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Estimating Income Poverty and Inequality from the Gallup World Poll: The Case of Latin America and the Caribbean

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The case of Latin America and the Caribbean [#]

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Abstract

This paper takes advantage of a new source of information – the Gallup World Poll 2006 – to estimate and characterize income poverty and inequality in Latin America and the Caribbean (LAC) at the country level, and to compare LAC statistics to those in other regions of the world. The Gallup survey has the advantage of being conducted in over 130 nations with almost the same questionnaire in all countries, and then it stands as a complement to national household surveys for international comparison purposes.

Keywords: povery, inequality, incomes, Latin America, Caribbean, Gallup

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[#] This study is a follow up of a large project commissioned by the IDB´s Latin American Research Network on Quality of Life in Latin America and the Caribbean, and carried out at CEDLAS with Mariana Marchionni, Sergio Olivieri and Walter Sosa Escudero. Gallup has generously provided the microdata of the Gallup World Poll 2006. We are grateful to Ravi Kanbur, Jere Berhman, Eduardo Lora, Carlos Vélez, Marcelo Neri, Carol Graham, Mauricio Cárdenas, Mariano Rojas, and seminar participants at the IDB (Washington D.C.), UNLP (La Plata), NIP (Córdoba) and LACEA (Rio de Janeiro) for helpful comments and suggestions. The usual disclaimer applies.

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1. Introduction

The international comparison of income distributions has always been a central issue in Economics. Pareto (1897) produced one the first contributions in this field by comparing income distributions across European cities and states. Kuznets (1955) wrote a seminal paper comparing inequality across countries at different development levels. More recently, the international database of Gini coefficients of Deinenger and Squire (1996) and the World Development Indicators revitalized the empirical growth literature by adding inequality and poverty variables into the analysis.

Income poverty and inequality comparisons across countries and regions are usually carried out from household survey data. A first strand of the literature is based on aggregate distributional data (Gini coefficients, quintile shares) from secondary sources. This information is usually enriched with assumptions that allow estimating the shape of the whole distribution, and National Accounts GDP data to adjust the means. Bourguignon and Morrisson (2002), Bhalla (2002), Karshenas (2003) and Sala-i-Martin (2006) are examples of this literature. These contributions, although certainly very relevant, are naturally plagued by methodological problems, starting by the fact that the secondary distributional data comes from studies that use different well-being variables (income or consumption, net or gross income), have different coverage, have different units of analysis (individual or household) and are based on a very large number of methodological decisions that are not even documented in most papers (*e.g*. treatment of zero income, misreporting, outliers, regional prices, implicit rent from own housing, and so on).

A second strand of the literature makes comparisons based on household survey microdata, taking care of many of the problems mentioned above by applying a consistent methodology across surveys. This could be done at the regional level (see Gasparini, Gutiérrez and Tornarolli, 2007 for LAC), or with much effort at the world level. Ravallion and Chen (2008) is the last contribution of a series of papers from a World Bank project, in which income poverty around the world is computed from household survey microdata. Although they are careful in processing surveys in the same way, they allow different well-being variables in the dataset, and they recognize that "…*there are problems that we cannot deal with. For example, it is known that differences in survey methods (such as questionnaire design) can create non-negligible differences in the estimates obtained for consumption or income*". In a recent survey of global income inequality Anand and Segal (2008) reach similar conclusions.

This paper makes a contribution to the international comparison of income poverty and inequality by using a new data source, the Gallup World Poll 2006, a survey carried out at the same time in over 130 nations around the world with almost exactly the same questionnaire in all countries, including questions on income and household size. Although the survey has some drawbacks and limitations, it provides a unique

opportunity to compute alternative poverty and inequality statistics, and compare them with those obtained from household surveys.

This paper uses the Gallup World Poll to compute and characterize income poverty and inequality in Latin America and the Caribbean (LAC), and compare global statistics in that region with those in other regions of the world. The paper provides new results regarding poverty and inequality at the country level, and the position of LAC in the world ranking of these variables.

The rest of the paper is organized as follows. In section 2 we briefly describe the main sources of information for the study: the Gallup World Poll and the LAC national household surveys. Section 3 is aimed at discussing income measurement in the Gallup Poll. In section 4 we estimate levels and patterns of income poverty for all countries in the region based on Gallup data, and compare the results with those from household surveys. In section 5 we turn to income inequality, compute country and regional income disparities, and carry out some within-between decompositions. Section 6 closes with some concluding remarks.

2. The data

The main source of information for this study is the Gallup World Poll. During 2006, the Gallup Organization collected World Poll data using an identical questionnaire from national samples of adults from 132 countries, 23 of them from LAC. Sample sizes of 1,000 households per country were designed to assure national representativity. Because the survey has the same questionnaire in all the countries, it provides a unique opportunity to perform cross-country comparisons.[1] The Gallup Poll includes basic questions on demographics, education, and employment, and a question on household income. The survey is answered only by an adult (15 or older) chosen randomly within the household.

Table 2.1 shows some basic demographic statistics drawn from the 2006 Gallup survey, using population weights. The dataset includes the answers of 141,739 persons. 21,200 of them are inhabitants of LAC: 17,144 in Latin America and 4,056 in the Caribbean. The survey has full coverage in Latin America in terms of countries, and comprises the main nations in the Caribbean according to their population: Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico and Trinidad & Tobago. The country samples have around 1,000 observations, except in Haiti, Jamaica, Puerto Rico and Trinidad & Tobago, where around 500 observations were collected.

In some sections of this document we exploit the world coverage of the survey. In principle, this dataset provides a unique opportunity to study a wide range of issues with a true international perspective, since the samples are representative at the country level,

[1] Deaton (2007) is one of the first studies using the 2006 Gallup Poll. In a companion paper, Gasparini, Marchionni, Olivieri and Sosa Escudero (2009) study three dimensions of deprivation - income, non-monetary and subjective – with Gallup microdata.

and the questionnaires are identical in all the countries. The last two panels in table 2.1 show some basic regional statistics, using two alternative standard classifications.

Table 2.1 indicates that the share of males is lower but close to 50%, which is consistent with Census and household survey data. Naturally, mean age in the Gallup Poll is higher than in other sources, since respondents are older than 15. Although the correlation between mean age in the Gallup survey and in the household surveys is high (correlation coefficient=0.9), figure 2.1 shows some worrying differences for some countries (*e.g.* Guatemala and Paraguay). The mean number of children under 15 in the household reported in the Gallup Poll is somewhat higher than in household surveys: the LAC means are 1.5 and 1.34, respectively. The cross-country association in the number of children between Gallup 2006 and the national household surveys is statistically significant but not too tight (correlation coefficient=0.56).

Both Gallup and the LAC National Statistical Offices that conduct household surveys claim to work with samples that are representative at the national level. However, in reality the samples may well differ in their geographical coverage. In particular, the share of rural population may be different in the two sources, a fact that surely translates into differences in national statistics. We implement two definitions of *urban* from the Gallup data by alternatively classifying those who report living in a small town or village as urban (definition 1) or rural (definition 2) (see table 2.2). In some countries (*e.g.* Brazil) the (weighted) shares of urban observations in Gallup are similar to those reported in Census/surveys when using definition 1, while in others they seem to match official figures when using definition 2 (*e.g.* Chile, Costa Rica, El Salvador, Peru). In some other countries (*e.g.* Bolivia, Colombia, Paraguay) the "true" urban share (from surveys or Census) lies between the two alternative Gallup figures. In most cases where the household survey allows reclassifying observations and modifying the official definition of urban-rural, we can reasonably replicate the two alternative figures for the 2006 Gallup.[2]

In summary, a preliminary analysis suggests that basic statistics from the Gallup Poll are roughly consistent with those from household surveys in most LAC countries, but not in all, a fact that casts some doubts on the national representativity of the Poll in those countries. We return to this point in the next sections.

In addition to the Gallup Poll we use the national household surveys collected by the National Statistical Offices (NSO) of the LAC countries around 2006. Table 2.3 lists the surveys considered in this study. We use the datasets processed at CEDLAS as part of the SEDLAC project (Socio-Economic Database for Latin America and the Caribbean) carried out by CEDLAS and the World Bank's LAC Poverty Group (LCSPP), with the help of the MECOVI Program. The original microdata is processed using homogeneous definitions of variables, subject to the limitations imposed by the questionnaires.[3]

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[2] The exemptions are Jamaica and Venezuela.

[3] see www.cedlas.org for details. Gasparini, Gutiérrez and Tornarolli (2007) use and discuss that data to analyze poverty and inequality in the region.

3. Income in the Gallup Poll

In spite of its drawbacks and limitations income adjusted by demographics is widely used as a proxy for individual well-being.[4] In most countries poverty and inequality are officially measured over the distribution of income. This is certainly the case in LAC, where consumption data is seldom available in household surveys.

The Gallup survey includes a single question on monthly total household income before taxes. The question is clear, but it is too simple and reported in brackets, leading to just a rough measure of income. The question is placed almost at the end of the questionnaire, which may imply a higher rate of non response, and a lower quality of information. Additionally, the survey is conducted to a randomly selected member of the household (older than 15), not necessarily the person who knows the incomes of the household better.

The brackets of each question are expressed in local currency units (LCU), and hence they differ across countries, even when expressed in US$ adjusted for PPP. In fact, the number of brackets is different in each country. In the 2006 round in LAC, that number ranges from 4 in Colombia to 20 in Bolivia. In most countries (all in LAC) the question refers to *monthly* household income.

In all LAC countries we compute for each respondent an homogeneous monthly household income variable in US dollars by (i) randomly assigning a value in the corresponding bracket of the original question in LCU, and (ii) translating this value to US$ using country exchange rates adjusted for purchasing power parity (PPP). The assignment in step (i) is carried out by assuming that the shape of the income distribution in a given bracket of the Gallup Poll is similar to that of the national household survey, after adjusting for scale differences by multiplying Gallup figures for the ratio of median values of the two data sources. We apply this procedure only for LAC countries. When comparing this region with the rest of the world, we use an annual income variable standardized by Gallup, constructed by taking just the midpoints in each bracket (variable *wp4898*). For that reason, our statistics may differ when working either with LAC alone, or in comparison with the rest of the world.

Most welfare analysis are carried out in terms of household income adjusted for the demographic composition of the household. The Gallup Poll includes questions for the number of adults and children. However, unfortunately, the 2006 dataset includes the answers to the number of adults in only three LAC countries.[5] In addition, the number of children is not recorded in Honduras and Nicaragua, and valid answers are less than 70% in Argentina and Mexico.

[4] See Deaton (1997).

We estimate the number of members in each household by adding the number of children under 15 reported in the Gallup Poll to the average number of adults (above 15) computed from the national household surveys. For each country we take this average for four groups according to the area of residence (urban or rural), and the type of household (with or without children), and apply these means to the corresponding households in the Gallup survey. In addition, we estimate the number of children in households with missing information in Honduras, Nicaragua, Argentina and Mexico using data for the Gallup 2007 round.

Table 3.1 shows the mean, median and share of valid answers of total household monthly income, and per capita income for all LAC countries. The rate of income non-response is 14%, with maximum values in Trinidad and Tobago (39%) and Honduras (33%). On average (weighted by population) per capita income is 8% higher in the Caribbean. The unweighted average in the Caribbean is 59% higher: the main reason behind this difference is the relative low income in the highly-populated countries of Cuba and Haiti. The income dispersion in the Caribbean is very high. While mean monthly per capita income declared to Gallup is US$ 578 in Puerto Rico, it is just US$73 in Haiti. In Latin America the dispersion is lower: per capita income ranges from US$81 in Bolivia to US$321 in Chile.[6]

A likely measurement error in the Gallup Poll comes from the fact that the respondent is not necessarily the household head or spouse. Unfortunately, the 2006 dataset does not allow identifying the role of the respondent within the household. Therefore, in order to check for robustness of some results we compute statistics by dropping the answers of those respondents younger than a certain (variable) threshold. Results are robust to this change: for instance the linear correlation coefficient of per capita income for the whole sample and a sample where respondents younger than 30 are dropped is 0.99. Poverty and inequality changes do not significantly change either.

In table 3.2 the population is divided into those who answer the income question (column “yes”) and those who do not (column “no”), and compute several statistics for these groups separately. The analysis is restricted to those countries where income non-response is higher than 15%. If income non-response were random, the t-test of mean differences in the third column of each panel would be small. In most LAC countries that is in fact the case for the share of males and the urbanization rate. In contrast, in some countries (*e.g.* Argentina, Costa Rica) non-response seems to be concentrated in the well-off, as the access to phone, computer and Internet is significantly higher among those who refuse answering the income question. That is also true for the aggregate (Latin America, Caribbean and LAC). However, notice than in most countries the differences between the two groups are not statistically significant. Although there is certainly non-random income non-response in the Gallup Poll, at least in some

[6] Colombia is deleted from the rest of the analysis, since there seems to be problems with the income reporting. In particular, more than 70% of the population is located in a single income bracket.

countries, the magnitude and the bias appear not to be very different from what is observed in household surveys (Gasparini *et al*., 2007).

Incomes in Gallup and household surveys

The national household surveys are the main sources of information on household incomes. These surveys usually include a relatively large number of questions aimed at capturing all sources of income. However, while household surveys are surely a better source for national income data than the Gallup Poll, the latter has the big advantage of a similar questionnaire across countries in the world, and hence it might compete with national surveys as a data source for international comparisons. In this section we compare the national income distributions drawn from the Gallup Poll to those obtained from the household surveys conducted by the National Statistical Offices of the LAC countries.

While the Gallup Poll was carried out in 2006, not all national surveys in our database correspond to that year (15 out of 20). To make the two information sources more comparable we take all incomes from the national household surveys to year 2006 by adjusting for the nominal income growth rate of each country (and thus implicitly assuming no distributional changes between the year of the survey and 2006).

We compute for each country non parametric estimates of the density function of the log per capita income in LCU from both sources of information.[7] In general, incomes in Gallup are lower than in household surveys. When adjusting incomes for the difference in means the distributions are reasonably close in several countries. Figure 3.1 shows the comparisons between Gallup and household surveys for the whole region. Both distributions seem to match reasonably well in the case of Latin America, but not in the case of the Caribbean, where the Gallup distribution seems more egalitarian.

Table 3.3 adds to the analysis the estimates of mean and median per capita income in LCU in each country, along with the income shares by quintile. On average mean (median) income in Gallup is 57% (63%) of the value in national household surveys. Only in Jamaica and Venezuela incomes in Gallup are higher than in the household surveys. In most countries the shares of both the poorest and the richest quintiles are somewhat smaller than in household surveys.

The linear correlation across countries between per capita income in Gallup and the national household surveys is positive, significant, not too high with the whole sample (0.61) but substantially high (0.95) when deleting the main deviants –Jamaica, Honduras and Venezuela- (see figure 3.2). When taking the medians the correlation coefficient are 0.58, and 0.93, respectively. The ranking across countries between the two information sources is similar (table 3.4). The Spearman rank correlation is 0.94 for the means and 0.88 for the medians when deleting the main deviants (panel B in table 3.4).

[7] Figures are available from the authors upon request.

Incomes in Gallup and National Accounts

There are a host of reasons why mean income may differ between National Accounts (NA) and household surveys.[8] Surveys record disposable incomes mostly from labor sources and transfers, while NA usually provide statistics on per capita GDP or consumption. Although the big facts (ranking of countries, growth rates) should in principle be similar regardless of the information source, that is not always the case: Gasparini, Gutiérrez and Tornarolli (2007) document significant differences in growth rates in LAC countries depending on the information source.

Figure 3.3 shows a reasonable degree of matching between mean income in Gallup and per capita GDP for the LAC countries. The linear correlation is 0.55 for the full sample, and raises to 0.83 when deleting the main outliers (Honduras and Jamaica). Table 3.5 shows the ranking of LAC countries according to both variables. Most nations are located in similar steps in the income ladder. Argentina and Mexico have mean incomes in the Gallup survey too low compared to their NA figures. The Spearman rank correlation coefficient is positive and significant (0.86).

Comparisons with the world

The Gallup survey allows comparisons across different regions in the world. According to Gallup microdata, income in LAC is higher than in sub-Saharan Africa, similar to South Asia, and lower than in the rest of the regions (see table 3.6).[9] LAC mean per capita income is 13% of the value in North America, 21% in Western Europe, and 65% in Eastern Europe and Central Asia.[10] These values imply some discrepancies with National Accounts figures, for which the income gaps between LAC and those regions are smaller.[11] The main inconsistency arises in the comparison LAC-Asia: while according to Gallup data mean income is higher in East Asia and Pacific than in LAC, and it is just 12% higher in LAC than in South Asia, results drawn from other sources reveal substantial income gaps in favor of LAC.[12]

It is interesting to extend these comparisons to the whole income distribution. Figure 3.4 compares a non-parametric (kernel) estimation of the density function of the log per capita income in Latin America to that function in other regions of the world. Even after

[8] See Deaton (2005).
[9] Table 3.3 records annual income, not monthly income, as in previous tables. In addition, as our dataset includes incomes in LCU only for LAC countries, for world comparisons we use the rougher standardization of income carried out by Gallup described above.
[10] The rate of non-response for Middle East and North Africa is too high (89%), and the resulting mean income seems too high. Number of familiy members in Sub-Saharan Africa is not available in the dataset, so we cannot compute per capita income.
[11] Per capita GDP (PPP) for 2006 in LAC was 22% of the value in North America, 30% in Western Europe, and 87% in Eastern Europe and Central Asia.
[12] Per capita GDP (PPP) for 2006 in LAC was 35% higher than in East Asia and Pacific and more than 4 times higher than in South Asia.

considering its drawbacks and limitations, the power of the Gallup survey is evident from graphs like 3.4. Several authors have tried to come up with comparable income distributions across regions. To that aim they use data from very different sources, and make a lot of assumptions. The Gallup data has the advantage of providing the necessary data for these estimations from the same question across more than a hundred countries.

The income distribution in Latin America seems close to that of the Caribbean. The Latin American distribution is located to the left of the distributions of both East Asia and Pacific, and Eastern Europe and Central Asia. The differences become more dramatic in the comparison with Western Europe and North America. In the next section we extend the analysis to some of the most socially relevant characteristics of the income distributions: poverty and inequality.

4. Income poverty

While the previous section deals with the whole income distribution, in this section we focus on measures of income poverty, *i.e*. the mass of the income distribution below certain threshold. There is a long-standing literature on the measurement of poverty. Even restricting the analysis to income poverty, the literature remains huge. The most widespread way of measuring poverty in an international context is by using the poverty lines set at US$1 or US$2 a day adjusted for PPP (Ravallion *et al*., 1991). Although these lines have been criticized, their simplicity and the lack of reasonable and easy-to-implement alternatives have made them the standard for international poverty comparisons.

The standard practice to get the international poverty lines in LCU is taking the equivalent to US$1.0763 in domestic currency using a large international study on prices carried out in 1993, and taking that value to the date of a given survey using the national consumer price index (Deaton, 2003; WDI, 2004). Table 4.1 shows several poverty measures obtained by applying the US$1 and US$2 lines to the distribution of household per capita income from the Gallup poll. Poverty statistics are shown for all countries for which we could compute poverty lines. According to these estimates the headcount poverty ratio in the region is 39.7% when using the US$2 line, and 18% when using the US$1 line. Poverty is higher in the Caribbean due to the presence of Haiti. Poverty ranges from 5.4% in Puerto Rico to 84.9% in Haiti (poverty line of US$2). In Latin America poverty ranges from 22.1% in Chile to 67.4% in El Salvador. Figure 4.1 shows the ranking of income deprivation: Puerto Rico, Trinidad & Tobago, the Southern Cone and Costa Rica have economies with relatively low income poverty levels, while some Andean and Central American countries are in the other extreme of the ranking.[13] Haiti stands up as the country with the highest incidence of poverty in the region.

[13] We exclude the main income deviants of previous section from this graph.

The main results do not change as we consider alternatively the US$ 1 or the US$ 2 lines, or the three poverty indicators -headcount ratio, poverty gap and FGT(2). In fact all the linear and rank correlation coefficients of the six columns in table 4.1 are statistically significant and high (higher than 0.95 in most cases).

Comparison Gallup and household surveys

The main sources for poverty estimates in LAC are the national household surveys. In this study we take the estimates of income poverty using the US$ 2 lines from our database at CEDLAS.[14] For most countries we have poverty estimates based on microdata for 2006. For the rest we follow a procedure similar to the one described above: we assume neutral growth in per capita income (at the same rate as per capita GDP growth) from the year of the latest household survey available until 2006.

On average, poverty in the Gallup Poll is 16 points higher than in national household surveys when using the US$2 line. This gap is naturally linked to the differences in incomes between the two sources discussed in section 3. More than being concerned about the specific poverty levels that arise from the Gallup Poll, we care about the rankings and comparisons across countries, and across population groups within countries. Figure 4.2 shows a positive significant correlation between poverty estimates using the Gallup survey and those computed at CEDLAS with national household survey microdata. The linear correlation coefficient is 0.62 for LAC, 0.71 for Latin America, and 0.92 without the main income deviants identified in the previous section.

The poverty ranking that arises from the two alternative data sources turns out to be similar (see table 4.3). The Spearman rank correlation coefficient is 0.93. Chile, Argentina, Costa Rica and Uruguay are the countries where income poverty is less serious, while Bolivia, Nicaragua and El Salvador are located in the other extreme.[15] Haiti ranks as the country with the highest income deprivation level in the region.

In summary, despite a much rougher approximation to per capita income, the picture of poverty in Latin America and the Caribbean viewed through the Gallup lens is not very different from the one obtained with household survey microdata. Poverty levels are highly correlated across both information sources and the poverty rankings are roughly consistent. However, there seems to be problems either with the national representativity of the survey or with the income variable in a few countries that should be revised and corrected in the next rounds of the Poll to increase the reliability and usefulness of the data.

Comparisons with the world

[14] See www.depeco.econo.unlp.edu.ar/cedlas/sedlac for results and methodological details.
[15] We ignore Cuba, Puerto Rico and Trinidad & Tobago due to data limitations in our database of household surveys.

As commented above, there is a large and growing literature on international poverty comparison plagued by data comparability problems. The Gallup Poll provides an opportunity to alleviate some of these problems, since survey design and questionnaires are identical across countries.

It is well known that poverty comparisons are sensible to the choice of the poverty line. Atkinson (1987) proposes checking for first-order stochastic dominance in order to assess the robustness of the results. In figure 4.3 we show the cumulated density functions for the income distribution in each region. Poverty in Latin America is lower than in the Caribbean, and higher than in East Asia and Pacific, and Eastern Europe and Central Asia.[16] These results are confirmed in table 4.4.[17] Poverty is almost inexistent in Western Europe and North America when measured with the US$1 or even the US$2 lines. As suggested by the overlapping distribution functions, the comparison LAC-South Asia is ambiguous. As mentioned above, this result seems unreliable according to other data sources.

5. Income inequality

Latin America and the Caribbean has always been identified as a region with high levels of inequality. In this section we provide evidence on country and regional inequality with data from the Gallup Poll. We start by showing estimates of the most widespread indicator of inequality: the Gini coefficient for the distribution of household per capita income. In most countries income inequality is lower in the Gallup data than in the national household surveys (table 5.1), a fact that could be the consequence of a weaker income questionnaire in Gallup that misses some relevant income sources for the non-poor.[18] More worrying are the differences in the inequality ranking among LAC countries (figure 5.1). Some countries which are consistently assessed as relatively egalitarian for the LAC standard look pretty unequal with the Gallup data (*e.g.* Uruguay, Venezuela). On the other hand, countries traditionally considered as very unequal are not ranked as so with the Gallup data (*e.g.* Haiti). The Spearman rank correlation coefficient of the Gini between estimates from Gallup and national household surveys is positive (0.354) but not statistically significant at 10%. The linear correlation is also positive (0.359) but weak (see figure 5.2).

There is a long standing debate on the economic performance of Cuba. Unfortunately, the government of that country has impeded the use of national statistics at the micro level, needed to make reliable international comparisons. Figure 5.1 is one of the few pieces of evidence of the presumably low level of income inequality in Cuba. Although

[16] Ravallion and Chen (2008) find that poverty in LAC is higher than in Eastern Europe & Central Asia but lower than in East Asia & Pacific. Sala-i-Martin (2006) reports a ranking similar to that obtained with Gallup data.

[17] For these comparisons we estimate incomes based on midpoints of the brackets in PPP US$ provided by Gallup. For that reasons estimates in tables 4.1 and 4.4 differ.

[18] Honduras and Nicaragua are deleted since inequality estimates are too low due to the rough estimation of the number of children in those countries (the only two countries without information on this variable).

it is likely that the rank of Cuba in this graph reflects the true, the result should be still taken with prudence, given the discussions above and the concerns on the reliability of surveys in that country.

It has long been stated that Latin America is the most unequal region in the world. This proposition has been based on household survey microdata that differs in several dimensions across countries in different parts of the world. Although certainly plausible, the statement will remain debatable without comparable microdata. The Gallup Poll makes a contribution to this issue by providing income data using the same question in all the countries in the world.

There are two possibilities when analyzing inequality across regions in the world. The first one is to consider each region as a unit and compute inequality among all individuals in the region, translating their incomes to a common currency. In that alternative the division in countries of each region is completely ignored. The second alternative is to compute inequality in each region by taking an average of the inequality levels over the countries that form the region.

An assessment of inequality in the first sense ("within region inequality") is presented in figure 5.3. The Lorenz curve of Latin America is clearly below those of Western Europe, North America, and Eastern Europe, but lies above those of East Asia and Pacific, and the Caribbean. The Gini coefficient of Latin America is 0.525 (see table 5.2), which is much higher than in Western Europe (0.402), North America (0.438) and Eastern Europe and Central Asia (0.497); but lower than in South Asia (0.534), the Caribbean (0.591), and Eastern Asia and Pacific (0.594). Table 5.3 shows that most results are robust to the choice of the inequality index. The exception is the comparison between LAC and South Asia, a fact that comes as no surprise, given the crossing of the Lorenz curves in figure 5.3.

Some of the results change when taking the second alternative to measure regional inequality; *i.e.* averages across countries (second column in table 5.2 and figure 5.4). Now, Latin America ranks as the most unequal region in the world, and the Caribbean looks less unequal. The cross-country Gini in Latin America (0.499) is only comparable to that of South Asia (0.489), and much higher than that of the Caribbean (0.456).

To understand the difference in the results, notice that the dispersion in mean income is smaller in Latin America than in other regions like Eastern Asia and the Pacific, and the Caribbean. The Gini coefficient of the distribution of mean income across countries is 0.271 in Latin America, 0.401 in the Caribbean and 0.338 in East Asia and Pacific. While countries in Latin America are relatively similar in their stages of development, that is not true in the Caribbean or East Asia. In the Gallup Poll the income ratio between the poorest and the richest country is less than 5 in Latin America (Bolivia and Chile); more than 8 in East Asia and Pacific (Cambodia and Hong Kong), and more than 10 in the Caribbean (Haiti and Puerto Rico).

To further analyze regional inequality, we carry out a Theil decomposition of regional inequality by country (see table 5.4 and figure 5.5). The share of the between inequality

component in Latin America is relatively small compared to other regions in the world. Instead, in the Caribbean, one of the most diverse regions in the world, between inequality accounts for almost a half of total regional inequality.

Table 5.6 takes a brief look at world inequality by decomposing the global Theil, equal to 0.769, into a between and within components. It is interesting to note that almost half of the world income disparities can be accounted by differences across countries. This share is somewhat lower than the value estimated by Sala-i-Martin (2006), 64%, but still significantly large.

In a seminal paper Kuznets (1955) found evidence, and proposed an explanation, for an inverse-U relationship between inequality and development. Figure 5.6 makes a small contribution to the large and rich literature generated by that paper by showing a scatterplot of Gini coefficients drawn from the Gallup Poll and per capita GDP (in panel A) and per capita income (panel B). The relationship Gini-GDP seems to be decreasing. If we consider that the low-income African countries are not in the sample, the figure may not be inconsistent with the existence of a Kuznets curve. Panel B also shows a decreasing relationship between inequality and income per capita both measured with Gallup data.

It is interesting to note, in particular in panel A, that almost all the observations in Latin America lie above the curve. This is evidence in favor of the "Latin America´s excess inequality" documented in Londoño and Székely (2000), Gasparini, Cruces and Tornarolli (2009) and others: Latin American countries have high levels of income inequality, even after considering their levels of economic development.[19]

6. Concluding remarks

The Gallup World Poll constitutes a powerful instrument for international comparison of socio-economic variables. This paper exploits this dataset to study poverty and inequality in Latin America and the Caribbean, and to compare this region with the rest of the world.

We do not propose the use of the Gallup Poll as a subsitute for household surveys in distributional analysis, as the national surveys are substantially larger and richer. In fact, in the paper we point out some drawbacks and inconsistencies in the Gallup data that limit its use. However, at the same time, we highlight the enormous potential of the Gallup World Poll (or other similar surveys) for international comparisons of social statistics, if these drawbacks are overcame in the following rounds of the survey.

[19] In panel B this phenomenon is less clear, perhaps as the result of the relative underestimation of incomes in LAC in the Gallup survey, a possibility discussed above.

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Table 2.1
Basic demographic statistics
Gallup World Poll 2006

	Observations	Share of males	Mean age of respondent	Children in the household
Latin America	**17,144**	**0.482**	**37.1**	**1.5**
Argentina	1,000	0.480	41.0	2.0
Bolivia	1,000	0.498	35.6	1.9
Brazil	1,029	0.483	36.7	1.3
Chile	1,007	0.487	39.8	1.3
Colombia	1,000	0.479	37.2	1.4
Costa Rica	1,002	0.495	36.9	1.4
Ecuador	1,067	0.489	37.5	1.7
El Salvador	1,000	0.486	35.7	1.6
Guatemala	1,021	0.471	36.0	1.8
Honduras	1,000	0.486	34.1	
Mexico	1,007	0.472	36.1	2.0
Nicaragua	1,001	0.485	34.7	
Panama	1,005	0.502	37.2	1.5
Paraguay	1,001	0.473	37.5	2.0
Peru	1,000	0.496	37.7	1.7
Uruguay	1,004	0.474	43.3	1.0
Venezuela	1,000	0.490	36.5	1.5
The Caribbean	**4,056**	**0.484**	**38.4**	**1.2**
Cuba	1,000	0.481	41.3	0.9
Dominican Republic	1,000	0.491	36.9	1.7
Haiti	505	0.486	34.2	1.3
Jamaica	543	0.486	38.1	1.0
Puerto Rico	500	0.472	42.5	0.7
Trinidad & Tobago	508	0.497	38.4	0.7
LAC	**21,200**	**0.482**	**37.2**	**1.5**
Geographic regions				
East Asia & Pacific	19,630	0.488	42.1	1.0
Estern Europe & Central Asia	32,757	0.481	42.0	0.9
Middle East & North Africa	15,837	0.533	33.9	1.5
South Asia	7,380	0.520	35.6	2.0
Sub-Saharan Africa	26,506	0.490	34.3	
Western Europe	16,073	0.480	47.0	0.6
North America	2,356	0.475	46.6	0.7
Regions by income				
High income: OECD	23,559	0.481	46.7	0.6
High income: nonOECD	9,934	0.490	36.8	1.6
Low income	37,429	0.511	35.1	2.0
Lower middle income	41,219	0.492	40.9	1.0
Upper middle income	24,994	0.480	39.3	1.1

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 2.2
Share of urban observations
Gallup World Poll 2006

	Gallup		Household surveys	Census
	Def. 1	Def. 2		
Latin America				
Argentina	99.9	85.9	Only urban	88.5
Bolivia	95.8	54.3	62.5	63.4
Brazil	81.8	72.8	82.8	82.2
Chile	99.0	84.3	86.6	86.3
Colombia	99.9	50.7	73.5	76.0
Costa Rica	84.1	55.5	59.0	60.0
Ecuador	97.6	60.0	66.3	63.9
El Salvador	72.0	53.7	59.7	62.4
Guatemala	94.8	36.1	45.5	40.3
Honduras	56.8	42.1	45.6	54.5
Mexico	83.6	67.3	76.6	74.8
Nicaragua	81.1	51.8	55.8	56.9
Panama	93.3	55.6	63.1	56.9
Paraguay	69.9	37.7	56.9	57.3
Peru	98.7	64.3	65.1	73.5
Uruguay	99.5	89.3	92.4	92.3
Venezuela	97.5	68.3		87.4
The Caribbean				
Cuba	100	100		75.7
Dominican Republic	75.7	62.5	64.6	66.5
Haiti	70.7	50.4	40.6	37.0
Jamaica	94.8	37.8	44.1	57.1
Puerto Rico	54.2	40.6		75.9
Trinidad & Tobago	93.1	11.6		74.9

Source: own estimates based on microdata from Gallup World Poll 2006 and Census data.
Note: We implement two definitions of urban from the Gallup data by alternatively classifying those who report living in a small town or village as urban (definition 1) or rural (definition 2).

Table 2.3
LAC household surveys used for this study

Country	Name of survey	Acronym	Year	Observations
Latin America				
Argentina	Encuesta Permanente de Hogares-Continua	EPH-C	2006	99,726
Bolivia	Encuesta Continua de Hogares- MECOVI	ECH	2005	16,895
Brazil	Pesquisa Nacional por Amostra de Domicilios	PNAD	2006	410,241
Chile	Encuesta de Caracterización Socioeconómica Nacional	CASEN	2006	268,873
Colombia	Encuesta Continua de Hogares	ECH	2006	120,583
Costa Rica	Encuesta de Hogares de Propósitos Múltiples	EHPM	2006	45,139
Ecuador	Encuesta de Empleo, Desempleo y Subempleo	ENEMDU	2006	77,964
El Salvador	Encuesta de Hogares de Propósitos Múltiples	EHPM	2006	68,312
Guatemala	Encuesta Nacional sobre Condiciones de Vida	ENCOVI	2006	68,739
Honduras	Encuesta Permanente de Hogares de Propósitos Múltiples	EPHPM	2006	99,645
Mexico	Encuesta Nacional de Ingresos y Gastos de los Hogares	ENIGH	2006	83,624
Nicaragua	Encuesta Nacional de Hogares sobre Medición de Nivel de V	EMNV	2005	36,614
Panama	Encuesta de Hogares	EH	2006	48,762
Paraguay	Encuesta Permanente de Hogares	EPH	2006	22,733
Peru	Encuesta Nacional de Hogares	ENAHO	2006	90,783
Uruguay	Encuesta Continua de Hogares	ECH	2006	256,866
Venezuela	Encuesta de Hogares Por Muestreo	EHM	2005	165,079
The Caribbean				
Dominican R.	Encuesta Nacional de Fuerza de Trabajo	ENFT	2006	28,655
Haiti	Enquête sur les Conditions de Vie en Haïti	ECVH	2001	33,007
Jamaica	Jamaica Survey of Living Conditions	JSLC	2002	18,943

Source: CEDLAS

Table 3.1
Monthly incomes in the Gallup survey
Latin America and the Caribbean, 2006
Own estimates in US$ PPP from original questions

	Total household income			Per capita income		
	Mean	**Median**	**% responses**	**Mean**	**Median**	**% responses**
Latin America	**703**	**487**	**0.86**	**174**	**109**	**0.85**
Argentina	904	720	0.80	208	171	0.80
Bolivia	365	239	0.90	81	49	0.89
Brazil	754	524	0.96	209	130	0.96
Chile	1,333	733	0.87	321	176	0.85
Costa Rica	972	779	0.80	229	170	0.80
Ecuador	519	386	0.98	112	75	0.98
El Salvador	550	416	0.83	123	84	0.83
Guatemala	406	319	0.86	86	62	0.85
Honduras	1,029	976	0.67	213	200	0.67
Mexico	548	427	0.78	117	86	0.75
Nicaragua	647	537	0.81	113	95	0.79
Panama	588	397	0.97	138	82	0.97
Paraguay	657	423	0.96	135	71	0.90
Peru	478	360	0.87	101	69	0.87
Uruguay	918	661	0.93	275	178	0.93
Venezuela	738	468	0.82	166	91	0.81
The Caribbean	**706**	**400**	**0.83**	**187**	**97**	**0.82**
Cuba	463	442	0.93	124	114	0.93
Dominican Republic	693	401	0.85	162	86	0.83
Haiti	301	212	0.93	73	47	0.93
Jamaica	1,278	828	0.64	359	205	0.64
Puerto Rico	2,020	1,204	0.91	578	346	0.91
Trinidad & Tobago	962	735	0.61	273	190	0.59
LAC	**703**	**477**	**0.86**	**175**	**108**	**0.85**

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 3.2
Variables by category of response to income question

							Share of acces to														
	Share males			Share urban			Water			Electricity			Phone			Computer			Internet		
	Yes	No	t-test	Yes	No	t-test	Yes	No	t-test	Yes	No	t-test	Yes	No	t-test	Yes	No	t-test	Yes	No	t-test
Latin America	0.44	0.43	0.70	0.90	0.87	3.65	0.90	0.91	-0.57	0.96	0.93	4.03	0.53	0.60	-6.39	0.20	0.27	-6.82	0.08	0.12	-5.34
Argentina	0.38	0.31	1.92	1.00	1.00	-1.00	0.95	0.95	-0.14	0.99	0.99	0.20	0.55	0.77	-6.35	0.26	0.37	-2.99	0.12	0.21	-2.89
Costa Rica	0.49	0.50	-0.14	0.83	0.91	-3.20	0.96	0.99	-3.28	1.00	1.00	0.22	0.72	0.83	-3.65	0.24	0.43	-5.03	0.09	0.16	-2.69
El salvador	0.50	0.49	0.25	0.73	0.70	0.83	0.82	0.88	-2.23	0.93	0.92	0.42	0.60	0.72	-2.92	0.13	0.12	0.55	0.04	0.03	0.74
Honduras	0.49	0.50	-0.29	0.59	0.59	-0.10	0.88	0.74	5.31	0.74	0.69	1.90	0.25	0.28	-1.10	0.10	0.09	0.18	0.02	0.02	0.45
Mexico	0.46	0.42	0.90	0.87	0.83	1.59	0.94	0.96	-1.48	0.99	1.00	-1.33	0.54	0.50	1.17	0.18	0.21	-0.92	0.08	0.10	-0.89
Venezuela	0.39	0.40	-0.14	0.97	0.99	-2.62	0.97	0.97	-0.23	0.98	0.98	0.06	0.65	0.57	2.09	0.30	0.30	-0.11	0.11	0.12	-0.18
The Caribbean	0.47	0.45	1.24	0.83	0.88	-3.61	0.83	0.90	-5.07	0.95	0.97	-4.01	0.46	0.54	-3.64	0.19	0.28	-4.77	0.11	0.19	-4.71
Jamaica	0.51	0.45	1.28	0.94	0.94	0.19	0.99	0.97	1.38	0.99	1.00	-2.01	0.43	0.55	-2.86	0.38	0.41	-0.52	0.38	0.38	-0.07
Trinidad & Tobago	0.52	0.47	1.10	0.92	0.96	-1.94	0.89	0.94	-2.36	0.97	0.99	-2.19	0.69	0.70	-0.16	0.23	0.26	-0.80	0.14	0.11	0.97
LAC	0.44	0.43	1.05	0.89	0.88	1.93	0.89	0.90	-2.54	0.95	0.94	2.37	0.52	0.59	-6.99	0.20	0.27	-8.25	0.09	0.14	-7.28

Note: Column “yes” reports variables for those who respond the income question. Column “no” reports variables for those who do not answer the income question. The t-test assesses whether the difference between the two columns is statistically significant.
Only countries with rates of non response higher than 15%
Source: own estimates based on microdata from Gallup World Poll 2006.

Table 3.3
Per capita incomes in PPP US$
Mean, median and share of quintiles
Estimates from Gallup and national household surveys

				Share of quintiles				
		Mean	Median	1	2	3	4	5
Latin America								
Argentina	Gallup	227	188	4.9	9.8	16.2	22.5	46.6
Argentina	HH survey	527	357	3.4	8.2	13.6	22.0	52.8
Bolivia	Gallup	242	147	2.5	7.3	12.1	20.2	57.9
Bolivia	HH survey	539	286	1.8	6.2	10.9	19.6	61.6
Brazil	Gallup	251	156	3.0	7.4	12.4	21.1	56.1
Brazil	HH survey	534	295	2.6	6.6	11.2	18.7	60.9
Chile	Gallup	95,426	52,184	3.0	6.6	10.9	18.9	60.5
Chile	HH survey	180,810	105,851	4.2	7.8	11.8	18.7	57.5
Costa Rica	Gallup	44,586	33,010	2.6	8.6	14.8	23.7	50.4
Costa Rica	HH survey	103,015	65,462	3.9	8.4	12.8	20.1	54.8
Ecuador	Gallup	60	40	4.2	9.1	13.5	21.0	52.2
Ecuador	HH survey	138	82	3.6	7.6	11.9	19.1	57.8
El Salvador	Gallup	63	43	3.5	8.3	13.7	21.0	53.5
El Salvador	HH survey	121	83	4.6	9.2	13.8	20.7	51.7
Guatemala	Gallup	395	287	3.9	9.3	14.8	21.9	50.1
Guatemala	HH survey	974	579	3.5	7.3	12.0	19.2	58.1
Honduras	Gallup	1,505	1,413	1.3	11.1	18.6	27.1	41.9
Honduras	HH survey	1,862	1,100	2.3	6.7	12.0	20.0	59.0
Mexico	Gallup	840	615	3.2	9.0	15.0	23.5	49.4
Mexico	HH survey	2,418	1,520	3.7	8.2	12.7	19.7	55.6
Nicaragua	Gallup	540	455	4.8	10.7	16.5	24.9	43.1
Nicaragua	HH survey	1,220	743	3.8	7.7	12.2	19.2	57.0
Panama	Gallup	89	53	1.7	6.3	11.9	21.4	58.6
Panama	HH survey	182	105	2.5	6.8	11.7	20.1	58.9
Paraguay	Gallup	213,709	111,538	2.0	5.5	10.7	20.9	60.9
Paraguay	HH survey	539,205	315,036	3.0	7.1	11.8	19.1	59.0
Peru	Gallup	139	96	2.8	7.8	13.8	22.0	53.6
Peru	HH survey	366	237	4.0	8.0	13.0	20.7	54.3
Uruguay	Gallup	2,879	1,860	3.3	7.4	13.0	21.6	54.7
Uruguay	HH survey	6,474	4,406	4.6	8.8	13.7	21.4	51.6
Venezuela	Gallup	298,695	163,116	2.0	7.0	11.2	19.5	60.2
Venezuela	HH survey	280,529	194,157	2.8	8.6	13.9	21.8	52.9
The Caribbean								
Dominican Republic	Gallup	2,156	1,143	2.3	6.1	10.6	18.8	62.1
Dominican Republic	HH survey	5,903	3,505	4.0	7.7	12.0	19.4	56.9
Haiti	Gallup	1,077	692	2.7	7.8	13.2	20.3	56.0
Haiti	HH survey	1,326	684	2.4	6.2	10.4	17.6	63.4
Jamaica	Gallup	16,007	9,123	2.8	6.3	11.9	19.7	59.4
Jamaica	HH survey	10,302	5,198	0.1	3.2	10.1	20.1	66.5

Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys.

Table 3.4
Ranking of LAC countries
By mean and median values of household per capita income (US$ PPP)

A. All countries

	Ranking by mean		Ranking by median	
	Gallup	HH Survey	Gallup	HH Survey
1	Jamaica	Uruguay	Jamaica	Uruguay
2	Chile	Chile	Honduras	Chile
3	Uruguay	Costa Rica	Uruguay	Costa Rica
4	Costa Rica	Argentina	Chile	Argentina
5	Honduras	Brazil	Argentina	Dominican R.
6	Brazil	Dominican R.	Costa Rica	Brazil
7	Argentina	Paraguay	Brazil	Mexico
8	Venezuela	Mexico	Nicaragua	Paraguay
9	Dominican R.	Panama	Venezuela	Peru
10	Panama	Peru	Mexico	Panama
11	Paraguay	Honduras	Dominican R.	El Salvador
12	El Salvador	Ecuador	El Salvador	Honduras
13	Mexico	Nicaragua	Panama	Nicaragua
14	Nicaragua	El Salvador	Ecuador	Ecuador
15	Ecuador	Jamaica	Paraguay	Guatemala
16	Peru	Guatemala	Peru	Jamaica
17	Guatemala	Bolivia	Guatemala	Venezuela
18	Bolivia	Venezuela	Bolivia	Bolivia
19	Haiti	Haiti	Haiti	Haiti

B. Without main deviants

	Ranking by mean		Ranking by median	
	Gallup	HH Survey	Gallup	HH Survey
1	Chile	Uruguay	Uruguay	Uruguay
2	Uruguay	Chile	Chile	Chile
3	Costa Rica	Costa Rica	Argentina	Costa Rica
4	Brazil	Argentina	Costa Rica	Argentina
5	Argentina	Brazil	Brazil	Dominican R.
6	Dominican R.	Dominican R.	Nicaragua	Brazil
7	Panama	Paraguay	Mexico	Mexico
8	Paraguay	Mexico	Dominican R.	Paraguay
9	El Salvador	Panama	El Salvador	Peru
10	Mexico	Peru	Panama	Panama
11	Nicaragua	Ecuador	Ecuador	El Salvador
12	Ecuador	Nicaragua	Paraguay	Nicaragua
13	Peru	El Salvador	Peru	Ecuador
14	Guatemala	Guatemala	Guatemala	Guatemala
15	Bolivia	Bolivia	Bolivia	Bolivia
16	Haiti	Haiti	Haiti	Haiti

Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys.

Table 3.5
Ranking of LAC countries
By per capita GDP and per capita income from Gallup

	GDP(NA)	Income(Gallup)
1	Trinidad & Tobago	Chile
2	Argentina	Uruguay
3	Chile	Trinidad & Tobago
4	Costa Rica	Costa Rica
5	Mexico	Brazil
6	Uruguay	Argentina
7	Brazil	Venezuela
8	Panama	Dominican R.
9	Dominican R.	Panama
10	Venezuela	Paraguay
11	Peru	El Salvador
12	Paraguay	Mexico
13	El Salvador	Nicaragua
14	Ecuador	Ecuador
15	Guatemala	Peru
16	Nicaragua	Guatemala
17	Bolivia	Bolivia
18	Haiti	Haiti

Source: own estimates based on IMF and microdata from Gallup World Poll 2006.

Table 3.6
Annual incomes in the 2006 Gallup survey
Estimates in US$ PPP from Gallup standardized categorical variable

	Total household income			Per capita income		
	Mean	**Median**	**% responses**	**Mean**	**Median**	**% responses**
Latin America	8,573	5,018	0.87	2,870	1,621	0.87
The Caribbean	8,136	4,615	0.83	2,999	1,558	0.83
LAC	8,542	4,979	0.87	2,879	1,617	0.86
Geographic regions						
East Asia & Pacific	12,039	6,209	0.85	4,632	2,190	0.84
Estern Europe & Central Asia	11,509	7,586	0.83	4,461	2,827	0.79
Middle East & North Africa	35,728	30,770	0.11	13,623	12,008	0.11
South Asia	8,061	3,361	0.83	2,557	1,385	0.79
Sub-Saharan Africa	5,773	2,464	0.88			
Western Europe	32,392	28,009	0.75	13,466	10,631	0.75
North America	55,820	42,526	0.91	21,932	15,744	0.91
Regions by income						
High income: OECD	41,796	30,818	0.79	16,824	11,907	0.79
High income: nonOECD	31,683	21,229	0.55	12,444	8,127	0.55
Low income	7,575	3,336	0.86	2,666	1,430	0.32
Lower middle income	9,223	5,751	0.70	3,523	1,957	0.64
Upper middle income	11,178	7,110	0.75	3,957	2,333	0.68

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 4.1
Poverty in LAC from the 2006 Gallup survey
Poverty lines=US$1 and 2 a day

	Headcount Ratio		Poverty Gap		FGT (2)	
	USD 1	USD 2	USD 1	USD 2	USD 1	USD 2
Latin America	**18.0**	**39.7**	**8.6**	**18.7**	**5.8**	**12.1**
Argentina	6.5	25.3	3.1	9.1	2.0	5.1
Bolivia	37.4	67.1	18.5	36.6	12.2	24.7
Brazil	12.1	31.2	5.7	13.6	4.0	8.4
Chile	7.0	22.1	2.1	8.4	1.0	4.3
Costa Rica	12.8	27.5	8.1	14.1	6.6	10.2
Ecuador	18.5	51.4	7.9	21.8	4.8	12.7
El Salvador	35.2	67.4	15.5	33.7	9.4	21.7
Guatemala	25.1	55.6	10.9	25.8	6.5	16.0
Honduras	18.0	25.5	13.9	18.0	12.7	15.3
Mexico	25.8	50.9	12.0	25.2	8.3	16.6
Nicaragua	31.2	64.5	12.8	31.2	7.7	19.3
Panama	18.5	37.1	11.1	19.3	8.8	13.8
Paraguay	40.5	61.9	21.0	36.9	13.9	26.4
Peru	35.7	64.3	17.5	34.2	11.1	23.1
Uruguay	13.0	33.6	4.7	14.4	2.4	8.1
Venezuela	16.5	32.8	9.7	16.7	7.3	11.9
The Caribbean	**24.2**	**42.8**	**12.6**	**23.4**	**8.7**	**16.2**
Cuba	10.9	24.3	6.7	11.6	5.3	8.2
Dominican Republic	26.4	49.6	11.8	25.0	7.2	16.2
Haiti	55.1	84.9	28.5	51.2	18.9	36.2
Jamaica	5.7	22.6	4.6	8.8	4.2	5.8
Puerto Rico	3.7	5.4	3.0	3.6	2.8	3.2
Trinidad & Tobago	7.4	22.0	3.5	9.8	2.6	5.9
LAC	**18.4**	**39.9**	**8.9**	**19.0**	**6.0**	**12.4**

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 4.2
Poverty in LAC from the Gallup survey and household surveys

	Gallup	HH Survey	Diff.
Latin America			
Argentina	25.3	10.2	15.1
Bolivia	67.1	39.2	27.9
Brazil	31.2	13.3	17.9
Chile	22.1	3.3	18.7
Costa Rica	27.5	7.0	20.5
Ecuador	51.4	21.0	30.4
El Salvador	67.4	31.1	36.3
Guatemala	55.6	26.4	29.2
Honduras	25.5	32.3	-6.7
Mexico	50.9	14.8	36.1
Nicaragua	64.5	40.6	23.9
Panama	37.1	15.6	21.4
Paraguay	61.9	28.0	33.9
Peru	64.3	25.9	38.4
Uruguay	33.6	5.5	28.0
Venezuela	32.8	28.0	4.8
The Caribbean			
Cuba	24.3		
Dominican Republic	49.6	8.7	40.8
Haiti	84.9	80.2	4.7
Jamaica	22.6	43.8	-21.2
Puerto Rico	5.4		
Trinidad & Tobago	22.0		

Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys.

Table 4.3
Ranking of LAC countries by poverty
Gallup and national household surveys

	Gallup	HH Survey
1	Haiti	Haiti
2	El Salvador	Nicaragua
3	Bolivia	Bolivia
4	Nicaragua	El Salvador
5	Peru	Paraguay
6	Paraguay	Guatemala
7	Guatemala	Peru
8	Ecuador	Ecuador
9	Mexico	Panama
10	Dominican R	Mexico
11	Panama	Brazil
12	Uruguay	Argentina
13	Brazil	Dominican R
14	Costa Rica	Costa Rica
15	Argentina	Uruguay
16	Chile	Chile

Source: own estimates based on microdata from
Gallup World Poll 2006 and national household surveys.

Table 4.4
Poverty in the regions of the world

	Headcount Ratio		Poverty Gap		FGT (2)	
	USD 1	USD 2	USD 1	USD 2	USD 1	USD 2
Latin America	5.3	17.6	1.7	6.7	0.9	3.5
The Caribbean	12.9	23.3	5.8	12.2	3.8	8.1
LAC	5.9	18.0	2.0	7.1	1.2	3.9
Geographic regions						
East Asia & Pacific	4.7	13.3	1.8	5.4	1.1	3.1
Estern Europe & Central Asia	3.8	10.2	1.6	4.5	1.0	2.6
South Asia	2.5	23.5	0.5	5.2	0.3	2.0
Western Europe	0.0	0.0	0.0	0.0	0.0	0.0
North America	0.0	0.0	0.0	0.0	0.0	0.0
Regions by income						
High income: OECD	0.0	0.0	0.0	0.0	0.0	0.0
High income: nonOECD	0.4	0.7	0.4	0.5	0.4	0.4
Low income	2.9	22.7	0.7	5.4	0.4	2.2
Lower middle income	5.9	15.9	2.3	6.6	1.4	3.8
Upper middle income	2.6	10.6	0.7	3.7	0.3	1.8

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 5.1
Inequality in Latin America and the Caribbean
Gini coefficients, 2006

	Gallup	Hh. Survey	Diff.
Latin America			
Argentina	0.415	0.483	-0.068
Bolivia	0.540	0.601	-0.061
Brazil	0.522	0.564	-0.042
Chile	0.556	0.546	0.010
Costa Rica	0.474	0.492	-0.018
Ecuador	0.469	0.535	-0.066
El Salvador	0.490	0.494	-0.004
Guatemala	0.455	0.524	-0.069
Mexico	0.459	0.510	-0.051
Panama	0.558	0.548	0.010
Paraguay	0.578	0.539	0.039
Peru	0.502	0.498	0.004
Uruguay	0.506	0.450	0.056
Venezuela	0.564	0.476	0.088
The Caribbean			
Cuba	0.357	n.a	
Dominican Republic	0.584	0.519	0.065
Haiti	0.525	0.592	-0.068
Jamaica	0.555	0.479	0.076
Puerto Rico	0.532	n.a	
Trinidad & Tobago	0.474	n.a	

Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys

Table 5.2
Inequality in the world
Regional Gini coefficients, within region and across countries

	Within regions	Across countries
Latin America	0.525	0.499
The Caribbean	0.591	0.456
LAC	0.530	0.486
Geographic regions		
East Asia & Pacific	0.594	0.471
Estern Europe & Central Asia	0.497	0.418
South Asia	0.534	0.489
Western Europe	0.402	0.340
North America	0.438	0.392
Regions by income		
High income: OECD	0.448	0.358
High income: nonOECD	0.484	0.417
Low income	0.536	0.511
Lower middle income	0.558	0.464
Upper middle income	0.521	0.431

Source: own estimates based on microdata from Gallup World Poll 2006.

Table 5.3
Inequality in the world
By region

	Gini	CV	Theil	Decil 10/Decil 1	ATK e=0.5	ATK e=1	ATK e=2	GE(0)	GE(2)
Latin America	0.525	1.316	0.510	34.2	0.225	0.390	0.614	29.316	0.866
The Caribbean	0.591	1.792	0.713	85.5	0.299	0.469	0.708	196.938	1.606
LAC	0.530	1.360	0.526	36.7	0.231	0.396	0.622	41.572	0.924
Geographic regions									
East Asia & Pacific	0.594	1.685	0.699	61.5	0.292	0.494	0.819	0.726	1.420
Estern Europe & Central Asia	0.497	1.120	0.435	38.6	0.205	0.381	0.702	22.298	0.628
South Asia	0.534	1.551	0.553	22.4	0.233	0.391	0.572	17.107	1.203
Western Europe	0.402	0.886	0.285	14.9	0.133	0.250	0.449	0.288	0.393
North America	0.438	0.885	0.322	18.1	0.157	0.301	0.525	0.358	0.391
Regions by income									
High income: OECD	0.448	0.946	0.341	18.8	0.161	0.301	0.511	0.358	0.448
High income: nonOECD	0.484	1.135	0.424	27.7	0.192	0.337	0.556	44.133	0.644
Low income	0.536	1.523	0.551	24.8	0.234	0.396	0.588	16.336	1.160
Lower middle income	0.558	1.700	0.630	49.6	0.261	0.448	0.790	9.422	1.445
Upper middle income	0.521	1.235	0.487	32.6	0.220	0.391	0.625	6.482	0.763

Source: own estimates based on microdata from Gallup World Poll 2006.
CV=coefficient of variation. ATK (e) refers to the Atkinson index with a CES function with parameter e. GE(e) refers to the generalized entropy index with parameter e. GE(1)=Theil.

Table 5.4
Inequality by regions
Theil decomposition by country

	Theil	Within	Beetween	% Between
Latin America	0.510	0.468	0.042	0.082
The Caribbean	0.713	0.378	0.335	0.470
LAC	0.526	0.461	0.064	0.122
Geographic regions				
East Asia & Pacific	0.699	0.473	0.226	0.324
Estern Europe & Central Asia	0.435	0.321	0.114	0.263
South Asia	0.553	0.549	0.004	0.006
Western Europe	0.285	0.223	0.061	0.215
North America	0.322	0.322	0.000	0.000
Regions by income				
High income: OECD	0.341	0.289	0.052	0.153
High income: nonOECD	0.424	0.357	0.068	0.159
Upper middle income	0.551	0.532	0.019	0.035
Lower middle income	0.630	0.520	0.110	0.175
Low income	0.487	0.396	0.092	0.188

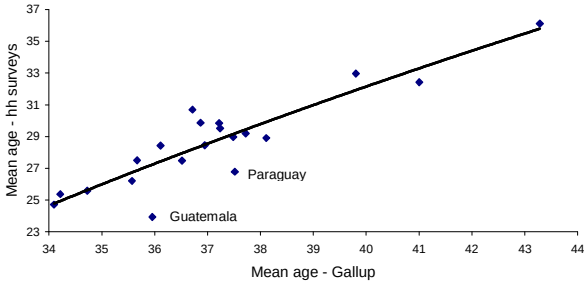
Source: own estimates based on microdata from Gallup World Poll 2006.

Table 5.5
Inequality in the world
Theil between-within decomposition

	Within	Beetween	% Between
By Geographic regions	0.485	0.285	0.370
By Income Regions	0.449	0.315	0.412
By Countries	0.390	0.380	0.494

Source: own estimates based on microdata from Gallup World Poll 2006.

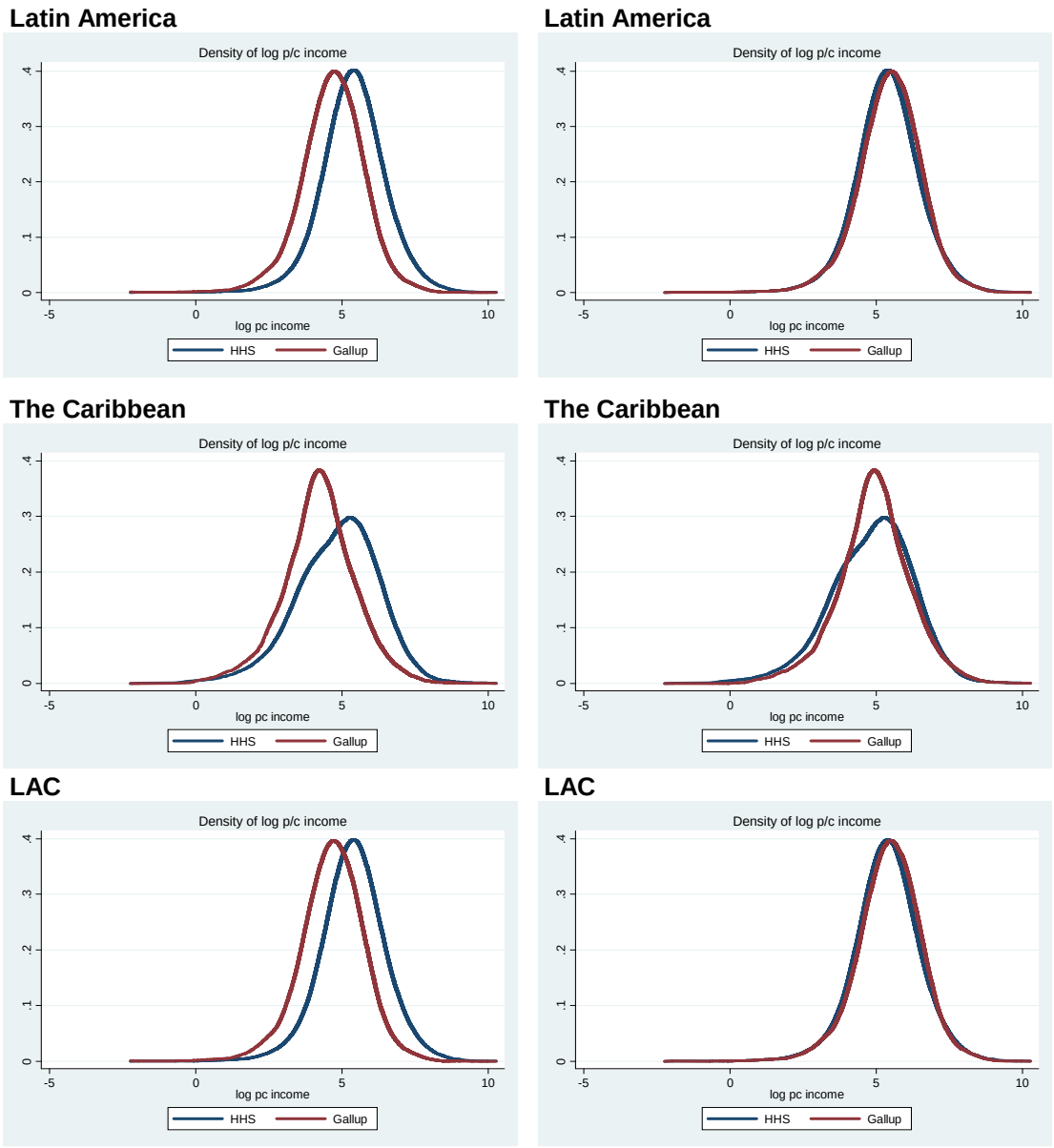
Figure 2.1
Mean age
Gallup World Poll 2006 and household surveys



Source: own estimates based on microdata from Gallup World Poll 2006 and LAC household surveys.
Note: Gallup is conducted only to those people older than 15.

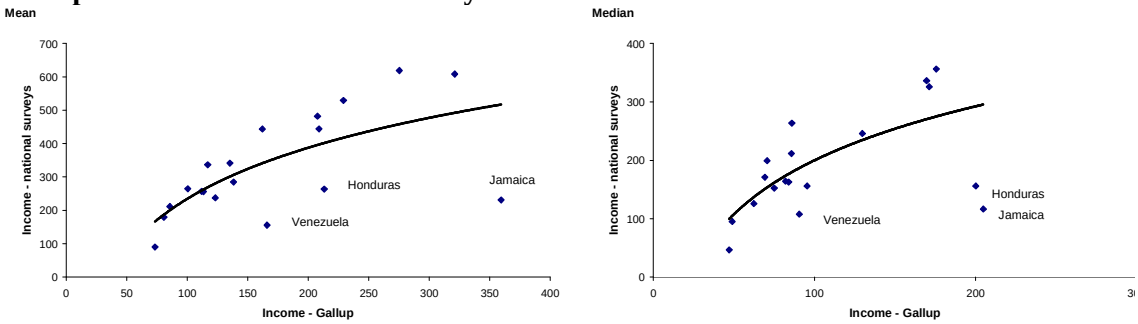
Figure 3.1
Density function of log per capita income
Gallup and national household surveys
Non parametric estimates

Not adjusting for scale differences **Adjusting for scale differences**



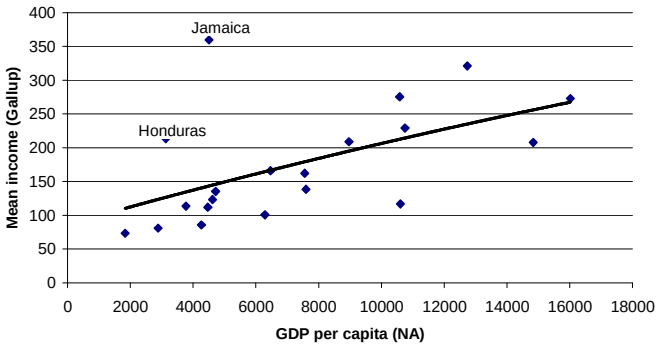
Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys.
Note: The first panel for each region shows the original data, while in the second we multiply all incomes in Gallup for a factor in order to make the means of both sources to coincide.

Figure 3.2
Scatterplot mean and median of the distribution of per capita income (in US$ PPP)
Gallup and national household surveys



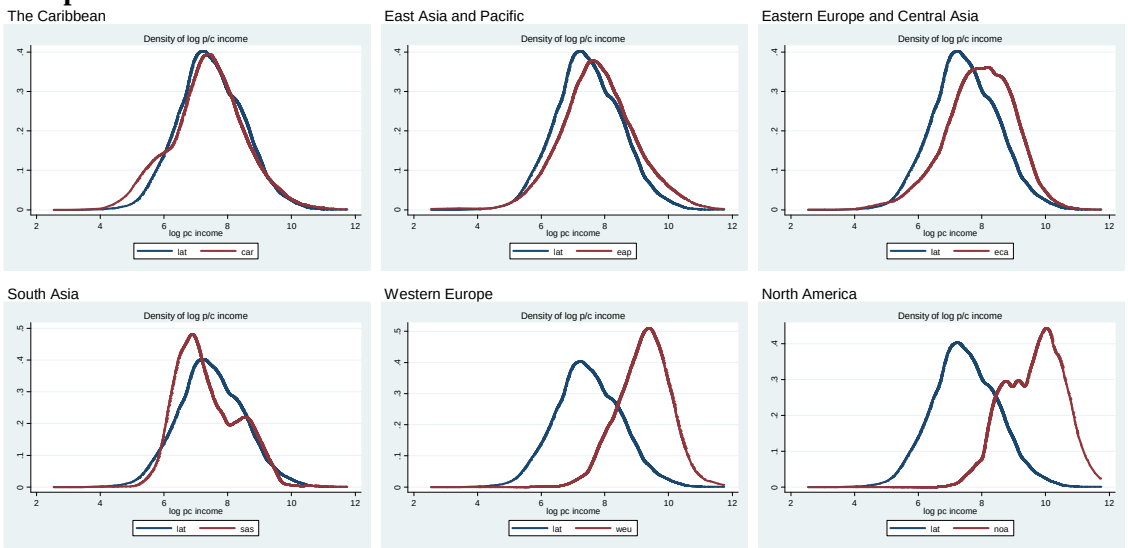
Source: own estimates based on microdata from Gallup World Poll 2006 and national household surveys.

Figure 3.3
Per capita GDP (PPP) - per capita income from Gallup



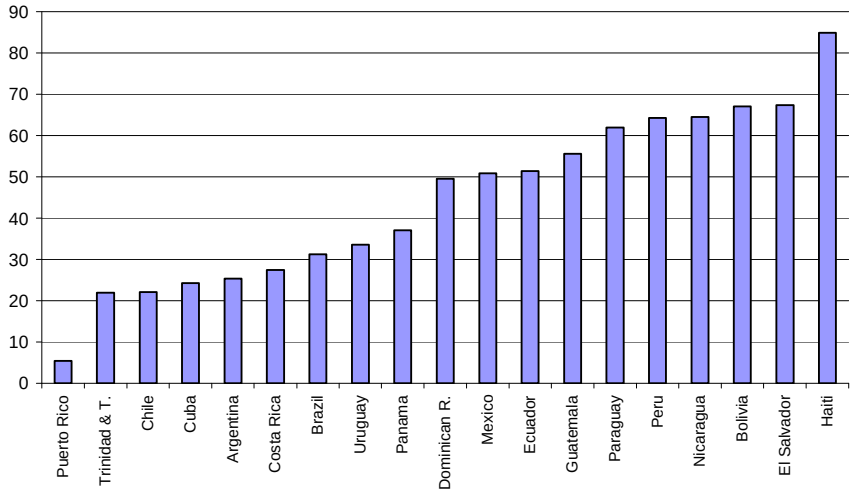
Source: own estimates based on IMF and Gallup World Poll 2006.

Figure 3.4
Density function of log per capita income
Non parametric estimates



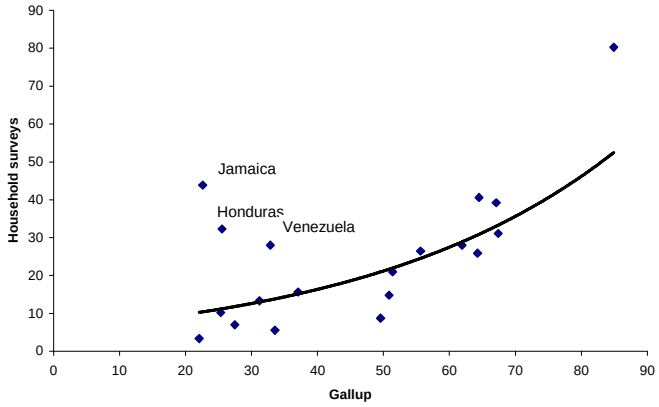
Source: own estimates based on microdata from Gallup World Poll 2006.

Figure 4.1
Poverty headcount ratio
Gallup Poll 2006
Poverty line=US$2 a day



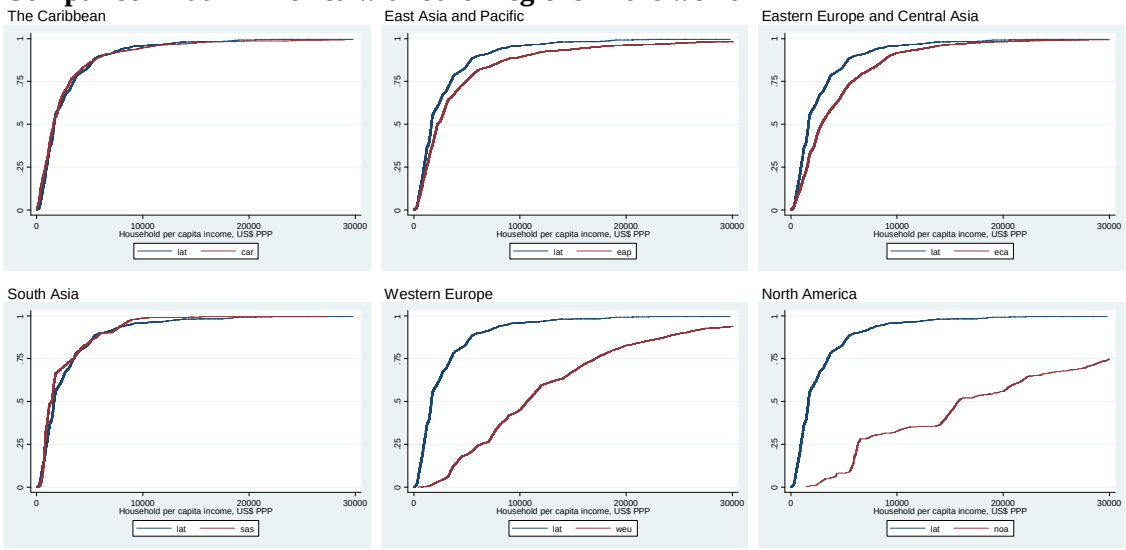
Source: own estimates based on microdata from Gallup World Poll 2006.

Figure 4.2
Poverty headcount ratio
Line=US$2 a day



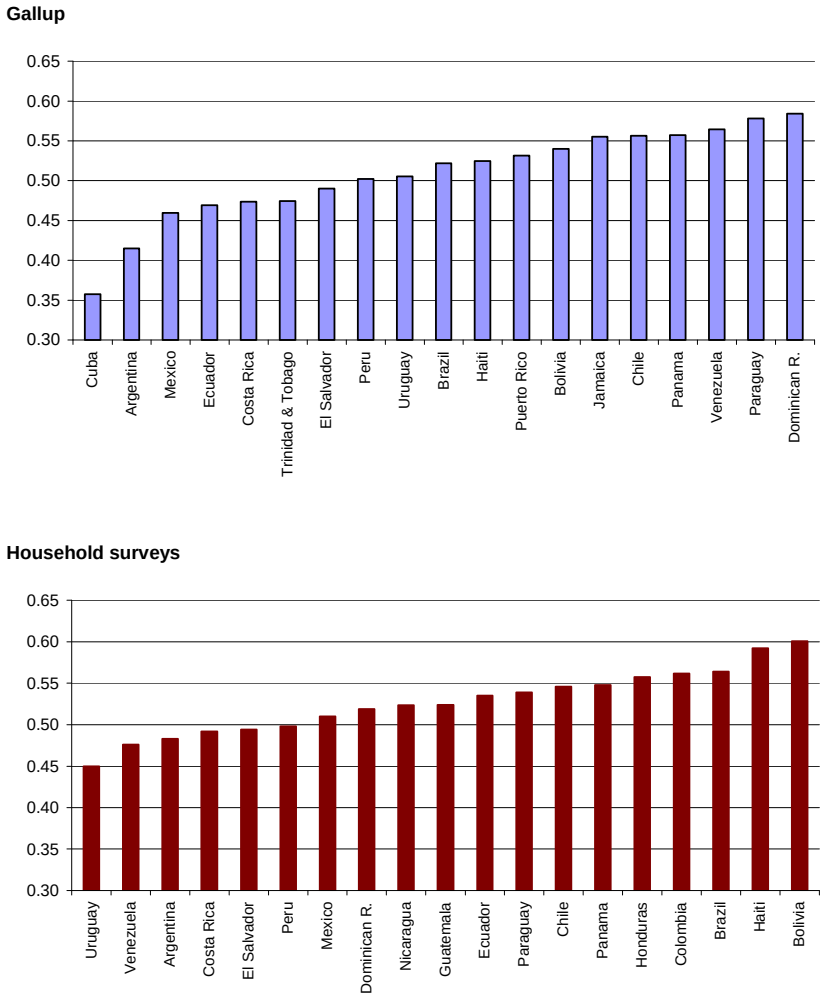
Source: own estimates based on microdata from Gallup World Poll 2006 and household surveys.

Figure 4.3
Distribution functions
Comparison Latin America with other regions in the world



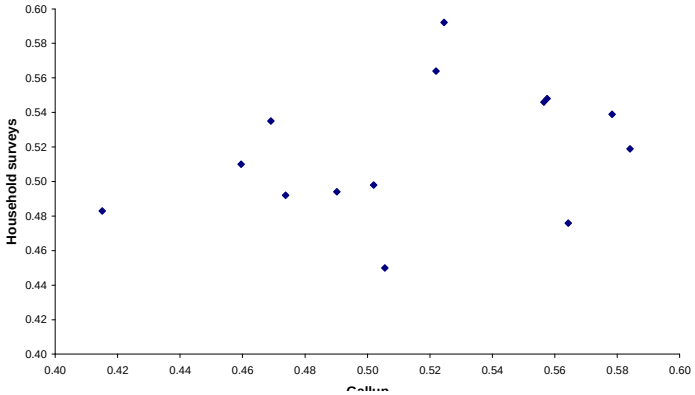
Source: own estimates based on microdata from Gallup World Poll 2006.

Figure 5.1
The ranking of inequality in LAC
Gini coefficient



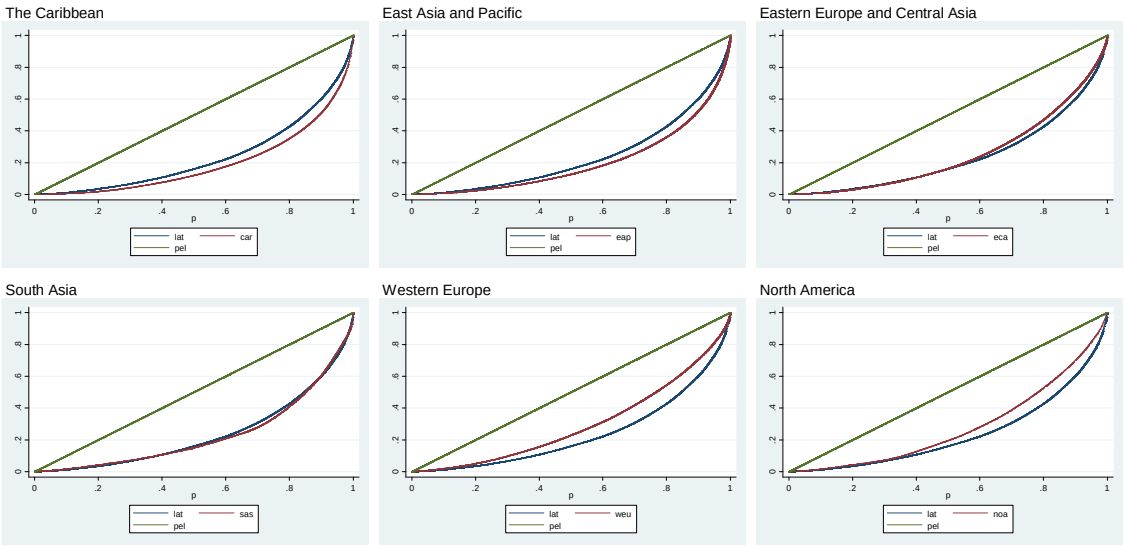
Source: own estimates based on microdata from Gallup World Poll and national household surveys .

Figure 5.2
The Gini coefficient in Gallup and household surveys



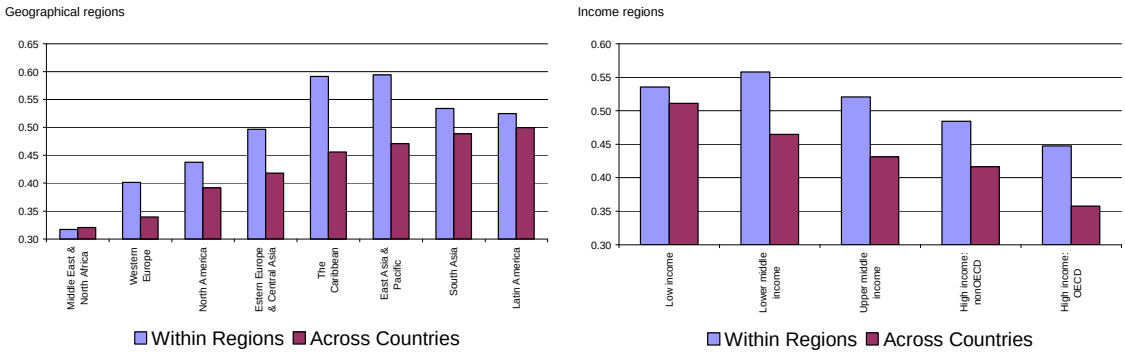
Source: own estimates based on microdata from Gallup World Poll and national household surveys

Figure 5.3
Lorenz curves
Comparison Latin America with other regions in the world



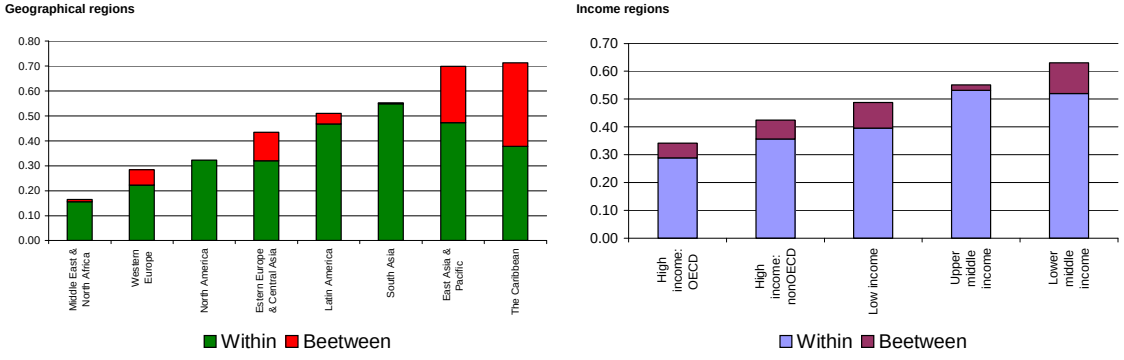
Source: own estimates based on microdata from Gallup World Poll 2006.
Note: *pel*=perfect equality line

Figure 5.4
Gini coefficient



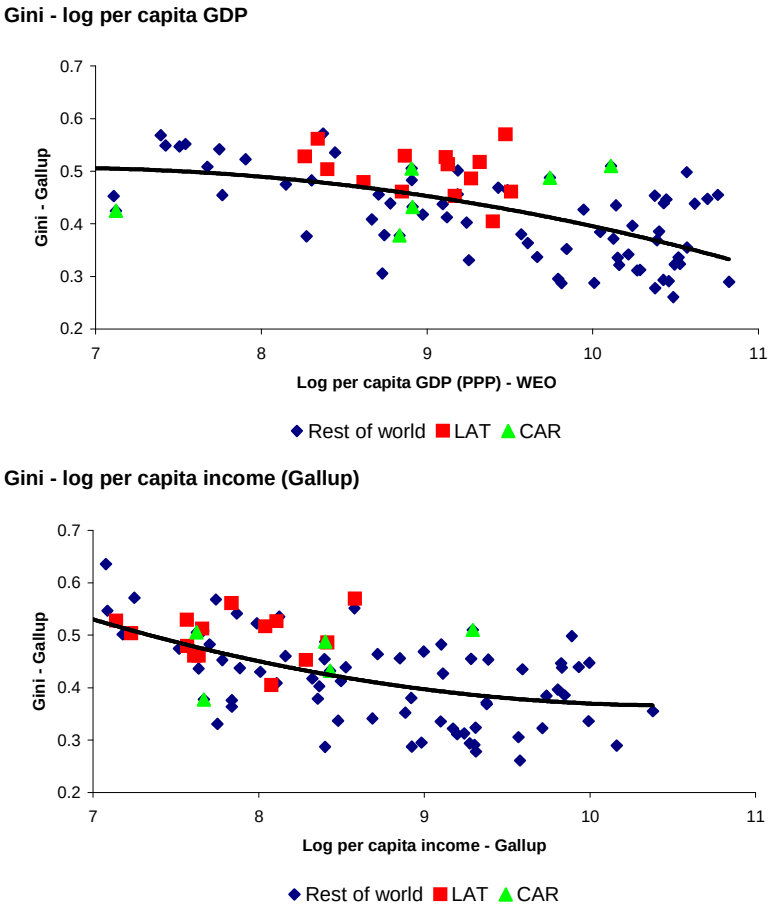
Source: own estimates based on microdata from Gallup World Poll 2006.

Figure 5.5
Theil decomposition by geographical and income regions



Source: own estimates based on microdata from Gallup World Poll 2006.

Figure 5.6
Kuznets curves



Source: own estimates based on microdata from Gallup World Poll 2006 and WEO.