

(REVISED VERSION: 7 TH FEBRUARY 2014)

INCOME DISTRIBUTION DATA REVIEW –AUSTRIA¹⁸**1. Available data sources used for reporting on income inequality and poverty****1.1. OECD reporting:**

The OECD Data have been using two types of sources for Austria:

- Microcensus for 1983, 1993, 1999
- EU SILC Survey on Income and Living Conditions since 2004.

The two sources differ largely in terms of definitions, reference population and method of calculations and are strictly not comparable, the break in series appears since 2004.

1.2. National reporting and reporting in other international agencies:**1.2.1 National reporting:**

Austrian MicroCensus: The Microcensus survey collected data on income of employed persons at intervals of about 2 years during the period from 1981 to 1999. In addition to income data, the Microcensus also collected information on the number of hours worked and on various socio-economic characteristics of the individuals taking part in this survey. The sampling frame consists of all dwellings of the Austrian Housing Census, which is performed (together with the population census) every 10 years. To ensure representativity of the sample over time every year a certain amount of dwellings from the annual dwelling construction statistics is added. The sample is rotating for every Microcensus survey.

ECHP: The European community Household Panel has been used of national reporting between the mid-1990s and early 2000s.

EU-SILC: The National Statistical Office *Statistik Austria* reports data from the EU SILC Survey on Income and Living Conditions since 2004.

1.2.2 International reporting:

Eurostat is also computing indicators in income inequalities and poverty for Austria based on EU SILC (formerly on the basis of ECHP).

Austria is also included in the *Luxembourg Income Study Database (LIS)*. LIS is using the Microcensus for 1987 and 1995 data, the European Community Household Panel (ECHP) survey for 1994, 1997 and 2000 data and, for 2004 and 2007, the Survey on Income and Living Conditions / EU-SILC has been used.

¹⁸ This revised version of the review benefited from valuable comments from Nadja Lamei from Statistics Austria.

Table 1. presents the main characteristics of the different sources:

Table 1. Characteristics of datasets used for income reporting, Austria

	OECD income distribution database (EU SILC)	Statistics Austria (EU SILC)	Austrian Mikrozensus (microcensus)	Household budget survey	Eurostat (EU SILC)	LIS database
Name	Survey on Income and Living Conditions see OECD term of reference	Statistics on Income and Living Conditions	Austrian Mikrozensus (microcensus)	Konsumerhebung	Statistics on Income and Living Conditions	II. Austrian Microcensus na 1987H - 1987P IV. European Household Panel / AT ECHP 1994 1994H - 1994P Austrian Microcensus na 1995H - 1995P European Household Panel / AT ECHP 1997 1997H - 1997P V. European Household Panel / AT ECHP 2000 2000H - 2000P VI. Survey on Income and Living Conditions EU-SILC 2005 survey 2004 2004H - 2004P
Name of the responsible agency		Statistics Austria, Unit Living Conditions, Social Protection, Directorate Social Statistics	Statistics Austria, Unit Demography, Health, Labour Market, Directorate Social Statistics	Statistics Austria, Unit Living Conditions, Social Protection, Directorate Social Statistics	Eurostat	
Year (survey and income/wage)	Since 2004	every year from 2004 (income reference period 2003) onwards	Before 2004	1999/2000 and 2004/05	Every year from 2003 onwards.	
Period over which income is assessed	Annual income in the previous year, also in case of transfers from public sources	Annual income in the previous year			Annual income in the previous year	
Covered population		All persons living in private households in Austria	1983, 1993, 1999 The sampling frame included the total population of household heads. Excluded from the sample are: - about 10.000 homeless people, - 70.000 people in hospital, care or nursing homes, - 15.000 people in hostels (students, nurses, etc.) - 2.000 children in children's homes - 3.000 prisoners - 35.000 people in other "institutional" households (Hotels, bed and breakfast accommodations, cloisters, special quarters for immigrant workers; - and self-employed: about 480.000 self-employed (incl. family workers), who are included in the survey, but are not asked about their income		All private (non-group, non-institutional) households in Austria.	
Sample size		The achieved sample size varies from year to year. Example SILC 2010: Net sample size Households: 6,188 Persons in these households, total: 14,085 Thereof persons aged 16+ years: 11,432. For detailed descriptions see: Intermediate quality report EU-SILC 2010	1% of total population,		According to EU-regulation, the achieved sample size varies from year to year, the effective sample size takes into account the design effect (=archieved sample size/def for at risk-of-poverty rate) - see also EU regulation. Minimum sample size: 4 500 households for cross-sectional/3 250 for longitudinal; 8 750 individuals for 6 250 for longitudinal.	
Sample procedure		EU-SILC in Austria uses an integrated rotational design meaning that each year about one fourth of the sample is replaced by a new rotational group. Sampling units are dwelling units registered in the central population register (ZMR). The sampling frame consisted of all accommodations with at least one person aged 16 or older who has her/his main residence in these accommodations. Example SILC 2010: The first wave sample is a one-stage stratified probability sample. The sample of the first wave was stratified according to 206 interviewer units (Sprenghel). Using the resulting response rates of the last year's survey the expected response rates for 2010 were determined as 65% for the first wave sample and 82.5% for the follow-up wave samples. In view of these a first year gross sample of 3,221 households (at existing addresses) and a follow-up gross sample of 4,742 households would lead to a net cross-sectional sample of about 6,000 households (according to EU regulation). For detailed descriptions see: Intermediate quality report EU-SILC 2010	Stratification			

Table 1. Characteristics of datasets used for income reporting, Austria (cont)

	OECD income distribution database (EU SILC)	Statistics Austria (EU SILC)	Austrian Mikrozensus (microcensus)	Household budget survey	Eurostat (EU SILC)	LIS database
Response rate		<p>Response rates differ slightly per year, also they have to be given separately for first- and follow-up-households or for each rotational group.</p> <p>Example for SILC 2010: Response rate first wave 2010: 61.6% Second wave (first 2009): 83.8% Third wave (first 2008): 87.9% Fourth wave (first 2007): 92.3%</p> <p>For detailed descriptions see: Intermediate quality report EU-SILC 2010</p>	one third non-response for income questions			
Imputation of missing values		<p>Item non-response: missing net income variables are fully imputed, missing gross variables are calculated by the net-gross conversion.</p> <p>Unit non-response: missing personal interviews of persons in households successfully interviewed are imputed.</p> <p>Example SILC 2010: 61 missing personal interviews were imputed. Item non-response on net-income components was between 0 and 23%.</p> <p>For detailed descriptions see: Intermediate quality report EU-SILC 2010 Austria.</p>			Missing values because of item non-response as well as partial unit non-response are fully imputed.	
Unit for data collection	The unit of observation of the survey is the household.	Individuals and households.	The unit of observation is the household and it is possible to detect the relations between the household members.		Individuals and households.	
Break in series			Since 2000			
Web source:	See EU-SILC National and EU comparative Quality assessment via http://circa.europa.eu/Public/irc/dsis/eusilc/library?l=quality_assessment&vm=detailed&sb=Title	http://www.statistik.at/web_en/statistics/social_statistics/household_income/index.html AND http://www.statistik.at/web_en/statistics/social_statistics/poverty_and_social_inclusion/index.html In German: http://www.statistik.at/web_de/fragebogen/private_haushalte/eu_silc/index.html			See EU-SILC National and EU comparative Quality assessment via http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/introduction	

2. Comparison of main results derived from sources used for OECD indicators with alternative sources

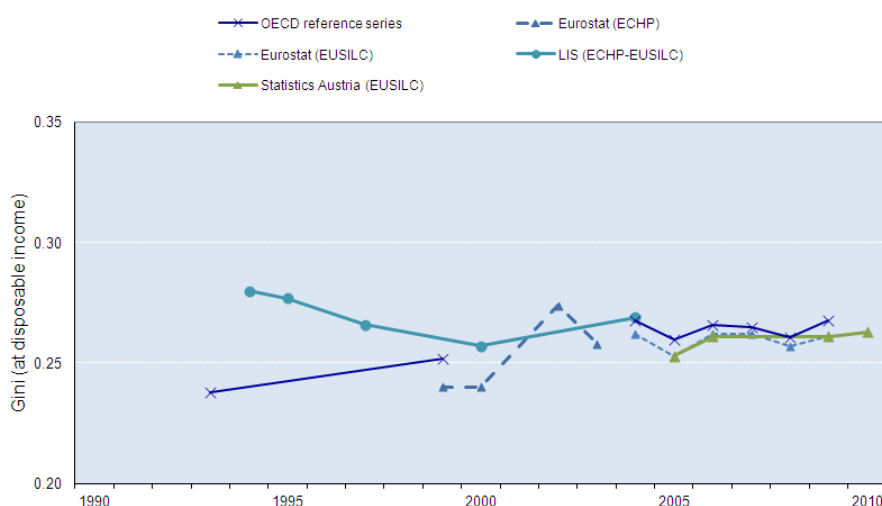
2.1 Income

2.1.1 Time series of Gini coefficients and other inequality indicators

The OECD considers the time series pre- and post EU SILC for Austria not comparable. In the different OECD publications, the trends are shown from 1993 through 1999, and from 2004 through 2009. 2004 is considered as “break” year. This Data Review is adopting the same approach.

Eurostat and EU-SILC series report the survey year and not the income year. For comparison purposes, the data had been reported one year backward and refer to income year.

Figure 1.1 Trends in Gini coefficient (disposable income)



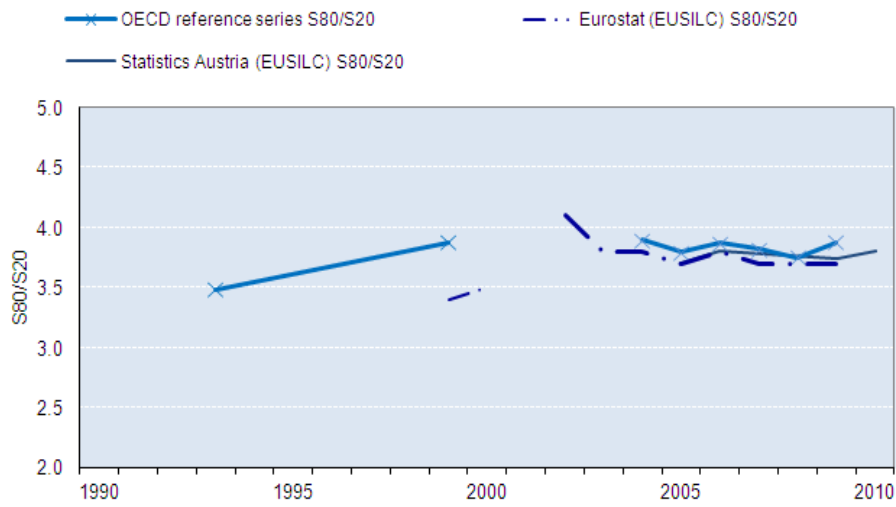
Source: Austrian Microcensus, Eurostat, EU Survey on Income and Living Conditions, (EU SILC), European Community Household Panel (ECHIP), LIS: Cross national data center in Luxembourg <http://www.lisdatacenter.org/>.

Up to 2004, LIS and OECD series differ in terms of level and trends. LIS refers to ECHIP figures whereas OECD refers to Microcensus which are strictly not comparable. Data from the Microcensus underreport income at the bottom and upper end of the distribution income dispersion and therefore this leads to a lower Gini coefficient. The Microcensus is not representative as far as income data are concerned and does not provide a comprehensive picture of household earnings since income for self-employed and family helpers are not included (unless they are partners of dependent employees).

As of 2004, the various series on Gini coefficients for disposal income in Austria are quite similar and are showing similar trends (this is not surprising as all series are based on EU SILC). Data published by Eurostat and Statistics Austria are the same.

Eurostat reports slightly higher estimates for Gini coefficient and the S80/S20 ratio compared to OECD since 2004. One reason could be that OECD uses the square of the household size for the equivalence whereas Eurostat uses the “OECD modified equivalence scale”.

Figure 1.2 Trends in S80/S20

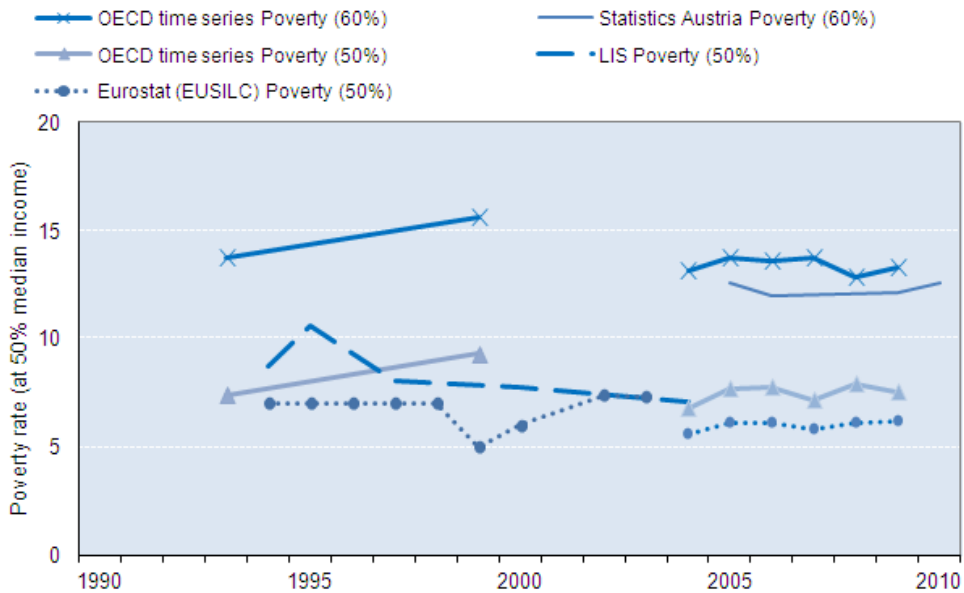


Source: Austrian Microcensus, Eurostat, EU Survey on Income and Living Conditions, (EU SILC), European Community Household Panel (ECHP).

OECD, Eurostat and Statistics Austria data on the ratio of S80/S20 are close.

2.1.2 Time series of poverty rates

Figure 2.1 Trends in poverty rates, after taxes and transfers



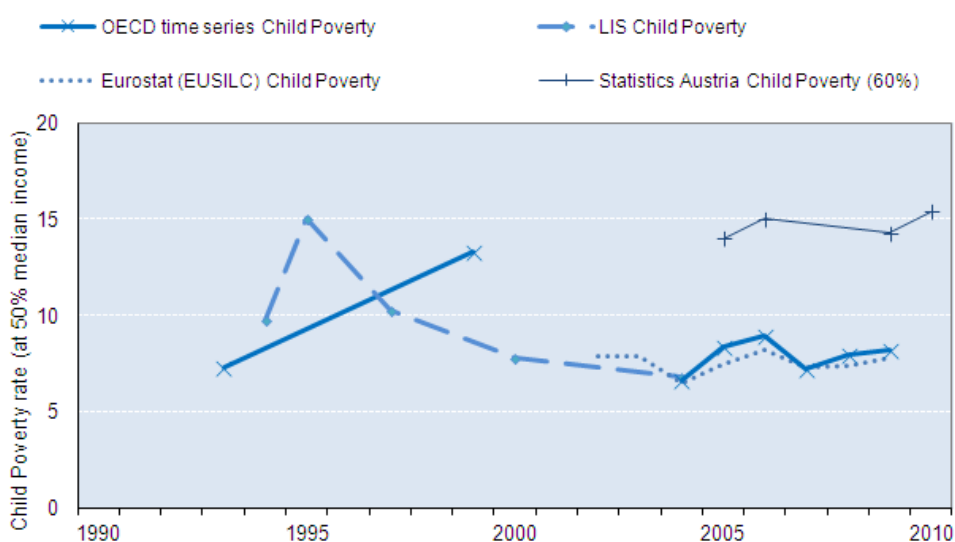
Source: Austrian Microcensus, Eurostat, EU Survey on Income and Living Conditions, (EU SILC), European Community Household Panel (ECHP), LIS: Cross national data center in Luxembourg <http://www.lisdatacenter.org/>.

For the period between 1993 and 1999, OECD series show a different (increasing) trend, for both poverty indicators than the LIS data and Eurostat data (based on ECHP) which suggest stability or slight decrease. An explanation is offered by Biffl (2003): “The household survey of 1993 is not adequately capturing the change in the structure of population between 1989 and 1993. This period is characterised by unprecedented numbers of net-inflows of migrants. The migrants tended to fill the ranks of inhabitants at the bottom end of the income scale. A new sample was drawn in 1994, taking account of the changed structure of the population. By 1999, the migrants have been more or less fully integrated, many of them have become naturalised. Both aspects, the difference in the cyclical position and the structural adjustment of the sample survey may account for some of the rise in income inequality and poverty between 1993 and 1999”

The OECD reference series and Statistics Austria show similar trends since 2004 based on the threshold below 60% of the median income despite the fact that the data reported by Statistics Austria are slightly lower.

The picture is similar with regard to child poverty estimates.

Figure 2.2 Trends in child poverty rates, after taxes and transfers



Source: Austrian Microcensus, Eurostat, EU Survey on Income and Living Conditions, (EU SILC), European Community Household Panel (ECHP), LIS: Cross national data center in Luxembourg <http://www.lisdatacenter.org/>.

2.2 Wages

See Part II of the present Quality Review.

3. Consistency of income components shares with alternative data sources

3.1. Comparison of main aggregates: earnings, self-employment income, capital income, transfers and direct taxes

Table 2 shows shares of income components for the latest available year, according to the OECD benchmark series. Unfortunately, such information is not available for the other data sources described in table 1.

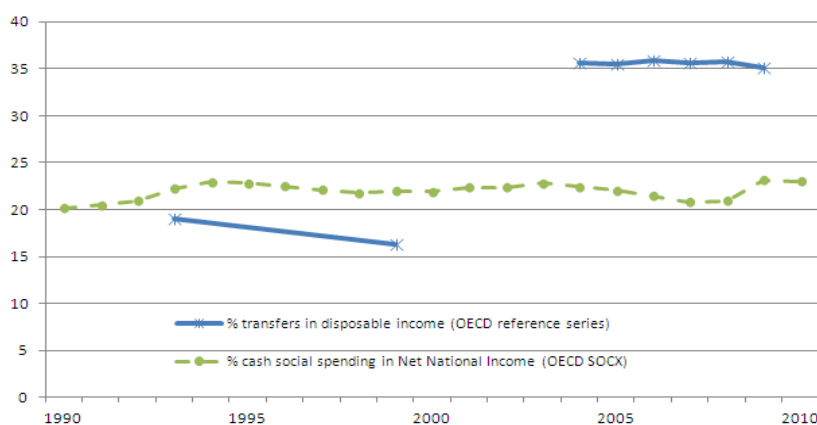
Table 2. Shares of income components in total disposable income, OECD reference series

Survey	Year	Unit	EH	ES	EO	Wages	Capital	Self Employment	Transfers	Taxes	Disposable income (HDI)
OECD reference series	2009	natcur	15 265	6 261	25	21 551	1 113	3 653	9 033	-9 624	25 726
		% avHDI	59%			84%	4%	14%	35%	-37%	

According to Statistics Austria, the median disposable household income for 2009 was EUR 29 849, and the equivalised household income for 2009 was EUR 19 886.

Figure 3 compares the trend in shares of public cash transfers in equivalised disposable income from the OECD reference series with the share of total cash social spending in net national income, reported from the OECD Social Expenditure database (OECD SOCX). OECD SOCX series include pensions, incapacity, family, unemployment, social assistance. Despite a break in series for the OECD reference series, both series show similar trends throughout the period, except for the latest year. It can also be seen that the new data source for Austria (EU-SILC) suggests much higher transfer shares than the old series (Mikrozensus)

Figure 3. Trends in shares of public social transfers



4. Metadata of data sources which could explain differences and inconsistencies

Definitions, methodology, data treatment

The Microcensus is not representative as far as income data are concerned and does not provide a comprehensive picture of household earnings since self-employed and family helpers are not included.

The income question is answered by some 70% of the respondents, but only half of the persons surveyed with the highest income are willing to reveal their income, imparting a downward bias to wage differentials. Moreover, among those who do answer the income question, respondents tend to adjust downwards high incomes and to adjust upwards low incomes. They show problems at the bottom and upper end of the distribution. This, too, has the effect that the extent of income dispersion is underreported in the Mikrocensus.

There is two additional issues: first, self-employment income is not reported (if the self-employed person is not living with someone having another source of income). And certain income components, such as bonuses and compensation for overtime are underreported or not reported at all. Again, this results in a downward bias in income dispersion in income data collected by the Mikrozensus (Kronsteiner and Wolf 1994).

Methodological differences between the OECD reference series based from EU SILC and Statistics Austria results based on the same source might be due the use of different equivalence scale.

5. Summary evaluation

As explained above, OECD reference series refer to Austrian Microcensus for 1983 through 1999 and EU SILC Survey on Income and Living Conditions since 2004. The two sources differ largely in term of reference population, definitions and method of calculations and are strictly not comparable, the break in series appears since 2004.

Bibliography

Biffi, G. (2003), "Distribution of Household Income in Austria", mimeo, WIFO

Development of the Distribution of Household Income in Austria, Gudrun Biffi, WIFO Working Papers, No. 293, May 2007

Einkommen_armut_und_lebensbedingungen, Ergebnisse aus EU- SILC 2007, Herausge geben von Statistik Austria.

Einkommen_armut_und_lebensbedingungen, Ergebnisse aus EU- SILC 2006, Herausge geben von Statistik Austria.

Empirica (2009) 36:389–406, DOI 10.1007/s10663-008-9099-7, ORIGINAL PAPER, How large are wage differentials in Austria? Wolfgang Pollan

Statistik Austria: Intermediate Quality Report Relating to the EU-SILC 2010 Operation, Austria, Vienna, 22nd December 2011.

Statistik Austria : eu-indikatoren_zu_armut_und_sozialer_eingliederung_2011