a set of consistent classifiers or “demographic” data shown in Table 4, section C. For more on how these are combined to produce the aggregates and for analytic purposes, the reader should consult the publications cited in the references, or the LIS website (<www.lis.ceps.lu>).

Once a dataset has been identified as acceptable, LIS asks the country to send their “full” data file to us, with completed documentation and other information. The LIS staff will then make the LISification itself, standardize the documentation, and return the LIS estimated and harmonized dataset to the originator so that it might be further checked by the data owner, and further adjusted for inconsistencies. Often nations will add income top codes or suppress geographic detail for privacy reasons before allowing LIS to make their data available to researchers. We request permission to keep a copy of the basic unharmonized file so that any errors later uncovered by users can be corrected by LIS staff. If this is not possible, we return the original dataset to the owner. Once the data owner has signed off, and once we have received the required documentation, the dataset is made electronically available to users, using the LIS remote access system (Coder 2000).

Original Data Sources

Beyond these criteria and basic data harmonization issues, almost every LIS nation has its own history and idiosyncrasies. To provide a richer picture of these nations and their data, we have selected a set of nations for additional comment and description. These countries include a set of nations where LIS data comes from a statistical office; data from scientific non-governmental sources; and data from nations which make heavy use of administrative data.

Statistical Office Data. Many government bodies and particularly Central Statistical Offices (CSO’s) conduct income surveys which are used by LIS (Table 3). Two countries with ongoing important surveys which are of high quality and which are made

available to the LIS are Statistics Canada's, *Survey of Consumer Finance (SCF)*, and the United States' *Current Population Survey's (CPS)* annual March Income Supplement, which is collected, cleaned, and edited by the U.S. Bureau of the Census. These surveys have many strengths and a few weaknesses for LIS purposes. The main strength is that both nations have decades of experience with "public use," microdata files. Hence, well documented codebooks, very complete and user friendly documentation, and helpful staff were already in place before LIS. Moreover, each of these nations have already cleaned and edited their data for non-reporting. In the end, they were easy to arrange into LIS income categories. The weaknesses are suppression of some United States geographic identifiers from smaller United States states, and top and bottom coding of income variables in both surveys. These top and bottom codes artificially reduce the highest and lowest incomes to some fixed amount. Such "codes" may independently bias Lorenz curve based income inequality measures and "depth" of poverty measures.² Otherwise the files are clean, neat and relatively unrestricted.

Australia and the United Kingdom also have strong traditions of "public use" datafiles. Australia's *Income and Housing Survey (AHS)* is similar to the Canadian SCF. In Britain, the Family Expenditure Survey (FES) includes detailed periodic subannual income measures (monthly and weekly incomes, and some periodic subannual income measures for capital income) and was, until recently, the best source of household income for the United Kingdom. While the AHS is relatively easily "LISified," the United Kingdom FES has proven to be more difficult to work with, simply because of the many ways in which annual income can be constructed from subannual reports.

Both datasets also present additional hurdles for LIS. In Australia, the raw microdata could only be exported under very restrictive conditions. LIS has, of course, satisfied those conditions with the help of the Australian Bureau of Statistics (ABS) and with the support of

Peter Saunders, Director of the Social Policy Research Centre in Sydney. And these constraints are very real. For instance, to date, LIS has been unable to convince the New Zealand Statistical office to allow their data to leave the Central Statistical Office because of similar constraints, and because of different interpretations of national rules by the New Zealanders who remain most earnest in their desire to make these data available. We are working toward a solution which meets both the New Zealand government's needs for privacy assurance, and the needs of LIS, and we are hopeful for a good solution soon.

In the United Kingdom, the mid-1980's brought a change in data distribution such that the FES was available only from the data archive at Essex and then only if United Kingdom users signed a pledge separate from and in addition to, the Standard LIS pledge of confidentiality (Table 5a and 5b). The bureaucratic maneuvering to arrive at this arrangement with the United Kingdom took almost two years to be accomplished, during which time access to the United Kingdom files was severely restricted.

Finally, all four of these datasets show how times and surveys change and hence affect continuity in time series data from LIS. Besides changing income top codes, the United States' CPS underwent a major change in data collection made in the mid-1990's, producing a large jump in summary inequality measures. In 1997, Canada abandoned the SCF and moved their annual income data source to the new Survey of Low Income Dynamics (SLID) which LIS will use from now on. The comparability of the new survey to the old will be questioned, no doubt. In a similar vein, Australia redesigned their AHS in the 1990's and debates about comparability to the old survey are still ongoing. And while England continues with the FES, it also has a new "Income Survey" (The Family Resources Survey) since 1994, which collects improved annual household income information from a random sample of British households. Future LIS data will include both surveys. And so, while the documentation and overall data quality of these

surveys are constantly improving, they have also changed dramatically in recent years. For the most part, use of these datasets has been regularized and works smoothly, though time trend comparisons are somewhat problematic (see Atkinson et al. 2000).

In contrast, many non-anglo-saxon central national statistical offices (CSO's) have not much experience at all with "public use" household income data. In Japan, hardly anyone but the CSO can use the data. In many other nations, e.g., Spain, Israel, and Germany, LIS was the first instance in which any research user outside the country obtained national data. In these cases, creation of both a clean user friendly file and appropriate documentation in English is sometimes problematic. Luckily, a number of national research teams had worked already with this data, and LIS could build on their groundwork.³ Still the process is more cumbersome and the documentation weaker under such arrangements, regardless of the overall quality of the data.

Science-Based Data Sources. In some nations, there are no CSO data that can be made available for LIS. This can happen because the data cannot leave the country, because the national data are weak, or because there are no national data to begin with. In Germany, during the 1980s, the Bundesamt would not allow data to leave the country, and further wanted to charge a very high price for such data, if it could be exported. In Italy, there is only a periodic CSO Expenditure/Budget Survey with weak household income information, and in Luxembourg there was no income survey at all. In each of these cases, a scientific organization, or a scientific research branch (of the Bank of Italy) is the main source of reliable household income data. In Germany, the Socioeconomic Panel (GSOEP) of the Deutsches Institut für Wirtschaftsforschung (DIW) has been the main database for LIS since 1984, while the Luxembourg Socio-Economic Panel (PSELL) has been the only source of Luxembourgish income data since 1985. In general, because these databases are collected and directed by researchers for research purposes, the data are easier to use. However, sampling issues and population weighting (to national totals) are

more problematic than with national statistical office data. Technical documentation is sometimes less available than in the case of the Anglophone public data use nations. On the other hand, the researchers at each of these institutions are keenly aware of the cross-national research opportunities which LIS brings and are therefore more likely to be helpful in maintaining, advertising, and using the harmonized data created by LIS.

The Bank of Italy Survey is an annual household cross-sectional income survey like all of the CSO sources cited above, and is the best source of Italian income data. In contrast, the GSOEP and PSELL data are taken from household panel surveys which follow the same people over time and which collect subannual income components. In both of these cases, LIS needs to construct a cross-section of annual income from the longitudinal files. Other than some possible biases from sampling attrition in the panel surveys, this process has been regularized and now works smoothly.

Administrative Data Sources. The Scandinavian and Nordic nations that are part of LIS (Denmark, Finland, Norway, and Sweden) have yet another type of data. In these nations, national registers from labor, tax, and social security offices are used to provide administratively matched data which is obtained with the permission of the respondent. Essentially, a very high percentage of households (over 95 percent typically) fill out a short demographic survey and then sign a waiver which allows the CSO to obtain exact source data reports for each person and household income component from various government income registers (Denmark, Finland, Sweden), or from tax forms (Norway). The data thus produced is neither topcoded, nor in any way edited. National CSO's may make some additional top or bottom codes before the data are transferred to LIS, but essentially there is no underreporting or misreporting or other type of reporting error with this data (see Table 3B).

There are slight variations across countries. For instance, the Norway data comes from the tax registers and may exclude small amounts of local income maintenance benefits that are not taxed. The Swedish data were until recently aggregated only to the level of the tax unit, not the "household," thus making it difficult to identify children aged 18 or over still living with their parents. Recently, in large part on behalf of LIS, the Swedish Income Distribution Survey has become aggregable into households. Finland has a complete set of data, but had to enact a separate law to allow the Income Distribution Survey to leave the country. In Denmark, the law was not changed, but had to be interpreted such that the data could come to LIS. Each of these data files is well documented with the help of the CSO's, and are by some criteria, the highest quality data in LIS.

Summary. Thus, LIS contains several types of data. As can be seen in Table 3, there are other variations to this mix as well. France provides both tax data and budget data, but only periodically. The Swiss national science foundation has sponsored two independent income/poverty surveys which are the only available files for LIS. Austria has a labor force supplement to its microcensus that contains a small number of income questions for LIS, and Belgium has a scientific group's panel data survey from which income distribution data is derived. However, the main types of data used by LIS are described above. Additional information on any and all of these topics is available from the LIS website (www.lis.ceps.lu).

III. Privacy, Availability, and Quality

Over the past 15 years, LIS has managed to provide safe, privacy-protected remote access by internet to a wide range of harmonized datafiles. This has been accomplished with absolutely no breach of confidentiality or privacy. At this point in time, LIS's attention to detail, willingness to work with users, and our strong support of the "Canberra Group," (a set of major

central statistical offices and projects such as LIS, working together to improve the guidelines that define household income and its components for purposes of international comparability; see below), has given LIS a strong international backing. However, this was not always the case.

Privacy and Access: An Historical Perspective

Early on, the LIS project had to remove a large number of hurdles to obtain data. First of all, the LIS project stands for open and low cost (zero money cost) access to data by researchers who sign the privacy pledge (Table 5). Access to household income microdata by university or “think tank” researchers in a national context was essentially accepted practice in only a handful of nations. To provide flexible access and also to maintain the privacy and confidentiality of respondents was unheard of in the early 1980s. In fact, one of the major reasons that LIS ended up in Luxembourg was because Luxembourg has the strongest data protection and confidentiality laws in all of the OECD nations. Thus nations which provided their data had to be reassured that there would be no direct distribution of data outside of Luxembourg.

The obstacles were many. Suppose that LIS data could be used under restricted access conditions in Luxembourg (with the actual household income data being stored and used on the Luxembourg Central Government computers). This access would be useful only if the data could be harmonized and if the results proved feasible and attractive to researchers. And even then, one would have to travel to Luxembourg to make use of the data; something that researchers are not likely to do on a regular basis. All of these obstacles had to be overcome to make LIS work.

Three particular individuals were instrumental in making LIS work as it does. First, Professor Gaston Schaber, head of a Luxembourg “think tank,” CEPS provided the central funding for the creation of the harmonized LIS data, while the author did the harmonization and most of the initial variable definitions and construction, and wrote most of the initial papers.

Professor Lee Rainwater (LIS Research Director) and Mr. John Coder (then on leave from the U.S. Census Bureau) worked out a method by which the internet could be used to provide remote access to the harmonized but restricted data files. Thus, reasonable remote access to harmonized data could be obtained for a very low cost.

The final piece in the technical puzzle was the willingness of the original seven nations to share their data with LIS. For the United States, United Kingdom, and Canada, the task was relatively easy since there were no restrictions on foreign use of "public use" microdata files. In Germany, a small 1981-research center database ("Transferumfrage" or Transfer Survey) was made available, while in Israel, there were no objections to access government collected data, but not much documentation. For Norway and Sweden, however, where administrative data was used, exporting data to LIS was a bold step for their CSO's to take. With the help of Stein Ringer (Norway), Sten Johannson (Sweden) and Robert Erickson (Sweden), the Norwegian and Swedish data were made available to LIS in 1984.

All that remained was the issue of obtaining academic approval of this experiment. The result was the first LIS conference in Luxembourg in August 1985 and the subsequent publication of the first LIS book a few years later (Smeeding, O'Higgins, and Rainwater 1990), with a stirring introduction by Anthony Atkinson heralding the importance and usefulness of LIS.

By 1987 remote access via the SPSS software system was in place and users around the world began to use LIS. New datasets and countries were added; national sources of funding paid for the "public good" that LIS became, and the project moved forward.

Programs and Progress: LIS Perspectives

What was revolutionary in 1983 is by some standards "backward" in 2000. Now LIS is pressured to release its own public use microdata files to users around the world. However, the

privacy restrictions and restrictions on added use by the majority of LIS countries have made it impossible to do so. LIS has added several software packages (SAS and STATA as well as SPSS), several service-oriented staff, documentation of institutional data for national transfer programs and summary statistics. Yet it still cannot provide household income microdata offsite.

In many nations, for the World Bank, and for other data producers, household income microdata files are easily obtained in non-harmonized form by researchers who usually apply for such permission and pay a marginal cost for accessing these data. In many ways, then, the world of data access has moved beyond LIS. Still, LIS offers a product that few others can match: a set of harmonized datasets which are as comparable as can be made possible using the resources of the LIS database team.⁴ Other data sources are neither harmonized and often not comparable; but still they are widely used and treated as if they were comparable (e.g., see Atkinson et al. 2000; Smeeding 2000).

In contrast, some central statistical offices have not even come up to the LIS level of access. For a series of complicated reasons, the European Community Household Panel (ECHP) datasets collected from 1995 through 1999 for 15 European Community nations have not been made available to LIS or to independent scientific researchers more generally. The European Statistical Office, Eurostat, has set up a complicated process of access which is very expensive and very restrictive, almost bordering on the need for explicit permission from Eurostat to publish research results used in this data. As a result, scientific publications and research use of these data have been restricted and even minimized. For many of the less rich nations in Europe, e.g., Greece, Portugal, (until recently) Ireland, and Spain, these are the only recent income survey data available. Five years of negotiation with Eurostat by LIS have been totally unproductive in gaining access to these data. And, in effect, the lack of access has reduced both the demand for these data and their usefulness to academic and policy researchers in Europe. In

so doing, it has also likely reduced academic and public support for the ECHP itself since so few scientific results have been made public.

Finally, there is the case of Japan where researchers' access to microdata is difficult and where international access is not seriously considered. Japan has a rich set of household income microdata sources (e.g., Fukui 1996) and LIS-like estimates of Japanese inequality were once made by Professor Tsureo Ishikawa of Japan under LIS guidance (e.g., see Smeeding 1997). Since that time, however, Japanese income distribution data have not been provided to LIS. Despite this lack of progress, we are hopeful that Japan will someday join LIS as have all of the other nations mentioned here.

Improving Data Quality Directly: The Canberra Group

The best way to improve national survey data on income is to begin with improving the data itself. And just such a movement has recently begun. In 1996, the initiative to organize an International Expert Group on Household Income Statistics was taken by the Australian Bureau of Statistics in order to work on the development of statistics on household economic well-being and particularly on household income. The initiative reacted to a growing awareness that, in advancing the quality of their own household income statistics, National Statistical Institutes and CSO's shared many problems. In particular the comparative OECD study on income distribution (Atkinson, Rainwater, and Smeeding 1995) triggered a renewed discussion on the underlying quality and comparability of income data. Expectations were that combining forces would help solve conceptual and methodological problems, result in more relevant and reliable national statistics, and provide better data to be used for international comparisons on income distribution.

The primary objective of the Canberra Group is enhancing national household income statistics by developing standards on practical and conceptual issues which are related to the

production of income distribution statistics. Its work was in support of a revision of international guidelines on income distribution statistics provided in draft form in 1977 by the United Nations. The Group collectively addressed the common conceptual, definitional, and practical problems faced by national and international statistical agencies in this subject area and has acted as a forum for expert opinions on conceptual and methodological issues and for obtaining endorsement for guidelines. This combined approach to solving these conceptual and methodological problems will hopefully result in improved national statistics, and also in improved data for international comparisons on household income distribution.

The International Expert Group met for the first time in Canberra, Australia in 1996 and, taking its name from the venue of the First Meeting, is known as the "Canberra Group." It follows a now well-established phenomenon of City-named Expert Groups set up under the auspices of the United Nations Statistical Commission. From the beginning, the Canberra Group was designed to be a flexible working group of experts in household income statistics from both national and international organizations. Members of the Group included representatives from national statistical agencies, government departments and research agencies from Europe, North and South America, Asia, Australia and New Zealand, as well as from a number of international organizations and research agencies. The final report of the Canberra Group will be published early in 2001. The previous reports are available on the Canberra Group website, at LIS, or in hard copy (International Expert Group on Household Income Statistics 1997, 1998, 1999, 2000).

LIS has remained a primary sponsoring party to the Canberra Group from its beginning, also hosting the fourth and final meeting of the Group in May 2000. Yet the importance of the Canberra Group report for LIS is yet to be determined. When the final report is published in early 2001, its usefulness will depend upon the extent to which its recommendations and guidelines are used by national CSO's and other data producers. To the extent that the

comparability of these "source" data are improved, the LIS comparability of their harmonized data will also improve.

IV. Research Findings

Here we will present a brief overview of recent LIS findings on income-based poverty and income inequality. Future efforts could expand the number of countries, years or even concepts involved here. Consumption or wealth could be added to the income data below. Thus, this section is designed to provide a brief overview of the types of analyses available from LIS now and in the future.

In its brief 15-year history of publicly available data, the Luxembourg Income Study has provided the means by which researchers in the United States and elsewhere have been able to make accurate cross-national comparisons of economic status for several nations on a simultaneous basis. While these developments have initially and most prominently provided the basis for descriptive results and policy-oriented analyses, they are also providing the basis on which more substantive and theoretical insights can be gleaned. Here we briefly review research contributions based on the LIS. We concentrate on important achievements and most recent results in just two areas: poverty and inequality.

Income Inequality Measurement, Practice, Theory, and Consequences

LIS has provided a firm basis on which scholars can examine both the level and trend in income inequality at a point in time, and most recently over time. Researchers have questioned the Kuznets hypothesis that income inequality has risen in the 1980s and 1990s, not only in the United States and the United Kingdom (two of the more unequal national income distributions among LIS countries), but also in Sweden (one of the most equal nations) and in most other

Western nations (Atkinson, Rainwater, and Smeeding 1995; Gottschalk and Smeeding 1997, 2000; Smeeding 2000; Smeeding, Rainwater, and Burtless 2000; Osberg and Sharpe 2000).

Our seminal OECD study (Atkinson, Rainwater, and Smeeding 1995) has led us to rethink the entire methodology by which microeconomists approach income distribution studies. Instead of looking first at the “market” income distribution and then moving to the “after tax and transfer” disposable income distribution, we believe it more fruitful to begin with the latter and to then move backward to the market. Because of the large number of households in Western countries which rely on income sources other than earned income for economic sustenance, this “reverse” methodology allows researchers to separate the elements of fiscal institutions (taxes and transfers), legal institutions (e.g., child support and other mandated benefits), and employment-related institutions (e.g., private pensions) in creating each household’s income package (Atkinson, Rainwater, and Smeeding 1995; Gottschalk and Smeeding 1997, 2000; Liberati 2000). LIS has also provided the basis by which we can measure the distributive and the redistributive efforts of labor markets, direct taxes, and income transfers across nations and over time (Prus 2000; Osberg 2000; Jäntti and Danziger 1994, 2000; Jäntti 1997; De Nardi, Ren, and Wei 2000; Fritzell 1997, 2000; Blackburn and Bloom 1995; Gustafsson and Johansson 1999; Ervik 1998).

LIS has also played a lead role in measuring the contribution of noncash benefits to income position (Smeeding et al. 1993; Saunders et al. 1993; Bradbury and Jäntti 1999), and in setting international standards for income distribution (Canberra Group 2001). All of the contributed papers for the Canberra Group can be found on the LIS web site as well. And finally, LIS has begun to be used to research the relationship between income inequality and economic growth (Bénabou 1996; Burtless 2001; Brandolini and Rossi 1997), and between

income inequality and health outcomes (McIsaac and Wilkinson 1997; Phipps 2001; Förster and Toth 2000).

Recent Results

The LIS datasets are used here to compare the distribution of disposable income in 21 nations around 1995 and in earlier periods where 1995 data is not yet available. We focus here on relative (Figure 1) income differences, not absolute income differences.⁵ The relative inequality patterns found here correspond roughly to the results found in Atkinson, Rainwater, and Smeeding (1995), which use earlier years' LIS data in most cases. Our choice of inequality measures are four: the ratio of the income of the person at the bottom and top 10th percentiles to the median, P_{10} and P_{90} , respectively; the ratio of the income of the person at the 90th percentile to the person at the 10th percentile—the decile ratio—(a measure of “social distance”), and their gini coefficient.

We present a chart containing all four measures of inequality with nations ordered by the decile ratio from lowest to highest. At the bottom of Figure 1 we find in the United States a low income person at the 10th percentile in 1997 (P_{10}) has an income that is 38 percent of the median. A high income person at the 90th percentile (P_{90}), in contrast, has 214 percent of the median. The United States decile ratio is 5.64 times the income of the typical low income person, even after we have adjusted for taxes, transfers, and family size. In contrast, the average low income person has 52 percent of the income of the middle person in the average country; the average rich person has 182 percent as much, and the decile ratio shows an average “social distance” between rich and poor of 3.6 times P_{10} .

At the other end of the chart, a Swedish citizen at P_{10} has 60 percent of the median, the P_{90} is 156 and the decile ratio is 2.59, less than one-half as large as the United States value. This

evidence suggests that the range of inequality and of social distance between rich and poor in the rich nations of the world is rather large in the mid-1990s.

Countries in Figure 1 fall into clusters, with inequality the least in Scandinavia (Finland, Sweden, Denmark, Norway) and Northern Europe (Belgium, Denmark, Luxembourg). Here P_{10} 's average 58 percent of the median and decile ratios are less than 3, ranging from 2.59 to 2.92 and the gini range is 0.222 to 0.240. Central Europe comes next (The Netherlands, Germany, Austria, Switzerland, and France) with decile ratios from 2.89 to 3.39 and ginis from 0.282 to 0.300.⁶

Taiwan is an anomalous entry in the middle of the table, with a gini (0.277) and decile ratio (3.36) in the middle European range. Canada appears next with a lower gini (0.286) and decile ratio (3.90) than any other Anglo-Saxon nation and with less inequality than that which is found in Southern Europe. Spain, Israel, Japan, Australia, and Ireland come next with decile ratios from 3.96 to 4.22 and ginis 0.305 and 0.330. Surprisingly, Japanese inequality is above the average levels here with a gini of 4.17, P_{10} of 46, and P_{90} of 192 compared to overall averages of 0.290 for the gini, and 52 and 182 for the P_{10} and P_{90} , respectively.⁷ Finally, Italy (4.68) and the English speaking countries of the United Kingdom (4.52), and the United States (5.54) come last with the highest levels of inequality and the greatest social differences as measured by the decile ratio or gini. Ginis here are 0.346 and above.

The United States has the highest decile ratio due in large part to its low relative incomes at the bottom of the distribution. The closest ratios to their P_{10} value of 38 are the United Kingdom (46), Italy (43), Australia (45), Canada (46), and Japan (46). No other nation has a value below 50. At the top of the distribution incomes in the United States are also a bit different from those in other high inequality nations. The P_{90} of 214 is highest followed by Ireland and the United Kingdom (209), Israel (205), and Italy (201), with no others above 200.

While percentile ratios as measures of social distance have some obvious appeal (e.g., insensitivity to top coding, ease of understanding), they have the disadvantage of focusing on only a few points in the distribution and lack a normative basis. Figure 1 presents an alternative more commonly employed Lorenz-based summary measure of inequality, the gini coefficient. As we saw above, relying on this measure, country ranking change little. Inequality is still lowest in Scandinavia, then Central Europe, Southern Europe, Asia with the English speaking countries (except for Canada) having the highest inequality and the United States the highest among these. Canada is in fact, the one anomaly worth noting. By the mid-1990s Canadian inequality as measured by the gini is at 0.286, below that of Germany and about the same as France and The Netherlands.

In sum, there is a wide range of inequality among rich nations. Measures of social distance and overall inequality indicate that the United States has the most unequal distribution of adjusted household income among all 21 countries covered in Figure 1, while Sweden has the most equal. In terms of groupings, the Scandinavian and Benelux countries have the most equal distributions; Central Europe is in the middle of the groupings; and the United Kingdom and Italy coming closest to the degree of inequality found in the United States.

Poverty Measurement

The LIS database has been extensively used to compare levels of relative and absolute poverty across countries and over time (Bradshaw and Chen 1997; Blackburn 1994; Casper, McLanahan, and Garfinkel 1994; Siegenthaler 1996; Rainwater, Smeeding, and Coder 2001; Smeeding and Ross Phillips 2000; Bradbury and Jäntti 1999; Jäntti and Danziger 2000; McFate, Smeeding, and Rainwater 1995; Smeeding, Rainwater, and Burtless 2000; Duclos and Gregoire 1999). One arena where LIS has provided the basis for important economic and policy insights is in older women's poverty. We have discovered greater diversity in economic status among

United States elderly than among those in other modern nations. The failure of our social insurance and safety net to protect older women from poverty status has been widely noted and has led to proposals to restructure Social Security survivors' benefits. These proposals are being carefully reviewed by the Social Security Administration and are expected to produce legislative recommendations to remedy this situation (Burkhauser and Smeeding 1994; Burkhauser, Smeeding, and Merz 1996; Smeeding and Sullivan 1998; Smeeding and Saunders 1999).

While the United States aged and young have far higher relative poverty rates than do those of other nations, the case for absolute poverty comparisons is not so clear (Smeeding, Rainwater, and Burtless 2000; Blackburn 1994). This examination has led to new work on purchasing power parities for microdata comparisons of real (absolute) standards of living and more extensive work on family income packaging (Rainwater 1995; Smeeding, Rainwater, and Burtless 2000; Bradbury and Jäntti 2001; Smeeding, Ward, Castles, and Lee 2000; Rainwater and Smeeding 1998). The PI's work on both absolute and relative poverty has formed the basis for several sections in the 1997 and later editions of the *United Nations Human Development Report* which were devoted to poverty in rich countries (Smeeding 1997).

Two recent developments regarding the role of LIS in child poverty studies include its expansion to include the effect of poverty in child outcomes (Phipps 1999, 2001) and comparisons of child poverty across U.S. states and countries using the new LIS United States state-specific database (Rainwater, Smeeding, and Coder 2001). The availability of cross-state data will spawn a whole new series of studies on cross-regional as well as cross-national poverty, inequality, earnings, and related studies.

For instance, our newest book, *Child Well-Being, Child Poverty and Child Policy in Modern Nations: What Do We Know?* was published in February 2001 by the Policy Press. In Table 6, for the first time we present comparable child poverty estimates for the 50 United States

(in 27 groupings for accuracy's sake), the 10 Canadian provinces, and 20 other nations. Clearly, the United States range upwardly dwarfs the range across Canadian provinces and the range in other European and Asian nations. Interestingly, New York and California are "poorer" states than Alabama or Louisiana when the reference group is the state itself. This type of analyses can be expanded upon by examining regional poverty within Australia, Italy, Germany, or Japan as well.

V. The Future: Summary and Conclusion

The LIS project is now stronger than ever, with adequate funding, and good scientific reputation and excellent staff. LIS is expanding its horizons to add Mexico, South Africa and a second wave of Central and Eastern European nations.⁸ We are developing new "web access" tools to substitute for complicated software so that non-programmers can have basic, but still restricted, access to LIS files. Response time for over 95 percent of remotely submitted jobs is now 15 minutes or less and less than 5 minutes for 60 percent of all jobs (Coder 2000). Moreover, several CSO's have been in touch with the LIS technical team to assess the feasibility of making their own data available via remote access. The final report of the Canberra Group (see LIS website at www.lis.ceps.lu/canberra) was published in March 2001 and now we can also hope that better source data will come to LIS; something that will make the harmonization process easier to beginning with.

Our research horizons will continue to expand as we look into the causes and consequences of poverty and inequality, both across nations and across regions within nations. Income inequality will be linked to its social consequences and to other relevant outcomes such as population aging and social investments in health, education, and related programs.

Thus, the future is bright for LIS and its process of restricted data in a safe, user friendly environment. We can only hope that the statistical offices, which have been so restrictive in their access to data, come to see the net benefits for users, providers, and governments more generally from participating in the LIS and in other similar projects.