GINI

COMPARABLE INDICATORS OF
INEQUALITY ACROSS COUNTRIES

Position Paper

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GROWING INEQUALITIES' IMPACTS

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(Version 1)

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Abstract

This paper addresses the key issue for the GINI project of how best to approach the measurement of income inequality and wage inequality to enhance comparability across different studies. It focuses first on income inequality, dealing with the definition of income, the income recipient unit, and the unit of analysis. The summary measures used to capture inequality are also discussed, with an emphasis on capturing trends at different points in the distribution, and sources for comparative data on inequality levels and trends are discussed. The paper then turns to inequality in earnings among employees and discusses the same set of issues in that context.

The above bears directly on any analysis of inequality itself but it is also important for an analysis of the direct impacts of inequality at micro-level. For a (multilevel) analysis based on aggregate inequality as an input the paper provides an understanding of the need for comparable concepts and definitions across countries and links to data sources as well as aggregate levels. It also links to practical experiences of researchers with different datasets. For this and the datasets see the Data Portal at gini-research.org

1.   Introduction

Measuring income inequality levels and trends in a consistent, harmonised fashion is at the core of the GINI project, essential if it is to achieve its objectives of tracing and understanding the social, political and cultural impacts of inequality. The fact that different national and comparative studies of inequality and its impacts define and measure income inequality in differing ways makes it difficult to generalize from their specific findings. The GINI project aims to exploit differences between and within countries in inequality levels and trends in order to understand their impacts and tease out the implications for policy and institutions, encompassing 25 EU countries, the USA, Japan, Canada and Australia. In order to do so, a common approach to the measurement of inequality across those countries, insofar as is possible with available data, will be sought. In this paper we review a range of issues that arise in considering such an approach, focusing first on the definition of income and the income recipient unit, then turning to the unit of analysis, the time period covered, the measures employed, and sources of data for comparative analysis.

It must be emphasized at the outset that the appropriate inequality measures will vary depending on the topic to be addressed. Both in seeking to track and analyse inequality itself, and in studying the impact of inequality on economic, social and political outcomes of interest – i.e. where inequality is an explanatory variable – the concept and how it is best operationalized will depend in the first instance on the nature of the relationships being hypothesized and tested. Most importantly, inequality in total household income versus the dispersion in earnings among employees capture quite different aspects of inequality, each the subject of very substantial research literatures; here we deal with overall income inequality first and then with earnings dispersion. We discuss some of the central issues and choices to be faced in the operationalization stage of the analysis, but the choice of concept and decisions about how it is best measured must be driven by the research question, and for that reason will naturally vary across different contributions to the GINI project. The aim is however to minimise variation that is not motivated by such considerations in order to maximize comparability across those contributions. Any remaining variation needs to be mentioned and its potential effects for the arguments and conclusions discussed. It is of fundamental importance for all contributions to GINI to be explicit about the concepts and definitions used, in theory as well as in practice – given the data –, and indicate the implications of choices that have been made, for the argument and conclusions. Evaluating data outcomes from international sources with the help of national sources, and the other way around, is equally advisable.

2.   Household Income

Income inequality is most often studied in terms of household income. As brought out in the review of inequality measurement by Jenkins and van Kerm (2009) - on which we draw heavily - there are arguments for focusing on consumption expenditure rather than income in assessing economic welfare, but the common practice is to rely on income. We focus first on the definition and measurement of income and the issues that arise in that context, then turn to the time period covered, the income recipient unit and how a household is defined, and the unit of analysis.

Definition of Income

The core income concepts involved are market, gross and disposable income, which are defined as follows:

- *Market income* is the sum, across all household members, of gross (usually excluding employer social insurance contributions) labour market earnings from employment or self-employment, together with income from savings and investments such as rent, interest and dividends.

- *Gross income* adds to market income cash transfers from the state such as social insurance or social assistance benefits, together with any private transfers received from other households such as gifts, alimony, or child support payments.

- *Disposable (or net) income* deducts from gross income the direct taxes and social insurance contributions paid, as well as any private transfers made to other households.

Striving towards agreement on the definition of income across statistical agencies has been the topic of various studies and reports, most recently from the Expert Group on Household Income Statistics (The Canberra Group), whose 2001 Report represents the current consensus. This has major implications for comparative analysis of income inequality. In an EU context in particular, the EU-SILC data-gathering framework now producing comparative data on incomes and living conditions across the Union seeks to adhere as closely as possible to the Canberra Group recommendations on the definition of household income. However, this is not necessarily true of national sources or of data previously gathered in the European Household Community Panel (ECHP), on which comparative analysis for earlier periods has to rely, and in practical application issues of data quality and availability still have to be faced. In addition, there is no one income concept or measure that suits all purposes: as the Canberra

Group report states, "it is important to recognise at the outset that different measures of income may be the most appropriate or the best available for different analytical purposes" (page 11).

Such practical and conceptual complexities may be highlighted by reference to several concrete issues that can affect comparability across countries or over time. Perhaps the most important relates to income from "imputed rent". The Canberra Group recommends that such an income be attributed to people who own their own home and thus do not have to pay rent, or are paying below-market rent, since they enjoy an advantage over those paying rent which would otherwise go unrecognised. This can be estimated in various ways (with reference for example to the market rent of an equivalent home), but in practice it is often difficult to do so consistently and reliably. Most countries do not include imputed rental income in their income distribution statistics, and that was also the case with the ECHP and the earlier rounds of EU-SILC. Since 2007 the data produced for EU-SILC has to include an estimate of imputed rent, with several alternative estimation methods put forward by Eurostat but not all countries following them (see Eurostat, 2010). It appears that these amounts are not yet taken into account in the income inequality and poverty indicators produced by Eurostat from EU-SILC, but users of the micro-data need to be aware that this is included in the dataset.[1] The amounts involved can be substantial (see e.g. Frick and Grabka, 2007), so knowing whether an estimate is included or not is critically important from a comparability point of view. Where estimates of imputed rent are available, there are conceptual issues involved in deciding whether one wants to include them. Failure to do so can mislead as to the relative situation of for example older people (many of whom own their own homes) versus young people who are renting or in the early stages of house purchase, and in measuring overall inequality there is a strong case for its inclusion where possible, though where this cannot be done consistently comparability considerations may be more important. However, imputed rent is not equivalent to cash income, in that it cannot be used to meet other expenditure needs, and this may be very important when the focus is on low incomes and poverty. As Atkinson *et al.* (2002) emphasize, someone on a low income owning a large house benefits in terms of housing costs, but the substantial rent imputed to them is not available to pay for their food, clothing or heating; where poverty/low income is the focus, then, simply including imputed rent may not be satisfactory.

Other elements of income that may or may not be included in available measures include the value of home production and employer benefits. Own production of agricultural produce is still important in some OECD countries, and in principle should be included in household income, but is ignored in the statistics gathered in many countries where it is now much less common. Similarly, benefits from employers such as company cars, free or subsidised meals, payment of housing-related expenses such as utilities or telephone bills, and free or subsidising

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1   Eurostat's instruction to national statistics offices in relation to EU-SILC 2008 is to collect this information but not to include it in total household income (see Eurostat, 2010).

housing may or may not be included. (Note that this also depends on the tax system which in certain countries already forces the inclusion of some components into taxable income or earnings.) EU-SILC, for example, includes estimated values for these as a component of income, but only from 2007 including the income from the private use of a company car. There is clear potential for non-comparability over time within a country and across national data sources for different countries in this respect. Another income type that is sometimes omitted and sometimes included is amounts transferred from one household to another, either on a regular or once-off basis. We return to these issues in discussing specific data sources below (with particular emphasis on differences in the definition/measurement of income between ECHP versus EU-SILC) but highlight here the general point that different definitions of income are employed and that such differences may significantly impact on comparability over time and across countries. Again these need to be made explicit and their effects on key results scrutinised.

It is also important to be aware that in some cases certain sources of income may be based on imputed estimates rather than obtained directly. For example, in some data sources gross income is directly measured but income taxes and social insurance contributions are then estimated on the basis of the relevant tax/contribution codes and the characteristics of the household. This is true for the Cross-National Equivalent File based on panel survey data from the US, Germany, Britain, Canada and Australia, and for some countries in EU-SILC.[2] A related, important point is that in EU-SILC individual income components – earnings, self-employment income, transfers - are reported as gross amounts, whereas in the ECHP the income components were recorded net of income tax and social insurance contributions.[3] EU-SILC is thus better aligned to the analysis of the scale of redistribution by transfers and direct taxes, often a key variable of interest. Another significant source of variation and potential non-comparability arises where information is sought but not given by some respondents, where missing values may be imputed; practices differ across statistical agencies and surveys in this respect, in a manner which is often not transparent. It is also important to be aware that some sources of income are generally more poorly measured in household surveys than others, with income from self-employment and from capital prominent examples of sources that are less well measured; this may bias estimates of the degree and nature of inequality in a particular country at a given point in time, but since the extent of mis-measurement may also vary across countries and over time, may be a source of bias in those contexts too. Finally, top-coding of high incomes in some datasets may sig-

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2   Eurostat has developed a generic model for net-gross conversion to meet the EU-SILC requirements for the construction of the standardised income variables, named the Siena Micro-Simulation Model (SM2).

3   It gives a net/gross factor though for the household as a whole which applies to all its members.

nificantly affect trends over time (as US experience with the CPS illustrates), and it is essential to be aware when this is being done.

Even where the definition and coverage of the income concept is the same, differences in the way income is actually measured may give rise to variation across sources and datasets. The most obvious example is the difference between data drawn from administrative sources versus household surveys. Data from population registers drawing inter alia on the records of the tax and social security systems have been available for many years for Scandinavian countries, whereas many other countries have relied on household surveys. The ECHP was survey-based, whereas the EU-SILC framework allows countries to incorporate data from different sources, including administrative records. The difference the use of administrative versus survey-based data could make to measured levels of inequality is unclear but needs to be kept in mind.[4] Even where data are all taken from surveys, there may be significant differences in the way specific income sources are captured. This is particularly pronounced in the case of income from self-employment. The Canberra Group refers to the "net operating profit or loss accruing to working owners of, or partners in, unincorporated enterprises" (page 118), while for EU-SILC purposes Eurostat guidelines refer to the annual profit/loss from accounts, taxable income, and the yearly amount drawn out of the business. There is considerable scope for differences in measurement practices to affect the income estimates, to which the level of measured inequality in turn may be sensitive since self-employment incomes may represent a significant proportion of cases at both the top and the bottom of the distribution. A related issue where practices vary is the treatment of negative incomes, most often losses on self-employment income. Such negative incomes may be amended or set to zero when the data are processed, or they may simply be reported. The ECHP, for example, set negative incomes to zero, whereas they are reported in EU-SILC.

The Time Period

The time period over which income is measured is another significant issue, and one where practice once again varies across sources. This matters because lengthening the reference period will generally smooth out transitory fluctuations and thus reduce measured inequality. The Canberra Group recommended that a year be used as the reference period, on the basis that this was the natural accounting period for sources such as self-employment income as well as for data derived from the income tax system. However the Group also noted that different periods may

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4   One may venture that inequality of gross earnings may be better measured administratively while personal/household surveys may do relatively better for net earnings.

be relevant in different contexts, especially when data are collected by using household surveys and when wages and salary income and social security benefits are paid on a regular weekly or fortnightly basis.

In EU-SILC, the income reference period for most countries is the calendar year previous to the year in which the survey is carried out, but there are two exceptions: in Ireland the income reference period is the twelve months before the date of interview, while in the United Kingdom current income is annualised i.e. weekly figures for employee income and transfers are multiplied by 52, monthly by 12.

This brings out first that even when an annual accounting period is deemed most suitable, it matters when this starts and ends: in assessing the impact of the economic crisis, for example, 2008 EU-SILC data mostly refer to incomes in the calendar year 2007, that is before its main effects will have been felt. A survey carried out in 2008 and focused on income in the 12 months leading up to the survey date, on the other hand, will capture much of 2008 incomes. Secondly, an annual accounting period may not always be used, and may not always be the most appropriate either. Some surveys focus primarily on "current" income, i.e. income this week or month, and use a longer period only for more irregular or fluctuating sources such as self-employment income. The most appropriate reference period depends on the use to which the data are to be put, and current income derived in this fashion may be more suitable when the focus is on poverty and social exclusion than an annual reference period, which in effect assumes that households can even out their consumption over the year as income fluctuates.[5]

The Unit of Analysis and the Income Recipient Unit

As well as the period over which it is measured, one has to decide on the appropriate recipient unit in analysing income: should one be focusing on individuals and the income accruing to them, or adding up the incomes of members of a family or wider household and analysing the distribution across those larger units? (A household includes individuals at the same address who are not part of the nuclear family, such as grandparents, adult children, or unrelated lodgers.) There are in fact two different issues here: the core interest is in the situation of persons, which speaks for the individual being the unit of analysis, but the income accruing to others in their family or household may be very important to their living standards and command over resources, so the income recipient unit may be broader – we may analyse individuals but in terms of their family or household income.

The question is then how best to capture the situation of the individual given the data generally available. Individuals such as women working in the home and dependent children may have no income in their own name, but the income of their household ensures some access to resources via sharing within the household. Standard prac-

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5   Atkinson et al. (2002) from this perspective recommended use of 'current modified income', i.e. aggregating annualized current regular components (wages, regular social benefits, pensions, multiplied by twelve if paid monthly) and, for irregular components or those best collected on an annual basis, figures for the most recent and appropriate period (e.g. self-employment income, capital income, annual bonuses).

tice in most distributional analysis is to assume that resources within households are equally shared among each household member or, equivalently, each individual within the same household is assumed to receive the same income. This has the great advantage of convenience, but will be misleading where such sharing is in fact limited. However, the other extreme of simply counting the income accruing to each individual and treating those with no incomes of their own as equivalent to zero income is even more likely to give an inaccurate picture. There has been some valuable theoretical and empirical investigation of intra-household allocation (see, e.g., Bourguignon and Chiappori, 1992), but no viable general alternative to the standard assumption of equality within the household has emerged.

The precise definition of a household is then a non-trivial issue, representing once again a source of variation across countries and sources where practice differs. In EU-SILC, for example, the following persons are regarded as household members:

- Persons usually resident, related to other members;
- Persons usually resident, not related to other members;
- Resident boarders, lodgers, tenants (for at least 6 months);
- Visitors (for at least 6 months);
- Live-in domestic servants, au-pairs (for at least 6 months);
- Persons usually resident, but temporarily absent from the dwelling;
- Children of the household being educated away from home;
- Persons absent for long periods, but having household ties;
- Persons temporarily absent (for less than six months) but having household ties.

However, the very valuable "quality reports" prepared by Eurostat on the basis of national reports from the statistical offices reveal that there is significant deviation from the standard definition and membership in certain cases. In Italy, for example, live-in domestics are not included as household members, while in Spain that is the case for boarders, lodgers, tenants, visitors or live-in domestic servants or au-pairs who have another address which they regard as their usual residence. In the United Kingdom, children aged 16 or over who live away from home for work or study and come home for holidays are not included at the parental address. Similar differences are to be found in other sources: in the data included in the LIS databank, for example, Sweden has a particularly

narrow definition of the recipient unit. It is also worth noting that analysis of income inequality in certain countries – notably the USA – tends to focus on the narrower nuclear family rather than the household.

Taking Household Size and Composition into Account

In addition to the within-household allocation, using the household as the income recipient unit raises complex issues on how to compare incomes across households of different household composition – since a particular level of income will have quite different implications for a person living alone versus a couple with three children. One can calculate the income per capita of household members, but this ignores differences between adults and children and the fact that larger households can benefit from economies of scale - the additional cost of heating and light associated with an extra person in a large family may be negligible. Equivalence scales are the standard way of taking these factors into account, deflating household income by a household-specific factor that is less than one for each extra household member and may differentiate between adults and children. There is a large literature concerning the appropriate choice of equivalence scale relativities, derived from a wide variety of methods, but with no consensus on the most satisfactory.[6] This means that the scales used in practice are generally ad hoc, most often the 'modified OECD' equivalence scale of [1 + (0.5 × number of additional adults) + (0.3 × number of dependent children)] or the 'square root' scale which is simply the square root of the number of people in the household, that is household size. Research investigating the sensitivity of distributional results to the choice of equivalence scale (see, inter alia Buhmann et al., 1988, Coulter et al., 1992, Jenkins and Cowell, 1994) shows that this can substantially affect estimates of the relative income position of single versus multi-adult households and thus for example the position of elderly people relative to couples with children; cross-national comparisons can also be affected, although within-country trends over time appear less sensitive.

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6   Derivation methods are surveyed by Coulter et al. (1992) who emphasize the essentially normative aspects of equivalence scale specification.

3.   Measuring Income Inequality

In seeking to either investigate the evolution of income inequality itself or its impact on other economic and social outcomes, a range of alternative ways of summarising the distribution are employed. Ranking recipients from poorest to richest, it is common to present the overall distribution in terms of deciles levels or decile shares – the (next-higher) level of income below which 10% of the population (bottom 10%, next 10%, etc. … up to the top 10%) is found or the share of the population's total income accruing to that decile. Graphing the distribution in various ways has proved a powerful tool, notably via the Lorenz curve which plots the cumulative share of income going to the bottom x% of recipients, where x goes from 0 to 100%. This has allowed the circumstances in which distributions can be robustly ranked as more or less equal in social welfare terms to be determined. If the Lorenz curves of two distributions do not cross, then one can unambiguously conclude that inequality is lower in one distribution than another, without relying on any particular inequality measure to order the distributions.[7]

However, summary measures seeking to capture the level of inequality are particularly convenient, especially when inequality is to be used as an explanatory variable; the problem is that there is a profusion of available measures. An extensive literature has teased out the properties of the available measures (see for example Cowell, 2003, 2011), and we briefly describe the most commonly-used ones.

1. Percentile ratios, taking for example the difference between the 90th and the 10th percentiles or the ratio between them. Percentile ratios are also sometimes expressed vis-a-vis the median, allowing dispersion towards the top and the bottom to be distinguished.

2. Income share ratios, expressing the share of total incomes held by the richest 20% (for example) versus the poorest.

3. The Gini coefficient, which is half the relative mean difference – the average of the absolute values of the differences between all pairs of incomes, relative to the mean. In Lorenz curve terms this is equal to the ratio of the area enclosed by the Lorenz curve and the diagonal line of perfect equality to the total area below the diagonal. It ranges from zero (perfect equality) to 1 (perfect inequality).

4. The class of Generalized Entropy measures of which prominent members are Theil's index, the Mean Logarithmic Deviation, and half the squared coefficient of variation. (A useful feature of these indices is that they are additively decomposable by population subgroups.)

5. The closely related Atkinson inequality measure (Atkinson, 1970), which incorporates an explicit inequality-aversion parameter.

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7   Even when Lorenz curves intersect, if they cross only once Davies and Hoy (1995) show that they can be readily ranked.

This array of possible measures leaves the researcher with a surfeit of choice. The properties of different inequality measures have been intensively investigated, bringing out for example which are more sensitive to changes at the top versus the middle or bottom of the distribution.[8] (Note also that some measures have to exclude or amend incomes of zero – notably those based on log or exponentials such as the Theil and Atkinson measures and the mean log deviation.) Percentile-based measures are distinctive in ignoring information about the distribution between the percentiles being compared, but do provide a direct means of distinguishing trends towards the top versus the bottom, and also are insensitive to outliers at the very top or bottom which may be particularly poorly measured. Recent theoretical developments in the inequality literature have also clarified the relationship of 'traditional' inequality indices such as the Gini coefficient to concepts such as relative deprivation and 'complaints'/ concerns about income distribution that are also relevant for the shaping of policy (Cowell 2008). Measures of polarisation of the income distribution, which is related to but may be distinct from `traditional' inequality, have also been developed (Wolfson 1997); again, relatively straightforward measures such as interquartile ranges/ratios may be helpful in this context.

As well as summary measures, it may also be relevant to focus on the income shares accruing to specific parts of the distribution: the bottom from a poverty perspective, the middle from a "squeezed middle"/polarisation perspective, and the very top given the dramatic increases in top income shares in many countries documented and explored by Atkinson and Piketty (2007, 2010). Tax data provide the source for tracking top income shares, rather than the household surveys on which one generally relies for the bulk of the distribution, and one must be aware of the different features and limitations of these sources in capturing incomes at different points in the distribution.

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8   The Gini is less sensitive to changes at the extreme of the distribution than e.g. the mean log deviation (at the bottom) and the squared coefficient of variation (at the top).

4. Available Data on Income Inequality

Data on income distribution trends over time within a given country have improved in many cases, with examples including Britain's annual income distribution statistics, the so-called Households Below Average Income series (Department for Work and Pensions, 2010). In addition, as Jenkins and Van Kerm (2009) emphasize, substantial progress has been made in producing harmonized data on income inequality incorporating a high degree of comparability The ability to make reliable cross-national comparisons of income has been substantially advanced by the Luxembourg Income Study (LIS - see http://www.lisproject.org), a cross-national data archive located in Luxembourg bringing together micro-data for a large number of countries, and exploited in a wide range of comparative studies (see for example Atkinson, Rainwater and Smeeding, 1995). This now covers more than 30 countries with datasets that span up to three decades, as shown in Table 1 focusing on countries covered by the GINI project.[9] While the concepts and variables have been harmonized to the greatest extent possible, the fact that the datasets are drawn from different national surveys inevitably means that some sources of non-comparability cannot be addressed after the event. While researchers can access the microdata directly (though only remotely, by submitting commands electronically, rather than by downloading the data), summary indicators of income inequality and poverty produced from the database are also presented on the LIS website in an excel spreadsheet entitled "LIS Key Figures".

Another important source of summary measures of income inequality and poverty (though not of microdata) across countries and over time is provided by OECD. The OECD has collected data on income inequality on a number of occasions from its member countries, supplied using national data sources but to a common template. This has served as the basis for various OECD studies on the topic, most recently the widely-cited Growing Unequal (2008) report. The published data include summary inequality measures and decile shares, as well as income poverty rates, for a number of time points over the last 30 years at about 5-year intervals, the most recent being around 2005.

For the European Union, both micro-data and summary indicators of poverty and inequality have been produced by Eurostat since 1994, and the country coverage of these data has expanded along with membership of the Union itself. The key sources are the European Community Household Panel Survey organised by Eurostat and carried out in most of the then (15) EU member states from the mid-1990s to 2001, and subsequently the EU-Statistics on Income and Living Conditions data-gathering framework which replaced it and extend to the new

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9   The following countries covered by GINI are missing: Bulgaria, Japan, Latvia and Lithuania,

members states. Since these are core sources for comparative research – though of course only for the EU rather than for example OECD countries more broadly – some detail on their nature and coverage may be useful.

Table 1: LIS Database List (GINI-relevant Countries)

COUNTRY	WAVE I AROUND 1980	WAVE II AROUND 1985	WAVE III AROUND 1990	WAVE IV AROUND 1995	WAVE V AROUND 2000	WAVE VI AROUND 2004
Australia	1981	1985	1989	1995	2001	2003
Austria		1987		1994/1995/1997	2000	2004
Belgium		1985	1988/1992	1995/1997	2000	
Canada	1981	1987	1991	1994/1997	1998/2000	2004
Czech Republic			1992	1996		2004
Denmark		1987	1992	1995	2000	2004
Estonia					2000	2004
Finland		1987	1991	1995	2000	2004
France	1979/1981	1984A/1984B	1989	1994	2000	
Germany	1981	1983/1984	1989	1994	2000	2004
Greece				1995	2000	2004
Hungary			1991	1994	1999	2005
Ireland		1987		1994/1995/1996	2000	2004
Italy		1986/1987	1989/1991	1993/1995	1998/2000	2004
Luxembourg		1985	1991	1994/1997	2000	2004
Netherlands		1983/1987	1991	1994	1999	2004
Norway	1979	1986	1991	1995	2000	2004
Poland		1986	1992	1995	1999	2004
Romania				1995/1997		
Slovak Republic			1992	1996		
Slovenia				1997	1999	2004
Spain	1980		1990	1995	2000	2004
Sweden	1981	1987	1992	1995	2000	2005
United Kingdom	1979	1986	1991	1994/1995	1999	2004
United States	1979	1986	1991	1994/1997/ State file: 199567	2000	2004

The European Community Household Panel survey (ECHP) was a harmonised longitudinal survey coordinated by Eurostat which ran from 1994 to 2001 (2002 in some Member States), covering a wide range of topics such as income, employment, household structures, health, education, and housing. In the first wave a sample of some 60,500 households, containing approximately 130,000 adults aged 16 years and over, were interviewed across 12 of the then Member States. Austria and Finland joined the ECHP in 1995 and 1996 respectively.[10] In most countries the surveys were carried out using a harmonised questionnaire, harmonised definitions and sampling requirements, so the high degree of cross-national comparability from a design perspective is distinctive.[11] Some missing data was imputed by Eurostat, which also developed weights to apply to the samples, to reflect initial sample design, response rates and population structure.[12] The fact that individuals were followed from one year to the next makes

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10   Sweden did not participate in the ECHP, but from 1997 provided some cross-sectional data derived from its National Survey on Living Conditions.
11   See Eurostat (1996), Peracchi (2002) for descriptions of the survey and methods employed.
12   Procedures for imputing missing values are described in Eurostat (2001a), while Eurostat (2001b) sets out the development of weights.

it possible to examine how their circumstances changed and, in particular, to measure the persistence of low income and poverty. This comes at a cost: attrition – losing respondents from one survey to the next – is a general problem with longitudinal surveys, and was substantial in some countries over the life of the ECHP. The impact on the composition of the samples generally seems to have been limited, but it remains a consideration in longitudinal analysis.[13] Data from the ECHP have been made available to researchers in the form of a USER Data Base or UDB, as described in Eurostat (2001c, d).

The ECHP was discontinued in 2001 (or 2002 in a few countries), and was replaced by the European Statistics on Income and Living Conditions (EU-SILC) which is currently the EU reference source for indicators of poverty and social inclusion. EU-SILC is coordinated by Eurostat and covers all 27 Member States of the EU (plus some others such as Iceland, Norway and Turkey). It was launched in 2003 in six Member States, and by 2005 was operating in all of the then EU-25 countries, subsequently extending to Bulgaria and Romania when they joined the EU in 2007. EU-SILC takes a very different approach to the ECHP: rather than a common design and questionnaire, it is based on a common framework for the production of specified statistics on income and living conditions. Member States have considerable autonomy in the areas of sampling design, questionnaire editing and data compilation, but the "target" variables required are tightly defined in the framework Regulation, which also sets out common guidelines and procedures, common concepts (such as what constitutes a household and how income components are defined) and classifications aimed at maximising comparability of the information produced. Both household surveys and administrative registers can be used to produce the data, provided they are "linkable" at the micro-level; while there is a longitudinal element, it generally involves following an individual only for four years, and the cross-sectional element can be separate from the longitudinal one.[14]

Considerable effort is being invested by Eurostat and national statistics offices into assessing the quality of the data produced by EU-SILC, with each country being obliged to provide a detailed annual quality assessment report, and Eurostat producing an overall assessment of quality each year focused on accuracy, timeliness and comparability, and covering areas such as sample design, sampling and non-sampling errors, mode of data collection and imputation procedures (see for example Eurostat, 2010).[15] The switch from the ECHP to EU-SILC as the main source of data and indicators on income and living conditions in the EU was aimed at improving the robustness, comparability and timeliness of the data, but is a potentially significant source of discontinuity between the two time series, and also needs to be taken into account in cross-sectional analysis.[16]

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13   See Eurostat (2002), Watson (2003), Behr, Bellgardt and Rendtel (2005).
14   For general descriptions of EU-SILC and discussion of its key features see Clemenceau and Museux (2007), Marlier et al (2007), Wolff, Montaigne and Gonzalez (2010).
15   For valuable discussions of accuracy in EU-SILC see also Wolff, Montaigne and Gonzalez (2010) and Verma and Betti (2010).
16   On which see Eurostat (2005), Marlier et al (2007), Atkinson, Marlier, Montaigne and Reinstadler (2010).

This arises from two sources: some deliberate changes in the way income is defined and measured, and the shift from an "input-harmonised" to an "output-harmonised" data collection framework. Changes in the income concept in EU-SILC compared with the ECHP include the following:

- EU-SILC obtains estimated values for imputed rent and the private use of a company car from 2007;

- Regular inter-households transfers to other households are deducted from the income of the donor household in EU-SILC, whereas in the ECHP amounts received from this source were included but payments were not deducted.

- Lump-sum tax adjustments are deducted from/ included in household income in EU-SILC but were not in the ECHP.

- Negative incomes for the self-employed were put at zero in the ECHP but can be reported in EU-SILC.

The more fundamental change was from the harmonized questionnaire employed across the countries participating in the ECHP to the quite different data-gathering framework being employed with EU-SILC, as well as the shift from a wholly longitudinal ECHP design subject to serious attrition over time to a much more limited longitudinal element in EU-SILC. In the latter, a set of key target variables is specified, and individual countries have scope to decide how best to obtain that information from one or more surveys and/or administrative sources. The potential impact on measured levels of inequality across countries, and the implications for those measures over time linking those produced from ECHP and EU-SILC, has to be taken seriously in employing these key data sources for comparative analysis.

While LIS, OECD and ECHP/EU-SILC provide for a variety of indicators of income inequality and poverty, they do not provide a continuous annual time-series over a substantial number of years for a wide range of countries. Investigations requiring such data generally draw on the inequality dataset originally compiled by Deininger and Squire (1996) and subsequently built on and adapted by others. This is confined to the Gini coefficient, for which Deininger and Squire brought together observations from a wide range of sources for developed and developing countries in a dataset subsequently used extensively in cross-national studies. Unfortunately, as Deininger and Squire themselves pointed out, the observations are rarely comparable across countries or even over time within a single country because many are based on different income definitions (e.g., gross or net) and different reference units (e.g., households or persons). Building on Deininger and Squire, the World Income Inequality Database (WIID) created by the World Institute for Development Economics Research of the United Nations University (UNU-WIDER 2008) incorporates data from additional sources and provides the most comprehensive set of

income inequality statistics currently available, for about 160 countries. It documents the sources of the data and the income definition, area and population covered, and reference unit for each observation, allowing researchers to choose observations so as to maximize comparability by choosing only those observations with identical values on these criteria. This may involve discarding most of the observations, however, so both the Standardized Income Distribution Database (SIDD) created by Babones and Alvarez-Rivadulla (2007) and the Standardized World Income Inequality Database SWIID (Solt, 2008) maintain wider coverage across countries and over time by in effect estimating values for the desired definition for each year using observations relating to other definitions/years. Babones and Alvarez-Rivadulla calculated the average differences between various income definitions and reference units and used these as constant adjustments to produce a single series representing household per capita gross income inequality. The SWIID employs a more complex estimation procedure and benchmarks to LIS data where available, and provides comparable Gini indices of gross and net income inequality for 153 countries for as many years as possible from 1960 to the present along with estimates of uncertainty in these statistics. While each of these sources provide data in readily downloadable form, the SWIID is currently the most relevant for the purposes of the GINI project (available from http://dvn.iq.harvard.edu/dvn/dv/fsolt/faces/study/StudyPage.xhtml?studyId=36908). Atkinson and Morelli (2010, 2011) have very recently constructed an inequality database for 25 countries covering a very long period, in some cases back as far as 1911-2010, and are using this to look at the relationship between inequality and financial crises.

There have also been initiatives providing cross-nationally harmonized panel data such as the Cross National Equivalent File which covers the USA, Canada, Germany, Britain and Australia (Burkhauser et al., 2001). Finally, for the very top of the income distribution the top income shares data covering a range of OECD countries compiled by Atkinson and Piketty and used by, for example, Leigh (2007) and Roine, Vlachos and Waldenström (2007) can be employed. For an overview see Atkinson, Piketty and Saez (2010); the complete database is available online at the Paris School of Economics at http://g-mond.parisschoolofeconomics.eu/topincomes/.

5.   Wage Inequality

We now turn to the measurement of inequality – or, more neutrally termed, dispersion - in earnings among employees, which is both of major substantive interest in itself and a key element in overall income inequality. Once again, as for income inequality, significant issues arise in this context in relation to the earnings concept involved, the unit of analysis, the time period covered, and summary measures to be employed. We discuss these in turn before dealing with sources of data.

Definition of Earnings

The underlying concept of employee earnings is less complex than total household income, but significant measurement issues none the less arise. In principle, all reimbursement in cash or kind should be included in the measure of earnings, and these should be related to the period during which the work being rewarded was done. In practice, some types of reimbursement may not be covered – or may be covered in some sources of data but not others - and some difficult issues can arise in aligning the timing of rewards and work done. Generally, (gross) earnings will refer to those formally received by the employee and exclude contributions made by the employer on top of that to, e.g., social security or retirement pension savings.

Particular problems arise with respect to the coverage and valuation of non-cash reimbursement in the form of a company car, subsidized or rent-free accommodation, and other benefits such as health insurance. As already noted, the EU-SILC framework for example has sought to expand the coverage of such types of reimbursement, with the provision of information in relation to company cars now being mandatory for the national statistical offices producing the data.

Even when reimbursement is in cash form, timing issues arise with respect to bonus payments or "13th. month" payments, which are received in a particular pay period but may relate to a longer or different one. Overtime payments should be less problematic, but some data sources may obtain information only on basic pay. Tips or gratuities should clearly be included in earnings but may not always be, in principle or in practice. Some surveys seek information on "usual" pay, in which case it is not always clear whether any overtime or bonus payments are included. Accurate measurement of hours of paid work (rather than simply all hours worked) is also sometimes problematic.

The Time Period and Unit of Analysis

In studying the distribution of earnings, measures over a variety of time-periods may be the focus. Earnings over a week, month or year may be employed, and sources vary as to which is covered. it is also common to express earnings in hourly terms by dividing total earnings over the period by the number of hours worked. This has a number of advantages, especially in allowing full-time and part-time employees to be compared on a meaningful basis – which is particularly important given the growth in part-time employment in some countries and the diversity in patterns across countries. Variation across employees in earnings over the week, month or year are clearly affected both by differences in hourly rate of pay and in hours worked during the week, the month or the year.

Table 2 demonstrates the quantitative importance that taking different bases can have for the level of inequality, using the USA as example.

Table 2: United States wage inequality ratios, highest to lowest decile, 1979

STUDY	WAGE CONCEPT	ALL	MEN
Karoly, 1993, Appendix 2B2	Annual	21.50	13.79
	Weekly	8.62	7.00
	Hourly*	4.75	4.72
Mishel et al., 1996, 143–4	Hourly	3.50	3.67
OECD, 1996, 62	Weekly		3.18
Davis, 1992, figure 1A	Weekly		3.37
Katz, et al., 1995, 58	Hourly		3.42
Erikson & Ichino, 1994, 31	Annual		5.61

* Used in OECD, Employment Outlook 1993
Source: Salverda (1998, Table 3.3)

The use of a longer time period clearly expands the number of persons over whom one is calculating inequality measures – from all those currently in work to potentially all those who have worked, if only for a very short period, during the year. A related issue is that the individual earner is not necessarily the only possible unit of analysis: one can for example analyse the variation in hourly earnings across all hours worked rather than all earners.

Studies of wage inequality, which most often have a labour market focus, generally concentrate on gross earnings before tax or social insurance contributions are deducted. Earnings net of such deductions are also of interest, though, both from a labour market and a distributional perspective. The timing of tax deductions and tax rebates in particular may then also affect net earnings.

Summary Measures

Summary measures are often used to capture earnings inequality, but for reasons that are not obvious common practice differs from the income inequality field – reflecting the fact that these have been two largely separate

research literatures, but also because research on earnings has generally wanted to distinguish between trends at different points in the distribution, notably towards the bottom versus the top, rather than relying on one single summary measure. Research on earnings dispersion thus tends to be heavily reliant on percentile ratios, including the ratio of the 90th and the 10th percentiles to each other and to the median. Single summary measures such as the coefficient of variation are also commonly used, often together with percentile-based indicators, and variance decomposition methods employed.

There is particular interest in capturing and studying low pay, and the common practice in doing so is to use thresholds derived as proportions of median or average earnings, such as half the mean or two-thirds of the median, and derive the proportion of low-paid employees on that basis. Note that this differs markedly from the US concept of poverty wages, which are based on the (poverty of the) receiving household based and not on the earnings distribution itself – essentially in the same vein as poverty definitions differ between the US and Europe.

Sources

Data on the distribution of earnings are generally drawn from administrative sources (associated with collection of tax and social insurance contributions), or from surveys of employees and/or employers. Each has advantages and disadvantages. There is considerably scope for reporting error both in earnings and in hours of work – which will affect the calculation of hourly earnings - and there may be systematic differences in the reliability of information gathered from establishments versus individuals. One might expect employers to have more accurate data on earnings and hours from payroll records, but individuals may have more accurate information on their own characteristics including education levels. Establishment surveys often have restrictions in terms of coverage not shared by household surveys, notably for small firm sizes and certain sectors of the economy (such as agriculture or the public sector), and the data produced from administrative sources may reflect the specific requirements of the tax and social insurance system rather than the concept/measure desired from an economic perspective.

While many country-specific studies on the distribution of earnings and skills differentials have been carried out using national sources, in recent years comparisons of low pay and earnings dispersion across countries often rely on the database brought together by the OECD (see OECD 1996). This is an extremely valuable compilation, regularly updated, which allows both up-to-date comparisons and trends over time to be studied. However, the OECD make clear that the nature of the exercise – bringing together data from different national sources – means that there are potentially important differences in definition and coverage across countries, which are extremely well documented. The figures for the most part refer to full-time employees, but the period over which earnings are measured, how "full-time" is defined and measured, and the sectors covered may vary across countries. Thus for

one country the figures may refer to annual earnings of full-time employees who worked all year, while for another they may refer to weekly or even hourly earnings of those in work at the survey date. Thus the dataset effectively spans the entire range indicated in Table 2 (intriguingly, for neighbouring countries: Danish earnings being hourly based for all employees and Swedish earnings referring to full-time full-year annual earnings). The potential for these technical or measurement differences to mislead as to the actual comparative situation of different countries is significant.

Within the EU significant efforts have been made to produce harmonized data for the analysis of earnings, in particular via the European Structure of Earnings Survey (ESES) which gathers earnings data in a harmonized manner from employers. The ESES has particular advantages for the analysis of the relationship between earnings and firm/sectoral level characteristics. However, the ESES does not necessarily cover all economic sectors, and firms with fewer than 10 employees are excluded from the scope of the survey. This may have very serious effects for the coverage of a survey as illustrated for the ESES of the mid-1990s in Table 3 for each of the three restrictions: industry coverage (C-K sample), minimum number of employees, and minimum number of weekly hours worked. In measuring earnings, hourly, monthly and annual earnings can be constructed but hourly earnings are generally given the most prominence, and gross earnings may be defined to include or exclude overtime pay, shift premia and bonuses.

Table 3 Coverage of the economy in different samples, 1995/96
(Percentages of the respective dependent labour force, persons)

| | TOTAL ECONOMY | SECTORS C–K | | |
| | | ALL | ≥10 EMPLOYEES* | ≥10 EMPLOYEES*, ≥15 HOURS |
	FULL MICRO SURVEY	C–K SAMPLE	MICRO SAMPLE ESES	COMPARISON SAMPLE
France	100	71	58	57
Germany	100	68	64	62
Netherlands**	100	67 (70)	55 (57)	48 (56)
United Kingdom	100	66	53	51

* More than 4 employees for Germany.
** full-time equivalents between brackets
Source: Salverda, Nolan et al. 2001, Table 35.

The restrictions in sectoral and size coverage in the ESES mean that is important to complement it by analysis of data from household surveys, notably in a comparative context from the ECHP and the EU-SILC framework. The ECHP sought details of normal gross monthly earnings from one's main job, including normal overtime, together with hours worked (although some countries had only data on net earnings). This allows both weekly and hourly earnings to be analysed - see for example Salverda, Nolan et al., (2001), European Commission (2004), Lohman and Marx (2008) and Lohman (2008).

EU-SILC includes several measures of employee earnings, offering alternative approaches to the measurement of low pay (see Brandolini, Rosolia and Torrai, 2010; Maitre, Nolan and Whelan, 2011), but some turn out to be problematic in practice. Current gross monthly earnings and usual hours of work are only reported for a minority of countries, so current gross hourly earnings cannot be derived for a majority. However, most of the countries have provided information on total employee income for the previous year. Those in employment all year can also be distinguished, so annual earnings of full-year employees unaffected by time away from work can also be studied.[17]

Some comparative studies have employed national micro-datasets for a small number of countries, harmonising the measure of earnings and coverage of workers to the extent that those sources allow. An example is the recent in-depth set of studies of low pay in five advanced countries sponsored by the Russell Sage Foundation, summarised in Gautié and Schmitt eds, (2009).

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17   This is best done using responses to a question about how many months the respondent worked in the previous year. EU-SILC also includes a full calendar of labour market activities each month, allowing the proportion of the year spent in work to be derived, but for some countries this has not been filled out.

6.   Some Guidance and Recommendations

The nature of the analysis clearly must determine the choice of indicators and sources; analyses relying on trends over time requiring robust measures of year-to-year variation will need a different approach to ones relying on cross-country variation. In addition, availability is the key consideration, and studies wishing to encompass a long time-span or many countries will be constrained in terms of options. None the less, awareness of the many and various sources of potential non-comparability or limitations in comparability across data sources, as well as the nature of the inequality measurement process, point towards some general guidelines that we propose the contributions to GINI seek to follow insofar as possible. We set these out at a high level of generality first, and then discuss their application in different settings.

1/ Since summary inequality measures differ in their sensitivity to changes at different parts of the income distribution, it is essential to use a range of inequality measures rather than relying on just one, so that results which are indicator-dependent can be seen. The ubiquity of the Gini coefficient in the literature suggests that it should be used, to facilitate comparison with existing studies. In complementing this with other measures, the Atkinson measure is often available and has attractive properties. However, it is also important to be able to capture and distinguish what is going on towards the top versus the bottom of the distribution: the ratio of P90 and P10 to the median are easy to derive and interpret, and are also unaffected by imprecision in the estimates of incomes towards the very top and bottom. After that, measures such as the Theil index, the mean log deviation and the squared coefficient of variation can be used as available. Where there is a specific interest in poverty, standard relative income poverty measures can also be used to capture the distribution at the lower end. In analyzing earnings dispersion, percentile ratios provide for ready comparison with existing studies and allow movements towards the top versus bottom to be distinguished.

2/ In deriving income distributions and inequality measures, equivalence scales must be used, and we propose as the default setting that where possible the modified OECD (1, 05, 03) scale widely used in European research and by Eurostat be employed. Where children cannot be distinguished from adults, the square root scale could be used but the possible bias from not distinguishing children from adults must be kept in mind. It is particularly important in cross-sectional analysis to check the sensitivity of results to the equivalence scale used (whereas changes

over time generally appear more robust in that respect); the use of the modified OECD scale, the square root scale, and the 1/0.7/0.5 scale also employed by Eurostat would cover the main variants in use in comparative use.

3/ Where possible, it is desirable to check findings across alternative sources – e.g. LIS versus OECD, ECHP versus EU-SILC. Similarly, there may be a trade-off between the length of time that can be covered in time-series analysis and the consistency of available data series, and in the number of countries that can be included in comparative analyses. In that situation analyses could start with a broader set of observations, but check their findings by re-estimation for the smaller number of observations that are judged to be most comparable.

4/ Given the myriad measurement and data complexities, it is unwise to rely heavily on small observed differences across countries or over time in measured inequality. Confidence intervals for summary inequality measures such as Gini coefficients are now sometimes available, and where they are not it may be possible to use some "rule of thumb" along the lines suggested in a recent paper by Atkinson, Marlier, Montaigne and Reinstadler (2010) in the context of trends in poverty, for example that in looking at income poverty rates particular attention should be paid to changes of 2 percentage points or larger.

We now discuss in turn time-series analysis, pooled time series + cross-section analysis, and purely cross-sectional analysis. In time-series analysis the inequality measures employed will of necessity be limited to those available, and variations in the equivalence scale etc. will be similarly constrained. However, where micro-data are being employed directly, this allows the range of inequality measures and equivalence scales noted above to be derived and used.

Time-series analysis

a. For comparative analyses of income inequality requiring a long time-period (back to the 1960s) and wide country coverage, the UN-WIID and UN-SWIID series are the best available option. UN-SWIID has only the Gini coefficient but may have advantages there, and also has continuous annual series (via some imputation), while UN-WIID (v2) is not always continuous but also has decile/quintile shares which could be used directly or from which some other inequality measures could be derived. For earnings dispersion, the OECD database provides the only readily available source.

b. If a narrower set of countries suffices but a long time period is essential, this could be based on a compilation of data from national sources, most often focused in the case of income inequality on the Gini, and for earnings dispersion on percentile ratios. Data availability/quality differs widely across countries, especially with respect to a truly (reasonably) consistent time-series, and it would be highly desirable to include other measures where feasible. A valuable resource for income inequality analysis is the data

produced for a number of countries (7 OECD countries - US, Canada, UK, Germany, Italy, Spain and Sweden – together with Russia and Mexico) underpinning the papers published in a special issue of the *Review of Economic Dynamics* journal in January 2010 (vol. 13, issue 1).

c. Time-series analysis of income inequality with wide coverage of OECD countries over the shorter period from the 1980s can be undertaken with more reliable data on summary inequality measures from LIS (Gini, Atkinson, percentile ratios in LIS Key Figures) or for a somewhat larger set of countries using data from the OECD's *Growing Unequal* (Gini, S80/S20, mean log deviation, standardised coefficient of variation), but only for certain years at 5-year intervals rather than annually. These sources sometimes differ from other sources for certain countries, in which case alternative estimates could be tested.

d. For time-series analysis with no more than a maximum of 15 observations, for 14 EU countries only, one can use the annual figures for the Gini and the S20/S80 inequality measures produced by Eurostat from ECHP (1995-2001) and EU-SILC (2003 or 2004 to 2008 or 2009); these are the key series relied on by the EU and of significant interest for that reason, but the reliability of the trends over time is compromised by attrition in the ECHP and the break in the series between the ECHP and EU-SILC which introduced significant non-comparabilities.

Pooled time-series/cross section analysis

a. Pooled time-series + cross-section analysis with significant coverage of OECD countries from the 1980s can be undertaken with micro-data from LIS for certain years at 5-year intervals, though with only a limited number of non-income variables available for analysis and some unavoidable non-comparability given harmonization is applied only after the event to national data.

b. From 1995 to 2001, this could be applied to micro-data for 14 "old" EU member states from ECHP, with a much wider set of non-income variables available in the dataset and a high degree of harmonization of definitions and variables since a uniform questionnaire/survey methodology was used (though panel attrition remains a source of concern).

c. For a short period of time from the mid-2000s, this type of analysis can be carried out with a much wider set of EU countries using data from EU-SILC, which also has a very substantial set of non-income variables; the "output-harmonised" nature of EU-SILC has to be taken into account in assessing the comparability of variables across countries.

Cross section analysis

a.   Cross-section analysis with significant coverage of OECD countries going back to the 1980s can be undertaken with micro-data from LIS for certain years at 5-year intervals, both for income inequality and earnings dispersion, though with only a limited number of non-income variables available for analysis.

b.   From 1995 to 2001 and for 14 "old" EU member states only, data from ECHP has a much wider set of non-income variables available in the dataset, with a high degree of harmonization of definitions and variables.

c.   For the mid-2000s, data for a much wider set of EU countries is available from EU-SILC, which also has a very substantial set of non-income variables; once again the "output-harmonised" nature of EU-SILC has to be kept in mind.

d.   Data from the European Social Survey (ESS) have the advantage of ready availability and broad topic and country coverage, but the income measurement in this survey is *very* rudimentary and cannot be relied on; if the other variables being employed in the analysis are available only in this source, then some validation of the income variables by reference to other sources would be important.

In concluding, it is essential that the different contributions to the GINI project are explicit about the type of data they are employing, the principal properties of these data, and the practicalities of access etc. The representativeness of datasets employed — even if only for descriptive purposes — is key, and it may be helpful to refer to external aggregates — for example from national accounts — in assessing what is well-covered and what appears to be under-stated. Any deviation from what is being suggested as 'default' options for GINI purposes should also be noted.

In each case, the possible effects on comparisons over time and cross-sectional comparisons should be drawn out, if only speculatively. Participants are encouraged to extract (GINI-default) data from national and other sources if they can and make these available, and also to share their experiences with datasets via the GINI website data portal.

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Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

● exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,

● elaborate on the effects of both individual distributional positions and aggregate inequalities, and

● allow for feedback from impacts to inequality in a two-way causality approach.

● The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political 'distances', alienating people from politics, globalisation and European integration? Do they affect individuals' participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefits of policies limiting income inequality and its efficiency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org

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