

Household Income and Expenditure Statistics (HIES): A comparison of eight countries

Peter Gardner (ILO consultant)

Summary - *Household Income and Expenditure Statistics (HIES): A comparison of eight countries*

This article analyses a subset of household income and expenditure information gathered by the ILO during 2005, and now available in the on-line statistical database LABORSTA (<http://laborsta.ilo.org/>). In this analysis, comparisons of household income and expenditure and their components are made for eight countries: Argentina (urban only), Bulgaria, Finland, France, Hong Kong, Mexico, Republic of Korea and Uganda. The article describes similarities and dissimilarities between the chosen countries and comments on some of the limitations of the data. It shows that a large amount of useful information can be drawn from the data and encourages others to undertake further analysis.

Sommaire - *Statistiques sur les revenus et les dépenses des ménages: Comparaison entre huit pays*

Cet article analyse un sous-ensemble d'informations recueillies par le BIT pendant l'année 2005 concernant les revenus et les dépenses des ménages, qui peuvent être consultés sur le site LABORSTA (<http://laborsta.ilo.org/>) Internet. L'analyse compare et montre les composants du revenu et des dépenses des ménages dans huit pays: l'Argentine (zone urbaine uniquement), la Bulgarie, la Finlande, la France, Hong-Kong, le Mexique, la République de Corée et l'Ouganda. L'article décrit les ressemblances et différences entre les pays choisis, ainsi que les limitations des données. L'information rassemblée montre que ces données offrent une grande quantité d'informations pertinentes qui incitent à entreprendre d'autres analyses.

Sinopsis - *Estadísticas de Ingresos y gastos de los hogares: Comparación entre ocho países*

El presente artículo analiza un subconjunto de la información recolectada por la OIT durante el año 2005 sobre los ingresos y gastos de los hogares, la cual puede consultarse directamente en la página Web de LABORSTA (<http://laborsta.ilo.org/>). El análisis compara y presenta los componentes de los ingresos y gastos de los hogares en ocho países, entre los cuales están: Argentina (zona urbana únicamente), Bulgaria, Finlandia, Francia, Hong-Kong, México, República de Corea y Uganda. El artículo describe similitudes y diferencias entre los países escogidos al igual que expone algunas de las limitaciones de los datos. La información recolectada muestra que estos datos ofrecen una gran cantidad de información pertinente e incita a emprender otros análisis.

1. Introduction

This article focuses on household income and expenditure information collected by the International Labour Office (ILO) Bureau of Statistics during 2005 and now available on LABORSTA (see <http://laborsta.ilo.org>). This collection of Household Income and Expenditure statistics continues a series that was first presented in a publication in Geneva in 1961¹ and covers the period 1950 until 2004.

Accurate information about household income and expenditure is not easy to obtain and as collection often involves diary keeping and personal interviews it can be a relatively expensive exercise. As with all statistical surveys, the information is subject to sampling and non sampling errors. The methodology applied may differ from country to country and indeed over time within countries. It is therefore possible that differences in data may be as a result of the methodology used rather than real differences. All of the countries used in this analysis used Household Income and Expenditure surveys as their data source.

The analysis shows that there is significant differences between the countries considered. A basic expenditure analysis is followed by a more detailed analysis of expenditure and income. The distribution of household income and expenditure varies across countries and within countries for different household types. Some of the differences and similarities are highlighted.

Information about the countries included in the ILO collection can be found in the ILO Bureau of Statistics on-line database LABORSTA (see <http://laborsta.ilo.org>). The HIES part of the LABORSTA database includes:

¹ Bulletin on Family Budget Surveys, 1950 -1960 (Geneva, 1961)

- a) A summary set of household income and expenditure statistics. These were provided to the ILO in 2005 by 57 countries, using the most recent available source; and
- b) Metadata descriptions (see “Sources and Methods, Volume 6 in the LABORSTA database). These relate to those sources of household income and expenditure statistics that were available as at 2003 and were provided to the ILO in 2003 by 88 countries. Argentina (one of the countries covered by this paper) did not provide metadata and the metadata descriptions for the sources used by other countries covered by this paper generally refer to an earlier survey.

2. Method of analysis

The analysis is restricted to eight countries. The countries are: Argentina (urban only), Bulgaria, Finland, France, Hong Kong, Mexico, Republic of Korea and Uganda. The countries were chosen taking into account a balance between regions of the world, relative wealth of the country and completeness of the data provided.

Official statistical agencies in countries were requested to provide household income and expenditure information by completing six separate tables using the standards adopted at the seventeenth International Conference of Labour Statisticians, December 2003². In total seventy nine countries submitted the requested information and this article provides an in depth analysis for eight of those countries. While a limited range of data was used from other sources, the analysis is generally based on information supplied to the ILO. Where data gaps exist, these are acknowledged.

Details of the 2005 data gathering exercise conducted by the ILO Bureau of Statistics showing requested tables, definitions and other technical information are provided in Appendix 1.

Most of the data is in the form of distributional percentages or averages. This makes cross country comparisons relatively easy. Where actual expenditure or income amounts are used, these have been provided in the currency of the country. Local currencies have been converted to United States (US) dollars to enable international comparisons to be made. This has been done using purchasing power parity (PPPs) produced by the World Bank – see purchasing power parity section below.

Statistics are not available for each of the eight countries in respect of the same year, and this affects cross-country comparison. The reference year for each country source is provided and a text box for each country shows 2003 population and other relevant statistics. (Statistics for earlier years are shown if not available for 2003.) As is explained later, latest available Purchasing Power Parity data was used in this analysis. However, this relates to 2002.

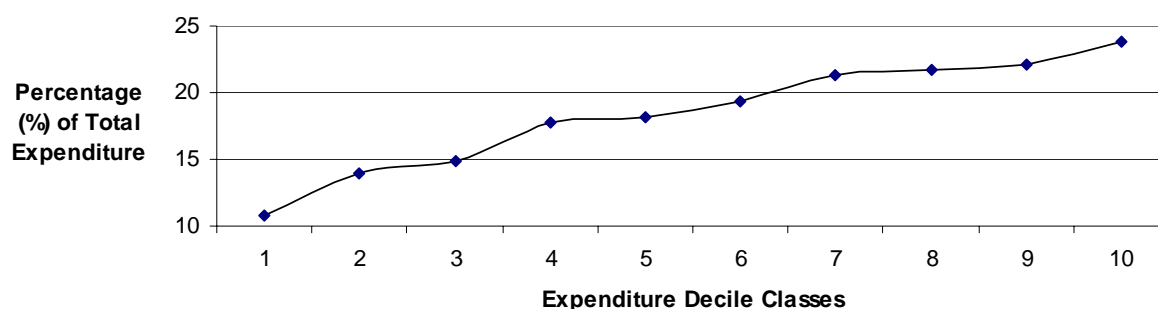
3. Household Non-consumption Expenditure

Household expenditure consists of both household consumption expenditure and household non-consumption expenditure (see appendix 1 for definitions). In compiling the ILO tables, some countries did not include non-consumption expenditure. As this item includes personal income taxation and social security payments, it often represents a significant proportion of overall expenditure. So that cross-country comparisons are valid, non-consumption expenditure has been excluded from the analysis where possible. Three countries; Argentina (urban), Finland and Hong Kong did not include non-consumption expenditure with their data. For the remainder, the level of this expenditure ranged from 3% of total household expenditure for Mexico to 20% for France.

To further illustrate the significance of this item, if the expenditure classes for France are examined, they show that 11% of household expenditure is non-consumption expenditure for the lowest expenditure decile class. This proportion increases steadily over the decile classes until it is almost one quarter (23.8%) for the highest expenditure decile class. This is illustrated in the following diagram.

² See <http://www.ilo.org/public/english/bureau/stat/downloads/17thicls/r2hies.pdf>

France (2002): Household non-Consumption Expenditure as a percentage of total household expenditure



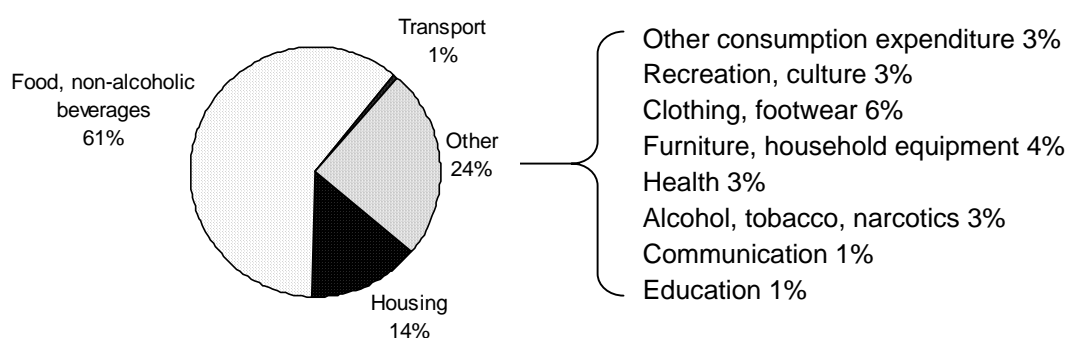
4. Country Descriptions – overall expenditure

Argentina

Household income and expenditure statistics are based on a 1996/97 survey of 27,260 urban households in Argentina. The graph below shows the broad expenditure pattern for Argentine urban households. Food and non-alcoholic beverages and housing account for over 60% of total household expenditure, whereas transport only accounts for 1%.

Argentine urban households were the only households of the countries examined to have spent over half of their household expenditure on food and non-alcoholic beverages. Transport costs expressed as a percentage were one fifth of those for Bulgaria (see below).

Argentina ³ (2003)	
Population	37,870,000
Area (km ²)	2,766,690
Population density (per Km ²)	14
Population in Urban areas	90%
Life expectancy at birth:	
Women	77.7 years
Men	70.6 years
Gross Domestic Product per capita	\$US 3,442
Currency	Argentine Peso
Average monthly household expenditure (Peso)(1996/97 ⁴)	Not provided
Average monthly household income (Peso)(1996/97 ⁵)	Not provided



³ Statistical Yearbook for Latin America and the Caribbean, 2004; United Nations, 2005 ISBN 92-1-021054-9

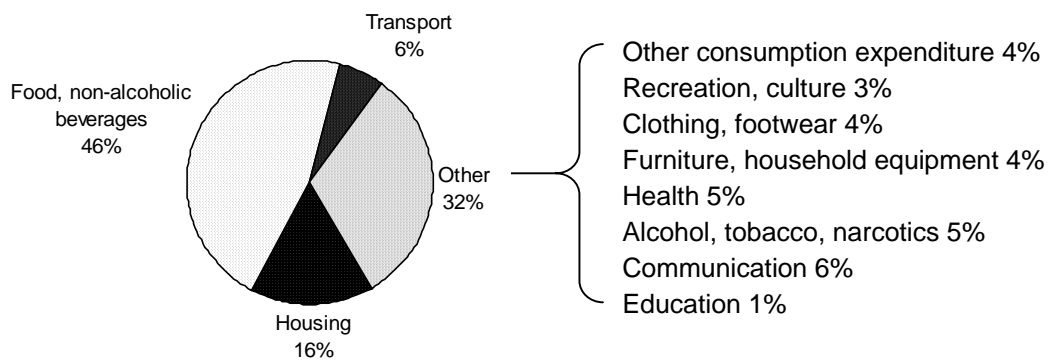
⁴ Only percentage distributions were provided (not absolute values).

Bulgaria

A 2004 national survey of 3,000 households forms the basis of the expenditure and income statistics for Bulgaria. The graph below shows the broad expenditure pattern of Bulgarian households. Food and non-alcoholic beverages and housing account for just under half (46%) of Bulgarian household consumption expenditure. Transport counts for 6% of household consumption expenditure.

Bulgarian households spend a similar proportion of expenditure on housing as do Argentine urban households. This is approximately half of the proportion of expenditure on housing that Finnish households spend.

Bulgaria¹ (2003)	
Population	9,873,700
Area (km ²)	207,600
Population density (per Km ²)	48
Population in Urban areas	71%
Life expectancy at birth:	
Women	74.7 years
Men	62.8 years
Gross Domestic Product per capita	\$US 9,843
Currency	Leva
Average monthly household expenditure (Leva)(2004)	418 ¹
Average monthly household income (Leva)(2004)	494



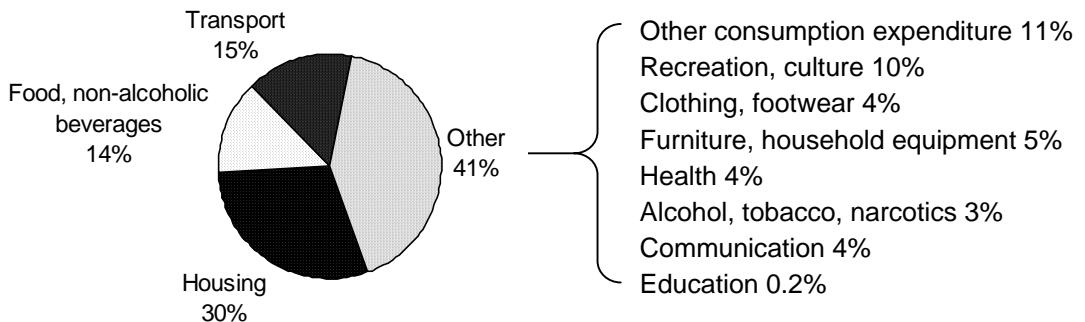
Finland

In Finland, household income and expenditure statistics are based on a 2004 national survey of 5,495 households. The graph below shows the broad expenditure pattern of Finnish households. Food and non-alcoholic beverages account for 14% of household consumption expenditure. Expenditure on housing is over double this amount and accounts for almost one third of consumption expenditure. Finnish households also spend more on transport (15%) than they do on food.

Finland and France are the only two countries where housing expenditure is proportionally greater than expenditure on food and non-alcoholic beverages.

Expenditure on education is very low in Finland. This does not mean that Finnish household are less educated, but it reflects the level of direct support the government provides to the education system.

Finland⁵ (2003)	
Population	5,213,000
Area (km ²)	338,150
Population density (per Km ²)	15
Population in Urban areas	61%
Life expectancy at birth:	
Women	81.8 years
Men	75.1 years
Gross Domestic Product per capita	\$US 27,339
Currency	Euro
Average monthly household expenditure (Euro)(2004)	2069
Average monthly household income (Euro)(2004)	2401



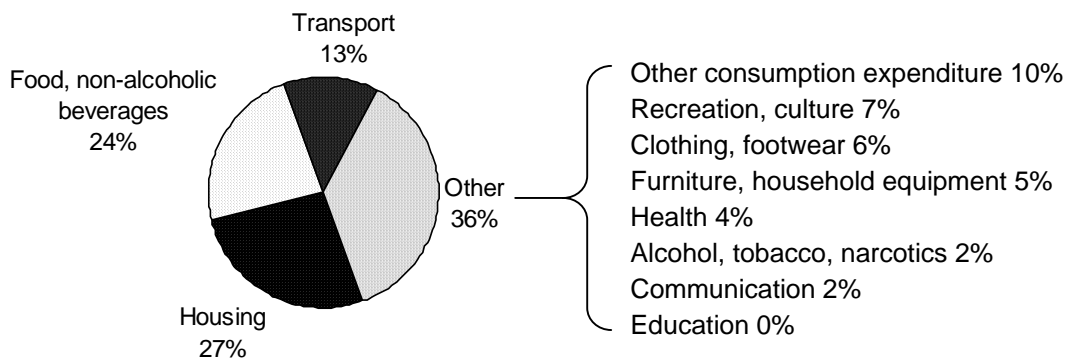
⁵ United Nations Economic Commission for Europe see enece.org/stats/trends2005/profiles/Finland.pdf

France

Household income and expenditure statistics are based on a 2004 national survey of 10,303 households in France. The graph below shows the broad consumption expenditure pattern of French households. French households spend more on housing (27%) than they do on food and non-alcoholic beverages (24%). More than one of every ten household consumption Euros is spent on transport (11%).

Like in Finland, a very small proportion of household consumption expenditure goes on education. This is probably for similar reasons as in Finland.

France ⁶ (2002)	
Population	61,540,000
Area (km ²)	551,500
Population density (per Km ²)	112
Population in Urban areas	76%
Life expectancy at birth:	
Women	82.9 years
Men	75.8 years
Gross Domestic Product per capita	\$US 27,777
Currency	Euro
Average monthly household expenditure (Euro)(2004)	2883 ⁷
Average monthly household income (Euro)(2004)	2591

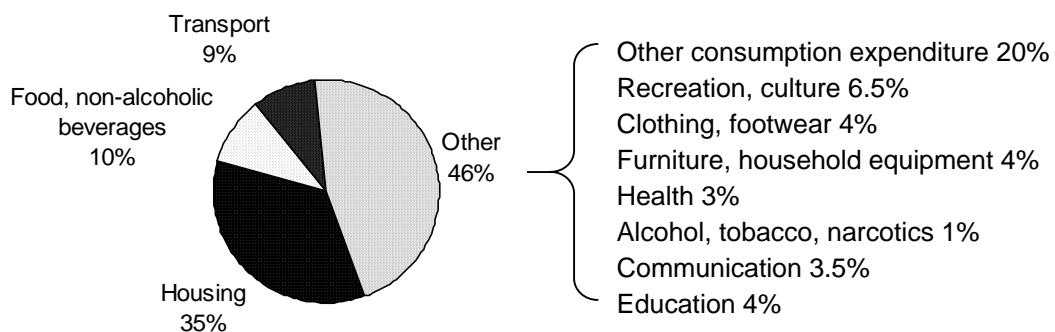


Hong Kong

A national survey of 6,116 households conducted in Hong Kong in 2004 forms the basis of the household income and expenditure statistics. The graph below shows the broad consumption expenditure pattern of Hong Kong households. Housing represents over one third of household consumption expenditure (35%) for Hong Kong households. Expenditure on food and non-alcoholic beverages and transport is less than one in five Hong Kong dollars spent by households on consumption.

Hong Kong households spend over 6% of their consumption expenditure on recreation and culture, which is proportionally more than any other country.

Hong Kong ⁸ (2003)	
Population	6,800,000
Area (km ²)	1092
Population density (per Km ²)	6,300
Population in Urban areas	100%
Life expectancy at birth:	
Women	84.3 years
Men	75.8 years
Gross Domestic Product per capita	\$US 23,030
Currency	Hong Kong Dollar
Average monthly household expenditure (Hong Kong Dollar)(2004)	Not available
Average monthly household income (Hong Kong Dollar)(2004)	15,500



⁶ United Nations Economic Commission for Europe see eneca.org/stats/trends2005/profiles/France.pdf

⁷ Includes non-consumption expenditure which is approximately 20% of total expenditure

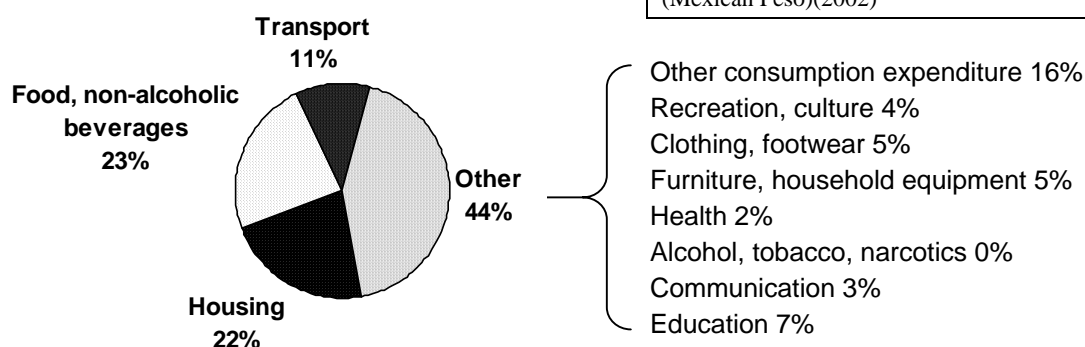
⁸ Asia-Pacific figures in 2004 see <http://www.unescap.org/stat/data/apif/index.asp>

Mexico

Household income and expenditure statistics for Mexico are based on a 2002 national survey of 17,176 households. The graph below shows the broad consumption expenditure pattern of Mexican households. Mexican households spend almost the same proportion of household consumption expenditure on food and non-alcoholic beverages (23%) as they do on housing (22%). They spend just more than one tenth of their household consumption expenditure on transport (11%).

Mexican households spend a similar proportion of household consumption expenditure on education (7%) as does Uganda. Only Korea (11%) spends more on education.

Mexico ⁹(2003)	
Population	106,147,000
Area (km ²)	1,923,040
Population density (per Km ²)	55
Population in Urban areas	75%
Life expectancy at birth:	
Women	76.4 years
Men	70.4 years
Gross Domestic Product per capita	\$US 6,060
Currency	Mexican Peso
Average monthly household expenditure (Mexican Peso)(2002)	7584 ¹⁰
Average monthly household income (Mexican Peso)(2002)	8422

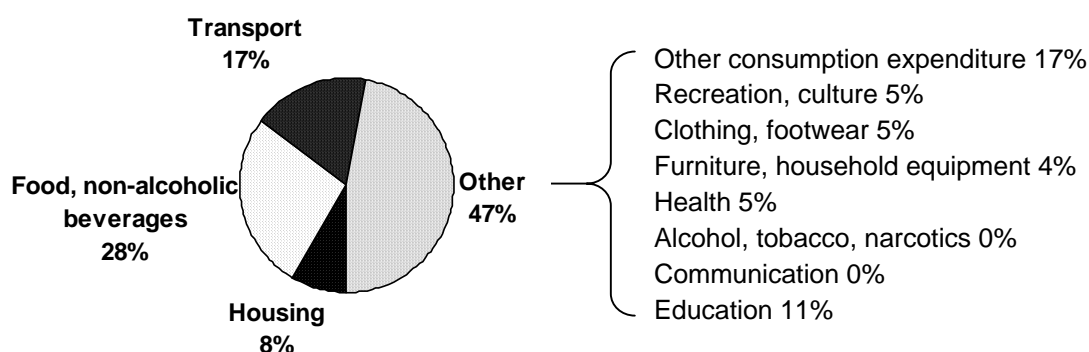


Republic of Korea

Based on a 2004 national survey of 7,366 households in the Republic of Korea, household expenditure on housing costs represent 8% of Korean household consumption expenditure. Food and non-alcoholic beverages consume almost one quarter of household consumption expenditure whereas the proportion spent on transport is relatively high at 17%.

Korea spends the lowest proportion of household expenditure on housing of all the countries examined of 8%. This is less than a quarter of the proportion of consumption expenditure that Hong Kong households spend on this item.

Republic of Korea¹¹ (2003)	
Population	47,930,000
Area (km ²)	98,480
Population density (per Km ²)	481
Population in Urban areas	80%
Life expectancy at birth:	
Women	80.4 years
Men	73.4 years
Gross Domestic Product per capita	\$US 12,628
Currency	Won
Average monthly household expenditure (Won)(2004)	2,303,275
Average monthly household income (Won)(2004)	2,805,515



⁹ Statistical Yearbook for Latin America and the Caribbean, 2004; United Nations, 2005 ISBN 92-1-021054-9

¹⁰ Includes non-consumption expenditure which is approximately 3% of total household expenditure

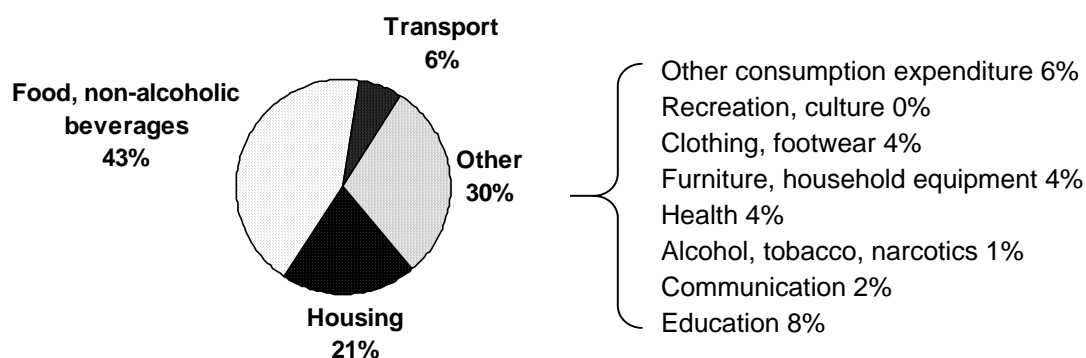
¹¹ Asia-Pacific figures in 2004 see <http://www.unescap.org/stat/data/apif/index.asp>

Uganda

Household expenditure statistics are based on a 2002/03 national survey of 9,711 households in Uganda. Income statistics were not collected in this survey. The graph below shows the broad consumption expenditure pattern of Ugandan households. Expenditure on food and non-alcoholic beverages dominated Ugandan household expenditure with over 40% of total consumption expenditure going on this item. One in five Ugandan shillings is spent on housing whereas transport represents 6% of household consumption expenditure.

Ugandan households spend a relatively large proportion of consumption expenditure on education (8%) which is one of the highest expenditure levels of the countries examined. At the other end of the spectrum, they spend close to 0% on recreation and culture.

Uganda ¹² (2000)	
Population	22,200,000
Area (km ²)	236,000
Population density (per Km ²)	90
Population in Urban areas	13%
Life expectancy at birth:	
Women	44 years
Men	43 years
Gross Domestic Product per capita	\$US 350
Currency	Ugandan shilling
Average monthly household expenditure (Ugandan shilling)(2002/03)	9,711 ¹³
Average monthly household income (Ugandan shilling)(2002/03)	Not available



5. Expenditure comparison

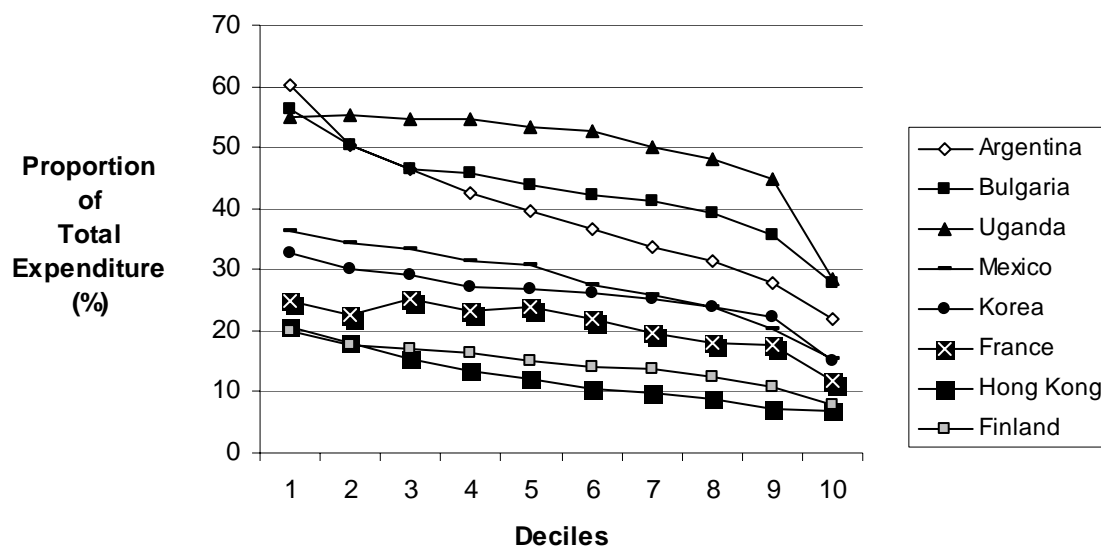
The graphs above show that proportion of expenditure on food and non-alcoholic beverages, transport and housing, vary from country to country.

The following diagram demonstrates that, as expected, the proportion of household expenditure spent on food and non-alcoholic beverages tends to be highest for those households in the lowest expenditure decile classes. The proportion spent on food decreases steadily across all decile classes. Although this pattern of expenditure is consistent across all decile classes irrespective of the country, the proportion of expenditure on food varies markedly across countries. In both Finland and Hong Kong where per capita Gross Domestic Product is in excess of \$20,000US, the proportion of consumption expenditure on food and non-alcoholic beverages is less than 15%. France, which also has a relatively high per capita GDP in US dollars, spends 18.7% of household consumption expenditure on food and non-alcoholic beverages. At the other end of the spectrum, Mexican households spend over a third of their consumption expenditure budget on food and Ugandan households spend over 40%. The per capita GDP of Mexico is around \$6,000US while in Uganda it is \$350US. Korea and Bulgaria's proportional expenditure on food and per capita Gross Domestic Product fall between these two extremes. In this graph, non-consumption expenditure is not included in Household Expenditure for Argentina, Finland and Hong Kong, but it is included for the rest of the countries.

¹² Uganda Country Report, 2000 Economic Commission for Africa see www.uneca-resources/Major-ECA-websites/icdp/fourth/Uganda/htm

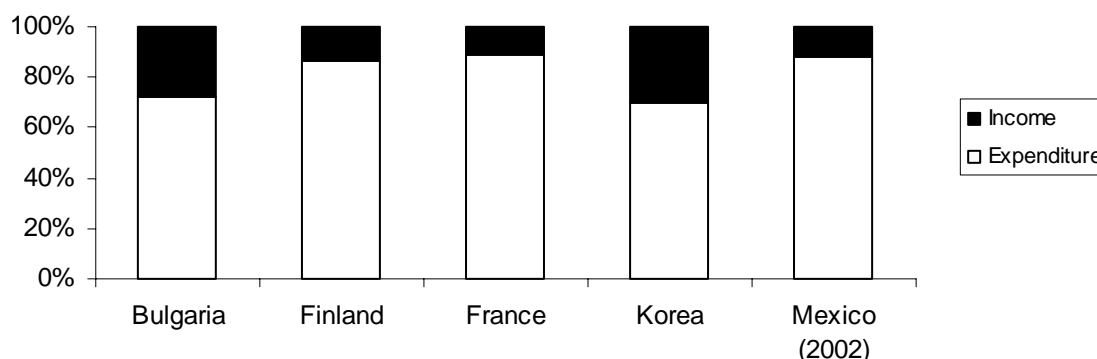
¹³ Includes non-consumption expenditure which is approximately 4% of total household expenditure

Household Expenditure on Food and Non-Alcoholic Beverages



The graph below shows household consumption expenditure as a proportion of household income, excluding non-consumption expenditure. For all countries household consumption expenditure is less than 90% of household income. However, for France (one of the few cases where information on both consumption and non-consumption expenditure is available), total household expenditure (that is, including non-consumption expenditure) exceeds household income, but household consumption expenditure is less than household income.

Household consumption expenditure as a proportion of Household Income, 2004 (except Mexico, 2002)



Expenditure patterns can be examined for different household characteristics. To illustrate, in France and Argentina (urban) some contrasting differences are evident. In Argentina (urban), average household size in the lowest expenditure class was 5.4 persons and the average household size generally declined until the highest expenditure class where it was 2.4 persons. Almost exactly the opposite pattern is evident from the French data. Here the average household size was 1.2 persons in the lowest expenditure class and generally increased to be 3.4 persons in the highest class. Thus, not only were household sizes generally smaller in France than Argentina (urban), but the patterns of expenditure for different household sizes were also very different.

Not only do Argentine urban households tend to be larger than their French equivalent, but the larger households in Argentina (urban) are also much more concentrated in the lower expenditure classes – that is, there is a greater propensity for large households to be income poor in Argentina (urban) than in France, and there is a greater propensity for older single households to be poor in France relative to Argentina (urban).

While these comparisons are likely to hold across the whole country, it is worth noting that Argentine data was restricted to urban households whereas for France, the whole country was covered. It is likely that the differences would have been greater if all Argentine households had been included as rural households tend to be larger and poorer than their urban counterparts. Also, for this comparison, French data included non-consumption

expenditure, whereas Argentine data did not. This difference could make some difference as non-consumption expenditure tends to be higher in the higher expenditure classes. However, it is unlikely to change the overall thrust of the findings.

If we consider the proportion of different size households in each expenditure class, only 3.2% of one person households were in the lowest expenditure class in Argentina (urban) compared to 38.1% in their highest expenditure class. Again, the opposite result was in evidence in France. In this case, 82% of households in the lowest expenditure class were one person households whereas only 3.2% of the household consisted of one person in the highest expenditure class.

If larger households are considered (i.e. those with 6 or more people), we again get contrasting information. In Argentina (urban), 46% of households with 6 or more people were in the lowest expenditure class compared with 2.4% in the highest. In France, virtually none of the 6 or more person households were in the lowest expenditure class, whereas 5% were in the highest.

Age of household head provides a similar picture. In the lowest expenditure decile class almost one third of French households have their head aged 60 years or more, whereas in Argentina (urban), the figure is less than 20%. At the other end of the expenditure spectrum, 30% of Argentine urban households in the highest expenditure decile class have their head aged 60 years or more. In the case of France, the proportion is 13.8%. This probably reflects a greater propensity for extended families to live in the same household in Argentina (urban) than in France.

It is likely that, although methodological differences might partly explain the highlighted differences between households in France and Argentina, most of the differences reflect real differences in household composition and household expenditure patterns between the two countries.

6. Purchasing Power Parity (PPP)

Expenditure and income was collected in the local currency in each country. If actual income or expenditure levels are to be examined, then it is necessary to standardise the income in some way. The purchasing power parity (PPP) model has been used because it is generally considered more reliable than exchange rates.

The World Bank defines purchasing power parity¹⁴ as a method of measuring the relative purchasing power of different currencies over the same types of goods and services. Because goods and services may cost more in one country than in another, PPP allows more accurate comparisons of standards of living across countries to be made. PPPs are a form of exchange rate that takes into account the cost and affordability of common items in different countries, usually expressed in the form of US dollars.

PPP estimates use price comparisons of comparable items but since not all items can be matched exactly across countries and time, the estimates are not always “robust”. Furthermore, the baskets of goods and services that are used for estimating PPP’s are more likely to be representative of the consumption patterns of high income households whose consumption is more comparable across countries than is the case for lower income households. In addition, PPP’s tend to be more unreliable for developing countries because of the limitations of source data. The PPP conversion factors shown in the adjacent table are the latest published by the World Bank¹⁵.

**Purchasing Power Parity (PPP)
World Bank Factors 2002¹⁴**

Country	PPP factor
Argentina	0.8
Bulgaria	0.6
Finland	1.0
France	0.9
Hong Kong	6.9
Mexico	6.8
Uganda	298.4
Korea	738.7

7. Income Comparison

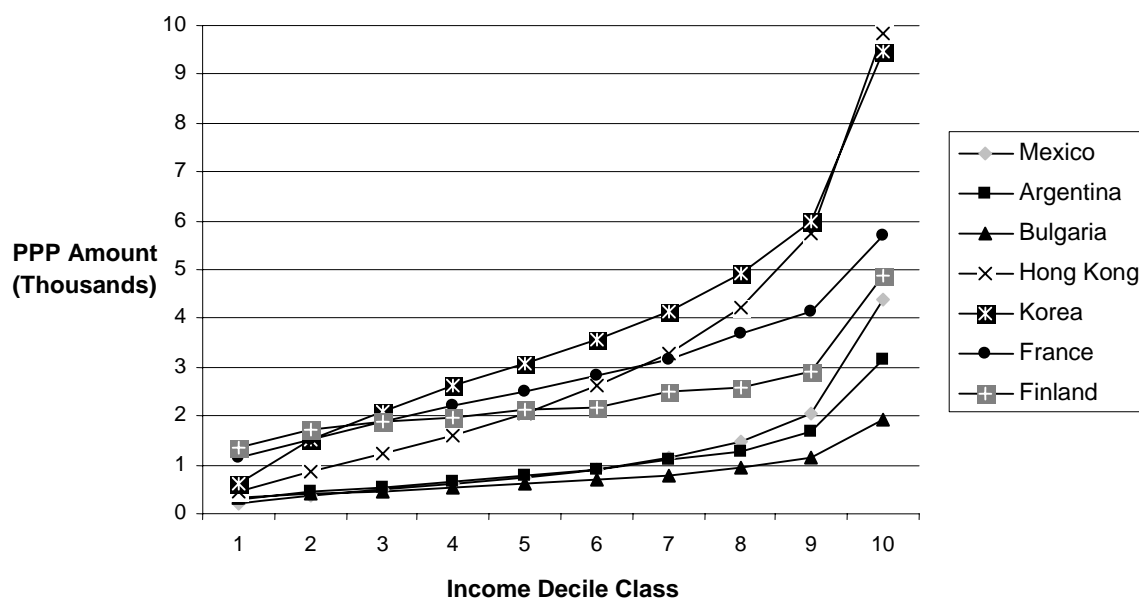
The graph below compares income for each of the income decile classes in purchasing power parity terms. The disparity between PPP income amounts between countries is greater in the higher decile classes. For all countries it

¹⁴ <http://web.worldbank.org/>

¹⁵ World Development Indicators report, World Bank 2005 ISBN 0-8213-6071-XSKU:16071.

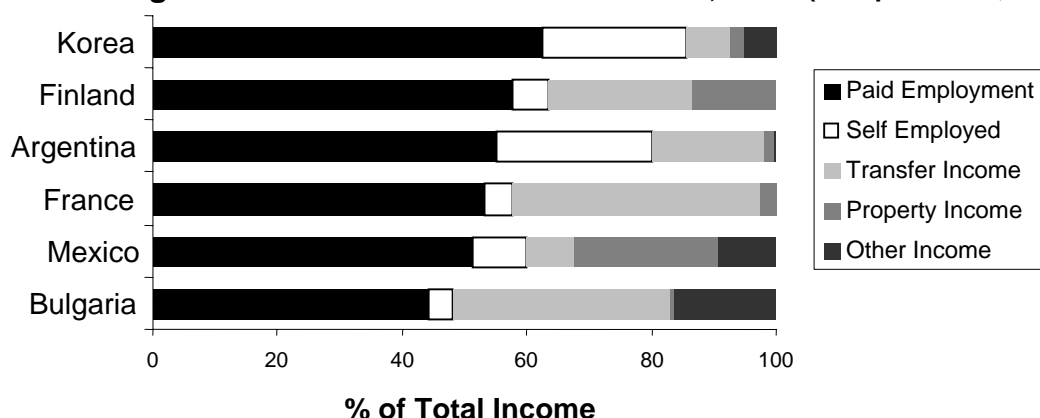
is not until the third decile class is reached that income gets above \$2,000 per annum. In the case of Bulgaria, it never gets above this amount. Hong Kong and Korea have similar income patterns with both having PPP amounts around \$6,000 or more for their highest two income decile groups. No other country has an amount above \$6,000 for any decile group. Income decile classes were not available for Uganda.

Purchasing Power Parity (PPP) by Income Decile Class, 2004 (except Mexico, 2002)



The graph below shows the percentage distribution of household income by source. Income from paid employment contributes over half for all countries, except Bulgaria where it is 44%. One quarter of Argentine urban household income comes from self employment and over 20% in Bulgarian households. In other countries income from self employment contributes less than 10% to overall household income. The contribution of property income to total household income is much more significant in Mexico and Finland than for other countries. In the case of Mexico it represents over 20% of household income. Uganda is excluded from the income analysis because household income data was not collected in their latest survey.

Percentage Distribution of Household Income, 2004 (except Mexico, 2002)



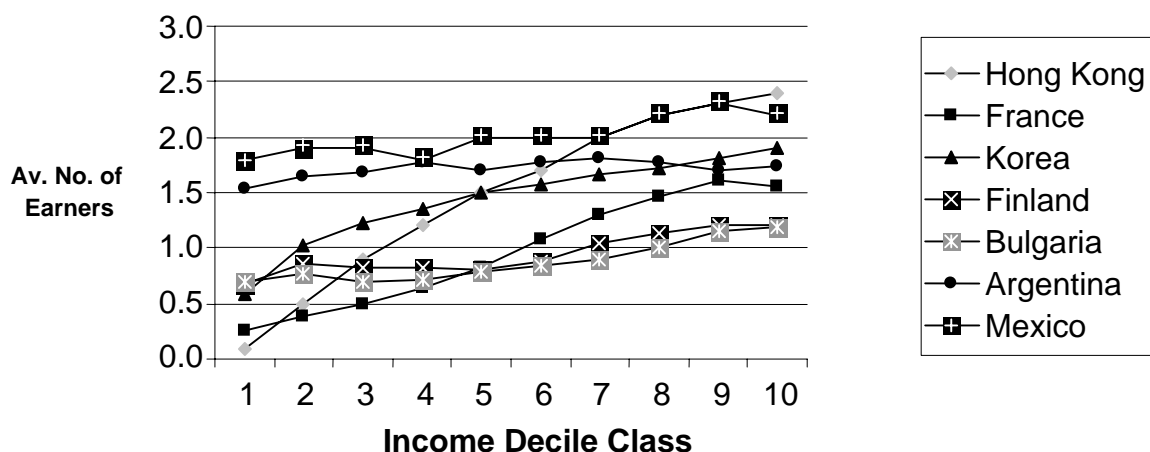
Country	% Social Security Income to Total Income
France	39.7
Bulgaria	30.3
Argentina	9.1
Mexico	4.5
Korea	2
Finland	Not available
Hong Kong	Not available

Transfer income which represents income from social security benefits, remittances from abroad and other transfers, is most significant in France and Bulgaria. Social security benefits are the dominant contributor to this form of income and this is explored in more detail below.

If the contribution of social security income to total income is examined, fairly large differences emerge across countries. Korea has a very low dependence on social security with only 2% of household income coming from this source. In contrast, for France, almost 40% of household income comes from social security payments.

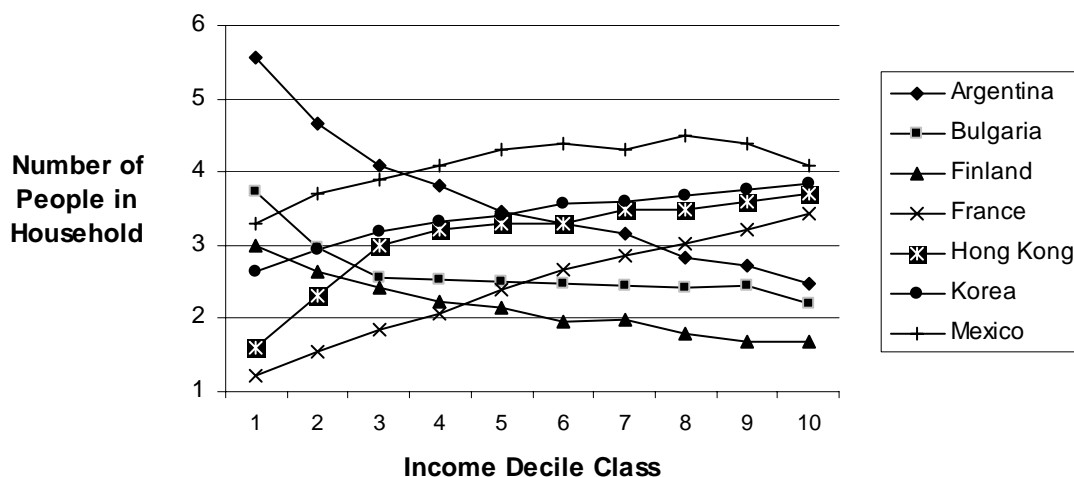
The average number of earners per household did not increase markedly over the income decile classes, except for Hong Kong and to a lesser extent France and Korea where there were greater increases and for Argentina (urban) where there was hardly any change in the average number of earners per household over the range of income decile classes. This is illustrated in the following graph.

Average numbers of Earners Per Household by decile class, 2004 (except Mexico, 2002)



If average household size is examined across the income decile classes, an interesting pattern emerges. For Argentina (urban), Bulgaria and Finland the average size decreases as the decile class increases. The opposite pattern occurs in Hong Kong, France and Mexico and for Korea to some extent. Higher income groups also have smaller households on average.

Average Household Size



8. Gini Coefficient

A measure of income inequality is known as the Gini coefficient¹⁶. The Gini coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income). Unfortunately, Gini coefficients were only available for four of the eight of our countries; Bulgaria, Finland, Hong Kong and Korea. The Gini coefficient was 0.26 for Bulgaria and Finland, 0.34 for Korea and 0.52 for Hong Kong. Bulgaria and Finland were also able to provide time series for their Gini coefficients. In the case of Bulgaria, their Gini coefficient has remained fairly steady over the 7 years for which data was available. For Finland it has steadily risen from 0.20, in 1993 to 0.26 in 2003. While not a large difference, there does appear to be a trend for incomes becoming more unequally distributed in Finland over time. To put these numbers in some sort of context, the United States had an estimated Gini coefficient of 0.46 in 2000¹⁷. Other than for Hong Kong, incomes are less equitably distributed in the USA than for the other countries analyzed in this paper.

9. Poverty

The ILOs concern with poverty dates back to at least 1944 when the Declaration of Philadelphia (concerning aims and purposes of the ILO) has as one of its four fundamental principles “Poverty anywhere constitutes a danger to prosperity everywhere”¹⁸. The latest significant publication by the ILO containing statistics on poverty and income distribution was published in 1996¹⁹. This collection of household income and expenditure statistics enables earlier work to be carried forward.

Poverty line information was not available for Hong Kong and Mexico and so information is only available for six of the eight countries under examination.

Producing reliable poverty line information within a particular country is not easy, and technical issues make comparisons across countries even more difficult. Also as well as measuring levels of poverty, there is significant interest in how poverty levels are changing over time. Countries were able to provide some time series information, ranging from 2 years for Korea through to 10 years for Argentina and Finland. (Note that Uganda poverty measures are based on expenditure distribution, see below.)

Historically, assessment of poverty has largely concerned insufficiencies of income and poverty line analysis continues with this philosophy. Over recent time, there has been a focus away from just income and onto outcomes achieved by individuals. The data does not enable this aspect to be pursued. Income analysis will remain an important component of measuring movements in poverty.

It is worth highlighting some of the collection and coverage issues as countries were given a choice in the ILO data gathering exercise as to how they provided poverty line information. Bulgaria, Finland, France and Korea used a relative poverty line concept, while Argentina and Uganda used an absolute measure. There were also differences in coverage with Argentina only using urban households while other countries used national data. The coverage was not specified for Uganda. There were also differences in the unit of analysis. Argentina, Uganda and Korea used households whereas Bulgaria, Finland and France used persons. The income concept used for poverty line calculation varied from total income for Argentina, Bulgaria and Korea to disposable income for Finland and France and household consumption expenditure for Korea.

The graph below shows poverty incidence. Poverty incidence is defined as the percentage of units that fall below the poverty line. Information is not available for every year for every country, but the data does show some large differences.

¹⁶ Corrado Gini, "Variabilità e mutabilità", 1912.

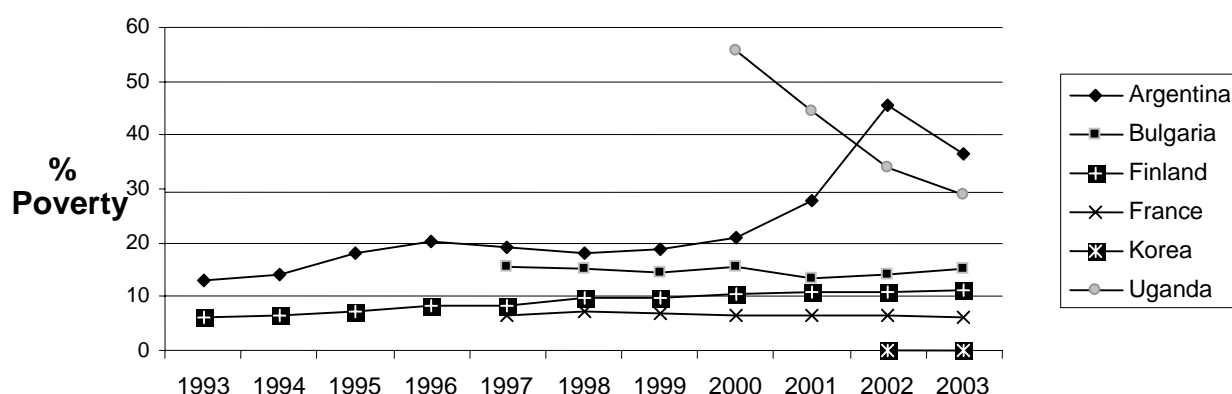
¹⁷ United States Census Bureau see <http://www.census.gov/>

¹⁸ See <http://www.ilo.org/public/english/about/iloconst.htm#annex>

¹⁹ Statistics on poverty and income distribution: an ILO compendium of data Geneva, International Labour Office 1996. Tabatabaia, H

At one end of the spectrum, Korean data indicates that poverty is virtually non-existent with poverty incidence at 0.2%. This finding is somewhat surprising given Korea used a relative poverty line concept. The World Bank has reported significant decline in Korean poverty over recent time. At the other end Argentina (urban) (36%) and Uganda (28%) are showing the highest poverty incidences in 2003. In the case of Argentina, the poverty has increased from 13% in 1993 to 28% in 2003. In contrast Ugandan figures have shown such a dramatic improvement from 55% in 2000 to 28% in 2003, that there might be a need to review the comparability of the estimates. Finland has shown a steady growth in the poverty incidence from 6% in 1993 to 11% in 2003. Bulgaria and France have had their poverty incidence levels remain relatively steady with figures around 6% and 15% respectively.

Poverty Incidence, 1993 to 2003



While the poverty measures outlined above enable cross country comparison, they do not give an indication of the magnitude of the differences between countries. One way of doing this is to examine income levels.

The table below shows the income amount in local currency which has determined the poverty level and the equivalent PPP amount. As can be seen from the table the PPP poverty level for Finland is seven times larger than that for Korea.

Standardised poverty income levels 2003

Country	Poverty level (Local Currency) per annum	PPP poverty level Amount (\$US) per annum
Korea (Won)	11,522,250	1,561
France* (Euro)	7,227	8,030
Finland (Euro)	11,130	11,100
Bulgaria (Leva)	2,745	2,700

* Applies to 2001

10. Conclusion

The article highlights similarities and dissimilarities between the chosen countries. It does not attempt to provide detailed explanation for differences, but highlights some of the limitations of the data. What the analysis demonstrates is that a large amount of useful information can be drawn from the data. It is hoped that this limited analysis will stimulate further analysis within particular areas of interest.

Information about Income and expenditure helps to quantify differences in patterns for different types of households and in different regions. This quantification can assist policy makers to identify areas of concern, particularly in relation to equity of income and expenditure and in poverty analysis.

APPENDIX 1: SUMMARY OF ILO DATA GATHERING OF HIES, 2005

The concepts and definitions of household income, household expenditure and household consumption expenditure preferred as standards of reference are those contained in the resolution concerning household income and expenditure statistics, adopted by the Seventeenth International Conference of Labour Statisticians, December 2003.²⁰

The following are the tables that were requested of countries in the 2005 data gathering exercise by the ILO Bureau of Statistics:

Table 1: Characteristics of Households by Expenditure Class

This table relates to the percentage distribution of households and certain characteristics of these households by expenditure class. The individual components of the table are:

- Number of sampled households in each expenditure class;
- Percentage distribution of households by expenditure classes;
- Average household size of each expenditure class;
- Percentage breakdown of households by urban and rural areas within each expenditure class;
- Percentage of female-headed households in each expenditure class;
- Percentage of households in each expenditure class by the following employment characteristics of household heads (or reference persons):
 - Self-employment in the agricultural sector,
 - Employee in the agricultural sector,
 - Self-employed in non-agricultural sector,
 - Employee in the non-agricultural sector,
 - Others (including unemployed);
- Average monthly household income in each expenditure class (see notes below for Table 4 for definition of household income). Preference was for total household income, but if not available per capita household income was acceptable.

Table 2: Distribution of Household Expenditure Groups

Table 2 is concerned with the average monthly total household expenditure and its percentage distribution by household consumption (major COICOP groupings of goods and services, and where possible by sub-groups for, housing) and household non-consumption expenditures. Household expenditure is the sum of household consumption expenditure and household non-consumption expenditure.

Household consumption expenditure is the value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own account production, barter or as income-in-kind. Thus the value of items produced by households and utilized for their own consumption, the net rental value of owner-occupied housing and the gross rental value of free housing occupied by the household represent part of household consumption expenditure. In principle, non-monetary transfers (gifts) received are not part of household consumption expenditure, but some countries include them in practice.

Household non-consumption expenditure refers to transfers made to governments, non-profit institutions and other households such as income taxes, social security contributions, and family support payments (e.g., alimony, parental support, child support).

²⁰ Report of Conference <http://www.ilo.org/public/english/bureau/stat/download/17thicls/final.pdf> and; Report II: Household Income and Expenditure <http://www.ilo.org/public/english/bureau/stat/download/17thicls/r2hies.pdf>

Expenditures on investment (e.g. private life insurance, capital purchases, savings), on meeting liabilities (e.g. repayment of loans) and on household enterprises were reported separately from household expenditure, as ‘Other disbursements’.

The following COICOP classification of consumption expenditures was used:

- Food and non-alcoholic beverages
- Alcohol, tobacco and narcotics
- Clothing and footwear
- Housing
 - o Actual rent
 - o Imputed rent for owner-occupied housing
 - o Water supply and housing repairs
 - o Fuel and lighting
- Furniture and household equipment
- Health
- Transport
- Communications
- Recreation and culture
- Education
- Other consumption expenditure

Table 3: Distribution of Households by Age of Household Head and by Household Size

Table 3 refers to percentage distribution of households by age of household head and by household size for each expenditure class.

Table 4: Distribution of Household Income by Source

Table 4 relates to the percentage distribution of average monthly household income by source and to the percentage distribution of households and certain household characteristics by income class.

Household income consists of all receipts whether monetary or in kind (goods and services) that are received by households and their individual members at annual or more frequent intervals. These receipts are available for current consumption and do not reduce net worth of the household through reduction of its cash, disposal of its other financial or non-financial assets or an increase in its liabilities. Excluded from household income are windfall gains and other such irregular and typically one-time receipts. Household income is gross income that is before deduction of income or other taxes and social security contributions.

Household income is: income from employment (both employee and self-employed), property income (interests, dividends, rents received, royalties), income from the production of household services for own consumption (owner-occupied housing), current transfers received from governments, non-profit institutions and other households (e.g. pensions, social assistance benefits, regular gifts, regular remittances from abroad, regular receipts from inheritances, alimony, child care and other family support payments).

Receipts in kind include the imputed rental value of owner-occupied housing and of free and subsidized housing provided by employers or from other sources, other employee income in kind, the value of other goods and services produced for own consumption or received as non-monetary transfers from governments, non-profit institutions and other households.

The individual components of the table are:

- Number of sampled households in each income class;
- Percentage distribution of households by income class;
- Average household size in each income class;
- Average number of household members who receive monetary income from employment in each income class;
- Average monthly household expenditure in each income class. Household expenditure is defined in the above notes for Table 2;
- In each income class, average monthly total household income and the percentage of this income that is non-monetary;
- For each income class, percentage of income from the following sources:
 - o Paid employment income (from all jobs): Direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit-related pay, remuneration for time not worked as well as free or subsidized goods and services from an employer. Severance and termination pay as well as employers' social security contributions should be excluded. Self-employment income: Income received, monetary and non-monetary, as a result of self-employment jobs by primarily owners of unincorporated enterprises. It excludes profits from capital investment of sleeping partners, dividends and directors' fees. It includes the estimated value of goods and services produced for barter as well as goods produced for own consumption;
 - o Property income: Receipts arising from ownership of assets including interest receipts, dividends, rents and royalties. Included also for purpose of this data collection exercise are imputed rents from owner-occupied housing.
 - o Transfer income: Monetary and non-monetary receipts from governments, non-profit institutions and other households for which the household does not directly give anything in return. Included are social security benefits (e.g. pensions, unemployment benefits, sickness benefits and allowances from social insurance schemes), remittances from abroad and other transfers (pensions and benefits from employer-sponsored insurance schemes, current transfers from non-profit institutions and transfers from other households such as alimony, child support, regular inheritances);
 - o Other income: From sources other than those classified above such as estimated value of home-produced services apart from housing.

Table 5: Distribution of Households by Household Size and Sex of Household Head

Table 5 refers to percentage distribution of households by household size and sex of household head for each income class. Thus, for each household size, the percentage of households with that size is split into the percentage headed by females and the complementary percentage headed by males. Household income is as defined in the above notes for Table 4.

Table 6: Poverty Line and Income/expenditure Distribution

Table 6 relates to poverty line and are time series data. For each year, starting from the most recent, the following individual components were requested:

- Coverage: The whole country (national), only urban areas, only rural areas, or some other geographical grouping.
- Unit: The unit of analysis to which the statistics refer. This is household, person, adult-equivalent or some other unit.
- Poverty Line (PL): The cut-off used for the poverty measures. The data are as follows:
 - o Method: This could be an absolute poverty line, a relative poverty line or the unmet basic needs method.
 - o The PL amount in local currency, if applicable;

- Income/expenditure concept (For Poverty Line method): In producing the poverty and inequality measures,
 - o the income distribution could be based on total income, disposable income (total less compulsory deductions such as taxes, compulsory fees, family support, etc.) or some other income concept;
 - o The expenditure distribution could be based on household consumption expenditure, household expenditure (see Table 2) or actual final consumption (household consumption expenditure plus value of goods and services acquired or used by households through transfers from governments, non-profit institutions and other households).
- Poverty measures (Unmet Basic Needs method): Poverty incidence is the percentage of units with unmet basic needs.
- Poverty measures (Poverty Line method):
 - o Poverty incidence: The percentage of units that fall below the poverty line – P(0);
 - o Poverty gap index: The magnitude of poverty measured as the mean income/expenditure shortfall from the poverty line as a proportion of that line (with non-poor having zero shortfall) – P(1);
 - o Poverty severity: The mean of the square of the depth of poverty (proportionate poverty gap) for each unit – P(2);
 - o All these measures can be obtained from the formula

$$P(K) = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right)^K, K = 0,1,2 \quad ,$$

where y_i is the income/expenditure of the i th unit,
 z is the poverty line,
 n is the total number of units and
 q is the number of units below the poverty line.

- Income/expenditure distribution: decile cut-offs in national currency
- Income/expenditure inequality: Measured by Gini coefficient given by

$$Gini = \frac{1}{2n^2 \bar{y}} \sum_{i=1}^n \sum_{j=1}^n |y_i - y_j| \quad ,$$

where \bar{y} is mean income/expenditure,
 y_i is the income/expenditure of the i th unit,
 y_j is the income/expenditure of the j th unit and
 n is the total number of units.