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Economic Commission for Latin America and the Caribbean

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Brazilian Institute for Geography and Statistics



**Second Meeting of the Expert Group
on Poverty Statistics (Rio Group)**

RIO DE JANEIRO, 13-15 May, 1998





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Economic Commission for Latin America and the Caribbean

SECOND MEETING OF THE EXPERT GROUP ON POVERTY
STATISTICS (RIO GROUP)
Rio de Janeiro, 13-15 May 1998

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Summary of the Debates

ECLAC

INTRODUCTION

Within the framework of the Statistical Commission of the United Nations an Expert Group on Poverty Statistics was created in 1996. It is chaired by Brazil and the Economic Commission for Latin America and the Caribbean (ECLAC) as its Secretariat.

A first seminar on poverty statistics was organized at ECLAC, Santiago, Chile, from 7-9 May 1997, as a starting point of activities. At the end of the seminar, the Expert Group identified a set of topics to guide the participants in their common research in the area of poverty statistics. A second meeting of the Expert Group (Rio Group) was held in Rio de Janeiro from 13-15 May, 1998.

This second seminar concentrated on a group of topics identified in the first seminar and a more in depth discussion, based on documents especially prepared for this meeting, was held. In what follows a brief summary of the discussions precedes the documents presented at the seminar. Therefore, it is recommended to read the summary and documents of the first seminar included in this web page, because many topics discussed there were used implicitly in this seminar and its documents.

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A. POLITICAL STATUS OF POVERTY ESTIMATES

1. It became evident that both in developed and developing countries the issue of poverty has increased its political status. In most countries, one of the fundamental policy objectives is to reduce poverty. In developed countries it is frequently associated to giving access to the whole population to goods and services that are part of the pattern of consumption of very significant parts of the population. In developing countries, the concept of absolute poverty is highly associated in first place to satisfying minimum requirements in the areas of food, shelter, clothing and health. Nevertheless, within developing countries there is a broad spectrum of what is considered a minimum standard.
2. It was recognized that notwithstanding the opinion of statisticians in relation to the convenience of establishing one or more poverty indicators (head count ratio, poverty gap, etc.) governments do seem to need, demand and order the establishment of a measure of poverty. During the meeting, it was stated that within the European Union there is a mandate to establish a measurement. In Australia, Canada and the United States there are reports being prepared to replace previous poverty measurements. In Africa and Asia there is work underway in both Regional Commissions to satisfy recent demand of governments to help them in the measurement in the social area and specifically in poverty in relation both to internal needs and to the monitoring of the goals of the World Summit on Social Development. In the case of Latin America, where there is a lot of work underway and greater experience, many governments have established and update their measurements of poverty. To sum up, the statistical system of countries is under heavy demand to produce information usefully to establish such indicator or directly of estimating it.

B. METHODOLOGICAL ISSUES

3. Within the numerous methodological topics involved in the measurement of poverty, the ones that were more intensively discussed during the seminar were the following:

- a) Regional estimates of poverty

Poverty situations are quite heterogeneous in most countries. Different economic, social, geographical, infrastructural conditions oblige to disaggregate estimates of poverty for regions, provinces or even local communities. Furthermore, there is a world wide trend to decentralize resources and decisions to extend the content of democracy and to increase the efficiency in expenditures. Therefore, many efforts are being made to measure poverty and its evolution with a geographical disaggregation. As examples of differences of poverty situations in regions, it was showed that for many countries the value of the poverty line changes significantly within regions. In the United States relative housing cost in 1990 had the index values ranging from 0.564 to 1.492, in which the 45th percentile of rent paid for the entire US was 1.0. In the work being prepared in Brazil by IBGE, IPEA and ECLAC, changes of the indigence line vary even in a wider range. Data derived from PPP studies for Zambia also showed great changes within regions. Therefore, it is clear that for policy objectives there is a methodological and operational challenge to disaggregate poverty measurements within regions.

- b) Normative criteria

There is a wide possibility of options in terms of the degree of standards that the estimate of poverty will incorporate. The factors that seem to influence more the decision are related to how extreme is the poverty situation and to how related it is to budget restrictions.

In the countries of low or very low per capita income a short number of basic needs is normally selected as policy targets. Nutrition is one of the most repeated target in poverty studies. The food components of expenditure have been widely studied and there are international norms related to the minimum of calories and other components that have been defined for different type of persons and activities. Therefore, this is an area where the normative component is important and widely used. Other areas such as access to dwellings, sanitation and water have also been studied but the possibility of defining international standards is much lower. Anyhow, at the national level certain normative measures have been defined in many countries but they normally vary from country to country. For example, having clean water inside houses or at a certain distance of the houses depends very much on the possibilities of the country, and therefore, the norm is different between them. Similar considerations could be established for the size and quality of dwellings and sanitation.

The relation between the strictness of norms and governmental financial availability have become important in many countries. In this case, possibilities play a fundamental role in the norm. An interesting example is the case of the new measurement being developed in the United States. There, the normative aspect is explicit in relation to two or three items and the rest of the expenditure is represented by a coefficient that is relatively low. In other terms, the norm to define the groups under poverty has been clearly adapted to a certain roof of possibilities. It is obvious that if minimum standards are defined for a great quantity of variables such as health, education, housing, durable consumer goods of different types and modern services even if a very restrictive criteria is incorporated, most probably the poverty line will go far beyond the possibilities of policies based on the public budget. A very interesting experience is the Australian. There, many different items have been studied. The criteria used is not directly a budgetary one. It is related to the idea of a welfare state, where if a certain percentage of the population (as example, half or more) have access to a certain good or service it is considered that it should be available for everyone. If that type of norm is widely applied it becomes an objective more related to distribution of consumption than to poverty.

c) Updating of poverty lines

Once a poverty measurement is established, the need to make inter-temporal comparisons becomes an important goal in monitoring both the phenomena of poverty and the effect of policies designed to diminish it. The methodological problems cover different areas: the quantity of items considered in the estimate of the poverty line imply the need to update movement in prices. Changes in consumption patterns, that have become more frequent in a global economy also constitute a challenge. In the case of the United States, an updating formula have been provided by the new methodology approved. It is not the case of the Australian budget standards where, up to now, no formula has been provided. In the case of the Brazilian food baskets and the Argentinean poverty lines, procedures have been established to update their values. This implicates that in the construction of the indicators it is necessary to consider explicitly methodologies to guarantee the updating of the poverty lines.

d) Use and type of equivalence scales

There is a general agreement that it is necessary to consider the effect of size and composition of the families when estimating poverty lines. The way in which equivalence scales are included differ significantly within countries. In one extreme, Australia has made a big explicit effort to study the different types of expenditure among different household structures. Forty six types of households have been differentiated and studied. This method constitutes an explicit way of establishing budget standards. In the case of the United States, the equivalence

scale has been imported as a coefficient not explicitly estimated starting from different type of expenditures. In the case of Latin America, in the estimation of food baskets the different nutritional needs related to age, sex and activity have been explicitly considered. This equivalence scale has been normally used for the rest of expenditures. It is recognized that up to now the empirical data are not enough to construct very sophisticated equivalence scales and that, on the other hand, it would be desirable to include some type of scale in spite of its present limitations.

e) Heterogeneity of poverty

For most demands associated to policy formulation, the heterogeneity of poverty is fundamental. It was already stated that the regional aspect of poverty is recognized as an important issue. Other dimensions associated to heterogeneity were also considered. Within them, the ethnic groups constitute a characteristic that may be specially important in some countries. The case of Hispanics in the United States is a good example of how the poverty incidence can be specially different within groups.

f) Quality, quantity and price of items of expenditure

When defining standards to be used in the establishment of poverty line, the consideration of quality, quantity and price of items has proved important. In some cases, such as Australia, it has been shown that in many durable goods the better quality and higher price comes together with longer duration. Therefore, if a cost for a certain period of time is estimated the difference between prices of goods of different quality are reduced and in occasions the more expensive ones, have smaller costs for a certain period of time (week, month or year). In Latin-American countries, when establishing poverty lines, there is no evidence that poor people obtain lower prices for the same type of good or service. It occurs in many occasions that less expensive goods correspond to lower quality and smaller content of calories or proteins per unity of weight.

g) Clusters of the poor according to different indicators

In some countries, it has been possible to make estimates of poverty based on different criteria for one particular year. For example, poverty lines, unmet basic needs and subjective criteria have been used to estimate percentages of population living in poverty. Normally, they differ and in occasions insignificant percentages. Furthermore, as shown in the case of the study for France and Slovakia presented at the Seminar, the number of households that satisfies simultaneously the three criteria of poverty were extremely low.

C. STATISTICAL SOURCES

4. The demand for poverty statistics has increased the pressure on statistical sources. Most of the estimates use more than one source of information. Therefore, many topics related to sources arise during the seminar: the need to expand questionnaires of present sources, the need to examine the compatibility of data originated in different sources, the need to coordinate the development of different sources, the introduction in developing countries of new sources of information and the relation between the process of policy making and the use and progress of statistical sources.

a) The necessity to utilize different sources

The fact that most estimates combine different sources, raised the issue of the need to consider the practical and conceptual consequences of this fact. On the one hand, it is important in the sense of using resources to minimize overlapping. On the other hand, it is very difficult that

one and only source will be enough to satisfy all demands in the field of poverty. The relation between population and housing census, household surveys, administrative data and national accounts was discussed in many occasions. In the field of household surveys, efforts in Latin America to include the concept of a system of household surveys were discussed. The idea is to accept that by itself neither the classical employment multi-objective surveys, nor the income and expenditure surveys or special surveys for poverty will by itself be enough to prepare estimates. Therefore, conceptual and empirical analysis should be introduced to coordinate the effort. In that framework, the role of LSMS of the World Bank was presented showing potentials and limitations. It was remembered that in the field of income statistics work was underway in the Canberra Group and that efforts have been carried out to avoid duplication of efforts. Issues such as correction of income derived from surveys was a common topic for both groups.

b) Panel surveys

The need of establishing structured relations in the social area and make longitudinal analysis has derived in new efforts in the area of Panel Surveys in countries of the OECD. The European, USA and Canadian new panel surveys were introduced and the new findings were discussed. The possibility of introducing these type of services in developing regions was also discussed, showing the need to overcome some technical and financial limitations that make possible their implementation in the medium term.

c) Estimates based on different surveys

The introduction of new panel surveys on the OECD countries should lead to new poverty estimates that will differ from previous based on non panel surveys. This fact should illustrate on differences of poverty estimates when using each type of survey. A comparison in the case of Brazil of estimates based on different surveys using PNAD and LSMS was presented.

d) Process of policy making and progress of statistical sources

The fact that some household surveys are being intensively used for poverty statistics led to the identification and correction of shortcomings. Therefore, although first estimates had methodological problems and probably some critical level in errors, the fact of being used for policy design and monitoring helped to obtain more resources and to introduce progress in quality. The Brazilian experience related to the map of hunger was presented. Therefore, at least in Latin America, programs such as Mecovi sponsored by the Inter-American Development Bank, the World Bank and ECLAC for the improvement of quality of household surveys have allowed an intense use of available household surveys.

ANNEX

REPORT TO THE UNITED NATIONS STATISTICAL COMMISSION

The present report includes both a summary of activities and conclusions of the two seminars held in the framework of the Rio Group and some selected views of the Chairman on substantive and policy topics related to poverty statistics.

Summary of activities and main conclusions

The Statistical Commission and its Working Group discussed in many occasions in the last ten years the topic of poverty statistics and especially the convenience of establishing an Expert Group to deal with this topic. The issue of controversy was the potential danger that the Group could come out with the recommendation of standards to measure poverty. It was thought that definitions on poverty were, on the one hand, closely related to a political decision and, on the other hand, that the conceptual and methodological development was still insufficient to arrive to standards.

Finally, it became clear that those that were in favor of such an Expert Group were not aiming at establishing any standards. Their objective was to put together the various groups in the world that were de facto working on poverty statistics and poverty estimates, especially when this work was being done within or in close contact with statistical offices. The idea of looking at the indicators, methodologies, and statistical sources being used should allow the identification of common procedures and best practices. Simultaneously, the most important difficulties could be identified and people working with similar problems and topics could cooperate.

In 1996 in the Working Group of the Statistical Commission it was decided that Brazil would chair the Expert Group and that ECLAC would act as a Secretariat. Since then, two meetings have been held. The first one in Santiago, 7-9 May 1997, and the second one in Rio de Janeiro on 13-15 May, 1998. Two documents containing a summary and papers of each seminar have been produced¹ and are also available in the web site <http://www.ibge.org/poverty>

The most important conclusions of the seminars in relation to poverty statistics are the following:

1. The most frequent and important measurements of poverty can be classified in three groups:
 - a) Absolute poverty
 - b) Relative poverty
 - c) Subjective poverty

In the area of absolute poverty, the most frequently used methods are poverty lines and unmet basic needs. Absolute poverty is more frequently used in developing regions while relative poverty is in developed regions. There is less experience in subjective poverty due to the fact that measurements are more recent.

2. The most frequent methodological challenges related to the income or consumption insufficiency method (poverty lines) are the following:
 - a) Establishment of standards
 - b) Measurement of standards

¹ See Poverty Statistics, Santiago Seminar, 7-9 May 1997.

- c) Conceptual and operative problems associated to the measurement of household income and consumption
 - d) Public social expenditures
 - e) Equivalencies in consumption and scale economies
 - f) Poverty indicators
3. In relation to the unmet basic needs method the most frequent methodological challenges identified were the following:
 - a) Selection of social indicators and threshold definitions
 - b) The aggregation problem
 - c) Comparison in time and space
 - d) UBN maps and geographical information systems
 4. In relation to relative measures of poverty the most important methodological challenges are similar to those of the poverty line method. The difference has to do with the fact that the normative budget is not derived from an analysis of the requirements to satisfy basic needs but is defined taking into account the income distribution within households.
 5. In relation to the source of information it is clear that the four main sources are:
 - a) Household surveys
 - b) Population census
 - c) National Accounts
 - d) Administrative records

In relation to household surveys a very important distinction can be established between countries that have or do not have panel surveys. In any case, the experience of longitudinal analysis is in general very short in time.

It is also important to establish that poverty measurement has in many cases been a very dynamic factor towards the progress in statistical production.

In all cases it has been recognized that available information is still highly insufficient in relation to the growing demands in the field.

6. An important distinction between a synthetic poverty indicator (head count ratio, poverty gap, etc.) and poverty statistics has been established. The first one, as happens in many other statistical fields, corresponds to a demand of the political system that wants to establish the magnitude of the problem and to monitor the result of policies through a synthetic indicator (rate of growth of GDP, open unemployment rate). The poverty statistics are closely related to the demand of those that design and monitor policies in a desaggregated way. It has been recognized that once an indicator has been established, the most common situation is that households under poverty constitute a very heterogeneous group that needs different combinations of policies. Therefore, in the field of poverty statistics the objective is to establish relations between this phenomenon and its causes that are normally associated to variables such as education, employment, income distribution, demography and geographical distribution of population.

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AGENDA

WEDNESDAY 13

- 09.00-10.00 Registration of participants.
- 10.00-10.30 Expert Group: Goals and expectations.
Pedro Sáinz (ECLAC), Simón Schwartzman (IBGE, Brazil).
- 10.30-12.30 **Session 1: Recent experiences in drawing and using poverty lines.**
- An overview of issues associated with the US poverty line. *Charles Nelson (US Bureau of the Census, USA).*
- Budget standards, living standards and income adequacy. *Harry Kroon (A.B.S., Australia).*
- Comments:** *Gordon Harris (D.S.S., UK).*
- 12.30-14.00 **Lunch.**
- 14.00-15.30 **Session 1: (cont.)**
- A proposal for drawing up indigence lines. *(IBGE, IPEA, ECLAC).*
Ricardo Paes de Barros (IPEA, Brazil) and Juan Carlos Feres (ECLAC).
- Factors associated with poverty evolution in Buenos Aires. *Daniel Petetta (INDEC, Argentina).*
- Comments:** *Luis Beccaria (Argentina).*
- 15.30-16.00 **Coffee Break.**

16.00-18.00 **Session 2: Focused or targeted poverty studies.**

Hispanic poverty from the current population survey and poverty of other self-identified ethnic groups from census information. *John Reed (U.S. Bureau of the Census, U.S.A.).*

The measurement of living standards. *Norman Hicks (World Bank).*

Comments: *Maryanne Webber (Statistics Canada, Canada).*

18.30-20.00 **Cocktail offered by IBGE.**

THURSDAY 14

10.00-11.00 **Session 2: (cont.)**

Poverty in Slovakia and in France: A comparison. *Madior Fall (INSEE, France).*

Comparative poverty assessment using Purchasing Power Parities for low income households. *Yonas Biru (World Bank).*

Comments: *Charles Nelson (U.S. Bureau of the Census, USA).*

11.00-11.15 **Coffee Break.**

11.15-11.45 **Comments:** *Charles Nelson (U.S. Bureau of the Census, USA).*

11.45-13.00 **Session 3: Statistical instruments for the measurement of poverty.**

Impact of edit and imputation on income estimates: A case study. *Maryanne Webber (Statistics Canada, Canada).*

Living conditions measurement in Brazil. *Elisa Caillaux (IBGE, Brazil) and Ricardo Paes de Barros (IPEA, Brazil).*

MECOVI Programme. Ruthane Deutsch (IDB).

Comments: *Harry Kroon, (A.B.S., Australia).*

13.00-14.00 **Lunch.**

14.00-15.30 **Session 3: (cont.)**

Utilization of poverty datas. *Anna Peliano (Comunidad Solidaria, Brazil).*

The measurement of income in poverty studies. *Sonia Rocha (IPEA, Brazil)*.

Editorial Program on Poverty for the 2000 Mexican Census of Population and Housing. *José Walter Rangel (INEGI, Mexico)*.

Comments: *Pascual Gerstenfeld (ECLAC)*.

15.30-16.00 **Coffee Break.**

16.30- 17.00 Experience of SEADE on Poverty and Living Conditions Studies. *Paulo Jannuzzi e Maria Paula Ferreira (SEADE, Brazil)*.

FRIDAY 15

09.00-10.30 **Session 4: Poverty statistics and social policy.**

Policy oriented analysis of Latinamerican urban poverty: An example of three key factors. *Pascual Gerstenfeld (ECLAC)*.

Identification of vulnerable groups and policy conducts. *Reinaldo Ruiz (MIDEPLAN, Chile)*.

10.30-11.00 **Coffee Break.**

11.00-11.45 **Session 5: Poverty measurement in Africa and Asia.**

Document of ECA. *Siddig Abdelmageed Salih (ECA)*.

Document of ESCAP. *Andrew Flatt (ESCAP)*.

11.45-12.30 **Session 6: Poverty measurements by topics.**

International poverty statistics and indicators: an assessment of international data and uses. *Robert Mayo (UNSD)*.

Document of UNFPA. *Ralph Hakkert (UNFPA)*.

12.30-14.00 **Lunch.**

14.00-15.30 **Session 7: The future agenda for the Rio Group - discussion.**

15.30-16.00 **Coffee Break.**

16.00-17.00 **Session 8: Proposal for the future agenda of the Expert Group, to be presented by ECLAC and IBGE.**

SESSION 1:

**RECENT EXPERIENCES IN DRAWING AND
USING POVERTY LINES**

An Overview of Issues Associated with the U.S. Poverty Line¹

CHARLES T. NELSON
U.S. BUREAU OF THE CENSUS

¹ This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. It is released to inform interested parties of current research and to encourage discussion. The author would like to acknowledge and thank the following people for their comments and suggestions: Nancy Gordon, Daniel Weinberg, Stephanie Shipp, and Kathleen Short; they bear no responsibility for any errors that remain

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This paper will discuss the important issues in setting and updating U.S. poverty thresholds. The paper will focus on three key issues associated with poverty thresholds: 1) setting the poverty "line" (a set of dollar values, or thresholds, that are compared with a family's income in order to determine its poverty status), 2) adjusting poverty thresholds to account for different family sizes and geographic price differences, and 3) updating the line to reflect changes in costs and/or needs over time. For each of these topics, the paper will examine the rules and assumptions behind the current poverty thresholds, the changes that were recommended by a recent National Academy of Sciences (NAS) Panel on Poverty Measurement (Citro and Michael, 1995) that has recommended sweeping changes to the way poverty is measured in the U.S., and some preliminary research into the issues raised by the NAS panel.

I. Setting the Line

A. The Current Measure

The official poverty thresholds in use today in the U. S. are based on the work of Orshansky (1963, 1965). The assumptions behind them are relatively simple. Orshansky started with a set of minimally adequate food budgets for 1961 that were calculated for families, of different size and composition, by the U.S. Department of Agriculture. There was evidence, also from the U.S. Department of Agriculture, that families spent about one-third of their after-tax income on food (based on a 1955 Household Food Consumption Survey). This relationship was combined with the 1961 food budgets to set poverty thresholds by multiplying these budgets by three. Thresholds varied by family size, number of children, age and gender of householder, and farm/nonfarm residence.

While there have been some relatively minor changes in the poverty threshold matrix over time (for example, poverty thresholds no longer vary by gender of householder or farm/nonfarm residence), the threshold matrix originated by Orshansky over 30 years ago is still the basis for official U.S. poverty measurement. As will be discussed later in this paper, thresholds are updated each year based on changes in the consumer price index (CPI). See Table 1 for the most recent set of official U.S. poverty thresholds covering income year 1997.

Poverty status is currently determined by comparing a family's total money income (before taxes or any other deductions) to its respective poverty threshold. Thus, poverty in the U.S. is considered to be an absolute poverty measure, in that poverty is determined by comparing "needs" (as determined through the use of minimally adequate food costs and a multiplier to account for other needs) to resources (as determined by total money income) and as a result is unaffected by other changes in economic well-being or the overall distribution of income. A relative income measure, on the other hand, is one that is more closely tied to a broader measure of economic well-being and is not strictly tied to a "needs" measure. An example of a relative poverty measure would be one in which persons in families with incomes less than one-half of the median income of all families would be considered poor.

B. The NAS Proposal

In its 1995 report, the NAS panel recommended several fundamental changes in the formulation of poverty thresholds. The NAS report recommended that:

- 1) the basis for poverty threshold be expanded beyond food (the basis of the thresholds currently used) to include food, shelter, and clothing;
- 2) thresholds should be based on the distribution of expenditures for these items;
- 3) the "multiplier," or factor that would be used as a proxy for needs not measured directly, would be much smaller than the current multiplier of 3 (the panel recommended a multiplier in the 1.15-1.25 range).

A more detailed discussion of the panel's recommendations follows:

The Bundle of Necessities--In a sense, the NAS panel agreed with the original Orshansky method of setting absolute poverty thresholds in that they also based their threshold recommendation on a defined need, or in this case, a defined set of needs. On the one hand, the panel recommended that the bundle of necessities should be expanded to include more "needs" than food. On the other hand, the NAS panel report did not recommend using a detailed and comprehensive list of needs to define a bundle as that "would be an exercise in futility and likely to raise needless controversy." (Citro and Michael, 1995, p.143.) Their compromise solution was to specify a limited bundle--food, shelter, and clothing--and then apply a relatively small multiplier to cover other necessities. The panel report cites several reasons for choosing their recommended bundle:

- there is no doubt that food, shelter, and clothing are necessary goods and services,
- this bundle represents a large share of average family spending, and
- historically, these items have behaved like necessities in that their combined elasticity with respect to total expenditures has been less than 1.0 (Citro and Michael, 1995, p. 143).

Using Expenditures to Set the Threshold Level--While the panel proposed to relate thresholds to a specific set of needs, they did not recommend setting thresholds on the basis of explicit needs (known as expert budgets) for those items (i.e., the cost of providing a minimally adequate diet or shelter). Rather, the panel recommended that expenditure survey data be used to set initial threshold limits. The panel argued that expert budgets are based on judgments and are no more "absolute" than a budget based on spending levels. Furthermore, they argue that the use of expenditure data makes annual updates possible, and it would not be feasible to create a new set of expert budgets each year (Citro and Michael, 1995, p. 144).

Rather than recommend a particular threshold value, the panel came up with what they considered to be a reasonable range, based on results from the Consumer Expenditure Survey (CE), a survey sponsored by the U.S. Bureau of Labor Statistics. The panel examined the distribution of expenditures on the basic bundle of food, shelter, and clothing by looking at the dollar values that correspond to the spending level of every 5 percentile grouping of units. They based their analysis on a three-year average spending (to reduce sampling variability) of their "reference unit" (two-adult, two-children consumer units). Based on their analysis of the distribution of spending on these items, they concluded that a reasonable range for the food, shelter, and clothing portion of the poverty threshold would be from the 30th to 35th percentile, or from 78 to 83 percent of the median spending of these items. The panel validated their conclusion that this was a reasonable range by examining some recent U.S. "expert budgets" and found that indeed their suggested range was consistent with this work. (Citro and Michael, 1995, pp. 149-150).

Subsequent research has examined the shelter component of the "basic bundle" and alternative ways of valuing shelter costs. In one study (Garner et al., 1998), the panel's method of calculating shelter costs, which was actual out-of-pocket expenditures for shelter, was contrasted with a "rental equivalence" approach in which mortgage costs were based for homeowners on the response to a question, also in the CE, in which homeowners were asked, "If someone were to rent your home today, how much do you think it would rent for monthly, unfurnished and without utilities?" Thresholds based on a "rental equivalent" approach were significantly higher than those based on out-of-pocket costs. Another study (Johnson et al., 1997) has also examined shelter costs using an imputed rent approach, in which a hedonic model was used to produce imputed rents for homeowners using rents paid by renters. Overall, results from this model-based approach were quite similar to those based on out-of-pocket costs.

The Multiplier--In order to calculate a reasonable multiplier (a factor to be applied to the food, housing, and clothing component of the poverty threshold to allow for other needed expenditures), the NAS panel used tabulations from the CE to examine the ratio of a broader bundle of expenditures to the basic bundle. Two "broader bundles" were used: one included the basic bundle plus personal care items

and one-half of transportation costs and the other included the basic bundle plus personal care items, education expenses, reading materials, and one-half of transportation costs.

It is important at this point to put the panel's suggested "broader bundles" into perspective. Since these bundles will be used, in the end, to calculate a matrix of needed expenditures to be compared to a family's total available resources in order to compute poverty status, it is important for the needs and resource measures to be consistent. Thus, the panel's recommended choices on what to include as "other needs" are driven partly by their suggested resource measure.

Simply put, the panel has recommended that the definition of family resources for poverty determination purposes should be expanded significantly beyond the one used currently in the United States that is based on pre-tax money income. Specifically, the panel recommended that the resource measure should consist of money income plus the value of noncash non-medical government benefits (food stamps, the value of subsidized housing, etc.) minus: 1) federal and state income taxes, 2) payroll taxes, 3) child-care expenses, 4) other work-related expenses, and 5) out-of-pocket medical expenses.

Thus, because the value of medical assistance (government and employer-provided health insurance) is excluded from the resource measure, medical needs are excluded from their suggested threshold computation. Similarly, work-related expenses are excluded from their recommended resource measure and are also excluded from the needs measure. That is why the broader bundle only includes one-half of transportation costs, as this approximation is intended to exclude transportation costs related to work. (See Citro and Michael, 1995, p. 151.)

The panel examined the relationship between the basic bundle and two versions of the broader bundle using tabulations from the CE and concluded that a reasonable range for the multiplier to cover these other goods was 1.15 to 1.25. Again, they validated this conclusion by examining recent expert budget data and found this range to be reasonably consistent with this literature. (See Citro and Michael, 1995, p. 151-152.)

II. Scaling the Line

A. *Equivalence Scales*

1. **The Current Measure**--Poverty measures generally include some sort of explicit or implicit equivalence scale, to reflect the fact that needs, especially for food and clothing, vary depending on the size of the family. In Orshansky's original derivation of poverty thresholds in the mid-1960's, there was no explicit equivalence scale. Rather, the difference between poverty thresholds for different families reflected, at least in theory, the differences between the costs of a minimally adequate diet (the underlying basis, along with the multiplier, of the current poverty threshold matrix). In practice, the thresholds formulated under this measure also were the product of a number of ad hoc adjustments, particularly in the derivation of thresholds for families with less than three persons. For families of less than three, Orshansky adjusted the thresholds to reflect the fact that such families are less able to take advantage of economies of scale. She computed a higher multiplier for families of two persons (3.7 rather than 3), and set the thresholds for those not living in families at 80 percent of the two-person thresholds. With the exception of some fairly minor adjustments, the equivalence scale implied by Orshansky's original derivation of poverty thresholds is still in place today. Under this measure the poverty threshold of a four-person family is roughly double the threshold of a single person, and the threshold of a seven-person family is roughly triple the single-person threshold.

2. **NAS Proposed Measure**--The NAS panel reviewed the literature on equivalence scales and did not find any single "best" scale to use in constructing poverty thresholds. Similar to its recommendations on the "basic bundle" and multiplier used to define the poverty line, it recommended a range for an equivalence scale that it considered to be reasonable based on economic theory, their

collective judgment, and a review of the literature on this subject. In doing so, they point out that any equivalence scale is, in the end, arbitrary. Their recommended equivalence scale formula was:

$$\text{Scale Value} = (A + 0.7K)^X \quad \text{where } A = \text{the number of adults in the family,}$$

K = the number of children in the family, and

X is in the range of 0.65 to 0.75

(See Citro and Michael, 1995, p. 178.)

Table 2 examines the differences between the implied equivalence scales under the current measure and the proposed one (using the 0.65 and 0.75 factors that represent the limits of the panel's suggested range), based on the relationship between poverty thresholds for families of different sizes and a two-child, two-parent "reference family." As the table shows, the ratio of a one- to four-person threshold under the current measure (0.51) is higher than those under the proposed measure, based on either the 0.65 or 0.75 factor (0.45 and 0.40, respectively), and the ratio of a four- to six-person family (1.32) is higher under the current measure than the proposed measure under either factor (1.25 and 1.30, respectively).

Subsequent research (Betson, 1996 and Johnson et al., 1997) has indicated that poverty rates for two important poverty population subgroups, the elderly and children, are very sensitive to the equivalence scale parameter choice.

B. Geographic Adjustments

1. Current Measure--Under the current official poverty measure in the U.S., there are no geographic adjustments to poverty thresholds. The lack of geographic difference in poverty thresholds has been one of the most criticized, but also politically sensitive, aspects of the current measure (as it is widely recognized that living costs vary significantly across the U.S.).

2. NAS Proposed Measure--The NAS panel recognized the desirability of geographic adjustments to poverty thresholds. However, there are several conceptual and data limitation issues that make it difficult to come up with an interarea threshold adjustment that accurately accounts for geographic price differences. One conceptual issue is whether the "market basket" of goods used to develop interarea price differences should be fixed or different (the latter is based on the assumption that needs, as well as prices, differ across the country). The panel concluded, however, that to let the market basket vary would necessitate many "hard-to-defend judgments" and thus recommended that a fixed-weight interarea price index would be preferable. Moreover, the panel recommended that, ideally, the fixed-weight index should, for the purpose of adjusting poverty thresholds, reflect the market basket of families with expenditures below the median.

Unfortunately, no data source currently exists in the U.S. that allows one to derive an accurate interarea fixed-weight price index that would be appropriate for the purpose of adjusting poverty thresholds (though the U.S. Bureau of Labor Statistics has a research program that has promise). The panel suggested an interim approach that adjusts poverty thresholds based on differences in the cost of housing. There are three reasons for selecting housing costs as a proxy for total cost differences:

- the shelter component makes up a significant portion of the CPI in the U.S. (about 33 percent),
- research has shown that housing costs do indeed vary significantly by geographic area (much more, for example, than the cost of food), and
- perhaps most importantly, there are data sources that allow the derivation of a reasonable shelter cost differential measure.

The panel suggested using data from the 1990 decennial census to calculate an index of relative shelter costs. The measure they used was the 45th percentile of rent for two-bedroom apartments. Index measures were derived by geographic division (there are nine divisions in the U.S.--the number of states in a U.S. division ranges from three to nine) and size of metropolitan area. Constructing an index (in which the 45th percentile of rent paid for the entire U.S. was 1.0) showed that there was considerable variation in relative housing costs (the index values ranged from 0.564 to 1.492). The panel then constructed a "fixed-weight" price index in which the other components of the market basket were assumed to be fixed and the housing component was assumed to vary (based on another assumption that for families at the poverty line, shelter costs comprised about 44 percent of total expenditures). The resulting index values ranged from 0.827 to 1.217. These index values (there are 41--for each of the nine division there are factors representing metropolitan area status and, for those living in metropolitan areas, up to four metropolitan area size categories) comprise the panel's proposed geographic adjustment to poverty thresholds.

Subsequent research has examined the effect of using experimental indexes that take all expenditures into account, rather than housing costs only (Johnson et al., 1997). The adjustments resulting from these experimental indexes were similar to those based on housing costs differentials.

III. Updating the Line

A. The Current Measure

Currently, poverty thresholds in the U.S. are updated annually using the annual change in the U.S. Consumer Price Index (CPI). In effect, the official poverty "line" of today is a line that was set over 30 years ago, but in today's dollars. One could argue that the original poverty line was not strictly an absolute measure, as the multiplier of three was based on the finding that all families (not just low-income families) spent about one-third of their income on food. Since 1969, though, the measure has become in effect an absolute measure, as the changes in thresholds have not had any relation to changes in consumption or overall economic status, but only to the overall price level (and not the price of food).

B. The NAS Proposal

The panel report cites the loss of relevance over time in the current thresholds as an indictment against the current method of updating thresholds based simply on price changes. At the time of its inception, the current method had meaning, both in terms of the minimal cost of a major necessity (food) and the relationship between that necessity and total consumption. Over time, however, the current thresholds are no longer strongly related either to the cost of food or the relationship between food and total consumption.

The NAS panel recommended that poverty thresholds should be updated annually based on changes in spending on food, shelter, and clothing. Basically, they propose that once a level for poverty thresholds has been set (based on a three-year average of CE tabulations, as outlined in Section I), that level would be reestimated each year based on the most recent three-year average of expenditures for necessities (food, shelter, and clothing). They refer to this as a "quasi-relative" approach (as a purely relative approach would tie the updating of thresholds to total expenditures on all items). Their analysis of the CE showed that, historically, spending on these items has increased at a rate much slower than total spending. They estimated that the elasticity of spending for food, shelter, and clothing with respect to total spending has averaged about 0.65 over time, which means that for every one percentage point of total expenditure increase, spending on these necessities has increased by about two-thirds of a percent. As a validation of the reasonableness of their recommended approach, the panel report noted that subjective poverty thresholds (based on responses to questions on the amount of income or consumption it would take to "get along" or "make ends meet") over time have had an elasticity with respect to median income in the range of 0.65-0.80.

The panel report cites two concerns over using survey expenditure data on necessities to update poverty thresholds. First, changes in data quality or other aspects of the survey could have an impact on poverty thresholds that would be unrelated to changes in spending on necessities. The panel recommended careful monitoring of the survey to mitigate the possible effect of survey changes on threshold levels. Second, there is concern about how threshold limits based on consumption would be tied too closely to changes in the business cycle (in a recession, for example, thresholds might decline from one year to the next). They point to two factors that would mitigate the effect of business cycles on threshold updates: the use of three-year averages rather than point estimates, and the fact that spending on necessities is less likely to be affected by business cycle changes than overall spending. That said, the panel still recommended that another unofficial set of thresholds (updated with price changes) should be tracked along with their recommended measure in order to assess the behavior of their recommended measure over time. (See Citro and Michael, 1995, p. 158.)

Subsequent research by the U.S. Bureau of Labor Statistics (Johnson et al., 1997) has shown that, over the 1990-1995 period, the change in poverty thresholds using the manner outlined above was similar to the overall change using the CPI. However, the CPI-based updated thresholds exhibited less year-to-year volatility than those based even on three-year averages of CE expenditure data. Over the longer period of 1982-95, thresholds based on expenditures would have risen at a faster rate than those based strictly on prices.

SUMMARY AND CONCLUSIONS

There is little disagreement among researchers in the U.S. that the official measure, largely unchanged since the 1960's, is badly out of date and in need of a major redesign. The NAS panel report, released in 1995, provides a framework for the poverty research community to begin the process of systematically considering changes to this critical measure of economic well-being. Some of this work has begun, and this research will continue. It is difficult, at this time, to predict how long it will take for the U.S. to make significant changes to the way poverty is measured.

In the short run, the Census Bureau is preparing a detailed study, scheduled for release in winter 1998, on issues associated with the redesign of the U.S. poverty measure. The study will begin by examining each of the key issues associated with poverty redefinition, including those associated with poverty thresholds and those associated with defining resources for poverty measurement purposes, using the 1995 NAS panel report recommendations as its starting point. The report will also examine several alternative poverty measures and their implications in terms of poverty trends and the composition of the poverty population.

One of the most important recommendations of the panel's report (and one not mentioned previously, as it was not strictly a threshold recommendation) is that whatever measure is adopted should be regularly reviewed on a ten-year cycle. They recommend that this review should include all aspects of poverty measurement—including the "basic bundle" used to define the poverty thresholds, the multiplier, the means for updating threshold, and the resource definition to be compared to a family's poverty threshold to determine poverty status. They argue that, no matter how relevant a measure is today, past experience has shown that 30 years is too long to wait for reevaluating the assumptions behind a measure as critical as poverty. (But "we" may still not decide, as a government (i.e., the Office of Management and Budget, the agency that officially defines poverty in the U.S.) to make any such timetable explicit.)

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TABLE 1
U.S. POVERTY DOLLAR THRESHOLDS: 1997

Size of Family Unit	Related Children Under 18 Years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One Person (unrelated individual)									
Under 65 Years.....									
65 years and over.....	8,350								
	7,698								
Two Persons									
Householder under 65 years.....									
Householder 65 years and over.....	10,748	11,063							
	9,701	11,021							
Three persons.....									
Four persons.....	12,554	12,919							
Five persons.....	16,555	16,825	12,931	16,333					
Six persons.....	19,964	20,255	16,276	19,154	18,861				
Seven persons.....	22,962	23,053	19,634	22,123	21,446				
Eight persons.....	26,421	26,586	22,578	25,621	24,882	21,045	23,076		
Nine persons or more.....	29,550	29,881	26,017	28,804	28,137	24,021	26,409	26,185	
	35,546	35,719	29,274	34,845	34,190	27,290	32,474	32,272	31,029
			35,244			33,289			

Source: U.S. Bureau of the Census

TABLE 2
ALTERNATIVE EQUIVALENCE SCALES, EXPRESSED RELATIVE TO A VALUE OF 1.0
FOR A TWO-ADULT, TWO-CHILD FAMILY

Family Type	Current*	.65 Factor	.75 Factor
One Person	.513	.451	.399
Married Couple:	.660	.708	.672
Plus 1 child	.794	.861	.841
Plus 2 children	1.000	1.000	1.000
Plus 3 children	1.177	1.130	1.151
Plus 4 children	1.318	1.251	1.295
Plus 5 children	1.476	1.367	1.434

*For 1- and 2-person families, based on the threshold for those under 65.

Source: Citro and Michael, 199, p. 181

Budget Standards, Living Standards and Income Adequacy¹

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¹ The views expressed in this paper are those of the author and do not necessarily reflect those of the ABS.

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1 INTRODUCTION

This paper outlines the recent experience in Australia with developing budget standards. In particular, the paper reports on the study commissioned by the Australian Federal Department of Social Security (DSS) to develop a set of indicative budget standards for a range of households. This study is one of several directed at assessing the adequacy of social security payments, and of examining issues of poverty and living standards in contemporary Australia.

The paper addresses a number of issues associated with the budget standards being developed in Australia, and these issues are common to budget standards studies conducted elsewhere. Two main issues are discussed.

1 The formulation of a threshold level of consumption that is relevant to a 'poverty' budget standard.

2 The criteria for determining what goods and services are to be included in the budget standards.

An appendix to this paper compares some of the numerical results from the study with the rates of social security payments available from the DSS.

I have drawn quite extensively on a number of papers prepared by Dr Peter Saunders, Director of the Social Policy Research Centre, and on the research paper which reports on the budget standards project undertaken within the Centre on developing indicative budget standards for Australia. Responsibility for any errors remain with the author.

2 WHAT ARE BUDGET STANDARDS

The budget standards approach to assessing living standards, income adequacy and poverty lines starts from the basis that it is the consumption of goods and services that determines the standard of living. It examines household needs for goods and services, rather than the levels of income received. By providing a benchmark for the level of goods and services required by households, it allows low incomes to be assessed in terms of the normative and behavioural standards that can be afforded by that income.

The approach can be used to establish an absolute 'poverty line' measure by specifying only those goods and services which are considered essential to satisfying the basic needs or to attain a minimum level of living. Alternatively, it can be used to specify a relative 'poverty line' by specifying the goods and services required to attain a level of living which corresponds to a point in the overall distribution (such as the median or quartile) of the nation's living standards.

The budget standards methodology was pioneered by Seebohm Rowntree in 1899 in his study of poverty in the UK city of York, published as *Poverty: A Study of Town Life* (1901). Rowntree set out to determine the level of income required 'to obtain the minimum necessities of merely physical efficiency'. The level of income was to cover the minimum quantity of food, based on expert opinion from nutritionists, and the minimum requirements in a few other basic needs such as clothing, housing and heating. The methodology has been considerably refined and expanded on since then. The history of the development and use of budget standards is well documented in Bradshaw (1993)

A budget standard represents the cost of a specified 'basket of goods and services'. The tasks involved in deriving a budget standard can be summarised as follows:

The task of those who draw up a budget is to decide what *items* are included in the budget, what *quantity* of items are included, what *quality* the items should have, what *price* should be given to it and, where items are purchased intermittently or occasionally, what *lifetime* should be attributed to them. (Bradshaw (1993) italics in the original)

By specifying and costing the goods and services required to achieve a given standard of living, it is possible to examine the level of income required to achieve that standard. By developing budget standards for a 'minimum acceptable standard of living', taking into account community expectations of social and economic participation, it is possible to estimate the level of income required to achieve that standard of living.

Alternatively, some applications of the budget standards methodology have developed budgets for only some components (such as food, clothing and shelter in the case of the current USA poverty line) and then multiplied this by a factor (based on actual expenditures) to represent the total basket of goods and services.

The budget standards methodology has a number of specific features which underlie its relative strengths. The first is that it starts by considering household needs and, by translating these into measures of the quantity and quality of goods and services necessary to attain a specified standard of living, it derives an income necessary for that particular budget. The second is that the methods and assumptions are made transparent. By specifying in great detail the commodities which make up the budgets, it is made clear how they were constructed. Additionally, it illustrates what the different budgets imply for different levels of living standard, including what it means to be in poverty.

The third feature of the methodology is flexibility. Variations can be made to household size and composition, to prescribed standards of living, and to the normative and other assumptions about what commodities should be included in the budgets. This flexibility also allows budgets to be customised, for factors such as geographic location, large families, and the presence of a household member who has a disability.

Although the budget standards methodology provides the framework for developing a poverty line, or a level of income against which to assess income adequacy, budget standards do not provide the mechanism for establishing where the poverty line should be set.

3 BUDGET STANDARDS IN AUSTRALIA

In Australia, budget standards were used in the early part of this century, in the context of the determination of minimum wage levels. In 1907 household budgets were used in the Harvester Judgement to determine that seven shillings per day was the amount 'appropriate to the normal needs of the average employee regarded as a human being living in a civilised society' (Commonwealth Arbitration Reports, 1907). In 1920 budget standards were again used to update the basic wage. Various studies were undertaken since then, including the study into poverty in Melbourne during the Second World War (Prest 1952), and to derive an estimate of the cost of children in Australia (Lovering 1984).

Budget standards were not associated with studies of income adequacy and poverty lines in Australia until much more recently. However, the resurgence of interest in the use of budget standards in many other countries, such as the UK, USA, and many countries in Northern Europe, has encouraged Australian policy makers and researchers to express a renewed interest in examining the budget standards methodology to assess income adequacy and living standards of contemporary households. One major Australian study is that by the Social Policy Research Centre at the University of NSW. That study is the focus of the remainder of this paper.

4 SPRC BUDGET STANDARDS

The Social Policy Research Centre (SPRC) has recently completed a major project to develop a set of indicative budget standards for Australia. This study was commissioned by the Australian Department of Social Security (DSS). Work commenced in October 1995 and was completed in December 1997.

The aim of the budget standards project was to provide information on the living standards of Australian households and what it costs to maintain them. This information, together with other research commissioned by DSS, would then contribute to a better understanding of the nature and extent of poverty in Australia, and also provide a framework for assessing the adequacy of social security payments.

The development of the budget standards by the SPRC proceeded through four phases- the *articulation* of the standards, the *specification and costing* of the budgets, their *validation* against actual household and community behaviour, and their *revision and refinement* in light of these.

The main elements of the approach used in developing the budget standards was to modify the methodology adopted by Bradshaw in the work of the UK Family Budget Unit (which already reflected the methods employed by several other countries) to make it more relevant to Australian society in the 1990s. This was to ensure that the budget standards would withstand peer review procedures, as well as to minimise development time and costs. The project was assisted through the expert assistance provided by Professor Jonathan Bradshaw, and through the Steering Committee which provided expert advice in each of the main budget areas. A series of Focus Groups provided feedback on the relevance of the content and costing of the budgets. Other important sources of information were results from the 1993-94 Household Expenditure Survey and other relevant statistics from the ABS and other agencies. However, budgets were revised using these data sources only when comparisons indicated that the normative budgets differed significantly from community practices as reflected in behavioural data.

(i) Household types

A major goal of the budget standards project in Australia was to produce budgets that describe comparable living standards for people in different family or household types, with different labour force characteristics and with different housing tenure. Potentially, the methodology could also be used to produce budgets which take into account a wide variety of circumstances such as health and disability status.

Budget standards have been developed for 12 basic household types, as determined by the needs of DSS. Three of the household types differed only in the age of the child, and a further two differed in the age of the adults. The household types were gradually expanded to reflect housing tenure and labour force status. A number of different tenure types were required for some households so that the relationship between housing tenure and other dimensions of the budgets could be compared. Similarly, a number of different labour force status types were required to reflect the realities of the labour market in Australia, and to accord with the interests of DSS. In the end, budget standards were developed for 46 combinations of household type, housing tenure and labour force status.

By comparing the budgets of households with different compositions, but with the same standard of living, it is possible to examine changes in costs as household composition varies. This allows issues, such as the impact of household size on costs and the cost of children, to be explored further. Similarly, by comparing budgets based on a range of labour force characteristics, it is possible to derive the cost of full time and part time employment and of job search.

(ii) The Modest But Adequate and Low Cost Standards

A critical aspect in applying the budget standards methodology is the specification of the standard of living relevant to the particular budget. The standard of living could be set so low as to leave no doubts as to the austerity of the budget standard. On this basis, a budget standard could be developed which would be the barest physical minimum acceptable, reflecting standards of survival and decency. This would require considerable judgement on the part of the researchers as to what constitutes the minimum acceptable standard. A judgement on what constitutes the absolute or bare physical minimum is very subjective and value driven. Such an approach ignores what most poverty research recognises - that poverty is not absolute, but relative to contemporary society's current circumstances, customs and values. The budget standards methodology does not, in itself, provide the answer to where such a minimum standard poverty line could be drawn.

On the other hand, a budget standard could be established for standards of living enjoyed by the median or the average household. This could reflect many of the community norms, as well as incorporate the actual household behaviours and practices. Such an approach is more explicitly a 'relative' measure, rather than the 'absolute' measure implied in the barest physical minimum standard.

Two separate budget standards were developed in the SPRC study, reflecting two different standards of living relevant to Australian society. These standards were specified by DSS as part of the project brief. The 'modest but adequate' standard is designed to provide full opportunity to participate in contemporary society. It lies somewhere above the standards of survival and decency but below the level of luxury as it is generally understood. This standard was seen as falling somewhere around Australia's median standard of living. The modest but adequate standard is similar to the US concept of the 'prevailing family standard', to the standard budgets estimated in the Scandinavian countries, and to the 'modest but adequate standard' derived by the UK Family Budgets Unit.

The 'low cost' standard is designed to be one requiring frugal and careful management of resources but still allow full social and economic participation consistent with community standards, and enable individuals to fulfil community expectations in the workplace, at home and in the community. It describes a level below which it becomes increasingly difficult to maintain an acceptable living standard, with increased risks of deprivation and disadvantage. The 'low cost' standard was not intended to be seen as a minimum standard. In terms of the levels and types of consumption, it was expected to be close to half of the median standard of living achieved by Australian households.

One of the features of the budget standards methodology is that a particular budget can be 'customised' by adjusting the content, quality and costs of components, so that the standard of living is progressively decreased. In this way, a budget standard can be established which would describe 'poverty' in terms of the level of goods and services accessed, and the level of social participation enjoyed. However, the SPRC study was not intended to explore this.

The 'modest but adequate' and 'low cost' budget standards have been linked to the median standard of living in the Australian community. This makes explicit the relative nature of the budget standards approach adopted by the SPRC. The budget standards are compared to the median level of household consumption (and not the level of household income). That is not to say that the composition of the two budget standards were simply a replication of household consumption patterns based on behavioural data. What the 'modest but adequate' and 'low cost' concepts meant in practice was determined by the very detailed formulation of the levels of consumption and social participation undertaken within each of the component budgets.

(iii) Component Budgets

The purpose of the SPRC study was to develop a set of indicative budget standards which represented the quantity and quality of all goods and services required to achieve the specified standards

of living. For this reason, the study required the detailed specification of budgets covering the full range of goods and services required to meet household needs. To these goods and services must be attributed a quantity, quality, and price. These are then aggregated to derive a total budget.

In some countries, and for some purposes, alternative approaches are used, such as developing budget standards for a smaller number of components (such as food and shelter), and then applying a multiplier (based on actual or assumed behaviour) to derive a level of total spending. Such an approach offers some advantages (including the reduced volume of work in specifying each of the component budgets) where the full detail is not required.

In the SPRC study, separate component budgets were developed for

Food

Housing

Energy

Health care

Personal care

Clothing and footwear

Household goods and services

Transport

Leisure

(iv) General criteria for identifying goods and services

The general criteria for selecting goods and services to be included in the component budgets were based on both normative and behavioural data, together with a mixture of guiding principles and various 'rules of thumb'. Normative judgements, informed by community norms and standards wherever possible, were used to specify aspects of the budget. The Australian recommended dietary intakes of nutrients are an example of normative data. The methodology for developing the food budgets ensured that the dietary profiles are nutritionally adequate. To ensure that the dietary profiles are relevant to Australian households, the food budget was modified to reflect what the majority of households actually eat. Similarly, the housing budget was initially based on a normative judgement about the needs for a household of a specific size and composition, but then was modified by behavioural information to reflect the housing choices and circumstances of Australian households.

There are only very limited community norms for most of the component budgets. Where normative standards did not exist, the SPRC methodology was based on making 'incremental modifications' of the UK budget standards (which were influenced by Canadian and Swedish standards), on advice from experts in the various fields, on behavioural data which reflect the practices and values of the community, and by referring to actual expenditures using various sources.

The component budgets can be viewed as a continuum, with those based mainly on normative standards at one end and those mainly or entirely on behavioural data at the other. For the component budgets developed by the SPRC, the food budget is closest to the normative standard, followed by the health care budget and the housing budget. At the other end, the energy budget is almost entirely based on behavioural data. The transport and leisure budgets are also close to that end of the spectrum, being heavily based on behavioural data, although some normative information was used. The other budgets (clothing and footwear, household goods and services, and personal care), though they incorporate some normative standards, fall closer to the behavioural end of the spectrum. Overall, the budgets lie closer to

the behavioural end than is the ideal, reflecting the absence of normative standards (in Australia and elsewhere) in many areas of household consumption.

The detailed process of translating the norms and behavioural data into specific goods and services in each of the component budgets, and in particular the decisions to exclude specific goods and services or to select lower quality and/or cost in the 'low cost' budget, can only be described within the context of each component budget. However, one guiding principle was that only items and activities owned or undertaken by more than one half of the population would be considered for the 'modest but adequate budget'. The 'low cost' budget could then be derived by modifying the modest but adequate budget in a number of ways, by reflecting lower quality items, longer life-spans and lower prices. As a rule of thumb, only those items or activities owned or undertaken by three quarters or more of the population would be included in the low cost budget (although this rule was far from practical in many situations).

A more detailed account is presented for two component budgets, the Housing budget and the Household goods and services budget. This will illustrate the criteria used in selecting goods and services within these component budgets, give an overview of the overall approach, and illustrate some of the issues associated with budget standards methodology,

5 INDICATIVE HOUSING BUDGET STANDARDS

The quality of housing is a crucial element of the standard of living, and for many households the cost of housing forms a significant component of their total budget. Both the quality and cost of housing are subject to considerable variation, and are influenced by factors such as housing tenure, location, and length of time since purchase. This degree of variation is problematical for budget standards purposes, where the ideal is to have a single representative standard for quality and cost. In many countries where budget standards have been developed, no attempt is made to estimate a budget standard for housing because of the difficulties caused by this variation.

General approach

In Australia, 30% of households are currently purchasing their dwelling, 40% own their dwelling outright, 25% rent privately and 5% rent from public housing authorities. All goods and services regarded as relevant to housing were included in the housing budget (taking care to avoid duplication with other component budgets, in particular the household goods and services budget, which covers housing-related costs such as floor coverings, appliances, furniture etc.).

To assist in coping with the variation in housing circumstances, a number of housing tenure types were added in to the selection of household types for which budget standards were to be derived. Housing tenures (purchaser, owner, public renter, or private renter) were assigned to each of the household types. A housing profile was developed for each household, based on their assumed location, type of dwelling, its size and quality. These profiles influenced other component budgets (such as energy, household goods and services, transport). Housing costs were determined by establishing levels of rent for renters and mortgage repayments for purchasers. Finally, estimates were made for a range of other costs, associated with on-going expenditures required to maintain a given housing standard (such as council rates, water charges, insurance and repairs and maintenance).

As with the general approach underlying the indicative budget standards, the housing budgets are informed by normative as well as behavioural data. The quality of Australia's housing stock occupied by owners as well as renters is of a high standard, and the housing budgets were developed to also meet high standards. Although there is no single standard measure of overcrowding or housing utilisation which is widely endorsed in Australia, one standard which conforms reasonably well to Australia's social norms is

the Canadian National Occupancy Standard. This standard of housing utilisation considers household size and composition (age, sex and relationship of household members) and assesses the number of bedrooms required. When compared to actual patterns of housing, the Canadian standards were often exceeded in Australia, most particularly in that few households lived in single bedroom dwellings regardless of the size of household. Where appropriate, behavioural data was used to modify the norm.

Housing tenure

Tenure types were assigned to households in such a way as to reflect the actual housing circumstances of Australian households. For example, 80% of couple households with persons aged 45 years live in their own home, while the home ownership rate for sole parents and persons living alone are considerably lower. Attachment 1 shows the household tenure assigned to each household type at the 'low cost' and 'modest but adequate' levels. Other than outright ownership for the older households, there was no provision made for home ownership in the 'low cost' standard. Based on eligibility for public housing, public rental tenure has been excluded from the 'modest but adequate' level and from household types in the 'low cost' standard except where the household was dependent on government pensions through being aged, sole parent or unemployed.

Housing profile

As a starting point, a location in Sydney (the local council area of Hurstville) was chosen, on the basis that the aggregate socioeconomic characteristics of the area (eg age, family types, labour force status, income levels) was reasonably representative of Sydney. Attempts were made to locate each household type within actually existing houses. This had relatively little impact on the housing budgets, but would be important for other component budgets (such as transport, leisure, and household goods and services).

Households were allocated a dwelling type, based on their housing needs and according to a set of independently determined normative standards of housing adequacy. At the 'low cost' standard the Canadian-based normative standards were strictly applied in all cases (except aged persons who owned their dwelling outright). This implies that the 'low cost' housing budgets reflect a standard below that enjoyed by the majority of Australian households. Deviations from the housing norms were made only for owners and purchasers in the 'modest but adequate' standard, where generally an additional bedroom was allowed, reflecting actual household behaviour (as well as practical considerations).

Private tenants

The Australian private housing market does not have a specific sector (based on locality, housing quality and size) catering for low rent accommodation. The constraints imposed by the Canadian standards as well as the actual supply of rental accommodation (in respect of the quantity of housing provided), provides little variation between the 'modest but adequate' and 'low cost' standards other than by varying the quality of housing. It was assumed that 'low cost' private renters pay less rent and lived in dwellings assumed to be in poorer condition than those at the 'modest but adequate' level.

The levels of rent for the chosen localities were based on information on market rents. Levels of rent for private tenants at the 'modest but adequate' standard were based on the median rent for one and two bedroom units in the Hurstville area. The levels of rent payments applicable to 'low cost' standards were those at the 'first quartile' of the distribution of rents for one and two bedroom units.

Public tenants

The level of rent for public housing tenants is set at a market rate for the type and area in which the dwelling is located. Most rental tenants receive a 'rental rebate' so that the net rental payments will fall between 20% and 25% of gross household income. Although two rent levels were established (market rent and net rent), for the purposes of the housing budget the level of rent was set at the market rent.

Home purchaser

The most important component of the housing budget for home purchasers is the cost of servicing the mortgage. The derivation of this part of the housing budget is one of the more complex in the budget methodology, and is very sensitive to the assumed purchase price, level of deposit, the term remaining on the secured loan and the current and previous rates of interest. Home purchaser households are included in the 'modest but adequate' standard only.

Because of the complexity of calculating mortgage repayments, and because housing costs can assume almost any value if the term of the loan, interest rate and amount borrowed are allowed to vary, an alternative approach was adopted to this part of the home purchaser housing budget. A model was developed with the assumption that the initial period of the loan was 25 years, and that the property was purchased 10 years ago (when the purchaser household's male was 30 years and the female 25 years - which corresponds to the average age at which Australians purchase their first home). This resulted in a matrix of cost calculations, so that users can specify a particular set of conditions in the key variables (the amount of loan outstanding, rate of interest applying, and the period remaining until the loan is fully paid) and applying this to the mortgage to generate the resultant housing costs for purchasers.

This method makes no attempt to separate out the principal and interest components of the mortgage repayments (for practical reasons alone), nor is any account taken of changes in house prices, nor is there an assumed lifetime for the dwelling (no depreciation).

Rather than having a housing budget for purchasers which would be relevant to only a specific set of circumstances for which little justification can be produced, the methodology has resulted in no overall housing budget for purchasers. However, it does provide greater flexibility to customise the budget to fit specific circumstances. The SPRC concludes that it may be preferable to use the housing budget developed for renter households as the benchmarks for housing costs generally.

Additional housing costs

Recurrent costs other than rent or mortgage payments include council rates, water and sewerage charges, dwelling and contents insurance and repairs and maintenance. Incorporating these were relatively straight forward. In the case of dwelling contents insurance, households at the low cost standard are assumed to have a lower value of contents than the 'modest but adequate' level. Modest amounts were allocated for repairs and maintenance, including allowances for repainting internally every ten years and externally every five years for the 'modest but adequate' level and seven years for the 'low cost' level.

Threshold satisfaction levels

As outlined above, the housing budget was established using normative judgements, modified as appropriate by behavioural information. The influence of household size and composition is directly reflected in the normative standard. The actual housing circumstances of most Australians exceed that specified in the norms. Because the overall quality of housing in Australia is relatively high, the norms also reflect a high level of quality. The difference in quality of housing between the 'modest but adequate' standard and the 'low cost' standard is not very marked. Because the budget standards adhered strictly to the norms, and because the actual housing circumstances for most Australians exceed these norms, the 'low cost' housing budgets reflect a standard below that enjoyed by the majority of Australian households. However, the threshold levels of satisfaction inherent in the 'low cost' budget is still relatively high.

For 'low cost' households, who are generally private or public rental tenants, the housing budget forms a considerable proportion of their overall budget. Many 'low cost' households receive housing assistance, either directly through the income support system, or indirectly through rental rebates and

subsidised rents, which actually reduce their housing costs. The budget standards methodology does not include the effects of rental subsidies and other forms of assistance in its housing cost measures.

6 INDICATIVE HOUSEHOLD GOODS AND SERVICES BUDGET STANDARDS

Households possess a wide range of goods and access a wide range of services which are related to the running of their households. These cover categories such as furniture, appliances, floor coverings, household linen and furnishings, blinds and curtains, cleaning products, telephones, and gardening and other tools. The contents of this budget are influenced by, and must be consistent with, other component budgets, such as the housing, energy and leisure budgets, and care was required to avoid double counting of household needs and the goods and services required to fill them.

Durable household goods

In specifying the goods and services required to achieve a given standard of living, it would not be practicable to exclude durable goods, since they form a significant component of what constitutes a particular living standard. They also constitute a significant part of the average household budget. However, the treatment of durable goods (goods with an assumed lifespan greater than one year, such as appliances and furniture, household linen, cutlery and dinnerware) in the budget standards methodology can pose a number of conceptual as well as practical difficulties. (It also raises a number of issues associated with the use of budget standards results in studies of income adequacy and measures of poverty, where the focus may be on transitory income levels, rather than permanent levels, and where durable goods may be considered to have a special role within the household's spending patterns over the household's lifecycle.)

It raises the question of what is being measured- the access to the services provided by the durable (and semi-durable) goods, or the acquisition of the goods themselves. Clearly the methodology should not support the full cost of acquiring the goods, because it would imply that the full cost of all the durables would be included in the budget. In line with many other country studies, the SPRC adopted the approach where the consumption of a durable good is spread over its assumed lifespan.

In this way, the purchase costs of durable and semi-durable goods are averaged over their entire lifetime, with a weekly equivalent being included in the component budgets. This raises many practical issues, such as decisions on the estimated lifespans and the methods of allocating the cost over the life span, and what measure of 'cost' to use (current purchase cost or the assumed cost of purchase several years).

Information from different sources was used to develop estimates for the lifespans, including Australian Taxation Office depreciation rates, the UK study and other research. The weekly cost ascribed to these durables is very sensitive to assumptions about lifespans. (Varying the lifespan for some durables was one way of aligning the component budget more closely to behavioural data, including household expenditure survey results.)

SPRC adopted a straight-line method of allocating the purchase costs over the lifespan. In this way the weekly cost is the same for the whole lifetime of the durable good. Alternatives to these include applying a 'declining balance' (which implies a higher amount earlier in the lifespan, and a resale value at the end of its useable life). For the cost which is to be allocated, the SPRC study uses current replacement cost. Alternative approaches include the purchase cost of the durable goods at the beginning, or at the midpoint, of its useable life. These alternatives would each yield different results for the weekly budget.

General criteria for identifying goods and services

The general approach for selecting goods and services was to select a number of items within each of the broad categories, such as furniture, to reflect what most households would own. For example, for furniture, each bedroom was fitted out with a bed, wardrobe, chest of drawers, and bedside table. The number of bedrooms was determined by reference to the dwelling type allocated to each household within the housing budget, and the size of bed by reference to the household members. Similarly, the lounge and dining rooms were fitted out with furniture commonly found in Australian households. Floor coverings, for owner-occupied housing, were also determined by reference to the dwelling type allocated to each household. In categories such as household linen, tableware, kitchenware, cookware, cleaning and maintenance goods, decisions on quantity and quality were guided by the very scarce data available, and relied considerably on the judgement of the researchers and expert opinion. Of all the component budgets, this budget had the largest number of items, with over 400 items being specified in the budget, which posed particular problems for establishing measures of quality, quantity and prices.

Threshold levels and the distinction between Low cost and Modest but adequate standards

Where data existed, the rule of thumb was used which specified that an item should be allocated to the 'modest but adequate' standard if more than 50% of Australian households (at the aggregate level) own that item, and to the 'low cost' standard if more than 75% own that item. However, this rule could only be applied in few instances. For the majority of items, the most practical way to build in some aspects of 'frugal management' was by allocating the same items to households at both the 'low cost' and the 'modest but adequate' levels, but extending the lifetimes in the case the 'low cost' households. This could cover situations such as the delayed replacement of goods. This approach also avoids the paradoxical situation, which was found to be common for many household goods, that cheaper goods (with an implied shorter lifespan) are more expensive on a weekly basis than a more expensive good with a longer lifespan.

The SPRC methodology assumes that all goods and services are purchased new, and that households keep the durable goods until their value declines to zero (that is, they have no resale value). The only exception to this is in the transport budget, in relation to the family car.

7 CONCLUSIONS

This paper has provided an overview of a recent Australian budget standards study undertaken within the context of examining alternative methods for developing income standards against which income levels and the adequacy of income support can be assessed. The budget standards methodology builds on normative judgements about living standards, without legitimising existing inequalities and reflecting income and other constraints which influence existing patterns of expenditure. Although the budgets can be informed, and validated, by household patterns of behaviour, they do not simply reflect the actual budgeting behaviour of households as reflected in household expenditure surveys. The study adopted a number of assumptions which can be challenged and, through the process of customisation, can be modified.

The SPRC study of indicative budget standards for Australia does not develop a poverty line. However, through the process of specifying the goods and services considered as essential to achieve a 'low cost' standard of living, the study provides the basis for further modifying the low cost budget standard in a number of ways, such as making them more austere, or to take into account other assumptions which may be more applicable to households eligible for government income support payments.

APPENDIX

Comparison of Low cost budget standards with other benchmarks

The Low cost budget standards can be compared against other benchmarks relevant to low income households.

Income Poverty Line

The most commonly used income poverty line in Australia is the Henderson Poverty Line (HPL), which is based on a minimum income level set in the early 1970s (updated using changes in household income). This poverty line was developed primarily to determine the extent and nature of income poverty and was set at a level so low that it was regarded as being 'so severe as... to be unchallengeable.' The initial purpose underlying the derivation of the HPL differed significantly from that which motivated the 1997 budget standard study.

Table A1 compares the Low cost budget standards and the HPL for a number of household types. The table provides the comparison on two bases- including and excluding the housing budget. This reflects the heavy qualifications placed on the housing budget component, as outlined earlier. The table shows that, for almost all household types, the Low cost budget represents a standard of living which exceeds that represented by the Henderson Poverty Line. Removal of the influence of housing costs results in greater differences between the two measures for some household types, in particular the public rental tenants, but decreases it for others.

Social Security Payments

Comparisons can also be made between the low cost budget standards and the level of social security payments. The levels of social security payments are the result of complex interactions between governments' income support, labour market incentives and other social and economic policies, and it would be almost coincidental if they were similar in levels to the budget standards. However, the budget standards provide a basis for assessing the adequacy of the levels and structure of income support payments for different household types.

Table A1 shows that the budget standards are higher, by more than 20% in many cases, than the social security payments. After removing housing costs from the budget standards and social security payments, the two are considerably closer.

TABLE A1
COMPARISON OF LOW COST BUDGET STANDARDS, THE HENDERSON POVERTY LINE AND SOCIAL SECURITY PAYMENTS (FEBRUARY 1997)

Household type	Low cost budget (LCB)	LCB/HPL	LCB/HPL (Excl housing)	LCB/DSS payments	LCB/DSS payments (Excl housing)
	\$	ratio	ratio	ratio	ratio
H1c Single, Unemployed, Private renter	293.97	1.205	1.032	1.489	1.064
H2c Couple, Both unemployed, Private renter	381.63	0.977	0.845	1.178	0.839
H3c Couple +2 children, Male unemployed, Female not in labour force, Private renter	602.08	1.302	1.122	1.336	1.007
H4c Sole parent +6 yr girl, Not in labour force, Private renter	371.84	1.391	1.187	1.279	0.873
H4d Sole parent +6 yr girl, Not in labour force, Public renter	269.47	1.008	1.229	1.090	na
H5b Aged single, Owner	215.02	1.184	1.645	1.214	na
H5c Aged single, Public renter	193.03	1.063	1.497	1.090	na
H6b Aged couple, Owner	295.64	1.135	1.417	1.010	na
H6c Aged couple, Public renter	297.55	1.142	1.361	1.016	na
H7c Couple, Male employed, Female not in labour force, 6yr girl, Private renter	475.51	1.218	1.079	1.238	0.938
H7d Couple, Both unemployed, 6yr girl, Private renter	482.71	1.048	0.893	1.256	0.959
H7e Couple, Both unemployed, 6yr girl, Public renter	404.27	0.878	0.916	1.186	na
H7h Couple, Male employed full time, Female Not in labour force, 6yr girl, Private renter	487.21	1.247	1.118	na	na
H7i Couple, Male employed full time, Female unemployed, 6yr girl, Private renter	496.40	1.078	0.930	na	na
H8c Couple + 14yr boy, Male unemployed, Female Not in labour force, Private renter	500.06	1.274	1.155	1.254	0.969
H9c Couple + 3yr girl, Male employed, Female not in labour force, Private renter	458.16	1.237	1.096	1.163	0.863
H10c Couple + 3 children, Male employed, Female not in labour force, Private renter	659.29	1.288	1.152	1.273	0.988
H11c Couple + 4 children, Male employed, Female not in labour force, Private renter	731.77	1.254	1.152	1.276	1.021
H12c Sole parent +2 children, Not in labour force, Private renter	485.72	1.433	1.186	1.418	0.969
H12d Sole parent +2 children, Not in labour force, Public renter	352.27	1.040	1.225	1.178	na

HPL Henderson Poverty Line

DSS Department of Social Security

Source: *Development of Indicative Budget Standards for Australia* (SPRC), 1998

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A Proposal for Drawing up Indigence Lines

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1. INTRODUCTION

The objective of this study is to describe the methodology adopted by the IBGE-IPEA-CEPAL committee for drawing up indigence lines. Some estimates to Goiânia city, obtained from this methodology and using the 1987/88 Family Budget Survey (FBS) data, are presented.

2. METHODOLOGY

In this study, a indigence line is understood as the cost of a food basket which can meet the daily "basic" calorie requirements of one person. Once this has been defined, it is soon found that there are methodological variants for obtaining a indigence line due to (a) the criteria used when defining the daily basic calorie requirements of one person and (b) the way the food basket is selected from those which meet such requirements. Including the fact that the two questions can be analyzed separately and that the definition of the calorie requirements is well balanced in a previous study of CEPAL (1997)¹, this study limits the methodological debate to the question of the selection of the food basket.

The basic criterion used in the choice of food basket consists of identifying it as the basket of the lowest income group which is the first to meet its calorie requirements. Two empirical challenges arise from this criterion: (a) to define the income groups and (b) estimate the daily per capita calorie intake in each income group. So these two questions are addressed in sequence.

2.1 Reference groups

This study defines the reference groups based on family distribution, according to the per capita family income. Family income is understood as the sum of the total output of all members² of the family, including the attributed rental value for those families who own their home³. Note that the other family earnings are not included in this notion of income, and are not classified by the FBS's own methodology as output. To emphasize this, the concept of income coincides with that of FBS's total output, plus the attributed rent, but differs from the concept of total receipt in the FBS.

In order to define a reference group, the family distribution are expressed by $\{q(a): 0 < a < 1\}$, according to the per capita family income. Thus, if $F(x)$ represents the accumulated distribution, that is, the proportion of families with per capita family income less than or equal to x , then

$$(1) \quad q(a) = \inf\{x: F(x) \geq a\}$$

A reference group $R(a)$ is defined for each value of $a \in (0, 0,08)$, as the group of families with a per capita family income between $q(a)$ and $q(a+0,2)$. That is, if Ω is the group of all the families and $r(\omega)$ the per capita family income $\omega \in \Omega$, then

$$(2) \quad R(a) = \{\omega : q(a) < r(\omega) \leq q(a+0,2)\}$$

Note that when defining the reference groups in this way it is found that they do not form a partition in the universe; on the contrary, there is considerable overlapping between the reference groups which can ensure substantial continuity in the movements between neighboring groups. Nevertheless, it

¹ CEPAL. Medición de la pobreza en Brasil: una estimación de las necesidades de energía y proteínas de la población, 1996.

² Members of the family are considered the head, spouse, child, other relative, aggregate, pensioner and cohabitant.

³ For those who are buying their own home, the attributed value represents the difference between the attributed rent and monthly installment to be paid. If the installment is higher than the attributed rent, nothing is added to the family income as attributed rent.

is worth mentioning that, in order for groups $R(a_1)$ e $R(a_2)$ to be separate, they only need to be sufficiently far apart, or, more precisely, that $|a_1 - a_2| \geq 0,2$.

Lastly, it is worth noting that by construction, the proportion of families in each reference group is a constant and equal to 20%.

2.2 Daily per capita calorie intake

This section describes the methods used to obtain the daily per capita calorie intake of each reference group. However, before moving on to the actual description of the methodology, it is important to stress that this depends, to a large extent, on the fact that the Family Budget Research employed contains data on the quantities of every food item consumed, or whether this existing data covers only part of the food items.

In the case of the 1987/88 FBS, no data is available on the quantities consumed but only on the expenses incurred. Thus, to estimate the quantities consumed, it was necessary to supplement the FBS spending data with data on prices from the National Consumer Price Index System (SNIPC). Bearing in mind that not all prices are available in this system, it was necessary to develop a methodology which could estimate indigence lines with only partial price data. However, before describing this methodology, it must be explained how the food products with a price available in the SNIPC were chosen, as well as how some of these prices were addressed.

2.2.1 Obtaining prices for a subgroup of food items

Based on the SNIPC, an attempt was made to obtain prices for a set of around 150 food products. Before describing the criteria used in the selection of these food products, it is important to clarify that, in this study, the products used came from the FBS food product classification⁴. Nevertheless, as will be seen in the following sections, estimating the daily calorie intake in an environment where not all prices are known also requires the specification of a way to bring the food items together in homogeneous categories. Two alternatives are available: either the groupings used by FBS or those used by SNIPC. In this study the second options were chosen.

2.2.1.1 Selecting the food products

The procedure used to select food products is based on two criteria. First, an attempt was made to select all products with prices available in SNIPC which have over a 0,1% share in family expenses. Secondly, an attempt was made to also include the products with available prices which, although not fulfilling the first criterion, represent more than 0,1% of the family acquisitions. As a result of these two criteria, it is possible to examine the prices of around 150 food products.

Care should be given to some aspects of this selection process. First, mention should be made that these criteria are not always considered in detail. Secondly, all prices were converted to monetary units per kilo, which required drawing up a conversion table of various measurement units per kilo. In third place, the prices, even for all products selected, are not known for every year, which imposes the need to attribute the prices to some products in some years.

2.2.1.2 Imputing the prices

To impute the prices in some years, the basic criterion chosen was to use the price variation rate of the group to which the product belongs, in order to estimate the price variation of the product with an unknown price. So, once the price of the product is known at the beginning of the period (see subsection

⁴ A complete list of these products can be obtained from in Appendix 1, not included in this study.

2.2.3), the price, when unknown, is imputed at the end by applying the variation rate of the average price of the group to which it belongs, to the product's specific first price.

This criterion, however, requires some further definitions. First, it is necessary to determine how the average price of the group will be defined. Bearing in mind that the only data available on quantity refers to 1987, a Paasche Index was chosen with fixed prices equal to the quantities referring to 1987.

Secondly, it should be decided which products in the group should belong to the group's price index. In this case, it was preferable that all products with known prices at every period be included.

Thirdly, the possibility was considered of there being no product in the group with a price known at all times. In such a case, it was decided to use the price variation of every product with prices known in every group.

In fourth place, another problem was encountered as a result of this methodology, which arises from the fact that there are several options regarding the period used to obtain the price variation rate for the group. So, for instance, when we wish to impute a price to 1993 and the prices for 1987, 1990 and 1995 are known, the price variation rates which refer to the 1987-93, 1990-93 and 1993-95 periods may be used. In this study, the period immediately before is always used, which in the above case is 1990-93.

Based on such procedures, the price of around 150 products was obtained referring to 1987 and to 1993, 1995 and 1996. A list of these products with the respective prices per kilo, is given in Appendix 1, not included in this version of the study.

In short, in this study the methodology adopted addresses the situation where there is complete data on expenses, but only data on prices for a subgroup of food items. In this case, the whole methodology will depend, in one way or another, on some price imputation, which will be based on classifying the food items in major categories. As previously mentioned, the SNIPC classification is used.

Thus, it is assumed that there are m major food categories and these categories are indexed by i , so that $i = 1, \dots, m$. Moreover, the food is indexed by j and n_i denotes the number of food items in the i category, so that $j = 1, \dots, n_i$. Lastly, the group of food items in i category is called A_i which has data on price and A_i^c is the group of food items which does not have such data. The group of categories where some item of food has a known price is called B . Lastly, to facilitate presentation, the index m is reserved to denote the *eating out* category which, during the price imputation, receives special treatment.

2.2.2 Goods with known prices

The daily per capita family spending of family ω , with the j product, of the i food group will be called $g_{ij}(\omega)$, while the price, when available, for j product of the food group i , is measured in *cruzeiros* per kilo, by p_{ij} . To obtain the price per calories, data is required on the calorie content per kilo of each food item j , called c_{ij} , and on the fraction of this item of food which tends on average to not be consumed, r_{ij} ⁵. Given the price data per kilo, p_{ij} , of the number of calories per kilo, c_{ij} , and the consumed fraction j , of the i group, multiplying these factors, that is, when the cost of the calorie consumed of the food item is called q_{ij} the cost of the calorie intake from the food j in the i group is then

$$(3) \quad q_{ij} = p_{ij} \cdot c_{ij} \cdot (1 - r_{ij})$$

⁵ Data on the calorie content of the food items and the not consumed fraction are also given in Appendix 1, not included in this version of the paper.

Based on these prices per calorie, the daily per capital calorie intake from that food item, $d_{ij}(\omega)$, can be obtained for each family ω and each food item j of the group i , which has a known price, by the following means:

$$(4) \quad d_{ij}(\omega) = g_{ij}(\omega)/q_{ij}$$

2.2.3 Products with unknown prices

In the case of products with unknown prices, some imputation process is necessary. Within the infinite number of existing possibilities, it was preferable to use a specific process for each group of products and each reference group. So, unlike the food items with a known price, whose prices do not vary with the reference group, those with imputed prices change in accordance with the reference group.

As the imputed prices will be specific to the food and reference groups, the whole analysis below is indexed by i and a , indices for the food and reference group. So, let i and $R(a)$ be a food group and a certain reference group, and j an item of food with an unknown price in product group i , the price per calorie i to be attributed to the food item j is equal to the average price per calorie referring to the reference group $R(a)$ spending on food with known prices, in food group i . So, as the reference group $R(a)$'s total spending of calories on foods with known prices in the food group i is

$$(5) \quad \sum_{j \in A_i} \sum_{\omega \in R(a)} g_{ij}(\omega)$$

and the total calorie intake of the reference group $R(a)$ with foods with known prices in the food group i is given by

$$(6) \quad \sum_{j \in A_i} \sum_{\omega \in R(a)} d_{ij}(\omega)$$

then the average price per calorie, p_{ia}^* , relating to the reference group $R(a)$ spending, on food items with known prices in the food group i , is given by

$$(7) \quad p_{ia}^* = \frac{\sum_{j \in A_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{\sum_{j \in A_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}$$

Bearing in mind that this is the price used to obtain the calorie intake of the reference group $R(a)$, with food items in group i , with unknown prices, the estimated daily per capita calorie intake for each family ω and each food item j in the i group, which has an unknown price, $d_{ij}(\omega)$, can be obtained by

$$(8) \quad d_{ij}(\omega) = g_{ij}(\omega)/p_{ia}^*$$

2.2.4 Products in groups where all prices are unknown

The methodology described above cannot be used in the case where every food item in a group has unknown prices. In this case, the average price per calorie referring to reference group $R(a)$'s spending is used with every group which has at least one item with a known price. Thus, as the reference group $R(a)$'s total calorie spending on food items in groups with some known price is given by

$$(9) \quad \sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} g_{ij}(\omega)$$

and the total calorie intake of the reference group $R(a)$ with food items in these groups is given by

$$(10) \quad \frac{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}{\quad}$$

then the average price per calorie, p_a^{**} , referring to the reference group $R(a)$ spending on items in food groups where some price is known, is

$$(11) \quad p_a^{**} = \frac{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}$$

Bearing in mind that this price is used to obtain the calorie intake of the reference group $R(a)$ with food items in groups where no price is known, the estimated daily per capita calorie intake for each family ω and each food item j of group $i \notin B$, that is, in groups where all prices are unknown, $d_{ij}(\omega)$, can be obtained by

$$(12) \quad d_{ij}(\omega) = g_{ij}(\omega)/p_a^{**}$$

2.2.5 Eating out

As the cost of the calorie in meals outside the home is unknown, it is necessary to impute it. Since it is acknowledged that this cost is higher than eating at home, using the average price per calorie referring to the reference group $R(a)$ spending on food at home given by p_a^{**} is unsuitable. We decided that the cost of the calorie in meals outside the home would be double the cost of eating at home.

So, the estimated daily per capita calorie intake for each family ω relating to eating outside the home of the j type, $d_{mj}(\omega)$, can be obtained by

$$(13) \quad d_{mj}(\omega) = g_{mj}(\omega)/(2p_a^{**})$$

2.2.6 Aggregating expenses and obtaining the indigence line

Lastly, to obtain the reference group $R(a)$'s daily per capita calorie intake, $D(a)$, we only need to add, for every family in the reference group, the estimates corresponding to the various food items and divide by the number of families in the reference group $R(a)$, called $N(a)$, that is, $D(a)$ can be obtained by

$$(14) \quad D(a) = \frac{\sum_{i=1}^m \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}{N(a)}$$

Similarly, the average spending $G(a)$ of the reference group $R(a)$ can be estimated by

$$(15) \quad G(a) = \frac{\sum_{i=1}^m \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{N(a)}$$

Once the daily per capita calorie intake, $D(a)$, and the average food spending, $G(a)$, for each reference group $R(a)$ are obtained, the indigence line can be immediately calculated as the average

spending on food of the poorest reference group which meets the calorie requirement L . Formally, the chosen $R(a^*)$ reference group will be obtained by

$$(16) \quad a^* = \inf \{a: D(a) \geq L\}$$

Consequently, the indigence line will be given as $G(a^*)$.

3. OBTAINED ESTIMATES

Based on the Family Budget Research (FBSs) files of 1987/88 and the methodology and basic data described in the above section, it is possible to estimate indigence lines for the Brazilian metropolitan regions with reference to October 1987.

The methodology used is based on estimates of the daily per capita calorie intake for each reference group, where each group consists of 20% of the surrounding population, in relation to the per capita family income. As seen in the section on methodology, these groups cover consecutive quintiles of the income distribution and can be indexed by the percentile where they begin. In theory, there exist infinite reference groups. Yet, in every empirical implementation, this infinity of groups must be approached by a finite set of groups. This simplification is achieved essentially by defining an increase in the changes in the starting quintile. This study uses half a percentile as the increase for the starting quantum.

Consequently, 160 reference groups were obtained, from which one was chosen which will give origin to the indigence line. Given the discreet nature of this approach in 160 groups, then $D(a^*) > L$, so that the chosen basket has a higher calorie content than required, raising the cost of the basket unnecessarily. Two alternatives may then be adopted. On the one hand, the basket may be reduced proportionally so that it meets the calorie requirement, and the final basket now costing $G(a^*) \cdot L/D(a^*)$. On the other hand, the basket may be obtained which will give origin to the indigence line, between the group a^* and group a^*-1 baskets, using them as weights

$$(17) \quad f = \{D(a^*) - D(a^*-1)\} / \{L - D(a^*-1)\}$$

and

$$(18) \quad 1-f = \{D(a^*) - D(a^*-1)\} / \{D(a^*) - L\}$$

respectively. This study uses this latter option.

Graph 1 shows the evolution of the average daily per capita spending and the daily per capita calorie intake for each reference group. This graph also shows the calorie requirement (2259) for Goiânia, as well as the indigence line which they imply (34,9). Table 1 shows the composition of the estimate food basket for the investigated city.

4. SIMPLIFYING THE BASKET'S REPRESENTATION

The estimated basic basket in the above section (see Table 1) has two basic drawbacks: (a) the presence of the category "others" in each group and (b) the high number of products (around 150 products). These two characteristics make it both difficult for the population to understand the basket's contents and to update it. In order to avoid these drawbacks, a simplification of the basic basket is recommended by diminishing the number of products and eliminating the unspecified items ("others"). The resulting basket will be called here a simplified basic basket.

This section tries to explain the methodology developed by the committee on how to obtain a simplified basic basket and to illustrate this methodology by applying it to the city of Goiânia.

4.1 Methodology

Constructing the simplified basic basket required two types of methodological consideration. First, a decision must be made on which products will be put in the basket. Secondly, decide what the quantities and prices of these products are.

4.1.1 Selection of products

The criterion adopted is has two sequential stages. In the first, all food items which meet at least one of the three following criteria are included:

1. Represent more than 10% of the spending of the food group to which they belong.
2. Represent more than 1% of the total spending, including the outside meals spending here.
3. At least 20% of the families consume this product.

The second stage helps us obtain representativeness in the food groups where the consumption is very scattered, and proceeds in three steps. In the first, the proportion of the group's expenses incurred by the items of food selected according to the above criteria is calculated for each food group. In the second, the food groups where this share was less than 50% are identified (criteria 4). Lastly, for the food groups where this goal was not achieved, the food items so far not considered are included in sequence, giving priority to those with a greater share in the expense. This procedure is repeated until the 50% goal is achieved, or when all products with known prices in the group are included. Note that it may happen that, now in the full basket, the joint contribution of all food items with known prices may not reach 50% of the group's spending. In this case, all of these products will also be included in the simplified basket. Table 2 presents the food items which enter in the simplified basket, according to each criteria.

4.1.2. Expenses, quantities and prices

The simplified basket, since it contains less products, costs less and does not meet the calorie requirement unless somehow adjusted. The goal, nevertheless, is that the simplified basket be only a representation of the original basket, in the sense of preserving both the calorie intake and its total cost, as well as the price of the products comprising it. This section shows the methodology used in forming simplified baskets which meet these two requirements.

The procedure is in three stages. In the first, for each food group with some known price, that is, for every $i \in B$, we proceed in two steps. In the first, the proportion is calculated, β_i , of the total calorie intake of the i group in the original basket represented by this group's selected products to form the simplified basket. In the second stage, the intake of each selected food in the group is divided by β_i and its original prices are maintained. The expenses are then obtained by multiplying prices by quantities. The new average price in the p_i group, by dividing the group's spending by the calorie intake, via

$$(19) \quad p_{ia}^* = \frac{\sum_{j \in A_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{\sum_{j \in A_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}$$

Note that if this procedure, on the one hand, ensures that the calorie intake of each food group in the simplified basket stays the same as the original basket, it leads, on the other, to the total spending with each group and therefore the total cost of the basket is to be altered. As the cost of the basket

represents the indigence line, a drawback may arise if the simplification of the basket changes the value of the indigence line.

There are, therefore, several ways to avoid such a drawback. A first alternative is based on the basket cost ratio being altered by the fact that the expenses have been adjusted by adjusting the quantities. Thus, the quantities are adjusted in the same way, but using a direct method similar to adjusting expenses. That is, for each food group the proportion, δ_i , of the original basket represented by the products selected in the group forming the simplified basket is also calculated. Next, the expense for each selected food in the group is divided by δ_i . The prices are then obtained by dividing expenses with each product by the quantity consumed. This procedure ensures unchanged total consumption and total cost of the basket, but has the drawback of altering product prices.

There is, nevertheless, a second alternative which preserves both calorie intake and prices and the total cost of the basket. This alternative is implemented in six steps. In the first, the food groups are divided in two groupings, according to their price: whether above or below the average cost of the calorie in the basic basket, λ . The second step is when the average calorie price in each of the two groupings, λ_* and λ^* is calculated. It is construed that one of these prices, λ^* , will be above the average calorie price in the original basket, λ , while the other, λ_* , will be below it. At the third step, the value of the weighting item, φ , required to make the average of λ_* and λ^* equal to λ should be calculated, that is

$$(20) \quad \varphi = (\lambda - \lambda_*) / (\lambda^* - \lambda_*)$$

In the fourth, the previously adjusted calorie intake of the selected products in groups with above average price by $(1-\varphi)$ and that of the products in groups with below average price is multiplied by φ . On the fifth step, the spending on each product is obtained by multiplying the new quantities by the original prices. In this case, the original prices are preserved as well as the calorie intake, since in the basic basket, the total calorie intake in the groups with foods with a known price, K , will be given by

$$(21) \quad \sum_A f_i \cdot (1-\varphi) \cdot K + \sum_B f_i \cdot \varphi \cdot K$$

where A (B) is the set of the groups of products with a price above (below) the average and f_i is the participation of group i in the total calories of the grouping to which it belongs. This equation is valid, since it is construed that,

$$(22) \quad \sum_A f_i = \sum_B f_i = 1$$

and therefore

$$(23) \quad \sum_A f_i \cdot (1-\varphi) \cdot K + \sum_B f_i \cdot \varphi \cdot K = (1-\varphi) \cdot K + \varphi \cdot K = K$$

which proves that calorie intake is preserved. In this alternative, the total cost of the basket is also maintained. In fact, as the total cost of the basket is given by

$$(24) \quad \sum_A p_i \cdot f_i \cdot (1-\varphi) \cdot K + \sum_B p_i \cdot f_i \cdot \varphi \cdot K$$

and it is construed that

$$(25) \quad \lambda_* = \sum_B p_i \cdot f_i$$

$$(26) \quad \lambda^* = \sum_A p_i \cdot f_i$$

then

$$(27) \quad \sum_A p_i \cdot f_i \cdot (1-\varphi) \cdot K + \sum_B p_i \cdot f_i \cdot \varphi \cdot K = \lambda^* \cdot (1-\varphi) \cdot K + \lambda_* \cdot \varphi \cdot K = (\lambda^* \cdot (1-\varphi) + \lambda_* \cdot \varphi) \cdot K = \lambda \cdot K$$

since, by the definition of φ , $\lambda^*(1-\varphi) + \lambda*\varphi = \lambda$. As $\lambda.K$ represents the cost of the original basket, the simplified and original baskets have the same cost. It is worth explaining at this point which was the adjustment factor, φ , which helped maintain the price of the products, calorie intake and cost of the basket unchanged. The adjustment mechanism was the basket structure. In the simplified basket, the relative consumption of products selected in the same group (A and B) remains constant, but the relative consumption of the two groups changed. This was, ultimately, the adjustment mechanism.

4.1.3 Outcome

Table 3 shows the simplified basket obtained from the data in Table 1 by using the described methodology. This table shows that, when using the above criteria, the simplified basket eventually contain around 40 products. This table gives the calorie intake of the basket and price for each type of food item which comprises it, including the average calorie price when eating outside the home.

4.1.4. Updating the indigence line

One of the advantages of the simplified basket, as already mentioned, is how simple it is to update it. For its update you only need the new prices for the products included in it and the quantities in the base year. The spending is obtained by multiplying the new prices by the quantities which are in the simplified basket in the base year. Tables 4a-c illustrate this procedure by presenting the update of the baskets for September 1993, 1995 and 1996. Therefore, the simplified basket shown in Table 3 and the prices for September of the respective years which appear in Table 5 are used. Table 6 shows the corresponding estimates for the indigence line.

5. A SENSITIVITY STUDY

This section estimates the indigence line based on a series of variations in the methodology described above. These simulations have two basic objectives. First, to ascertain the sensitivity of the results to certain chosen methodologies and, secondly, discover to what extent the estimate line can be reduced, altering certain premises. In this case, the aim is to help evaluate how certain premises can increase or diminish the cost of the basic basket. It is worth mentioning from the start that every basket under study in this section meets the same calorie requirement but differs with regard to the implicit calorie price.

5.1. Alternative methodology

This subsection addresses the sensitivity of the indigence line to certain premises. Two groups of premises are examined: (a) the distribution of income used to create the reference groups and (b) the manner in which the unknown prices are imputed.

5.1.1. Altering the choice of income distribution

With regard to the choice of income distribution, it is worth recalling that we are working with the family distribution according to the per capita family income, where the family income is understood as the total yield of all members of the household, including the imputed rent. In this case three simulations are performed.

The first simulation uses the distribution of *persons* according to per capita family income, while distribution of *families* according to the per capita family income was chosen in the basic methodology. The second simulation returns to the distribution of families, but uses the per capita family receipt instead of the per capita family yield as done in the basic methodology. The third simulation addresses

the distribution of families according to the per capita family yield, where the imputed rent is excluded for families who do not pay rent.

The results of these three simulations are given in Table 7. This table shows that the three modifications under study have a very slight impact on the estimation of the indigence line.

5.1.2. Altering the way to impute prices

According to the basic methodology, imputed prices, both for the products with an unknown price in groups where some product has a known price, and for products with an unknown price in groups where no product has a known price, were variables according to the reference group. Basically, unknown prices are imputed based on the average price of the group to which they belong, where the weights used are the consumed quantities of the products with a known price. Bearing in mind that the consumption standard varies with the income level, the weights will vary according to the level of income and, therefore, the imputed price will vary with the reference group. In principle, it must be expected that prices increase with the income, indicating that, as consumption becomes more sophisticated, taste assumes greater importance and, from a purely nutritional viewpoint, the diet becomes less effective, that is, less calories are bought for each monetary unit (a higher price).

Possible simplification of this methodology would be to impute the prices by using as weighting items, instead of the reference group's consumption structure, the consumption structure of the whole population. In this case, the weighting items do not vary per reference group and, the imputed prices would, therefore, also be constants. More specifically, in this case, using the notes given in the previous section, in the case of products with unknown prices in groups where some product has a known price, the following would be replaced

$$(28) \quad P_{ia}^* = \frac{\sum_{j \in A_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{\sum_{j \in A_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}$$

by

$$(29) \quad P_i^* = \frac{\sum_{j \in A_i} \sum_{\omega \in \Omega} g_{ij}(\omega)}{\sum_{j \in A_i} \sum_{\omega \in \Omega} d_{ij}(\omega)}$$

where Ω denotes the whole population. Similarly, in the case of products with unknown prices in groups where no product has a known price, the following would be replaced

$$(30) \quad P_a^{**} = \frac{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} g_{ij}(\omega)}{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in R(a)} d_{ij}(\omega)}$$

by

$$(31) \quad p^{**} = \frac{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in \Omega} g_{ij}(\omega)}{\sum_{i \in B} \sum_{j=1}^{n_i} \sum_{\omega \in \Omega} d_{ij}(\omega)}$$

Table 7 also illustrates the results of this simulation and shows that the impact on the estimation of the indigence line is negligible.

5.2. Investigating possibilities of a lower cost basic basket

This subsection examines two alternatives ways to diminish the cost of the basic basket. The first consists, for meals outside the home, of using the calorie price when eating at home, instead of using double the price, as happens in the basic methodology. The result of this simulation is given in Table 7. This table shows that this way of diminishing the cost of the basket is considerably effective. The drop in price of the calorie intake outside the home causes a reduction in the indigence line from 34,90 to 30,33.

Another option for reducing the basket cost would be to use the basket structure of the poorest groups who do not meet the minimum calorie requirement. In this case, the structure of the basket would be used, but the consumption of all products would increase in proportion, to ensure that the basket achieves the minimum calorie requirement. The idea of this procedure is summed up in the fact that the poorest tend more to optimize their consumption basket in the nutritional sense, since they have heavier pressures on their budget.

There are several ways to put this procedure into action. In this subsection the start is given in two stages. The first offers the consumption structure of the reference group which meets 100 α % of the calorie requirement. In the second, this basket is increased in proportion so that it may meet the calorie requirement. In a more operational way, it may be said that the value of the indigence line can be obtained simply by dividing by α the value of the first reference group's basket which meets 100 α % of the calorie requirement. That is, based on the comments in the previous section, the new indigence line would be $G(a^{**})/\alpha$, where

$$(32) \quad a^{**} = \inf \{a: D(a) \geq \alpha.L\}.$$

The outcome is given in Graphs 2 and 3. Table 8 summarizes the results found and shows that this procedure diminishes the indigence line. So, for example, the use of the consumption standard of the reference group which meets only 80% ($\alpha=0.8$) of its calorie requirement leads the indigence line from 34,9 to 32,4.

TABLE 1
COMPOSITION OF BASIC BASKET
CITY OF GOIÂNIA

Food item	Prices of megacalorie (Cz\$/megacalorie)	Kilocalorie per person per day (Kcal)	Daily total spending per person ['000 cruzados/ (person x day)]
Cost of basket (Cz\$ per person, per day)	34.90		
Cereals, beans and grains			
Others	6.12	72	0.44
Polished rice	5.51	452	2.49
Cranberry beans	7.53	60	0.45
Kidney beans	11.53	36	0.41
Flour, starches and pasta			
Others	7.45	29	0.22
Manioc flour	5.10	27	0.14
Wheat flour	4.82	30	0.15
Corn flour	5.11	12	0.06
Manioc starch	9.49	8	0.08
Macaroni with eggs	13.85	16	0.23
Eggless macaroni	12.66	10	0.12
Root and other vegetables			
Others	34.09	4	0.13
Zucchini	64.34	1	0.05
Pumpkin (unspecified)	62.81	1	0.05
Vegetable marrow	62.81	0	0.02
Potato	20.52	14	0.28
Beetroot	32.91	2	0.07
Onion	27.38	5	0.13
Carrot	20.81	6	0.12
Chayote	102.17	1	0.05
Brazilian nightshade	45.43	1	0.05
Manioc	9.57	7	0.07
Cucumber	102.85	1	0.06
Okra	122.48	0	0.05
Tomato	122.34	3	0.37
Green beans	74.67	1	0.06
Sugar and byproducts			
Others	6.39	147	0.94
Granulated sugar	4.73	193	0.91
Chewing gum	35.11	2	0.07
Cocoa of any brand	27.59	4	0.10
Fruit in syrup (any flavor)	312.76	0	0.02

Food item	Prices of megacalorie (Cz\$/megacalorie)	Kilocalorie per person per day (Kcal)	Daily total spending per person ['000 cruzaos/ (person x day)]
Fruit conserve of any flavor	31.79	3	0.10
Icecream of any flavor (industrialized)	78.20	1	0.10
Green vegetables			
Others	87.45	1	0.06
Lettuce	193.76	1	0.16
Kale	39.50	1	0.03
Cabbage	49.20	1	0.07
Fruit			
Others	55.51	4	0.25
Pineapple	44.77	2	0.09
'Water' banana	30.09	2	0.06
"Quince' banana	20.40	2	0.04
'Apple'banana	51.33	3	0.16
Prata'banana	42.86	3	0.12
Orange	59.73	5	0.32
Papaya	65.85	1	0.05
Apple	158.33	1	0.17
Water melon	66.90	2	0.12
Melon	754.28	0	0.00
Pear	234.79	0	0.00
Grapes	312.48	0	0.03
Fresh meat and offal			
Others	50.12	8	0.42
Chuck roll	56.43	1	0.06
Rump steak	105.88	7	0.79
Top quality beef	103.48	8	0.81
Cheaper quality beef	55.94	18	1.02
Top quality minced beef	103.48	2	0.20
Cheaper quality minced beef	55.94	3	0.18
Inside round of beef	102.84	5	0.56
Sirloin beef	104.40	2	0.23
Ribs of beef	36.49	8	0.29
Sparerib	49.65	3	0.13
Shoulder (hump)	87.23	0	0.03
Eye of round	97.13	2	0.21
Tenderloin	49.65	4	0.20
Muscle	55.94	3	0.14
Knuckle	96.18	1	0.12
Leg of pork	49.65	2	0.12

Food item		Prices of megacalorie (Cz\$/megacalorie)	Kilocalorie per person per day (Kcal)	Daily total spending per person ['000 cruzaos/ (person x day)]
	Shoulder	56.43	1	0.05
	Bacon	4.84	34	0.17
Fish				
	Others	180.11	1	0.11
	Whole surubim fish	180.11	0	0.02
Industrializee meat and fish				
	Others	55.52	2	0.09
	Sun-dried meat	73.60	1	0.11
	Dried meat	49.95	1	0.05
	Coarse sausage (retail)	50.27	6	0.28
	Mortadella	51.89	1	0.05
	Ham of any kind	69.72	1	0.06
Poultry and eggs				
	Others	43.85	1	0.05
	Chicken	62.00	18	1.14
	Frozen chichen	62.00	1	0.08
	Live chicken	37.08	6	0.23
	Hen's eggs	27.27	20	0.54
	Chicken pieces (unspecified)	62.00	0	0.03
	Chicken breast	62.00	0	0.01
Milk and dairy products				
	Others	32.33	36	1.16
	Any flavor of yoghurt	183.87	1	0.19
	Pasteurized cow's milk	29.26	80	2.33
	White Minas cheese	61.80	3	0.18
Bakery				
	Others	16.79	19	0.32
	Sweet cookie	26.04	11	0.28
	Salty biscuit	21.21	9	0.19
	Bread roll	15.39	100	1.54
Oils and fats				
	Others	3.64	22	0.08
	Vegetable shortening with or without salt	7.05	30	0.21
	Soybean oil	3.38	375	1.27
Beverages and infusions				
	Others	98.51	3	0.32
	Ground coffee	300.24	2	0.74
	Beer	73.39	4	0.31
	Coca-Cola	57.67	2	0.12

Food item	Prices of megacalorie (Cz\$/megacalorie)	Kilocalorie per person per day (Kcal)	Daily total spending per person ['000 cruzaos/ (person x day)]
Cola soft drink (except Coca-Cola, Pepsi)	57.67	1	0.07
Goianinha soft drink	52.30	1	0.03
Guaraná soft drink	72.55	1	0.10
Jao soft drink	52.30	1	0.03
Mirinda soft drink	41.65	1	0.03
Pepsi cola	57.67	3	0.19
Canned foods and conserves			
Others	71.23	1	0.04
Canned black olives	166.19	0	0.07
Industrialized grated coconut	38.62	0	0.02
Canned hearts of palm	1696.50	0	0.02
Canned sardines	39.05	1	0.03
Canned sausage	38.15	0	0.02
Salt and condiments			
Others	116.28	1	0.16
Garlic	94.44	0	0.04
Mayonaise	34.82	2	0.08
Tomato extract	204.77	1	0.24
Refined salt	0.00	0	0.10
Others			
Others	0.00	0	0.00
Eating out			
Meals outside home	28.44	195	5.54

Source: Based on data in the Family Budget Research (FBR) for 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System

TABLE 2
CRITERIA FOR SELECTING THE SHORT BASKET
CITY OF GOIÂNIA

Food	Criteria				Enters the composition of the basket
	C1	C2	C3	C4	
Cereals, beans and grains					
Polished rice	1	1	0	1	1
Kidney beans	1	1	0	1	1
Cranberry beans	1	1	0	1	1
Flours, starches and pasta					
Wheat flour	1	0	0	1	1
Manioc flour	1	0	0	1	1
Eggless macaroni	1	0	0	1	1
Macaroni with egg	1	0	0	1	1
Roots and vegetables					
Potatoes	1	0	0	1	1
Tomato	1	1	0	1	1
Onion	0	0	0	1	1
Sugars and byproducts					
Granulated sugar	1	1	0	1	1
Any brand of cocoa	0	0	0	1	1
Any flavor of fruit conserve	0	0	0	1	1
Greens and salads					
Lettuce	1	0	0	1	1
Cabbage	1	0	0	1	1
Fruit					
Bananas	1	0	0	1	1
Oranges	1	0	0	1	1
Apples	1	0	0	1	1
Fresh meat and offal					
Rump steak	1	1	0	1	1
Inside round beef cut	0	1	0	0	1
Better quality beef	1	1	0	1	1
Cheaper quality beef	1	1	0	1	1
Fish					
Whole surubim fish	1	0	0	1	1
Industrialized meat and fish					
Sun-dried meat	1	0	0	1	1
Coarse ground sausage (retail)	1	0	0	1	1
Poultry and eggs					
Chicken	1	1	0	1	1
Live chicken	1	0	0	1	1
Hen's eggs	1	1	0	1	1
Milk and dairy products					
Pasteurized cow's milk	1	1	0	1	1
Bakery					
Bread rolls	1	1	0	1	1
Sweet biscuits	1	0	0	1	1

Food	Criteria				Enters the composition of the basket
	C1	C2	C3	C4	
Oils and fats					
Vegetable shortening with or without salt	1	0	0	1	1
Soybean oil	1	1	0	1	1
Beverages and infusions					
Ground coffee	1	1	0	1	1
Beer	1	0	0	1	1
Canned and conserved foods					
Canned black olives	1	0	0	1	1
Canned sardines	1	0	0	1	1
Salt and condiments					
Refined salt	1	0	0	1	1
Mayonaise	1	0	0	1	1
Tomato extract	1	0	0	1	1
Eating out					
Outside meals	0	1	0	0	1

Source: Based on data contained in the Family Budget Research (FBR) of 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System.

Note:

- C1-Represents more than 10% of expenses of food group to which they belong.
- C2-Represents more than 1% of total spending, including in it the spending on eating out.
- C3-At least 20% of families consume.
- C4-Up to 50% of share in proportion of group.

TABLE 3
COMPOSITION OF SIMPLIFIED BASIC BASKET - FIGURES AT OCTOBER 1987
CITY OF GOIÂNIA

Food	Kilocalorie per person per day	Percentage contribution of the food for the daily calorie requirement (%)	Price per kilogram (Cz\$/kilogram)	Total daily spending per person [thousands of cruzados/(person x day)]
Cost of basket (Cz\$ per person, per day)				34.90
Cereals, beans and grains				
Polished rice	548	24.24	20.04	3.02
Kidney beans	43	1.92	38.85	0.50
Cranberry beans	73	3.22	25.37	0.55
Flours, starches and pasta				
Wheat flour	52	2.29	17.60	0.25
Manioc flour	46	2.05	18.06	0.24
Eggless macaroni	16	0.73	46.70	0.21
Macaroni with egg	28	1.23	53.72	0.38
Roots and vegetables				
Potatoes	23	1.03	11.99	0.48
Tomato	5	0.23	23.43	0.63
Onion	8	0.36	9.61	0.22
Sugars and byproducts				
Granulated sugar	362	16.00	18.20	1.71
Any brand of cocoa	7	0.31	99.89	0.19
Any flavor of fruit conserve	6	0.26	79.15	0.18
Greens and salads				
Lettuce	1	0.05	23.89	0.22
Cabbage	2	0.08	11.49	0.09
Fruit				
Bananas	7	0.29	37.83	0.34
Oranges	11	0.50	15.58	0.68
Apples	2	0.10	80.81	0.35
Fresh meat and offal				
Rump steak	18	0.78	161.68	1.85
Inside round beef cut	13	0.57	157.05	1.32
Better quality beef	18	0.81	158.02	1.89
Cheaper quality beef	43	1.88	85.43	2.38
Fish				
Whole surubim fish	1	0.02	165.74	0.10
Industrialized meat and fish				
Sun-dried meat	2	0.08	169.18	0.14
Coarse ground sausage (retail)	7	0.33	152.83	0.37
Poultry and eggs				
Chicken	16	0.70	98.18	0.98

Food	Kilocalorie per person per day	Percentage contribution of the food for the daily calorie requirement (%)	Price per kilogram (Cz\$/kilogram)	Total daily spending per person [thousands of cruzados/(person x day)]
Live chicken	5	0.23	58.72	0.19
Hen's eggs	17	0.75	40.18	0.46
Milk and dairy products				
Pasteurized cow's milk	96	4.23	17.85	2.80
Bakery				
Bread rolls	100	4.42	41.40	1.54
Sweet biscuits	11	0.48	105.98	0.28
Oils and fats				
Vegetable shortening with or without salt	33	1.48	50.74	0.23
Soybean oil	423	18.74	29.85	1.43
Beverages and infusions				
Ground coffee	6	0.26	123.10	1.74
Beer	10	0.44	30.82	0.72
Canned and conserved foods				
Canned black olives	1	0.03	167.41	0.12
Canned sardines	1	0.06	116.37	0.06
Salt and condiments				
Refined salt	0	0.00	13	0.12
Mayonaise	3	0.13	133.70	0.10
Tomato extract	1	0.06	79.86	0.29
Eating out				
Outside meals	195	8.63	0.03	5.54

Source: Based on data in the Family Budget Research (FBR) of 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System.

TABLE 4A
COMPOSITION OF SIMPLIFIED BASIC BASKET - FIGURES AT SEPTEMBER 1993
CITY OF GOIÂNIA

Food		Kilocalorie per person per day	Percentage contribution of food for the daily calorie requirement (%)	Price per kilogram (CR\$/kilogram)	Total daily spending per person [CR\$/(person x day)]
Cost of basket (CR\$ per person, per day)					95.18
Cereals, beans and grains					
	Polished rice	548	24.24	61.63	9.27
	Kidney beans	43	1.92	84.73	1.09
	Cranberry beans	73	3.22	73.30	1.58
Flour, starches and pasta					
	Wheat flour	52	2.29	53.49	0.76
	Manioc flour	46	2.05	91.47	1.20
	Eggless macaroni	16	0.73	123.42	0.55
	Macaroni with egg	28	1.23	145.60	1.04
Root vegetables and vegetables					
	Potatoes	23	1.03	35.44	1.41
	Tomato	5	0.23	33.45	0.90
	Onion	8	0.36	40.33	0.93
Sugars and byproducts					
	Granulated sugar	362	16.00	34.81	3.27
	Any brand of cocoa	7	0.31	260.56	0.50
	Any flavor of fruit conserve	6	0.26	235.53	0.55
Vegetables and greens					
	Lettuce	1	0.05	130.50	1.18
	Cabbage	2	0.08	35.87	0.28
Fruit					
	Bananas	7	0.29	43.41	0.39
	Oranges	11	0.50	26.04	1.13
	Apples	2	0.10	136.72	0.60
Fresh meat and offal					
	Rump steak	18	0.78	331.46	3.80
	Inside round beef cut	13	0.57	330.33	2.78
	Better quality beef	18	0.81	330.63	3.96
	Cheaper quality beef	43	1.88	205.55	5.72
Fish					
	Whole surubim fish	1	0.02	311.92	0.19
Industrialized meat and fish					
	Sun-dried meat	2	0.08	298.35	0.25
	Coarse ground sausage (retail)	7	0.33	228.76	0.56
Poultry and eggs					
	Chicken	16	0.70	213.28	2.12
	Live chicken	5	0.23	213.28	0.70
	Hen's eggs	17	0.75	145.94	1.68

Food		Kilocalorie per person per day	Percentage contribution of food for the daily calorie requirement (%)	Price per kilogram (CR\$/kilogram)	Total daily spending per person [CR\$/(person x day)]
Milk and dairy products					
	Pasteurized cow's milk	96	4.23	56.86	8.91
Bakery products					
	Bread rolls	100	4.42	132.40	4.92
	Sweet biscuits	11	0.48	270.80	0.73
Oil and fats					
	Vegetable shortening with or without salt	33	1.48	277.08	1.28
	Soybean oil	423	18.74	89.21	4.27
Beverages and infusions					
	Ground coffee	6	0.26	435.95	6.17
	Beer	10	0.44	125.54	2.95
Canned and conserved food					
	Canned black olives	1	0.03	532.97	0.39
	Canned sardines	1	0.06	611.64	0.30
Salt and condiments					
	Refined salt	0	0.00	35.04	0.32
	Mayonaise	3	0.13	372.49	0.27
	Tomato extract	1	0.06	322.65	1.16
Eating out					
	Eating out	195	8.63	0.08	15.12

Source: Based on data contained in the Family Budget Research (FBR) of 1987/88 and IBGE, Research Directorate, Dept. of Price Indices, National Consumer Price Index System.

TABLE 4B
COMPOSITION OF SIMPLIFIED BASIC BASKET - FIGURES AT SEPTEMBER 1995
CITY OF GOIÂNIA

Food		Kilocalorie per person, per day	Percentage contribution of food for the daily calorie requirement (%)	Price per kilogram (R\$/kilogram)	Daily total spending per person [R\$/(person x day)]
Cost of basket (R\$ per person, per day)					1.13
Cereals, beans and grains					
	Polished rice	548	24.24	0.69	0.10
	Kidney beans	43	1.92	0.95	0.01
	Cranberry beans	73	3.22	0.70	0.02
Flours, starches and pasta					
	Wheat flour	52	2.29	0.57	0.01
	Manioc flour	46	2.05	1.06	0.01
	Eggless macaroni	16	0.73	1.22	0.01
	Macaroni with egg	28	1.23	1.42	0.01
Roots and vegetables					
	Potatoes	23	1.03	0.56	0.02
	Tomato	5	0.23	0.45	0.01
	Onion	8	0.36	0.71	0.02
Sugar and byproducts					
	Granulated sugar	362	16.00	0.41	0.04
	Any brand of cocoa	7	0.31	3.11	0.01
	Any flavor of fruit conserve	6	0.26	2.82	0.01
Vegetables and greens					
	Lettuce	1	0.05	3.21	0.03
	Cabbage	2	0.08	0.57	0.00
Fruit					
	Bananas	7	0.29	1.83	0.02
	Oranges	11	0.50	0.34	0.01
	Apples	2	0.10	2.40	0.01
Fresh meat and offal					
	Rump steak	18	0.78	3.44	0.04
	Inside round beef cut	13	0.57	3.39	0.03
	Better quality beef	18	0.81	3.39	0.04
	Cheaper quality beef	43	1.88	1.87	0.05
Fish					
	Whole surubim fish	1	0.02	6.84	0.00
Industrialized meat and fish industrializados					
	Sun-dried meat	2	0.08	3.20	0.00
	Coarse ground sausage (retail)	7	0.33	3.95	0.01
Poultry and eggs					
	Chicken	16	0.70	2.22	0.02
	Live chicken	5	0.23	2.22	0.01
	Hen's eggs	17	0.75	1.19	0.01

Food		Kilocalorie per person, per day	Percentage contribution of food for the daily calorie requirement (%)	Price per kilogram (R\$/kilogram)	Daily total spending per person [R\$/(person x day)]
Milk and dairy products					
	Pasteurized cow's milk	96	4.23	0.60	0.09
Bakery					
	Bread rolls	100	4.42	1.60	0.06
	Sweet biscuits	11	0.48	3.45	0.01
Oils and fats					
	Vegetable shortening with or without salt	33	1.48	3.04	0.01
	Soybean oil	423	18.74	0.98	0.05
Beverages and infusions					
	Ground coffee	6	0.26	6.30	0.09
	Beer	10	0.44	1.52	0.04
Canned and conserved food					
	Canned black olives	1	0.03	9.73	0.01
	Canned sardines	1	0.06	7.26	0.00
Salt and condiments					
	Refined salt	0	0.00	0.42	0.00
	Mayonaise	3	0.13	4.40	0.00
	Tomato extract	1	0.06	4.15	0.01
Eating out					
	Outside meals	195	8.63	0.00	0.18

Source: Based on data in the Family Budget Research (FBR) for 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System.

TABLE 4C
COMPOSITION OF SIMPLIFIED BASIC BASKET - FIGURES AT SEPTEMBER 1996
CITY OF GOIÂNIA

Food	Kilocalorie per person, per day	Percentage contribution of food for the daily calorie requirement(%)	Price per kilogram (R\$/kilogram)	Daily total spending per person [R\$/(person x day)]
Cost of basket (R\$ per person, per day)				1.26
Cereals, beans and grains				
Polished rice	548	24.24	0.74	0.11
Kidney beans	43	1.92	1.02	0.01
Cranberry beans	73	3.22	1.05	0.02
Flours, starches and pasta				
Wheat flour	52	2.29	0.84	0.01
Manioc flour	46	2.05	1.55	0.02
Eggless macaroni	16	0.73	1.58	0.01
Macaroni with egg	28	1.23	1.82	0.01
Roots and vegetables				
Potatoes	23	1.03	0.67	0.03
Tomato	5	0.23	0.63	0.02
Onion	8	0.36	0.52	0.01
Sugar and byproducts				
Granulated sugar	362	16.00	0.40	0.04
Any brand of cocoa	7	0.31	3.21	0.01
Any flavor of fruit conserve	6	0.26	3.29	0.01
Vegetables and greens				
Lettuce	1	0.05	2.86	0.03
Cabbage	2	0.08	0.56	0.00
Fruit				
Bananas	7	0.29	1.23	0.01
Oranges	11	0.50	0.34	0.01
Apples	2	0.10	2.35	0.01
Fresh meat and offal				
Rump steak	18	0.78	3.49	0.04
Inside round beef cut	13	0.57	3.42	0.03
Better quality beef	18	0.81	3.43	0.04
Cheaper quality beef	43	1.88	1.88	0.05
Fish				
Whole surubim fish	1	0.02	6.94	0.00
Industrialized meat and fish				
Sun-dried meat	2	0.08	3.28	0.00
Coarse ground sausage (retail)	7	0.33	4.02	0.01
Poultry and eggs				
Chicken	16	0.70	2.24	0.02
Live chicken	5	0.23	2.24	0.01
Hen's eggs	17	0.75	1.59	0.02

Food	Kilocalorie per person, per day	Percentage contribution of food for the daily calorie requirement(%)	Price per kilogram (R\$/kilogram)	Daily total spending per person [R\$/(person x day)]
Milk and dairy products				
Pasteurized cow's milk	96	4.23	0.90	0.14
Bakery				
Bread rolls	100	4.42	2.40	0.09
Sweet biscuits	11	0.48	4.58	0.01
Oils and fats				
Vegetable shortening with or without salt	33	1.48	2.92	0.01
Soybean oil	423	18.74	0.94	0.05
Beverages and infusions				
Ground coffee	6	0.26	6.06	0.09
Beer	10	0.44	1.72	0.04
Canned and conserved food				
Canned black olives	1	0.03	10.07	0.01
Canned sardines	1	0.06	7.59	0.00
Salt and condiments				
Refined salt	0	0.00	0.49	0.00
Mayonaise	3	0.13	4.42	0.00
Tomato extract	1	0.06	4.52	0.02
Eating out				
Outside meals	195	8.63	0.00	0.20

Source: Based on data in the Family Budget Research (FBR) for 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System.

TABLE 5
FOOD ITEMS AND THEIR RESPECTIVE PRICES
CITY OF GOIÂNIA

Food item	FBR Code 1987/88	Spending (CZ\$)	Quantity Consumed (Kg)	Average price			
				Oct. 1987 (Cz\$)	Sept. 1993 (CR\$)	Sept. 1995 (R\$)	Sept. 1996 (R\$)
Eating out							
Cereals, beans, coconuts, and nuts							
Polished rice	6301	60,618,090.08	3,024,855	20.04	61.63	0.69	0.74
Kidney beans	6319	10,447,999.24	268,932	38.85	84.73	<u>0.95</u>	<u>1.02</u>
Cranberry beans	6321	8,488,675.94	334,641	<u>25.37</u>	73.30	0.70	1.05
Flours, starches and pasta							
Corn flour	6406	1,231,396.31	68,108	18.08	57.52	0.52	0.62
Wheat flour	6410	4,364,530.76	247,985	17.60	53.49	0.57	0.84
Manioc flour	6414	2,884,621.59	159,724	18.06	91.47	1.06	1.55
Manioc starch	6415	3,823,031.48	114,481	<u>33.39</u>	127.48	1.35	1.82
Eggless macaroni	6432	3,318,145.87	71,052	46.70	123.42	1.22	1.58
Macaroni with eggs	6433	6,973,962.02	129,821	53.72	145.60	1.42	1.82
Root and fruit vegetables							
Potatoes	6351	9,132,899.35	761,710	11.99	35.44	0.56	0.67
Manioc	6356	1,843,832.82	176,612	10.44	29.51	0.66	0.47
Beetroot	6361	1,718,764.04	149,118	<u>11.53</u>	36.36	0.59	0.65
Carrot	6362	3,297,727.48	439,697	7.50	49.72	0.61	0.58
Summer squash	6536	420,191.07	22,092	19.02	39.68	0.59	0.79
Zucchini	6537	1,609,083.47	135,331	11.89	45.43	0.76	0.74
Pumpkin (unspecified)	6539	1,445,625.86	76,006	19.02	39.68	0.59	0.79
Cucumber	6540	1,733,252.79	148,613	<u>11.66</u>	40.42	0.82	0.73
Chayote	6541	1,706,997.30	74,444	22.93	66.41	0.72	0.74
Brazilian nightshade	6542	1,358,028.65	91,685	<u>14.81</u>	40.52	0.82	0.76
Okra	6550	1,557,460.03	42,658	36.51	71.28	1.07	0.99
Tomatoes	6551	12,337,304.84	526,560	23.43	33.45	0.45	0.63
String beans	6552	1,934,831.83	80,417	24.06	50.99	0.99	0.85
Onion	6557	4,282,053.83	445,583	9.61	40.33	0.71	0.52
Granulated sugar	6702	24,137,882.06	1,326,257	18.20	34.81	0.41	0.40
Icecream of any flavor (industrialized)(*)	6705	5,052,893.67	36,923	136.85	<u>165.62</u>	4.27	4.56
Chewing gum	6706	2,258,114.12	17,669	127.80	431.60	5.48	6.40
Any brand of cocoa	6708	3,906,335.90	39,106	99.89	<u>260.56</u>	<u>3.11</u>	<u>3.21</u>
Any flavor of fruit conserve	6712	3,952,916.79	49,942	79.15	235.53	2.82	3.29
Any flavor of canned fruit	6713	1,463,249.28	6,498	<u>225.19</u>	463.57	7.65	7.01
Vegetables							
Lettuce	6501	4,678,822.67	195,849	23.89	130.50	3.21	2.86

Food item	FBR Code 1987/88	Spending (CZ\$)	Quantity Consumed (Kg)	Average price			
				Oct. 1987 (Cz\$)	Sept. 1993 (CR\$)	Sept. 1995 (R\$)	Sept. 1996 (R\$)
Sugar and byproducts							
Kale	6505	1,293,772.47	114,529	11.30	47.40	1.30	1.28
Cabbage	6509	2,084,497.92	181,418	11.49	35.87	0.57	0.56
Fruit							
"Agua" banana	6601	2,218,497.86	123,181	18.01	30.91	0.81	0.77
"Prata" banana	6602	3,986,905.52	149,322	26.70	37.95	0.86	0.76
"Apple" banana	6604	7,218,009.17	190,801	37.83	43.41	1.83	1.23
"Quince" banana	6606	1,302,958.72	102,698	12.69	28.24	0.74	0.72
Oranges	6614	13,931,276.71	894,177	15.58	26.04	0.34	0.34
Pineapple	6626	4,555,799.64	302,912	15.04	44.35	0.97	0.82
Apples	6630	10,040,967.80	124,254	80.81	136.72	2.40	2.35
Papaya	6631	3,468,731.37	232,177	14.94	88.03	1.22	0.94
Water melon	6634	6,115,296.97	707,789	8.64	26.24	0.31	0.35
Melon	6635	911,198.17	6,903	132.00	282.05	4.96	4.46
Pears	6636	1,636,949.76	14,360	114.00	341.21	3.52	2.85
Grapes	6639	2,504,352.53	14,641	171.05	341.21	3.67	4.88
Meat and offal							
Sirloin steak	6902	14,866,944.94	93,256	159.42	331.77	3.46	3.49
Rump steak	6903	31,891,725.55	197,252	161.68	331.46	3.44	3.49
Inside round cut	6904	18,866,222.17	120,129	157.05	330.33	3.39	3.42
Knuckle	6905	5,837,325.72	39,745	146.87	332.32	3.16	3.21
Eye of round	6907	5,597,426.82	37,736	148.33	323.80	3.21	3.18
Chuck roll	6908	1,224,127.95	14,206	86.17	205.55	1.87	1.88
Shoulder	6909	1,181,970.51	13,717	86.17	205.55	1.87	1.88
Muscle	6910	3,675,551.48	43,024	85.43	250.94	2.12	2.18
Ribs	6913	6,551,381.23	117,557	55.73	132.11	1.00	1.00
Good quality minced meat	6914	6,614,109.85	41,856	158.02	330.63	3.39	3.43
Cheaper quality minced meat	6915	4,387,553.25	51,358	85.43	205.55	1.87	1.88
Good quality beef	6916	35,916,193.22	227,289	158.02	330.63	3.39	3.43
Cheaper quality beef	6917	20,454,261.89	239,427	85.43	205.55	1.87	1.88
Cupim	6926	2,883,619.88	21,648	133.21	312.06	3.49	3.48
Pork pernil	6934	5,385,780.56	57,547	93.59	280.17	2.96	3.01
Spareribs	6935	2,627,799.68	28,078	93.59	280.17	2.96	3.01
Pork tenderloin	6937	6,449,486.02	68,912	93.59	280.17	2.96	3.01
Slab bacon	6938	2,926,925.36	82,010	35.69	124.05	0.85	0.84
Fish							
Whole surubim fish	8041	1,071,133.02	6,463	165.74	311.92	6.84	6.94
Industrialized meats							
Dried meat	9251	1,158,529.95	6,848	169.18	298.35	3.20	3.28
Sun-dried meat	9252	3,719,948.27	21,988	169.18	298.35	3.20	3.28
Coarse sausage (retail)	9272	8,828,435.20	57,766	152.83	228.76	3.95	4.02

Food item	FBR Code 1987/88	Spending (CZ\$)	Quantity Consumed (Kg)	Average price			
				Oct. 1987 (Cz\$)	Sept. 1993 (CR\$)	Sept. 1995 (R\$)	Sept. 1996 (R\$)
Mortadella	9276	1,813,986.42	12,620	<u>143.73</u>	<u>253.48</u>	2.60	2.68
Any kind of ham	9279	3,153,764.19	16,098	195.91	558.94	<u>6.00</u>	<u>6.14</u>
Poultry and eggs							
Chicken	9101	31,419,499.81	320,009	<u>98.18</u>	213.28	2.22	2.24
Frozen chicken	9102	1,834,856.74	18,688	<u>98.18</u>	213.28	2.22	2.24
Pieces of hen or chicken (unspecified)	9103	1,006,521.53	10,251	<u>98.18</u>	213.28	2.22	2.24
Chicken breast	9104	877,067.85	8,933	<u>98.18</u>	<u>356.62</u>	<u>2.91</u>	<u>3.89</u>
Live chicken	9114	7,466,882.59	127,161	<u>58.72</u>	213.28	2.22	2.24
Hen's eggs	9133	16,018,036.77	398,657	40.18	145.94	1.19	1.59
Dairy products							
Pasteurized cow's milk (*)	9151	70,242,283.73	3,935,142	17.85	56.86	0.60	0.90
Any flavor or yoghurt	9162	9,420,860.62	67,415	<u>139.74</u>	356.20	3.43	3.86
White Minas cheese	9170	9,534,250.90	51,601	<u>184.77</u>	366.72	4.50	4.91
Bakery							
Bread roll	9201	42,865,487.14	1,035,398	41.40	132.40	1.60	2.40
Salty biscuit	9222	6,779,804.31	73,494	92.25	244.95	2.84	3.17
Sweet biscuit	9223	10,570,851.76	99,744	105.98	270.80	3.45	4.58
Fats and oils							
Vegetable shortening with or without salt	9166	5,925,100.08	116,774	50.74	277.08	<u>3.04</u>	<u>2.92</u>
Soybean oil (*)	9403	27,668,183.73	926,907	29.85	89.21	0.98	0.94
Beverages							
Coca-cola soft drink (*)	9301	4,490,144.87	199,651	22.49	116.52	1.40	1.67
Pepsi soft drink (*)	9302	6,791,282.75	301,969	22.49	116.52	1.40	1.67
Guaraná soft drink (*)	9303	6,398,009.42	284,482	22.49	116.52	1.40	1.67
Mirinda soft drink (*)	9308	625,557.15	27,815	22.49	116.52	1.40	1.67
Jao soft drink (*)	9313	651,186.61	28,955	22.49	116.52	1.40	1.67
Ground coffee	9325	20,928,313.56	170,011	123.10	435.95	6.30	6.06
Cola soft drink (except Coca-Cola, Pepsi)(*)	9340	1,546,564.14	68,767	22.49	116.52	1.40	1.67
Beer (*)	9351	26,416,904.04	857,049	<u>30.82</u>	125.54	1.52	1.72
Goianinha soft drink (*)	9714	423,843.98	18,846	22.49	116.52	1.40	1.67
Conserved foods							
Industrialized grated coconut	6452	685,264.36	2,680	<u>255.65</u>	703.37	<u>10.68</u>	<u>11.10</u>
Canned black olives	9001	2,635,240.09	15,741	167.41	532.97	9.73	10.07
Canned hearts of palm	9005	1,041,930.65	3,412	305.37	<u>961.71</u>	14.00	13.80
Canned sausages	9028	1,106,503.77	9,798	<u>112.93</u>	331.28	4.22	3.83
Canned sardines	9030	1,479,435.58	12,713	116.37	611.64	7.26	7.59

Food item	FBR Code 1987/88	Spending (CZ\$)	Quantity Consumed (Kg)	Average price			
				Oct. 1987 (Cz\$)	Sept. 1993 (CR\$)	Sept. 1995 (R\$)	Sept. 1996 (R\$)
Salts and condiments							
Refined salt	6801	2,679,347.29	209,161	12.81	35.04	0.42	0.49
Mayonaise	6843	2,640,954.01	19,753	133.70	372.49	4.40	4.42
Tomato extract	6847	6,416,684.21	80,349	79.86	322.65	4.15	4.52
Garlic	6850	1,501,120.18	13,825	108.58	493.42	4.19	4.30

Source: Based on data in the Family Budget Research (FBR) for 1987/88. Note: *Prices referring to a liter measure unit. ** The underlined figures were "imputed" using the average price variation of the group of the respective food item. The average price variation of the group was calculated based on forming a Layspeyres index (IL) of the group in which the weighters were the quantities consumed in 1987. To participate in forming the group's IL, the food item should have a price quoted at the points in time above (October 1987, September 1990, September 1993, September 1995, September 1996). If the group does not have any food item with a price quoted at all these points in time, the "imputation" of the prices of the group's food items was obtained by applying the average general price variation, which was also calculated based on the forming of an IL for all food items which have a price quoted at all points in time.

TABLE 6
POVERTY LINES FORMED BASED ON THE FBR AND UPDATED BY THE SNIPC
CITY OF GOIÂNIA

	Poverty line
October 1987(Cz\$)	34.90
September 1993(CR\$)	95.18
September 1995(R\$)	1.13
September 996(R\$)	1.26

Source: Based on data in the Family Budget Research (FBR) for 1987/88 and IBGE, Research Directorate, Price Index Dept., National Consumer Price Index System.

TABLE 7
SIMULATIONS PERFORMED
CITY OF GOIÂNIA

Simulation	Reference group**	Poverty Line*
Distribution of persons according to per capita family income	27.65	35.14
Distribution of families according to per capita family receipt	25.60	35.42
Distribution of families according to per capita family income (excluding imputed rent)	26.73	35.82
Imputing prices using as weights the population's consumption structure	29.17	37.18
Reducing the price of eating out	15.13	30.33

Source: Based on data contained in the Family Budget Research (FBR) of 1987/88.

Note: * Daily per capita expense in Cruzados in October 1987.

The fifths or groups of 20% of the population are defined in "mobile" terms. The first group consists of groups of 1 to 20 percents, the second by 2 to 21 percents, and so on until completing 81 groups, all the size of 20% of the whole population. The fifth whose food consumption exactly meets the calorie requirement (reference group) of the São Paulo metropolitan region is formed by the 11.97 to 31.97 percents.

**Factors related to the evolution of poverty in the
Greater Buenos Aires
1991 – 1997**

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INDEC - ARGENTINA**

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I. INTRODUCTION

Argentina has undergone, during the last two decades, an expansion of the poverty phenomenon. In the 90's, the economic adjustment, stabilization and flexibilization policies brought about a regressive distribution of income and structural changes in the labor market. The improvements reflected by the macroeconomic indicators did not equally affect all social segments.

Undoubtedly, these processes are found in the basis of the expansion of poverty. However, from the data production standpoint, it is important to bear in mind the conventions adopted in each case when implementing the estimation methods. In the present context, such perspective is not a minor issue. In the first section, the technical aspects of the measurement are described, to further depict the perspectives with which these estimations are presented, taking into account the increasing interest and demand on information concerning this topic.

The income method is based on the assumption that, by knowing the income level of a household or a family, it is feasible to infer the possibility of having access to a proper feeding as well as to a decent standard of living. Although the official estimations on poverty use both the income and the Unsatisfied Basic Needs methods in order to define objectives as regards wage, employment or income generation policies for the population, this paper focuses on those households identified as poor due to having incomes below to the poverty line.

This paper refers to the factors that, regardless of the economic context, are associated to the evolution followed by the poverty line estimation during the 1991 - 1997 period, namely:

- i) The percentage of households which do not respond as to the origin of their income or that state not knowing where it comes from. As mentioned in the previous chapter, these households are excluded from the incidence estimation. Technically, they are known as partial income households.
- ii) The evolution of the medium income of households and the LP (Poverty Line) value.
- iii) The occupational context of three key household universes, i.e.: poor, non-poor and those not answering about their incomes.

The description of the factors associated to the evolution of the poverty incidence allows for a better understanding when applying the comparative analysis of the recent evolution of poverty to the urban environment of the Greater Buenos Aires. It is also relevant to consider the poor households and non poor households occupational insertion and, if appropriate, to measure the impact of households not answering as to their income within the universe of the incidence estimation.

II. POVERTY MEASUREMENT: BACKGROUND

During the 80's, the INDEC starts with a series of works that allow for the quantification of poverty in Argentina through the Unsatisfied Basic Needs (NBI) method. This method represents an approach to poverty if certain material elements are lacking, such as: drinking water, excreta elimination system, housing and others.

The effort devoted to develop a compound indicator which sizes and focuses poverty by territory was synthesized in the document entitled "La Pobreza en la Argentina" ("Poverty in Argentina") (INDEC, 1984). In such paper, the information source used to geographically measure and locate poverty is the 1980 National Population and Housing Census.

Later on, the project known as Investigación de la Pobreza en la Argentina (IPA, 1988) (Research on Poverty in Argentina) was initiated. The INDEC takes on, 4th these works, the methodological approach started in 1984, expanding the estimation of poverty of the NBI to inter-censuses periods, making use of the information provided by the Permanent Household Survey (EPH).

The use of the EPH as data source required the previous adjustment of the selected NBI indicators. Such adjustments were minor, since the EPH comprises and deepens the matters surveyed by the Census.

The IPA project was developed in order to gain broader knowledge on the poverty phenomenon, including its diverse dimensions and features. For that purpose, apart from the NBI method, the so-called income method or Poverty Line (ILP) was used. Within this framework, a basic family food basket was designed and a methodology was proposed to estimate the household expenses not related to food, aimed at attaining a value, below which those households fall below the poverty threshold.

In 1992 the Comité Ejecutivo para el Estudio de la Pobreza en la Argentina (Executive Committee for the Study of Poverty in Argentina) (CEPA) was created, with the main purpose of giving assistance to the Economic Planning Secretariat of the Ministry of Economy and Public Works and Services and the INDEC "In the design and assessment of the official surveys" on poverty¹.

After analyzing the data related to the subject, the Committee issues the following recommendations:

1. "to use the survey entitled "La Pobreza en la Argentina" (Poverty in Argentina, INDEC, 1984) for comparative purposes. Thus, two periods will be determined which will allow to see the changes that took place during the 80's".
2. "to expand the NBIs to be measured in such a way that they can show a pretty detailed and dynamic shortage outline useful for social policies. This will allow to show profiles of socially poor scenarios, which, in turn, will provide more specific information for the design of social policies and not the mere extent of the phenomenon".
3. "to establish the methodological foundations for a permanent system of social indicators, which allow for the ongoing follow-up of the problem. Such system shall also help to make an appropriate geographical breakup of the information".

For the specific case of estimations based on the LP method, the CEPA recommended:

"that the studies based on the poverty line adequately reflect such phenomena as changes in relative prices, secondary income, understatement of income, etc. and to establish a basic food basket and, if applicable, to update it".

"Along these lines, the estimations to be submitted introduce two methodological improvements: a) for the calculation of each household expenses, the concept of equivalent adult was used, related to the demographic composition of each home and b) a variable Engel coefficient was used, according to the variation of the relative paces of food and of the other goods and services"².

Furthermore, the CEPA updated the studies on unsatisfied basic needs of poverty, breaking them up into twenty indicators. Based on such paper, the Argentine Poverty Map was developed, using as source the data deriving from the 1991 National Census on Population and Housing, which "is a

¹ CEPA, Necesidades Básicas Insatisfechas – Evolución Intercensal. Working Doc. Number 1. Buenos Aires. December, 1992.

² CEPA, Evolución reciente de la pobreza en el Gran Buenos Aires 1980-1991. Working Doc. Number 2. Buenos Aires. August, 1993.

quantification of the poverty phenomenon in the population, according to the fulfillment of basic needs and to its geographical distribution"³.

The criteria for measuring poverty used by the CEPA were transferred to the Dirección Encuesta de Hogares, so that this office of the INDEC could standardize data processing and perform estimations on poverty levels for each EPH survey.

III. POVERTY MEASUREMENT ACCORDING TO THE INCOME METHOD

1. General Description

In Argentina, the poverty studies based in the so-called income method make use of the information deriving from household surveys. In its general outline, the methodology is shared with other countries of the region and with international agencies.

Within this approach, a series of basic nutritional requirements are determined which, in terms of caloric and protein needs, ensure a proper nourishing level of the population. In the estimation of these requirements, the recommendations of international bodies specialized in the subject, such as the Food and Agricultural Organization of the United Nations (FAO) or the World Health Organization (WHO) are taken into account.

In order to work out the basic food basket (Canasta Básica de Alimentos, cba), the consumption structure of low social and economic strata are analyzed. Also, within the definition of the cba, the selected goods must meet the following conditions:

- a) to conform to the taste and habits of the selected population segment,
- b) to be available in the market and
- c) to have a minimum cost.

In the case of Argentina, certain adjustments on the consumption structure of the corresponding population strata were performed so as to ensure that the proposed basket contained the basic energy and nourishing components at the least possible cost.

At the same time, it is expected that the cba reflect the composition of each household in terms of age and sex. Bearing that in mind, the basket for an adult person, which is called consumption unit was defined. Based on this consumption unit, by equivalence, the units for the rest of the members of the household are obtained.

In order to define the cba, the first step consists in differentiating population groups and in determining their energy requirements. For the consumption unit, the protein needs are also determined.

Then, the basket structure is developed, observing the following criteria

- 1) "The food items making up the basket should ensure, both concerning quantity and quality, the fulfillment of the nutritional needs of the population".
- 2) "Since this is a basket that should be valued in order to establish its ratio with the household income, these food items should have the minimum possible cost, provided that they ensure the nutritional needs are met".
- 3) "The food items comprised in the basket are selected taking into account the cultural habits of the population"⁴.

³ CEPA, Mapa de pobreza en la Argentina. Working Doc. Number 4. Buenos Aires. March, 1994.

Following these criteria, a set of goods required to reach the minimum caloric and protein threshold is identified. It is also expected that this set match the consumption structure of the stratum households of reference.

The value of the cba may be the expression of the average nourishing requirements of the target population or, more specifically, It can reflect the feeding needs of each household in particular⁵.

The monetary value of the basket is called Indigence Line (LI). In order to establish the value of the Poverty Line (LP), an estimation of the resources required by the households so as to meet their non-food needs is added to it. Such estimation is calculated as a coefficient resulting from the ratio between overall expenses and food expenses of the households belonging to 11 + 29 percentiles of the family per capita income scale.

2. Composition and Cost of the Basic Food Basket

2.1 Nourishing needs: Energy and Protein Requirements

In order to determine the energy and protein requirements, the 1981 Report of the Joint Expert Consulting Meeting on Energy and Protein Requirements was used (FAO/OMS/UNU, 1985).

With the purpose of differentiating population groups, the social-demographic structure by age and sex is taken into consideration. Also, specific biological periods, such as pregnancy and breastfeeding are taken into account. In the case of adults, energy needs were established, not only by age and sex, but also by the type of physical activity. By jointly considering these factors, the nutritional requirements of each group identified in the urban area of the Greater Buenos Aires could eventually be defined.

The adult of reference or consumption unit was defined through the observation of the group by age and sex and kind of physical activity, showing higher relative frequencies in the studied area. For that reason, the adult of reference was considered as the man of 30 to 59 years old with a moderate activity.

In order to determine the type of occupational activity and the number of hours daily devoted to it, the information of the Permanent Household Survey as from April 1985 was used. Chart 1 summarizes the energy requirements as per the different population groups defined.

⁴ Morales, A. "Canasta básica de alimentos - Gran Buenos Aires". Working Doc. Number 3. IPA/INDEC. Buenos Aires, April, 1988.

⁵ Particularly in the case of Argentina, for the research that took place during the 80's, a cba reflecting the average structure of households under study was used, concerning sex and age. In the 90's, when poverty studies were made, the cba used reflects the structure of each particular household.

CHART 1
ENERGY REQUIREMENTS AND CONSUMPTION UNITS AS PER AGE, SEX AND ACTIVITY
GREATER BUENOS AIRES

AGE – SEX - ACTIVITY	ENERGY REQUIREMENTS (KCAL)	CONSUMPTION UNITS
Children: 6m – 12m	880	0.33
Children 1 year	1.170	0.43
Children 2 years	1.360	0.50
Children 3 years	1.500	0.56
Children 4-6 years	1.710	0.63
Children 7-9 years	1.950	0.72
MALE TEENAGERS		
10-12 years	2.230	0.83
13-15 years	2.580	0.96
16-17 years	2.840	1.05
FEMALE TEENAGERS		
10-12 years	1.980	0.73
13-15 years	2.140	0.79
16-17 years	2.140	0.79
MALE ADULTS		
18-29 years	Light 2.490	0.92
	Moderate 2.860	1.06
	Intense 3.260	1.21
30-59 years	Light 2.350	0.87
	Moderate 2.700	1.00
	Intense 3.070	1.14
60 y + years	Light 1.930	0.71
	Moderate 2.210	0.82
	Intense 2.520	0.93
FEMALE ADULTS		
18-29 years	Light 1.950	0.72
	Moderate 2.000	0.74
	Intense 2.260	0.84
30-59 years	Light 1.950	0.72
	Moderate 2.000	0.74
	Intense 2.260	0.84
60 y + years	Light 1.690	0.63
	Moderate 1.730	0.64
	Intense 1.960	0.73
Pregnancy	Light 2.230	0.83
(older than 18 years)	Moderate 2.290	0.85
	Intense 2.540	0.94
Breastfeeding	Light 2.450	0.91
(older than 18 years)	Moderate 2.500	0.93
	Intense 2.760	1.02

Source: Morales, Alicia. Food Basic Basket – Greater Buenos Aires. IPA/INDEC. April, 1988.

2.2 Definition and Pricing of the Basic Food Basket

a) Population stratum of reference

In order to develop the cba, a population stratum was selected. This allowed identifying a consumption guideline that complies with the established nourishing requirements.

For that purpose, the work was focused in the social-economic low strata, characterized according to the data available in:

stratum 4: households having a 30%-40% of their heads of family who did not finish primary school.

stratum 5: households having a 40%-50% of their heads of family who did not finish primary school.

stratum 6: household having over 50% of their heads of family who did not finish primary school.

The consumption guideline incorporated to the cba heeds the real consumption structure of the reference population, although some variations were introduced aimed at improving the nourishing value at a minimum cost.

b) Data Sources on Household Consumption

The data required for the development of the household consumption structure was taken from the Survey on Goods and Services Expenses (Encuesta de Gastos en Bienes y Servicios) performed by the INDEC in December of 1985.

Taking into account the geographical coverage of the survey, the consumption structure of households corresponding to the strata of reference in the urban area of the Greater Buenos Aires was analyzed. Bearing in mind the differences observed in the population composition, as to age, sex and prevailing occupational activity in the area, the food diet was identified.

For such diet, the average quantity of goods purchased per day was recorded and their nourishing contents, the caloric origin and the protein quality was assessed.

Thus, "While making up the basic food basket, the food cultural habits inherent to the country were taken into consideration. This is reflected in the percentage of proteins as per origin (40% proteins of animal origin). Therefore, the basic basket will be a practical implementation tool reflecting the actual consumption trend of the Argentine population"⁶.

c) Contents of the Basic Food Basket

The proposed basket, even though it was framed based on an effective consumption pattern for the households of a stratum of reference is taken as standard, since the diet were adjusted according to the established minimum energy and protein parameters, as well as to the availability of such goods in the market.

Chart 2 shows the contents of the basic food basket for the male adult, expressed in terms of gross weigh per day.

⁶ Morales, Alicia. Food Basic Basket – Greater Buenos Aires. IPA/INDEC. April, 1988.

CHART 2
BASIC FOOD BASKET MALE ADULT
(quantities expressed in gross weight per day)

FOOD	QUANTITY (grams)
Bread	202
Crackers	14
Cookies	24
Rice	21
Wheat Flour	34
Other Flours	7
Noodles	43
Potato	235
Sweet Potato	23
Sugar	48
Sweets	8
Pulses	8
Vegetables	131
Fruits	134
Meats	209
Egg	21
Fluid milk	265
Cheeses	9
Edible Oil	40
Sweetened Beverages	135
Non Sweetened Beverages (Soft drinks)	115
Table Salt	5
Cooking Salt	3
Vinegar	3
Coffee	2
Tea	2
Mate Tea	20

Source: Morales, Alicia. Food Basic Basket - Greater Buenos Aires. IPA/INDEC. April, 1988.

d) Cost of the Basic Food Basket

In order to determine the cost of the cba, the food paces surveyed by the Consumer Price Index (IPC) as from December 1985 are used.

So as to be able to fix the monetary value, the food quantifies expressed in net weigh were converted to quantities expressed in gross weigh or purchase weigh (the latter includes non-edible items or wastes).

The internal distribution was broken down according to the proportion in which each food group contributes to the distribution structure and taking into account the differences observed in food paces.

3. Criterion Adopted for Determining the Non Food Basic Requirements

The cba is amended by an expansion coefficient aimed at covering non-food goods and services (education, health care, clothing, transportation, and other).

Due to the fact that Argentina has undergone a separate evolution among the prices of goods and services consumed in households, a measurement was established estimating the Engel Coefficients for each period, including the relative pace variation of the IPC.

4. Measurement of Household Income

Once the basic food budgets and the respective welfare lines are determined, the amount of the household available income must be estimated so as to compare it with the cost that fulfils the food and non-food needs.

This implies the knowledge of the household income within the geographical area where the poverty extent is to be measured.

The Permanent Household Survey provides for an appropriate reference to the income item, within the context of a program that uses a conceptual framework, both consistent and of regular implementation.

4.1 Income Estimation

The main source for the INDEC to estimate the households income is the Permanent Household Survey (EPH). Therefore, it is feasible to make size poverty estimations in each data collection of the survey.

As to the nature of the EPH, it is a multipurpose survey which is part of a permanent program carried out in the main urban centers of the country. However, it should be stressed that estimations on the extent of poverty are only performed in the urban area of the Greater Buenos Aires, since it is the only urban center having a typical Basic Basket of Goods and Services.

The income concept analyzed in this survey implies, in broad terms, the available income, which includes the overall income, both monetary and non-monetary, that households receive during a certain month, known as month of reference.

No amendments have been made on the recent estimations on poverty extent, due to income understatements. In the cases where no income responses were obtained, households that did not report their amount of income were excluded from the estimations.

5. Scope and Prospects of the Poverty Measurement in Argentina

5.1 Measurement of Urban Poverty

The trend pointed out in past decades in the sense that "poverty is one of the critical and persistent social problems faced by Latin American societies" has not been reversed so far. Hence, the increasing interest shown, in the interior of our country, by the provincial governments in knowing their extent and evolution is not surprising. From this viewpoint, it has become more and more necessary to find out how this process complex and highly comprehensive - evolves in the urban regions of the interior of the country. For that purpose, some provincial statistical offices have collected and implemented methodological alternatives, acknowledging the need of having some kind of approach for the scope of this phenomenon.

In Argentina, the use of available data sources has a bearing on the estimation methods concerning poverty surveys. For instance, population censuses only allow measuring poverty by means of the NBI, since they do not include income in their surveys. On the other hand, the EPH helps overcome this limitation by the use of both the NBI and the LP methods. Nevertheless, outside the urban environment of the Greater Buenos Aires, the LP method faces the lack of food baskets reflecting the consumption structure of the population that live in the main urban centers of the interior of the country.

Within this context, the choice of the incidence estimation method is not made by chance. It is assumed that, in the social scenario of cities of the interior, the undesired effects of the economic change process are heterogeneously developed, not only from the structural standpoint, but basically from the income one, adding new population segments to the poverty framework.

This viewpoint requires to work on methodological alternatives that allow for the implementation of the tools created for the LP method in cities located in the interior of the country.

The first point of agreement consists in not mechanically applying the values obtained through the methodology for the urban area of the Greater Buenos Aires to those cities. Taking into account the differences as to the population concentration size and the geographical extension which differentiates the GBA from the rest of the cities of the country, the possibility of using the same value becomes unfeasible.

The methodological proposals tend to overcome the existing constraints in relation to the data supply sources and are specifically referred to

- 1) The selection of those goods comprised in the food basket.
- 2) The data source which allows to pace such basket.
- 3) The estimation of the statistical coefficient that allows to weigh the non food requirements.

Concerning item one and taking into account that, when the GBA food consumption basket was framed, adjustment standardized criteria were accepted, it was decided to implement such consumption pattern to the rest of the cities (particularly to the cities located in the Pampas: Rosario, Santo Fe and Paraná, among others).

As to the pricing of the cba, the data arising from the Price Self-Weighed Index, which is monthly updated by the statistics provincial offices can be used.

On the other hand, it was possible to define in a standardized way that the food expenses were equivalent to the double of other consumption expenses. Thus, the weighting statistical factor for non-food requirements was fixed at 2.07, the same used by the IPA in their works.

At present, this estimation approach is followed by minor changes, in the statistics offices of the provinces of Neuquén, Entre Ríos and Mendoza for the cities of Neuquén, Paraná y Mendoza, respectively.

The Salta office is a special case which values the cba with a variable Engel coefficient for the estimation of the incidence in the capital city, and uses the same structure of the basket already carried out by the IPA for another important city in the same region: San Salvador de Jujuy.

5.2 National Urban Survey on Household Income and Expenses (ENUIGH)

The INDEC is the agency in charge of organizing the ENUIGH. The DPES, being members of the National Statistics System (Sistema Estadístico Nacional), have a prevailing participation in the execution of the survey.

So far, there are no statistics, both at the national and regional levels, on household expenses and income, and most analyses are made based upon the information provided by the 1985-1986 Survey on Household Expenses. The geographical scope of this survey comprises the Federal Capital and the Buenos Aires Outskirts districts.

"The challenge of the ENUIGH lies in its national scope and in the duration of the survey period, which will be constantly kept in the field".

The methodology foresees to obtain estimations for the following, based on a sample design of national coverage:

- a) group of urban centers,
- b) group of urban centers within each region,

- c) urban centers in each one of the provinces,
- d) every city with more than 500.000 inhabitants.

The regions taken into consideration match the ones determined in the National Urban Sample Framework for Household Surveys, namely:

- **Metropolitan Area:** Federal Capital and Greater Buenos Aires.
- **Pampas Region:** Rest of the Province of Buenos Aires, la Pampa, Córdoba, Santa Fe and Entre Ríos.
- **North East Region:** Misiones, Corrientes, Formosa and Chaco.
- **North West Region:** Jujuy, Salta, la Rioja, Tucumán, Santiago del Estero and Catamarca.
- **Cuyo Region:** San Juan, Mendoza and San Luis.
- **Patagonia Region:** Neuquén, Río Negro, Chubut, Santa Cruz and Tierra del Fuego.

"The Survey will be carried out during 12 consecutive months and will collect data in a sample made up by 38.568 urban households from all over the country. All private homes residing in such households shall be surveyed"⁷.

IV. ANALYSIS OF THE FACTORS RELATED TO THE EVOLUTION OF THE POVERTY MEASUREMENT IN THE GREATER BUENOS AIRES AREA

1. The economic transformation process⁸

The hyperinflation outburst that made the Argentine economy stumble between the months of May and August of 1989 sunk our society into the deepest crisis, living under the threat of social chaos and institutional commotion.

One of the impacts of this crisis was that it helped to build a consensus for the neoliberals. According to this view, the lack of balance of the macroeconomy is closely related to the limitations and dysfunctionalities which are involved in the development oriented to the domestic market, with a strong presence of the State.

The macroeconomic change policy which followed the hyperinflationary crisis started with structural reforms that were carried out pursuant to the Economic Emergency Law and the State Reform Law. Both laws placed the economic organization within a new system, characterized by a broad privatization program of utilities monopolies, by a trade liberalization and by a tax reform driven by the need of increasing the tax collection and balancing public accounts. This stage takes place during the last quarter of 1989 and the first quarter of 1991.

During this period, subsequent attempts to peg and control inflation failed. When Domingo Cavallo took office as Ministry of Economy, the start of a positive turn in the control of inflation, based on the design and implementation of the "Convertibility System" began. The so-called Convertibility Plan created a currency conversion (1 peso = 1 dollar). Furthermore, the State had no authorization to issue money without a currency exchange backup from the Central Bank.

⁷ INDEC, "Estructura de la ENUIGH". Report submitted at the Meeting of Provincial Statistics Directors. August 30 and 31, 1995.

⁸ In this section I refer to Pablo Gerchunoff and Juan Carlos Torre "La Política de liberalización económica en la administración de Menem". Desarrollo Económico, Vol. 36, Number 143 (October-December 1996).

Structural reforms, together with stabilization, attracted foreign capitals seeking for more appealing returns in the so-called "emerging markets". This favorable international situation fast tracked the growth of the economic activity, domestically driven by the consumption increase, the re-establishment of loans and the release of trade.

The other side of this successful macroeconomic process was that the income distribution, worn-out during the inflationary period, did not improve after 1991. The lowest strata of the society benefited by steady prices of goods, but their situation got worse in terms of employment. Whereas the medium segments, whose consumption basket has a strong services component suffered from an increase in their health care and education expenses, among others, due to the privatization of the utilities sector.

The combined impact of the lack of inflation, the unemployment generated by privatizations, the reorganization of the public sector and the release of trade reached the most vulnerable sectors and, those households below the poverty line dropped from 38.2% in October, 1989 to 11.9% in May, 1994.

As from the second semester of 1994 onwards, the combination of internal factors (such as a tax reform program which implied the loss of public resources) and external ones (increases in the international interest rates and the adjustment and reform program implemented in Mexico) resulted in a recessive, fiscal and financial crisis.

In October 1994 the decreasing trend of the incidence of poverty started after the 1989 inflationary events is stopped. Meanwhile, an increasing trend in the households below the poverty line in the metropolitan area of the Greater Buenos Aires can be hinted.

2. Measurement of Poverty

The two periods of the economic cycle briefly described herein are reflected by the evolution of the poverty indicator. However, it should be stated that in spite of the fact that the incidence reflected the economic expansion and recession cycles, certain measurement associated factors rendered its own dynamics to such evolution.

As it can be seen in the first column of chart 1, during the first four semesters of the cycle starting in 1991, the percentage of households below the poverty line was dramatically reduced. During the second semester of 1992 and in 1993, the percentage of poor households remained stable to reach a new decreasing floor in the first semester of 1994. As stated before, in October 1994 the declining trend concerning the incidence of poverty is interrupted and during five consecutive semesters the percentage of poor households increases. Lastly, in the first semester of 1997 a slight recovery can be seen which, according to prior estimations for October, would be sustained in around 19%.

CHART 1

HOUSEHOLDS WITH KNOWN INCOME AS PER LP CONDITION (POOR AND NON-POOR) AND WITH PARCIAL INCOME ACCORDING TO ACTIVITY, UNEMPLOYMENT AND EMPLOYMENT RATES
Greater Buenos Aires

PERIOD	House-holds	House-holds	Activity Rate			Unemployment Rate			Employment Rate			Unemployed
	Poor	Partial Income	Partial Income	Non Poor	Poor	Partial Income	Partial Income	Non Poor	Partial Income	Partial Income	Non Poor	Poor
	%	%	%	%	%	%	%	%	%	%	%	%
may-91	21,8	27,1	47,0	43,9	24,2	4,9	5,3	15,1	44,7	41,6	20,6	39,1
oct-91	16,3	25,4	46,0	42,9	23,3	5,8	3,6	14,8	43,3	41,4	19,9	38,1
may-92	15,1	27,9	47,0	42,2	25,3	6,6	4,8	19,7	43,9	40,1	20,3	37,2
oct-92	13,7	19,2	47,3	43,5	25,0	4,2	5,1	25,9	45,3	41,2	18,5	38,4
may-93	13,6	12,3	51,1	46,5	27,8	7,2	8,4	33,2	47,4	42,6	18,6	33,7
oct-93	13,1	12,9	51,2	45,1	26,7	6,9	7,8	30,1	47,7	41,6	18,6	31,7
may-94	11,9	8,8	48,9	45,8	28,1	10,2	8,5	33,9	47,0	41,9	18,6	32,1
oct-94	14,2	10,6	47,8	45,6	29,5	11,3	10,0	35,8	42,4	41,1	18,9	35,2
may-95	16,3	10,0	50,0	48,2	35,2	12,5	16,3	44,9	43,8	40,4	19,4	36,4
oct-95	18,2	10,7	50,0	47,2	32,3	18,5	15,3	36,6	42,2	40,9	20,5	38,3
may-96	19,6	10,2	48,8	46,2	33,3	18,3	12,8	37,5	39,8	40,3	20,8	43,4
oct-96	20,1	12,3	51,8	47,0	35,6	17,2	13,3	38,9	42,9	40,8	21,7	46,0
may-97	18,8	7,0	50,7	48,3	34,2	16,5	12,5	35,2	42,3	42,2	22,2	41,5

Source: Own, based on the EPH data.

The factors having an impact on the estimation of poverty, leaving aside the economic context described above, are associated with:

- i) The percentage of households not answering about the origin of their income or which state not knowing where it comes from. As mentioned in the previous chapter, these households are excluded from the estimation of the incidence. They are technically known as partial income households.
- ii) The evolution of medium income of the households and the LP value.
- iii) The occupational insertion of poor and non-poor households.

a) Households with Partial Income (Hogares con ingresos parciales, HIP)

Column 2 of chart 1 shows the HIP evolution. The general trend indicates a clear reduction in the HIP percentage. This reveals a constant improvement in the capture of income, where the lack of response concerning this variable decrease and a significant percentage of cases for the estimation of the incidence is recovered.

In item c) of this chapter the behavior of activity, unemployment and employment activity rates related to the working insertion of the HIP are described. As at this stage our only concern is to stress the weight decrease of these households Within the EPH universe, it should be noted that the description of said rates leads to the conclusion that the HIP households profile is more closely associated to the one corresponding to the non poor households, instead of that of poor households. Therefore, its inclusion in the universe of analysis seemingly represents a higher contribution to the non-poor households segment than to the poor households one.

Conversely, an increase in the proportion of households not reporting on their income (as it happened in October 1974) could be partially related to the increase in the incidence of poverty. At that

time, it was estimated that besides from the negative turn resulting from the economic situation, the increase in the HIP proportion was an additional factor, which stepped up the growth percentage of households below the LP in October 1994.

During the October 1992 - May 1994 period a reduction in the HIP participation took place. This trend is reversed in October 1994 and, as it has already been mentioned, it coincides with the evolution in the same sense of the incidence in poor households.

With the purpose of analyzing up to which extent the incorporation of the HIPs to the universe of the calculation of the incidence can explain its evolution, an alternative measurement exercise on the incidence for the May 1991 and May 1997 period is repeated. Such exercise is based on the assumption of assimilating all the HIPs to the sub-universe of non-poor households.

The alternative measurement - based in a very strong assumption and also taking into account the value reached by the HIP's unemployment rate by October, 1995 - leads to a decrease in the incidence level of poverty, as it was expected. But the incorporation of the HIP is insufficient to revert the trend towards the increase in the proportion of poor households recorded during that period.

In fact, between the measurements of October 1994 and October 1996, an increase in the proportion of poor households is observed, even eliminating the HIP effect. Such effect seems to act as a soothing factor of the variations between measurements. But it is scanty for reverting the general trend. Thus, while in the usual measurement the recorded variation was of +11.7%, by eliminating the HIP effect we would get a variation of the same token, though somehow milder (+10.77%).

b) Medium Income of Households and LP value

Another factor to be considered in order to determine the increase in the incidence of poverty is the evolution of the ratio between the actual income of households and the LP value.

CHART 2
VARIATION OF THE INCIDENCE OF POVERTY IN HOUSEHOLDS, OF THE LI AND LP VALUES, MEAN HOUSEHOLD SIZE AND POVERTY GAP

Great Buenos Aires (May 1991 Index = 100)

Period	Poverty Incidence in Households	Value Indigence Line	Engel Coefficient	Value Poverty Line	LP Value Household A. Equiv.	Mean Household Size A. Equiv.	Mean Household Size	Av. Income Household Below LP	Gap
may-91	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
oct-91	74,8	116,5	93,1	109,3	109,3	100,0	100,5	119,6	84,4
may-92	69,3	132,8	91,8	122,3	118,3	96,7	97,7	129,0	85,0
oct-92	62,8	138,6	91,4	127,7	130,0	101,8	102,3	141,7	85,0
may-93	62,4	145,7	92,2	135,4	138,6	102,4	103,2	144,8	92,6
oct-93	60,1	149,4	90,2	136,4	138,4	101,5	101,4	139,0	99,3
may-94	54,6	147,3	95,5	141,2	146,7	103,9	104,4	154,2	91,4
oct-94	65,1	150,3	95,9	144,6	147,6	103,3	102,8	153,4	93,5
may-95	74,8	155,0	95,9	149,9	156,6	104,5	103,5	153,1	103,7
oct-95	83,5	158,1	95,5	152,9	161,1	105,4	104,6	156,6	104,6
may-96	89,9	157,7	95,9	153,0	163,0	106,5	104,8	157,2	105,9
oct-96	92,2	161,2	94,7	154,4	167,2	108,3	106,9	159,4	107,7
may-97	86,2	156,5	97,1	153,8	168,9	109,8	108,8	164,7	104,1

Source: Own, based on the EPH data.

CHART 2B
VARIATION RATES CONCERNING THE PREVIOUS PERIOD

Greater Buenos Aires.

Period	Poverty Incidence in Households	Indigence Line Value	Engel Coeff.	Poverty Line Value	LP Value Household Equiv. A.	Mean Household Size Equiv. A.	Mean Household Size	Avg. Income Household Below LP	Gap
oct.91/m ay.91	33,7	-14,2	7,5	-8,5	-8,5	0,0	-0,5	-16,4	18,5
May.92/O ct.91	7,9	-12,3	1,3	-10,7	-7,6	3,4	2,8	-7,3	-0,7
oct.92/m ay.92	10,2	-4,2	0,4	-4,2	-9,0	-5,0	-4,5	-8,9	0,0
May.93/O ct.92	0,7	-4,8	-0,9	-5,7	-6,2	-0,6	-0,9	-2,1	-8,2
Oct.93/M ay.93	3,8	-2,5	2,3	-0,7	0,1	0,9	1,8	4,2	-6,7
May.94/O ct.93	10,1	1,4	-5,6	-3,4	-5,6	-2,3	-2,9	-9,9	8,6
Oct.94/M ay.94	-16,2	-2,0	-0,4	-2,4	-0,7	0,6	1,6	0,6	-2,2
May.95/O ct.94	-12,9	-3,1	0,0	-3,5	-5,7	-1,1	-0,7	0,2	-9,8
Oct.95/M ay.95	-10,4	-2,0	0,4	-1,9	-2,8	-0,8	-1,1	-2,2	-0,8
May.96/O ct.95	-7,1	0,3	-0,4	-0,1	-1,2	-1,1	-0,2	-0,4	-1,3
Oct.96/M ay.96	-2,5	-2,2	1,3	-1,0	-2,5	-1,6	-1,9	-1,4	-1,7
May.97/O ct.96	6,9	3,1	-2,5	0,4	-1,0	-1,4	-1,7	-3,2	3,5

Source: Own, based on the EPH data

Charts 2 and 2b show the variations occurred both in the poverty line value and in the medium income of households below the LP.

During the analyzed period, in spite of the buoyancy of paces, the LP value goes on increasing mainly favored by the increases of the cba. By the end of the period, the LP value is 54% higher than at the beginning. Also, it can be seen that, for the same period, the average size of households in terms of equivalent adult was also increased. Hence, the mean estimated value for the poverty line of households in terms of equivalent adult was, in May of 1997, almost 70% higher than in May of 1991.

The other component of this ratio, i.e., the medium income of poor households, showed a slightly moderate increase, reaching 65% in the last measurement performed. This accounts for the reason why the existing gap between the actual medium income of poor households and the LP value per adult household increased to become stronger at the end of the period than at its beginning.

From the standpoint of the evolution of poverty, it should be remarked that these two elements had shown an evolution of the same sign, but with a different intensity. The displacements towards the basis of the distributive pyramid observed concerning the overall income of poor households are strongly influenced by the occupational situation of the members of such households, a situation that will be analyzed in the following section.

c) The Occupational Situation of Poor and Non Poor Households

Chart 1 describes the occupational situation of poor households, i.e., those having an income lower to the LP value, the occupational situation of non-poor households, i.e. those having equal or higher

income with respect to the poverty threshold and that of the HIPs. The selected indicators are the activity, unemployment and employment rates.

Among poor households unemployment rates are significantly higher than among non-poor households. The occupational context of the HIPs records some measurements where unemployment has even lower levels than among the non-poor households. In this latter group, the measurement made in October 1995 belatedly reflects the phenomenon of a strong increase in the unemployment rate spotted in the previous wave for the poor and non-poor households.

On one hand, poor households show an activity rate comparatively lower than the other two depicted groups. The age composition of such households - with a high proportion of individuals under 14 years - and, on average, with a larger number of members, are some of the factors which explain the low labor participation of the poor population⁹. On the other hand, the high unemployment rate and a lower access to working positions are explained by the labor features of the poor population. Such features are generally associated with a low qualification and with difficulties to have access to qualified working positions, even though having the required skills.

Between May 1995 and October 1995 the poor population significantly reduced their unemployment rate (from 45 to 37%), but this is only partially explained by fact of getting a job, since the activity rate is reduced from 35 to 32%.

In non-poor households, the activity rate increased 4 percentage points (from 44% to 48%). Nevertheless, unemployment was doubled (from 5% to 12%) and employment only increased half a percentage point (41,6 % to 42,2%).

In the last measurement of the period (May 1997), non-poor population increases its working participation, whereas the participation of poor population decreases. As from 1992 onwards, the difficulties faced by poor people in getting working positions seem to have grown. It is interest to see that during that year, when the unemployment rate of the GBA was around 6%, a dramatic increase in the unemployment rate of poor population occurs (from 15 to 26% between October 1991 and 1992). This increase anticipates the new unemployment rate threshold of the agglomerate in the following years ($\geq 10\%$)¹⁰.

The critical context of the labor market as from the second semester of 1994 - shown by the withdrawal of the economic activity and by a downward trend in net wages entailed two problems for the poor population, i.e., to find a job and that such job generated enough income so as to surpass the poverty threshold.

This situation became practically impossible to overcome for poor households and also for those non-poor households included in the so-called "vulnerable" segment which is closer to the poverty threshold.

Some of the strategies presently implemented by households which have fallen below the poverty threshold can be seen in the new profile of the main income receiver.

Chart 3 shows the weight increase of the secondary workers (who are not head of households) in the income structure. At the same time, and increasingly stronger, the role and generation of the main household income falls on women. Supposedly, these women are in the 35 to 40 years old age group.

⁹ During the 1991-1997 period, 42% of the population identified as poor are younger than 15 years old.

¹⁰ Chimilo, E.; Petetta, D. Octubre 1994. "Análisis de los factores asociados al aumento de la incidencia de la pobreza en el aglomerado GB". CEPAL/INDEC. December, 1994.

The strength attained by secondary workers and women in the structure of the household income could explain two additional trends observed in the profile of the main income receiver: a higher proportion of individuals with an education higher than an incomplete secondary school and an increase in the field of self-employed workers.

SUMMARY

This document addresses the description of the methodology used for measuring poverty in the metropolitan area of the Greater Buenos Aires. The method described is known as Income Method or Poverty Line, which is based on the assumption that, by knowing the income level of a household, it is possible to infer the possibility of having access to an adequate feeding and to a decent standard of living.

Geographically, the study focuses on the main urban concentration of Argentina: The Greater Buenos Aires.

The macroeconomic restructuring that took place since 1989 has as a highlight the year of 1991, during which, the price stability plan is set forth: the Convertibility Plan.

The evolution of the percentage of households below the poverty line is analyzed since 1991 until the first semester of 1997, associating such percentage with the context given by the macroeconomic reforms made since the beginning of the decade.

The influence of such percentage in the evolution and of other factors is stated, such as: i) the occupational weight and insertion of households that do not respond as where their income comes from, ii) the evolution of the poor households' income and the LP value ratio and iii) the occupational insertion of the universe of poor, non-poor and of households that do not report on the origin of their income.

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SESSION 2:

FOCUSED OR TARGETED POVERTY STUDIES

**Hispanic Poverty From The Current Population Survey
And Poverty of Other Self-Identified Ethnic
Groups from Census Information¹**

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U.S. BUREAU OF THE CENSUS

¹ Paper presented at the United Nations Expert Group on Poverty Statistics in Rio de Janeiro, May 13-15, 1998. This paper reports general results of research undertaken by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. This report is released to inform interested parties of research and to encourage discussion.

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INTRODUCTION

As the turn of the century approaches, the hard sciences as well as the social sciences present a record which is rather a quandary. Despite many laudable advances, some reversals have been quite notable. For example, the field of medicine has made great strides in advancing human health, but also has suffered reversals of fortune in the area of infectious diseases (e.g. tuberculosis). On other areas of the health front, the advances have been marginal - the battle to cure Malaria being a prime example.

The social sciences have also had their victories and defeats on the field of battle for human progress. An array of new tools for analyzing the human condition are available to the social scientists. Nevertheless, the social sciences are still struggling to understand and improve the human condition; and poverty is just as much a challenge as it was a century ago.

Although poverty is an issue that profoundly affects the well being of all societies and civilization in general, there are not any international or regional organizations to deal with this issue like there are for health issues (e.g. World Health Organization (WHO), Pan American Health Organization (PAHO), etc.). Therefore, the national agencies of each country are the primary source of intelligence on the national characteristics of poverty.

Due to this lack of opportunity to pool knowledge and resources into a long-term international allied front against poverty, the opportunities offered by United Nations Expert Group on Poverty (the Rio Group) to exchange ideas and approaches to the diverse nature and complexities of poverty must be appreciated to the fullest. To this end, this paper addresses the concepts of ethnicity and poverty as utilized by the federal statistical system of the United States of America, and the statistics of the U.S. Bureau of the Census in particular.

This work focuses on the following elements key in understanding the federal approach to ethnicity and poverty:

- 1) the definition of ethnicity for federal statistics;
- 2) the definition of poverty for federal statistics;
- 3) the Current Population Survey as a primary source of ethnic poverty statistics;
- 4) Census data as a source of ethnic poverty data;
- 5) future source for ethnic poverty data.

This paper will focus on the concept of ethnicity and poverty, while the conceptualization of race will only arise tangentially.

FEDERAL GUIDELINES FOR THE COLLECTION OF ETHNIC AND RACE DATA

The federal government first established ethnic and racial data collection and reporting standards in 1977. The adequacy of these standards were recently reviewed and a revision of the race and ethnic standards was made in the fall of 1997.

Federal statistics on ethnicity and race are governed by guidelines established by the Office of Management and Budget (OMB). These guidelines were formed to address specific domestic needs arising from legislation and judicial rulings relating to discrimination and selected social issues of national importance. Therefore, these guidelines do not necessarily conform with the concept of ethnicity as

perceived by the man-in-the-street. Nor do they necessarily conform to the main currents of thought on ethnicity taught in the schools of social science.

Federal guidelines first established by OMB in 1977 laid out minimum data collection and reporting standards for race and ethnicity (OMB, 1977). Two ethnic categories were established: 1) Hispanic; and 2) Non-Hispanic. Members of either ethnic group can be of any race.

In its efforts to serve the population, the government periodically undertakes surveys to determine the adequacy and the application of the concepts. Recently, two large scale Census Bureau surveys were undertaken to examine such issues; these surveys were:

1) the National Content Survey:

(<http://www.census.gov/population/www/socdemo/96natcontentsurvey.html>); and

2) the Race and Ethnic Targeted Test:

(<http://www.census.gov/population/www/documentation/twps0018/twps0018.html>).

The results of these test and other research from other federal agencies were reviewed by a federal interagency committee, and recommendations were made to OMB on the possible revisions to the racial and ethnic data collection and reporting standard.

In the fall of 1997, the OMB issued revised standards for race and ethnic data collection and reporting (OMB, 1997). The changes for ethnicity were limited to: 1) the addition of the word "Latino" in the wording of the Hispanic origin question (Annex A, Figure 3); 2) in the case where race and ethnicity are collected by self-report, distinct questions for race and ethnicity must be used; and 3) the placement of the ethnicity question (Hispanic origin) prior to the race question to improve item response (Annex A, Figures 1 & 2 (1990) and Figures 3 & 4 (2000)). There were more extensive adjustments to the racial data collection and reporting standard, which included: 1) the option to declare more than one race; and 2) the creation of separate categories for Asians and Pacific Islanders (Annex A, Figure 4). For further information of the new standards, consult the following page on the Internet (<http://www.whitehouse.gov/WH/EOP/OMB/html/fedreg/Ombdir15.html>). Finally, OMB indicated that the collection of more detailed race and ethnic data is permissible if these data can be folded back to the minimum racial and ethnic categories in the revised standard.

DEFINITION OF POVERTY FOR FEDERAL STATISTICS

The official definition of poverty is determined by the Office of Management and Budget.

The poverty thresholds utilized by the U.S. Bureau of the Census have their origin in the work of Orshanky (U.S.B.C., 1993). This threshold poverty measure is based on pre-tax income adjusted for inflation using the Consumer Price Index.

The establishment of a standard data series by the OMB based on this measure does not preclude other analysis or the development of other measures of poverty, as long as the alternative analysis and/or measures are distinguished from the official standard poverty data series.

A clear distinction needs to be made between poverty thresholds, the official measure of poverty, and poverty guidelines, an administrative poverty tool. Poverty guidelines are issued yearly by the Department of Health and Human Service and are used for administrative purposes. However, the poverty thresholds are a statistical tool which is used to estimate the population in poverty.

For additional information on poverty, consults the Census Bureau's website (<http://www.census.gov/hhes/www/poverty.html>).

ETHNIC POVERTY FROM LARGE SCALE CENSUS BUREAU SURVEYS

Two large scale surveys are conducted by the Census Bureau which provide substantial data on ethnic poverty. These surveys are the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP), and these surveys are quite distinct.

The CPS is the centerpiece of the Census Bureau's survey programs and has conducted continuous data collection since 1948. The sample size of the CPS is approximately 50,000 households per month and is oriented to producing monthly labor force data (U.S.B.C., website/CPS page, 1997).

While SIPP is a more recent survey, 1983, with a complex design and requires high maintenance, follows movers, but has a much lower response rate than CPS. The sample size of the SIPP panels range from 14,000 to 36,700 interviewed households (U.S.B.C., website/SIPP page, 1997) For more information on SIPP consult "Changing the Way the United States Measures Income and Poverty: A Progress Report" presented at the Santiago Conference(Nelson and Wineberg, 1997).

This paper will focus on one of the most widely used surveys of the Census Bureau, the Current Population Survey; the CPS collects poverty data in March of every year. The focus on the CPS is due to the following factors:

- a) the proven data quality over the long run;
- b) the collection of data for more than 50 different sources of income in March;
- c) the sample supports select detailed Hispanic origin breakouts;
- d) the survey was successfully converted from paper to Computer Assisted Personal Interviewing (CAPI) and Computer Assisted Telephone Interviewing (CATI);
- e) it is the source of some of the U.S.'s most important economic information (e.g. the unemployment rate, the poverty rate).

To put the ethnic poverty data for Hispanics from the CPS into context, a concise overview of the Hispanic population of the United States is presented in the following section. Particular emphasis will be given to characteristics derived from the 1996 CPS, and especially the array of poverty data available.

HISPANICS POPULATION OF THE UNITED STATES: AN OVERVIEW

This Hispanic population of the United States is a growing ethnic population according to census data and projections. The growth in the Hispanic population can be attributed to a number of reasons. The Hispanic population is highly concentrated geographically.

American Hispanics can trace their origin or descent to Spain and many of the other Spanish speaking countries of Latin America. Origin or descent may be viewed as the nationality group, lineage, or country in which the person or person's parents or ancestors were born. Therefore, a person may choose to identify him/herself as "Hispanic" without regard to generation; for example, a person could identify him/herself as Hispanic, based on the origin of a parent, grandparent or some far-removed ancestor. Hence, the Hispanic population is a heterogeneous group. This population includes groups who differ in their language, country of origin, culture, and recency of immigration. The Hispanic population as whole displayed the following characteristics:

- The Hispanic population in the United States grew by 61 percent between 1970 and 1980 and 53 percent between 1980 and 1990. The Census Bureau counted about 22.4 million Hispanics in the

1990 census, up from 14.6 million in 1980 and 9.1 million in 1970. These figures do not include the population living in Puerto Rico, nearly all of whom should be considered of Hispanic origin. According to the 1990 census, there were 3.5 million persons living in Puerto Rico (U.S.B.C., 1997).

- The Census Bureau's 1996 middle-series projections suggest that the rapid population growth of Hispanics in the 50 states and the District of Columbia may continue well into the twenty-first century. Their numbers could rise from 28.6 million in 1997 to 31 million by the year 2000. The number of Hispanics could reach 41 million by 2010, and 97 million by 2050 (U.S.B.C., 1997).
- The Hispanic population grew nine times as fast as the rest of the Nation's population from 1970 to 1990. Several factors contributed to the tremendous increase in the Hispanic population since 1970. These included among them, a higher birth rate than the rest of the population, as well as significant increases in migrations from Latin America to the United States (U.S.B.C., 1997).
- Although Hispanics were nine percent of the Nation's population, they were nine percent or more of the population in nine states. In 1990, nearly four of ten persons in the State of New Mexico were of Hispanic origin. In California and Texas, Hispanics were one of every four persons, up from one in five in 1980. In Arizona, Hispanics were one of every five persons while in Colorado, New York, Florida, Nevada, and New Jersey, approximately one in every ten persons was of Hispanic origin. In each of these States, the Hispanic proportion of the State's population was larger than in 1980, reflecting the dramatic growth of the Hispanic population during the 1980s (U.S.B.C., 1997).

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF HISPANICS FROM THE CPS

The CPS provides a wide number of socio-demographic characteristics which gives a more focused vision of the Hispanic population and the Hispanic subgroups. The March CPS data also provides an array of poverty characteristics for this ethnic group.

* The Hispanic population is "younger" than the non-Hispanic White population. The median age of the Hispanic population in 1996 (25.6 years) was about 11 years less than that of the non-Hispanic White population (36.5 years). The median age of Hispanics rose from 25.0 in 1985 to 26.0 in 1990, but declined to 25.6 years in 1996 (U.S.B.C., 1997).

The median age among the Hispanic subgroups varied substantially in 1996. The Cuban population had the highest median age (38.9 years) while the Mexican population had the lowest (24.1 years). The median age was 25.7 years for Puerto Ricans, 28.1 years for Central and South Americans, and 28.5 years for the Other Hispanic population (U.S.B.C., 1997).

* The proportion of Hispanic and non-Hispanic families maintained by a female with no spouse present increased since 1970 (U.S.B.C., 1997).

In 1970, 15 percent of Hispanic families were maintained by a female with no spouse present. By 1996, the percent increased to 26 percent. A similar trend was evident among non-Hispanic families. In 1970, 11 percent of non-Hispanic families were maintained by a female. By 1996, that proportion rose to 17 percent (U.S.B.C., 1997).

* Hispanic families of all types, except male householders no spouse present, were more likely to have own children living at home than were non-Hispanic families. Hispanic married-couple families were more likely than non-Hispanic married-couple families to have own children living at home (64 percent

and 48 percent, respectively). About 71 percent of Hispanic and 60 percent of non-Hispanic families maintained by females with no spouse present had own children (U.S.B.C., 1997).

* Hispanic Americans made great strides in educational attainment, but continue to lag behind the rest of the nation (U.S.B.C., 1997).

* One of the most notable improvements in educational attainment is the reduction in the proportion of Hispanics with very little formal education. The proportion of Hispanics 25 years old and over with less than a 5th grade education decreased from 12.3 percent in 1990 to 10.3 percent in 1996. Despite this improvement, the proportion of Hispanics with low educational attainment--less than a 5th grade education--in 1996 was 17 times as large as that of non-Hispanic Whites (0.6 percent) (U.S.B.C., 1997).

* The proportion of Hispanics 25 years old and over with high school diplomas increased from 50.8 percent in 1990 to 53.1 percent in 1996. In 1996 Hispanics were still much less likely to be high school graduates than were non-Hispanic Whites (86.0 percent) (U.S.B.C., 1997).

* Hispanics are more likely to be unemployed than are non-Hispanic Whites. Hispanics were more likely to be unemployed in March 1996 (9.8 percent) than were non-Hispanic Whites (4.6 percent). Among the Hispanic subgroups, Cubans had the lowest unemployment rate (6.2 percent) (U.S.B.C., 1997).

* Hispanics earn less than do non-Hispanic Whites. Among year-round, full-time workers, median earnings are less for Hispanic males than for non-Hispanic White males. The median earnings of Hispanic males in 1995 (\$20,553) were 57.7 percent of those of non-Hispanic White males (\$35,605). Median earnings of Hispanic females (\$17,855) were 71.4 percent of those of non-Hispanic White females (\$25,005). The ratio of male-to-female earnings for Hispanics (0.87) was much higher than the ratio for non-Hispanic Whites (0.70) (U.S.B.C., 1997).

* The earnings of Hispanics increase with increasing educational attainment. In 1995, the earnings of Hispanics, 25 to 64 years old, with year-round, full-time work, increased with higher levels of education. For example, Hispanics with a bachelor's degree or more had median earnings of **\$36,410** compared to **\$23,108** for those with some college. Those with high school diplomas earned about **\$20,534** and those with less than a 9th grade education earned only about **\$15,299** (U.S.B.C., 1997).

These graphs display trends in poverty for Hispanic and Non-Hispanic persons and families. The gap between Hispanics and Non-Hispanics should not be surprising given the some of the previous CPS statistics.

The March CPS provides the following poverty characteristics of note for persons of Hispanic origin (U.S.B.C., 1998):

* Hispanics are more likely to live below the poverty level than non-Hispanics. In 1995, the poverty rate was 30 percent for Hispanics compared to 8.5 percent for non-Hispanic Whites. Although the Hispanic population was only 10.8 percent of the total population, more than 1 in every 5 persons (23.4 percent) living in poverty in the United States were of Hispanic origin (U.S.B.C., 1997).

* Hispanic children are more likely than non-Hispanic White children to be living below the poverty level. In 1995, 40.0 percent of Hispanic children under 18 years old were living in poverty, compared with only 11.2 percent of non-Hispanic White children. Hispanic children represented 14.5 percent of all children in the United States but were 27.8 percent of all children in poverty in 1995 (U.S.B.C., 1997).

* Elderly Hispanics (23 percent) are more likely to be in poverty than elderly non-Hispanic Whites (8 percent) (U.S.B.C., 1998).

The general characteristics for Hispanics and the Hispanic subgroups provides a base for understanding the poverty characteristics of these same groups. For example the elevated median age of

Cubans compared to the other Hispanic subgroups, may indicate that there would be a need to look at the poverty level of elderly Cubans. Especially, given the difference in poverty between Hispanic and non-Hispanic White population since it is already known that aging is an issue among the non-Hispanic population of the United States.

The March CPS also provides poverty characteristics of note for families, such as:

* A higher percent of Hispanic families (18 percent) live in poverty than do Non-Hispanic White families (4 percent) (U.S.B.C., 1998).

* A greater percent of elderly headed Hispanic families (27 percent) lived in poverty than did their counterpart Non-Hispanic White families (6 percent) (U.S.B.C., 1998).

* A significantly higher percent of Hispanic families headed by a non-High School graduate (39 percent) were in poverty than Non-Hispanic White families (16 percent) with the same educational characteristics (U.S.B.C., 1998).

* A larger percent of Hispanic families headed by females with no husband present (49 percent) lived in poverty than did their counterpart Non-Hispanic White families (22 percent) (U.S.B.C., 1998).

Once again the general characteristics provide the appropriate context for understanding of family poverty. The case in point being, the relationship between earnings and education provides the appropriate background for beginning to understand the education and poverty linkages for this ethnic group.

Poverty is prevalent among all the Hispanic subgroups. The degree to which poverty touches Hispanic children across all the subgroups is a disturbing statistic. The geographic concentration of the Hispanic populations could facilitate the identification of the pockets of poverty, but the CPS is a national level survey and does not provide the appropriate geographic detail. In addition, select groups such as migrant workers, which tend to be highly ethnic or racial in composition, and one of the more distressed populations, are not well captured by such a survey. Migrant workers and other shadow ethnic populations (ethnic homeless, ethnic illegals, ethnic improvised hamlet populations, etc.) pose profound challenges to adequately measuring ethnic poverty. Such realities imply a need for a multifaceted approach to assessing poverty.

Besides Hispanic origin information, the CPS also offers information on the foreign born population of the United States. In particular, it offers generational information on the foreign born through questions on place of birth of the respondent's mother and father. The breadth of the ethnic data from the CPS makes it a compelling source of national level data for poverty analysis of these groups. Especially because it permits not only a look at Hispanics as a whole, but also at specific components (age groups, gender, foreign born, etc). Nevertheless, it is important that we look at another source of ethnic poverty information - the decennial census.

POVERTY STATISTICS FOR ETHNIC GROUPS OTHER THAN HISPANICS

The decennial census offers ethnic poverty data from a wide range of questions, such as Hispanic origin question, the place of birth question, and the ancestry question. The ancestry question is often an overlooked source of ethnic poverty data for traditional ethnic groups and uniquely American ethnic groups. The census provides ethnic poverty data at a low geographic levels.

The censuses of the United States of America offer detailed demographic and economic data for a wide array of ethnic groups other than Hispanics. Like the CPS, the census offers data on the foreign born population (See Annex B Tables 3 and 4) and the Hispanic origin population (See Annex B, Tables 5 and 6); poverty status for persons and families is available for both of these items. In addition, these data are

available from the census at very low geographic levels (counties, congressional districts, etc). However, the census offers an additional source of ethnic data from the ancestry question; poverty status by ancestry group is also available for persons and families.

The ancestry question is an open-ended self-declaration question. Multiple ancestry declarations are allowed, but only two codeable declarations are tabulated. However, religious declarations are not directly reported, but are placed in the uncodeable category due to restriction on the collection and tabulation of religious information by the federal government. There is no editing or imputation of this item.

Ancestry data were collected in the 1980 and 1990 (Annex A, Figure 5) censuses and will be collected in the long-form part of the Census 2000 (Annex A, Figure 6) questionnaire. It has been determined that this is a required census item due to judicial case law precedence. In addition, a coalition of over eighty ancestry groups nationwide is lobbying the Congress to maintain the sample data items in the Census 2000, including the ancestry question.

The ancestry question is not used as an official source of Hispanic origin or racial data, those would come from their respective questions. However, it is a source of a wide array of data for the remaining ethnic groups. Data collected by the ancestry question is much richer than the Federal definition of ethnicity discussed earlier.

This question provides information on poverty for the most widely known ethnic groups of the United States (See Table 1 and Table 2), as well as for a wide gamut of ethnic groups (See Annex B, Table 7).

TABLE 1
POVERTY STATUS IN 1979 OF PERSONS AND FAMILIES BY SELECTED ANCESTRY GROUP: 1980

Category	Ancestry Group					
	English	French	German	Irish	Italian	Polish
Persons	11.3	10.7	8.1	9.6	7.3	7.0
Families	8.3	8.0	5.6	7.0	5.4	4.5

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-C1, General Social and Economic Characteristics United States Summary

TABLE 2
POVERTY STATUS IN 1989 OF PERSONS AND FAMILIES BY SELECTED ANCESTRY GROUP: 1990

Category	Ancestry Group					
	English	French	German	Irish	Italian	Polish
Persons	6.8	9.3	7.7	8.7	6.9	6.6
Families	4.5	7.2	5.5	6.5	4.9	4.3

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, CP-3-2, Ancestry of the Population in the United States: 1990

Moreover, this question yields socio-demographic and poverty status data for those ethnic groups considered uniquely of American origin such as the Pennsylvania Germans and the Cajuns, in addition to those who declare their origin simply as "American" (See Table 3.).

TABLE 3
POVERTY STATUS IN 1989 OF PERSONS AND FAMILIES BY SELECTED ANCESTRY GROUP: 1990

Category	Ancestry Group		
	American	Cajun	Pennsylvania German
Persons	15.8	16.4	12.1
Families	13.4	13.4	8.1

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, CP-3-2, Ancestry of the Population in the United States: 1990

Ancestry data as well as Hispanic origin and foreign born data are available from the census at low geographic levels. The geographic availability is a positive factor in examining poverty variations, but the decennial frequency of these data is clearly a negative, especially in terms of poverty monitoring.

FUTURE SOURCES OF ETHNIC POVERTY INFORMATION

The Census Bureau will have two new sources of ethnic poverty data. The first is a long-term innovative data collection programs - the American Community Survey. The other is a short-term program to monitor reform in the poverty alleviation programs of the United States - Survey of Program Dynamics.

In the post-2000 census period, the Census Bureau intends to being a program of continuous measurement through survey activity. The objective of this program is to supplant the long-form questionnaire by Census 2010. The American Community Survey (ACS) is the name of this new program.

The ACS will be a monthly mail-out/mail-back survey with Computer Assisted Telephone Interviewing (CATI) follow-up and Computer Assisted Personal Interviewing (CAPI). The coverage will be approximately 700,000 housing units per year. The design of the survey will permit the aggregation of data over time. This aggregation of data will provide data at low geographic levels (e.g. county level).

Since the plan is to supplant the long-form, ethnic data from the Hispanic origin, foreign born, and ancestry question will be available along with census-like income and poverty data. Therefore, this survey portends to be a vibrant tool for monitoring ethnic poverty over time. The ACS is currently undergoing field testing as it builds to its 2001 start-up date. The Population Division has been analyzing the results from the field testing; the Ethnic and Hispanic Statistics Branch and the Racial Statistics Branch have not only undertaken analysis , but are working toward the incorporation of the new OMB race and ethnic standards into this innovative survey. For further information on ACS consult the Census Bureau website (<http://www.census.gov/CMS/www/acs.htm>).

An array of programs were established by the Federal Government to combat poverty and to assist the disadvantaged sectors of the U.S. society, principally in the 1960s. Federal funding was the core of the war on poverty, but to many this war on poverty was not a winnable ware, but rather a Vietnam. Recent federal legislation has enacted a program of welfare reform. A new survey is being fielded by the Census Bureau to monitor the impact of these reforms on these disadvantaged sectors of the U.S. society.

This new survey is called Survey of Program Dynamics (SPD) and has several stages and distinct questionnaires for these stages. The sample is drawn from expended SIPP panels. SPD will run from 1996 through 2001. The Bridge portion of the survey has already been fielded and had a CPS-like questionnaire, the next stage will have a SIPP-like questionnaire. The 1997 Bridge survey yielded a sample of 30,125 households or 81.7 percent of the SIPP panel interviewed in 1992 and 1993. About

7,500 household interviews are expected in 1998. The annual cost of SPD is approximately 10 million dollars. The Population Division of the Census Bureau is already analyzing the SPD data. For additional information on SPD consult the Census Bureau website

(<http://www.census.gov/apspd/wee/spdover.html>).

CONCLUSION

This paper has provided an overview of selected elements important to understanding the federal approach to ethnicity, the wide range of efforts the federal government employs to detect and monitor poverty, and some of the new tools coming online (Annex C). The key elements covered included:

- 1) ethnicity and race are separate concepts within the federal data collection and reporting system;
- 2) poverty thresholds are used to establish poverty status in the United States and the Census Bureau maintains the official data series;
- 3) the federal system has multiple sources of poverty data, but the CPS is the official source of poverty data, which includes Hispanic poverty;
- 4) the census offers an array of ethnic poverty data, but the ancestry question provides additional perspective on non-Hispanic ethnic groups;
- 5) the Census Bureau is getting ready to field new surveys which will serve as additional sources of poverty data by ethnicity.

There is no one-stop-shopping in the detection and monitoring of poverty, ethnic or otherwise, and even for poverty interventions. The social scientist needs to call upon the broad spectrum of information available to properly characterize the type or types of poverty facing society. When necessary, the convergence of evidence approach must be adopted to build an appropriate characterization of poverty. The social scientist must not stop with detection and characterization of poverty. The social scientist must monitor the populations to detect the changes due to population dynamics (aging, mobility, etc.). Additionally, the social scientist must help develop adequate tools to measure the appropriateness of the intervention(s). All these efforts need to be executed in a timely manner, because like in most health interventions time is critical to life, or at the minimum long term well being.

To some, poverty is a theoretical challenge, but to others it is a real issue of engagement. Our work against the ravages of poverty will be measured not by how finely we measure poverty, but by how well our work leads to measures that reduce poverty. The degree to which poverty is reduced among all the segments of our disadvantaged populations, should be a measure of the equity of each of our societies.

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ANNEX TABLES A

1990 CENSUS

FIGURE 1
1990 CENSUS RACE QUESTION

<p>4. Race Fill ONE circle for the race that the person considers himself/herself to be. If Indian (Amer.), print the name of the enrolled or principal tribe. —————></p> <p>If Other Asian or Pacific Islander (API), print one group, for example: Hmong, Fijian, Laotian, Thai, Tongan, Pakistani, Cambodian, and so on. —————></p> <p>If Other race, print race. —————></p>	<p><input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Indian (Amer.) Print name of enrolled or principal tribe ↵ <input type="text"/></p> <p><input type="radio"/> Eskimo <input type="radio"/> Aleut <u>Asian or Pacific Islander (API)</u> <input type="radio"/> Chinese <input type="radio"/> Japanese <input type="radio"/> Filipino <input type="radio"/> Asian Indian <input type="radio"/> Hawaiian <input type="radio"/> Samoan <input type="radio"/> Korean <input type="radio"/> Guamanian <input type="radio"/> Vietnamese <input type="radio"/> Other API ↵ <input type="text"/></p> <p><input type="radio"/> Other race (Print race)</p>
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FIGURE 2
1990 CENSUS HISPANIC ORIGIN QUESTION

<p>7. Is this person of Spanish/Hispanic? Fill ONE circle for each person.</p> <p>If Yes, other Spanish/Hispanic print one group. —————></p>	<p><input type="radio"/> No (not Spanish/Hispanic) <input type="radio"/> Yes, Mexican, Mexican Am., Chicano <input type="radio"/> Yes, Puerto Rican <input type="radio"/> Yes, Cuban <input type="radio"/> Yes, other Spanish/Hispanic Print one group, for example: Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.) ↵ <input type="text"/></p>
---	--

FIGURE 5
1990 CENSUS ANCESTRY QUESTION

<p>10. What is this person's ancestry or ethnic origin? (See instruction guide for further information.)</p> <p><input type="text"/></p> <p>(For example: German, Italian, Afro-Amer., Croatian, Cape Verdean, Dominican, Ecuadoran, Haitian, Cajun, French Canadian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Irish, Polish, Slovak, Taiwanese, Thai, Ukrainian, etc.)</p>

FIGURE 6
1998 DRESS REHEARSAL ANCESTRY QUESTION

⑩ What is this person's ancestry or ethnic origin?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

ANNEX TABLES B

TABLE 1
PERCENT OF PERSONS IN POVERTY , HISPANIC AND NON-HISPANIC : 1983-1995

Year	Hispanic	Non-Hispanic
1983	29.9	14.0
1984	28.0	14.3
1985	28.4	13.3
1986	29.0	12.7
1987	27.3	12.4
1988	28.0	12.1
1989	26.7	11.8
1990	26.2	11.6
1991	28.1	12.1
1992	28.7	12.8
1993	29.3	13.1
1994	30.7	12.7
1995	30.3	11.8

Source: Current Population Survey, various years.

TABLE 2
PERCENT FAMILIES IN POVERTY, HISPANIC AND NON-HISPANIC : 1983-1995

Year	Hispanic	Non-Hispanic
1983	27.2	11.4
1984	26.0	11.5
1985	25.2	10.7
1986	25.5	10.4
1987	24.7	9.9
1988	25.8	9.7
1989	23.7	9.4
1990	23.4	9.2
1991	25.0	9.5
1992	26.5	10.2
1993	26.2	10.4
1994	27.8	10.0
1995	27.0	9.2

Source: Current Population Survey, various years.

TABLE 3
PERCENT OF FOREIGN-BORN PERSONS IN POVERTY BY NATIVITY, AND YEAR OF ENTRY: 1990

Country	Year of Entry					
	Total	1987 to 1990	1985 or 1986	1982 to 1984	1980 or 1981	Before 1980
ALL FOREIGN BORN						
Cuba	14.7	36.6	17.9	15.4	24.3	11.3
Colombia	15.3	27.8	18.3	16.4	14.1	10.8
D. Republic	30.0	33.2	29.8	34.9	31.0	27.3
Ecuador	15.1	25.6	17.1	17.2	16.8	11.6
El Salvador	24.9	36.3	26.3	23.9	22.4	17.7
Guatemala	25.8	40.3	26.9	24.9	24.4	15.2
Honduras	27.8	43.1	33.7	26.2	26.6	15.8
Mexico	29.7	43.2	33.6	32.0	31.2	23.1
Nicaragua	24.4	39.9	24.6	19.9	12.9	11.4
Panama	14.9	29.1	21.4	19.2	13.4	10.5
NOT A CITIZEN						
Cuba	21.7	38.1	18.2	16.5	25.7	18.1
Colombia		28.2	18.4	16.5	14.2	13.2
D. Republic	32.3	33.0	29.5	35.3	31.7	32.0
Ecuador	16.8	25.6	17.3	16.9	16.1	13.4
El Salvador	26.0	36.7	26.3	24.0	21.9	19.6
Guatemala	27.6	40.8	27.1	24.1	24.5	17.1
Honduras	31.5	43.4	33.3	26.8	26.7	19.5
Mexico	30.9	43.6	33.5	32.0	30.7	23.6
Nicaragua	26.9	40.2	24.8	20.3	13.3	13.8
Panama	20.2	30.9	22.3	20.0	13.5	13.8

Source: U.S. Bureau of the Census, 1990 Census of Population, CP-3-1, The Foreign-Born Population in the United States

TABLE 4
PERCENT OF FOREIGN-BORN FAMILIES IN POVERTY BY NATIVITY, AND YEAR OF ENTRY 1990

Country	Year of Entry					
	Total	1987 to 1990	1985 or 1986	1982 to 1984	1980 or 1981	Before 1980
ALL FOREIGN BORN						
Cuba	11.5	37.7	16.6	14.2	23.1	8.5
Colombia	13.2	28.7	17.9	17.2	13.7	10.1
D. Republic	33.4	34.3	32.4	39.1	39.4	31.4
Ecuador	14.8	25.3	16.9	18.7	20.1	12.8
El Salvador	22.5	34.4	24.8	23.6	23.0	19.3
Guatemala	21.5	34.4	27.1	23.2	25.1	16.0
Honduras	25.5	42.9	32.9	29.1	30.2	18.8
Mexico	27.4	42.8	33.7	33.6	32.4	24.1
Nicaragua	20.8	40.5	20.5	21.3	13.2	12.1
Panama	12.3	35.5	21.7	20.3	14.0	8.7
NOT A CITIZEN						
Cuba	18.8	39.1	16.1	15.7	25.0	14.7
Colombia	15.7	29.4	18.2	17.8	13.6	12.7
D. Republic	37.4	33.5	31.4	39.5	41.2	37.7
Ecuador	17.1	26.1	17.2	18.4	19.5	15.3
El Salvador	23.3	35.1	24.4	23.4	22.4	21.3
Guatemala	22.9	35.7	26.8	23.2	24.0	17.9
Honduras	30.2	44.1	30.8	30.7	30.4	24.9
Mexico	28.5	43.2	33.4	33.2	32.1	24.9
Nicaragua	23.8	41.1	20.8	21.7	13.8	15.0
Panama	19.3	36.2	25.1	20.9	12.9	14.0

Source: U.S. Bureau of the Census, 1990 Census of Population, CP-3-1, The Foreign-Born Population in the United States

TABLE 5
POVERTY STATUS OF PERSONS FOR SELECTED HISPANIC ORIGIN GROUPS BY NATIVITY,
CITIZENSHIP, AND YEAR OF ENTRY: 1990

Hispanic origin groups	All persons	Native	Foreign Born								
			Total	Year of Entry		Naturalized		Not a Citizenship			
				1980 to 1990	Before 1990	Total	Year of Entry		Total	Year of Entry	
							1980 to 1990	Before 1990		1980 to 1990	Before 1990
Total	13.1	12.7	18.2	26.2	12.0	7.8	19.6	9.2	23.3	27.4	16.3
Not of Hisp. origin	11.9	11.9	13.3	21.3	8.1	6.6	13.4	7.2	18.5	22.9	10.2
Hisp. origin	25.3	25.0	25.7	32.1	19.2	10.0	29.5	15.5	28.2	32.4	21.8
Mexican	26.3	24.5	29.8	36.3	23.2	11.6	34.3	22.3	31.0	36.6	23.7
Puerto Rican	31.7	31.7	29.4	34.8	24.4	18.5	30.9	22.4	32.2	36.1	26.7
Cuban	14.6	13.5	14.9	25.0	11.5	5.6	16.8	7.6	21.8	26.3	18.3
Other Hisp.	21.2	20.6	21.8	26.6	15.0	8.7	23.1	11.3	24.4	27.0	18.2
D. Republic	33.0	39.2	30.5	33.0	27.6	14.3	32.8	21.7	32.6	33.0	32.0
C. American	23.8	20.5	24.6	28.8	15.1	9.5	24.4	11.0	26.7	29.2	17.9
Costa Rican	15.1	12.6	16.2	22.6	11.5	5.5	21.0	8.6	18.7	22.8	13.9
Guatemalan	25.3	22.3	26.0	30.8	15.3	8.4	26.5	11.1	27.7	31.2	17.3
Honduran	27.2	23.2	28.4	34.4	16.0	12.5	28.9	12.1	31.9	35.1	20.1
Nicaraguan	22.9	16.7	24.4	28.8	11.6	6.0	16.2	8.4	26.8	29.4	14.2
Panamanian	15.0	13.4	15.7	23.0	10.7	7.8	15.0	8.8	21.0	24.8	14.6
Salvadoran	24.8	23.6	25.1	27.4	18.1	11.8	25.5	13.9	26.1	27.6	19.9
S. American	14.4	13.7	14.6	19.4	9.7	5.1	15.5	7.4	16.9	19.8	11.7
Argentinean	11.0	10.9	11.0	17.8	6.5	4.2	15.4	5.5	14.0	18.0	8.1
Bolivian	12.9	10.0	13.8	18.8	6.1	4.8	13.8	4.7	16.7	19.4	7.9
Chilean	10.3	8.2	11.0	15.6	7.7	3.7	11.2	6.3	12.9	16.1	8.9
Colombian	15.1	14.5	15.4	19.5	11.0	5.7	16.0	8.2	17.6	20.0	13.4
Ecuadorian	15.9	17.8	15.3	20.2	11.5	4.8	21.2	8.4	16.9	20.1	13.3
Paraguayan	11.5	6.0	13.7	18.6	6.8	6.9	24.9	7.4	15.1	18.1	6.0
Peruvian	14.1	11.5	14.8	18.7	8.5	5.4	11.4	7.2	17.1	19.4	10.0
Uruguayan	9.9	5.5	10.7	15.0	7.3	5.2	18.0	6.4	12.2	14.6	8.3
Venezuelan	19.5	15.1	21.1	26.4	10.1	5.4	12.1	9.2	23.5	27.6	10.7
Spaniard	12.2	11.9	13.5	23.1	8.8	5.5	12.1	7.7	18.0	24.9	10.6
Spanish	18.9	18.7	20.0	28.0	14.0	10.1	23.4	11.9	24.2	29.0	17.0
Spanish Americans	21.4	21.2	34.6	39.1	30.6	24.4	41.1	25.1	39.0	38.5	39.0

Source: U.S. Bureau of the Census, 1990 Census of Population, CP-3-3, Persons of Hispanic Origin in the United States

TABLE 6
POVERTY STATUS OF FAMILIES FOR SELECTED HISPANIC ORIGIN GROUPS BY NATIVITY
CITIZENSHIP, AND YEAR OF ENTRY: 1990

Hispanic origin group	All persons	Native	Foreign Born								
			Total	Year of Entry		Naturalized		Not a Citizenship			
				1980 to 1990	Before 1990	Total	Year of Entry	Total	Year of Entry		
										1980 to 1990	Before 1990
Total	10.0	9.5	14.9	23.4	11.0	8.7	18.0	7.5	20.7	24.6	16.9
Not of Hisp Origin	9.0	8.9	9.8	18.9	5.9	5.5	11.8	4.8	15.6	20.7	9.0
Hispanic origin	22.3	21.7	23.0	29.7	19.7	17.4	29.1	15.3	25.9	29.8	23.0
Mexican	23.4	20.0	27.4	34.8	24.1	24.9	34.9	22.7	28.4	34.7	24.9
Puerto Rican	29.6	29.6	27.2	34.0	23.9	22.6	32.3	20.2	31.6	34.6	29.0
Cuban	11.4	10.1	11.5	23.2	8.6	6.0	14.3	5.5	18.8	25.0	14.9
Other Hispanic	18.4	15.9	19.6	24.5	15.8	13.2	23.2	11.2	22.8	24.7	20.3
D. Republic	33.4	25.6	33.9	37.4	31.9	26.4	37.1	24.1	37.8	37.5	38.0
C. American	20.9	12.7	21.4	25.6	16.2	14.9	24.8	11.5	23.6	25.7	19.6
Costa Rican	13.4	4.7	14.5	19.9	12.5	7.9	13.3	7.4	18.7	20.8	17.3
Guatemalan	21.1	14.6	21.4	26.0	16.1	16.2	26.8	12.3	22.8	25.9	18.0
Honduran	25.5	17.0	26.0	32.9	19.1	17.6	30.7	13.9	30.3	33.2	24.9
Nicaraguan	20.1	12.2	20.7	25.8	11.9	9.2	12.7	8.6	23.7	26.5	15.0
Panamanian	13.1	8.9	13.9	23.4	10.1	8.8	16.2	7.8	20.9	25.7	15.8
Salvadoran	22.3	16.3	22.4	24.5	19.2	19.1	26.3	14.5	23.2	24.2	21.3
S. American	12.0	10.2	12.2	17.1	9.2	7.6	13.8	6.7	14.8	17.6	11.8
Argentinean	7.8	8.8	7.7	13.4	5.2	4.8	11.1	4.3	10.3	13.7	6.9
Bolivian	9.4	9.9	9.3	13.2	5.9	4.3	5.9	4.0	12.4	14.1	8.8
Chilean	8.2	5.4	8.5	13.3	6.2	5.2	12.4	4.6	10.5	13.4	8.0
Colombian	13.1	11.3	13.2	18.0	10.2	8.9	15.9	7.7	15.7	18.3	12.8
Ecuadorian	14.6	11.1	14.8	20.4	12.5	10.2	20.4	9.0	17.1	20.4	15.1
Paraguayan	7.1	-	7.5	12.3	3.8	4.5	17.3	2.9	9.2	11.8	5.0
Peruvian	11.7	8.8	11.9	16.2	8.1	6.9	8.8	6.5	14.7	17.3	10.3
Uruguayan	8.4	-	8.6	12.2	6.3	6.1	7.1	6.0	10.2	12.8	6.8
Venezuelan	15.4	12.9	15.8	21.6	7.7	7.0	13.9	4.8	18.2	22.4	9.5
Spaniard	9.7	9.8	9.1	16.5	7.0	6.0	10.8	5.6	13.0	17.7	9.8
Spanish	15.7	15.7	16.0	23.6	13.1	11.8	24.3	10.1	20.4	23.4	18.1
Spanish American	19.1	18.9	33.4	41.2	31.1	23.8	52.9	16.4	46.1	29.4	52.1

Note: A dash "-" represents zero or a percent that rounds to less than 0.1.

Source: U.S. Bureau of the Census, 1990 Census of Population, CP-3-3, Persons of Hispanic Origin in the United States

TABLE 7
INCOME AND POVERTY FOR SELECTED ANCESTRY GROUPS: 1990 CENSUS

Ancestry	Median household income	Median family income	% of persons in poverty	% of families in poverty
All persons	\$30056	\$35,225	13.1	10.0
Albanian	\$35615	\$41,036	10.4	7.8
American	\$22721	\$27,198	15.8	13.4
Armenian	\$36860	\$43,018	13.1	10.5
Assyrian	\$33124	\$35,839	14.7	13.2
Australian	\$36340	\$45,823	8.3	4.6
Austrian	\$38278	\$49,894	5.3	2.7
Barbadian	\$33480	\$38,735	8.8	6.5
Basque	\$37123	\$43,014	7.4	3.6
Belgian	\$34598	\$40,774	6.2	3.9
Belizean	\$27449	\$28,441	17.2	15.0
Brazilian	\$27309	\$29,987	15.6	12.3
British West Indian	\$29738	\$33,388	15.7	13.2
Bulgarian	\$31850	\$39,882	10.2	7.7
Cajun	\$25131	\$28,635	16.4	13.4
Canadian	\$31510	\$40,407	8.0	5.3
Cape Verdean	\$26516	\$30,028	18.0	16.2
Croatian	\$30991	\$37,291	8.9	6.1
Czech	\$31800	\$38,457	7.3	4.9
Czechoslovakian	\$33615	\$42,227	6.9	3.8
Danish	\$33822	\$40,163	6.3	3.9
Dutch	\$30929	\$36,470	8.4	5.8
Dutch West Indian	\$24335	\$27,924	18.0	13.9
Egyptian	\$40095	\$45,700	11.6	9.3
English	\$34117	\$40,875	6.8	4.5
Estonian	\$35818	\$48,922	5.5	2.1
Ethiopian	\$21553	\$26,920	24.6	19.9
Finnish	\$31142	\$38,067	8.3	5.5
French	\$30696	\$36,237	9.3	7.2
French Canadian	\$33702	\$38,996	7.6	5.4
German	\$32730	\$38,216	7.7	5.5
Greek	\$37212	\$43,330	7.3	5.2
Guyanese	\$33904	\$35,761	12.1	10.7
Haitian	\$25547	\$25,651	22.2	20.7
Hungarian	\$35200	\$42,778	6.9	4.3
Icelandic	\$35358	\$41,497	8.4	6.5
Iranian	\$36813	\$41,974	13.3	10.6
Iraqi	\$33043	\$36,811	17.6	15.6
Irish	\$31845	\$38,101	8.7	6.5
Israeli	\$40242	\$47,167	11.7	7.9
Italian	\$36060	\$42,242	6.9	4.9
Jamaican	\$30461	\$34,018	13.1	11.1
Latvian	\$38586	\$51,209	5.0	2.2
Lebanese	\$35721	\$42,104	10.0	7.1
Lithuanian	\$35916	\$45,361	5.6	3.2
Luxemburger	\$35318	\$41,726	4.5	2.7
Maltese	\$40552	\$44,896	5.9	5.0
Nigerian	\$22364	\$26,837	22.2	18.5
Norwegian	\$32207	\$38,430	7.5	5.1
Palestinian	\$31300	\$35,102	19.5	14.8
Pennsylvania German	\$23286	\$29,779	12.1	8.1
Polish	\$34763	\$41,700	6.6	4.3
Portuguese	\$33936	\$38,370	7.9	6.3

Ancestry	Median household income	Median family income	% of persons in poverty	% of families in poverty
Romanian	\$37452	\$46,457	9.1	6.1
Russian	\$45778	\$58,826	6.1	3.6
Scotch-Irish	\$32106	\$39,816	6.1	3.9
Scottish	\$36810	\$43,293	5.8	3.5
Serbian	\$34036	\$40,510	6.6	4.1
Slavic	\$31059	\$39,206	8.1	5.7
Slovak	\$32352	\$40,072	6.0	3.8
Slovene	\$31554	\$39,673	4.9	2.4
Swedish	\$33881	\$40,459	6.7	4.5
Swiss	\$35531	\$42,126	6.5	3.8
Syrian	\$35956	\$42,164	9.4	6.6
Trinidadian and Tobagonian	\$30305	\$33,206	14.4	12.7
Turkish	\$37091	\$45,011	10.9	7.4
Ukrainian	\$34474	\$42,193	6.3	4.0
Welsh	\$36515	\$42,170	5.6	3.4
Yugoslavian	\$33574	\$40,583	8.2	5.6

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, CP-3-2, Ancestry of the Population in the United States: 1990

ANNEX C

**U.S. BUREAU OF THE CENSUS WEBSITE
SELECT ADDRESSES**

Homepage: <http://www.census.gov>

American Community Survey: <http://www.census.gov/CMS/www/acs.htm>

Ancestry: <http://www.census.gov/population/www/ancestry.html>

Current Population Survey (CPS): <http://www.bls.census.gov/cps/cpsmain.htm>

Foreign Born: <http://www.census.gov/population/www/socdemo/foreign.html>

Hispanic Origin: <http://www.census.gov/population/www/socdemo/hispanic.html>

Income: <http://www.census.gov/hhes/www/income.html>

Poverty: <http://www.census.gov/hhes/www/poverty/html>

Survey of Income and Program Participation (SIPP): <http://www.sipp.census.gov/sipp/>

Survey of Program Dynamics (SPD): <http://www.census.gov/apsd/wee/spdover.html>

**Estudiando pobreza – la meta de un
sistema nacional de estadísticas**

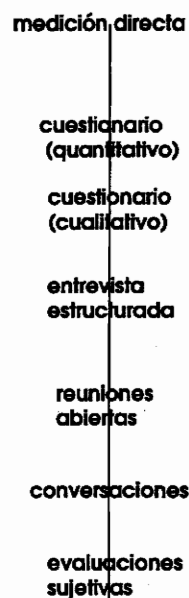
**NORMAN HICKS
WORLD BANK**

REQUISITOS PARA MEJORAR LAS POLÍTICAS SOCIALES

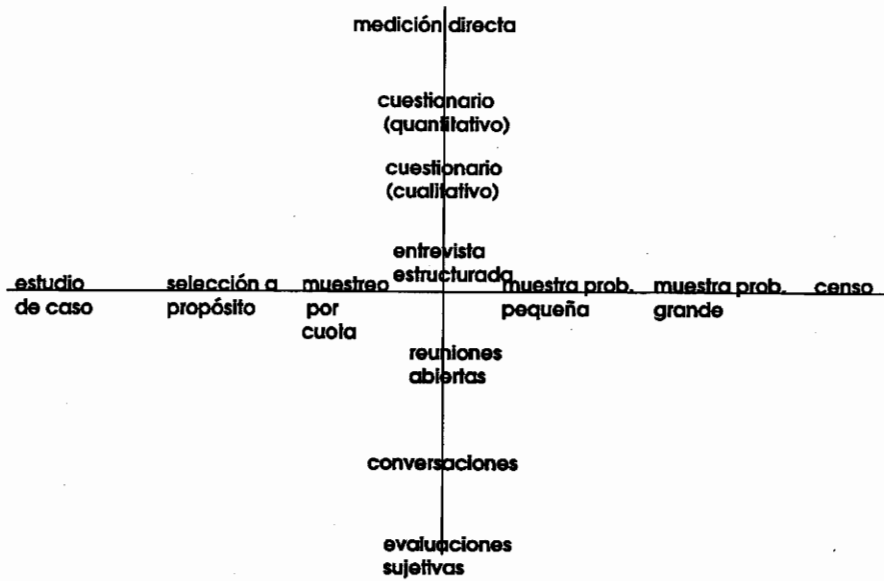
- Poder decidir si existe un problema
- Poder identificar las causas del problema
- Simular los cambios que resultarían con políticas alternativas
- Monitorear
- Evaluar y medir impacto

PANORAMA DE INSTRUMENTOS

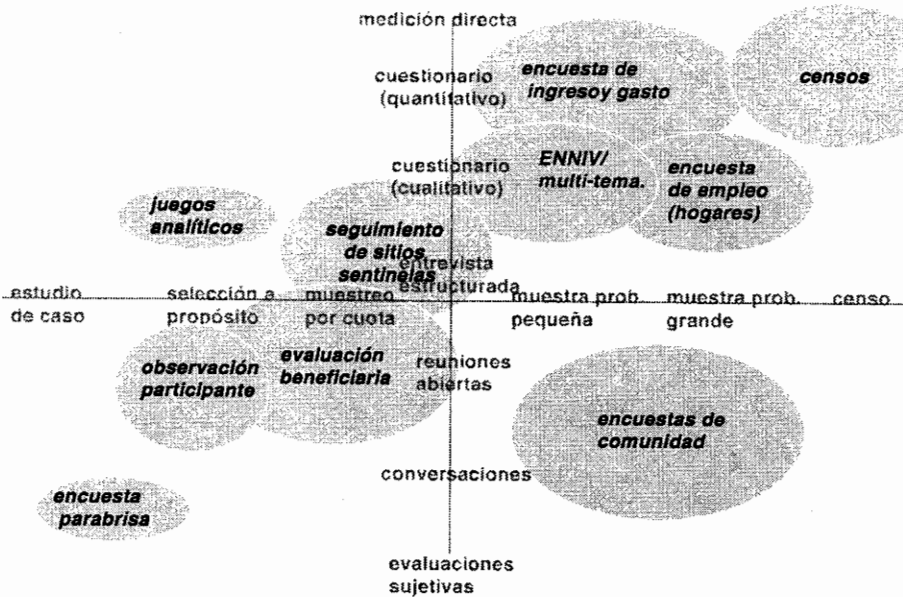
Encuestas Alternativas



Encuestas alternativas



Encuestas alternativas



PRINCIPALES INSTRUMENTOS USADOS

- Encuesta de empleo (hogares)
- Encuestas uni-temáticas
- Encuestas multi-temáticas

ENCUESTA DE HOGARES (EMPLEO)

- **Objetivo** proporcionar estadísticas laborales e información parcial de ingreso

INFORMACIÓN RECOPIADA:

ENCUESTA DE HOGAR (EMPLEO)

- | | |
|--------------------------|-----------------------------|
| • Consumo e ingreso | • Empresas del hogar |
| • Empleo y migración | • Actividades agrícolas |
| • Salud y educación | • Ahorro y patrimonio |
| • Nutrición y fertilidad | • Servicios de la comunidad |
| • Vivienda | • Precios locales |
| • Composición del hogar | • Uso de servicios sociales |

ENCUESTA DE HOGARES (EMPLEO)

- **Objetivo** proporcionar estadísticas laborales e información parcial de ingreso
- **Muestra** de 10,000-20,000 hogares
- **Operativo de campo** establecido, con presupuesto y controles de calidad mínimos
- **Informes** estándar y rápido de tasas
- **Análisis:** estadísticas y políticas laborales; uso en estudios de pobreza cuando no hay fuente de datos con mejor medición de bienestar

OTRAS ENCUESTAS UNI-TEMÁTICAS

- **Objetivo** investigación enfocada en un tema (educación, fecundidad, consumo, etc.)

INFORMACIÓN RECOPIADA: ENCUESTA DE INGRESO Y GASTO

- **Consumo e ingreso**
- Empleo y migración
- Salud y educación
- Nutrición y fertilidad
- Vivienda
- **Composición del hogar**
- Empresas del hogar
- Actividades agrícolas
- Ahorros y patrimonio
- Servicios de la comunidad
- Precios locales

INFORMACIÓN RECOPIADA: ENCUESTA DE DEMOGRAFÍA Y SALUD

- Consumo e ingreso
- Empleo y migración
- **Salud y educación**
- **Nutrición y fertilidad**
- Vivienda
- **Composición del hogar**
- Empresas del hogar
- Actividades agrícolas
- Ahorros y patrimonio
- Servicios de la comunidad
- Precios locales
- Uso de servicios sociales

OTRAS ENCUESTAS UNI-TEMÁTICAS

- **Objetivo** investigación enfocada en un tema (educación, fecundidad, consumo, etc.)
- **Muestra** según propósito
 - ENDSA/DHS 8,000 – 20,000 hogares
 - Ingreso/gasto 1,000 – 2,000
- **Operativo de campo** muy variable
- **Análisis** atado a objetivo original (normalmente no relacionado con la pobreza), con oportunidad variable

ENCUESTAS MULTI-TEMÁTICAS

- **Objetivo** investigación de las múltiples dimensiones de bienestar

INFORMACIÓN RECOPIADA:

ENCUESTAS MULTI-TEMÁTICAS

- | | |
|------------------------------------|-----------------------------|
| • Consumo e ingreso | • Empresas del hogar |
| • Empleo y migración | • actividades |
| • Salud y educación | • agrícolas |
| • Nutrición y fertilidad | • Ahorros y patrimonio |
| • Vivienda | • Servicios de la comunidad |
| • Composición del hogar | • Precios locales |
| • Uso de servicios sociales | |













ENCUESTAS MULTI-TEMÁTICAS

- **Objetivo** investigación de las múltiples dimensiones de bienestar
- **Muestra** nacional 2,000 –5,000
- **Operativo de campo** incluye
 - Entrada de datos concurrentes,
 - Programa inteligente de entrada de datos
 - Alta supervisión
- **Análisis** niveles y causas de pobreza, comportamiento de hogares, relaciones entre políticas sociales, hogares y resultados

















OPCIONES PARA LA ENCUESTA MULTI-TEMÁTICA

- Encuesta con todos los temas cada 3-5 años (Viet Nam, Nicaragua)
- Encuesta reducida más módulos rotativos (Jamaica, Cambodia)
 - Consumo
 - Uso de servicios básicos
 - Módulos mínimos de empleo, educación, demográfico, transferencias, etc.

Muestreo

	multi- etnia	Interseccional DASH	empleo empleo	ENDSA
producir resultados discrepados				
minimizar errores de muestreo				
minimizar errores no muestrales				

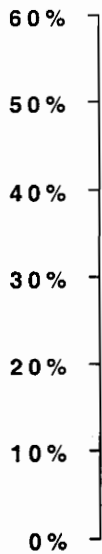
Utilidad para Politicas Sociales

	multi- etnia	Interseccional DASH	empleo empleo	ENDSA
medir bienestar				
medir uso de servicios				
relacionar pobreza con uso de servicios				
simular alternativas de politicas				

EJEMPLOS DE ANÁLISIS

Entendiendo la matriculade jóvenes 12-18 años en escuelas secundarias, Peru 1985

Por ciento

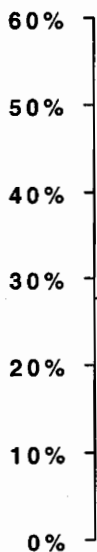


promedio

- En casi todos países tenemos una estadística única -- el promedio nacional. En este caso el promedio es 27%.
- Este puede ser interesante para monitoreo, pero no dice mucho respecto a pobreza y
- ... un desglose regional sería útil

Entendiendo la matricula de jóvenes 12-18 años en escuelas secundarias, Peru 1985

Por ciento



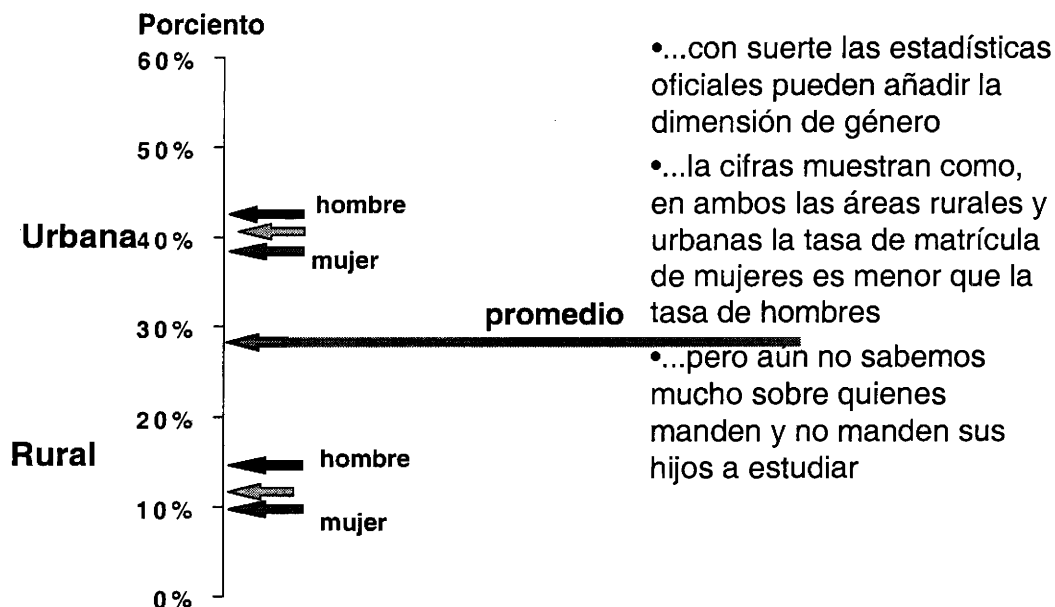
Urbana

promedio

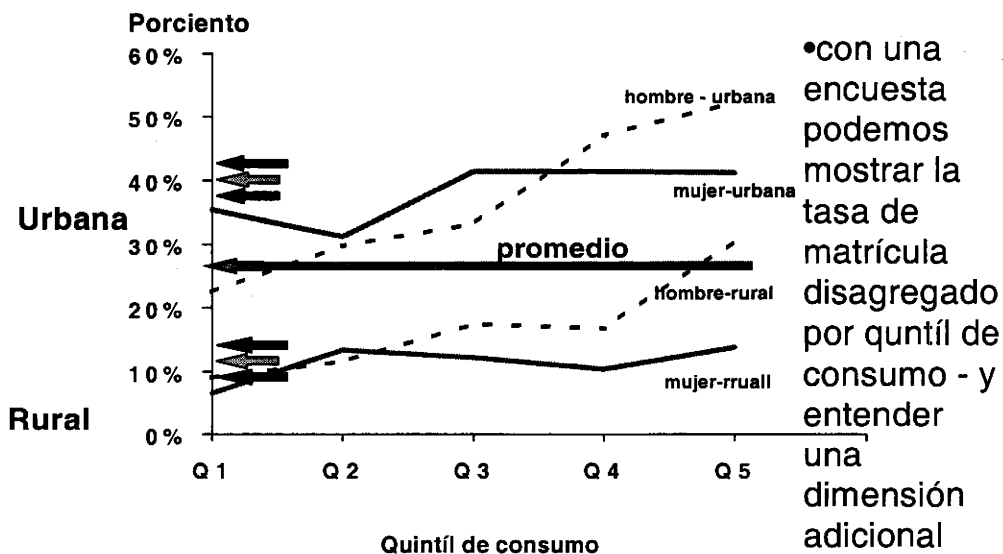
Rural

- en algunos países tenemos el desglose regional, y un contraste marcado.
- El contraste entre la tasa rural y la tasa urbana subraya la desventaja que enfrenta las comunidades rurales.
- ¿Cuál otro desglose sería útil?

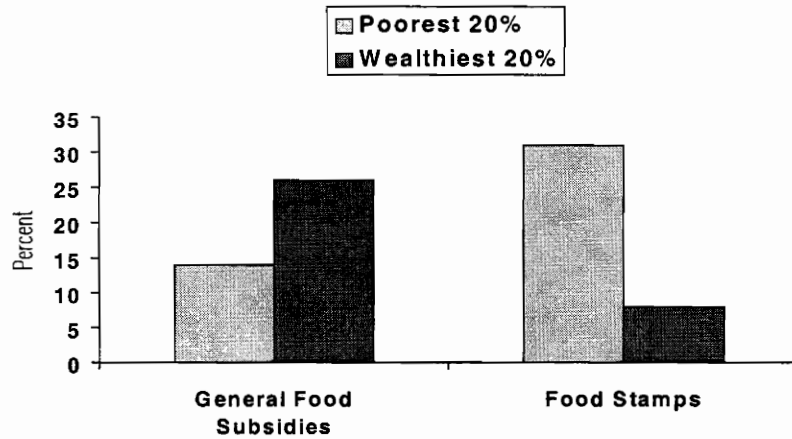
Entendiendo la matricula de jóvenes 12-18 años en escuelas secundarias, Peru 1985



Entendiendo la matricula de jóvenes 12-18 años en escuelas secundarias, Peru 1985



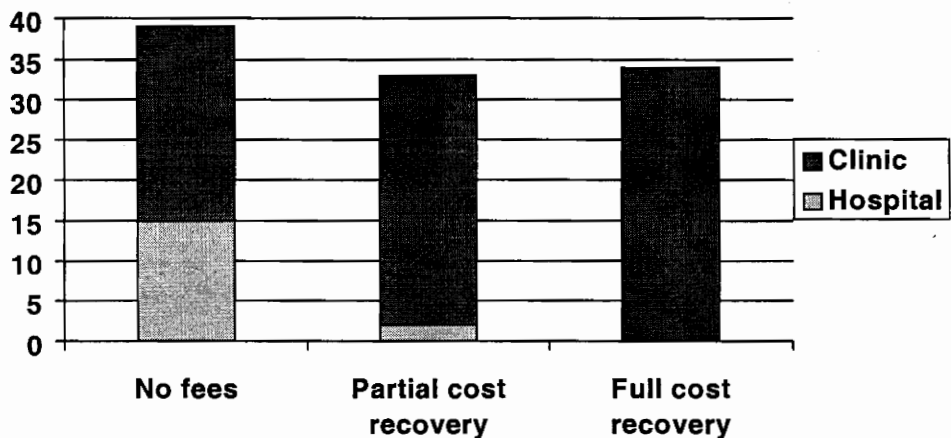
¿Quién se beneficia de subsidios a alimentos in Jamaica, 1988?



Los cupones son mejor focalizados que los subsidios de precio

Impacto simulado de aumentar los cargos por servicio en hospitales en Costa de Marfil, 1985

Porcentaje de niños enfermos buscando servicios en clínicas y hospitales



Con el aumentar de los cargos en hospitales, pacientes sustituyen el uso de clínicas

TUNISIA – IMPACTO DE POLÍTICAS ALTERNATIVAS DE PRECIO

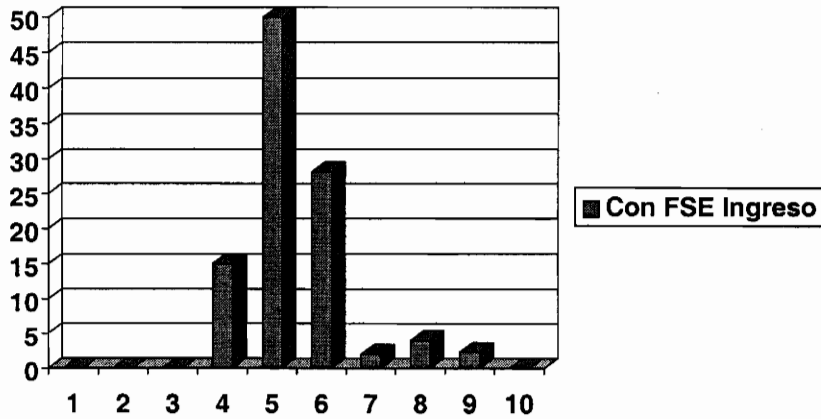
	Quintil de consumo					Media)
	1 (pobre)	2	3	4	5 (rico)	
(1) cortar subsidio en 50%						
Cambio en calorías consumidas (%)	-30.1	-24.3	-22.2	-20.6	-15.3	-21.9
Insumo calórico resultante	1483	1688	1813	1975	2549	1902
(2) cortar subsidios en manera focalizada						
Cambio en calorías consumidas (%)	-19.5	-20.9	-22.6	-22.6	-22.5	-21.7
Insumo calórico resultante	1708	1764	1803	1925	2332	1907

Nota: Alternativa (1): impacto en las cantidades consumidas de cortar todos los subsidios en 50% desde los niveles de 1993. Alternativa (2): impacto en las cantidades consumidas de eliminar en forma completa los subsidios solamente en algunos productos y bajar el subsidio de productos específicos.

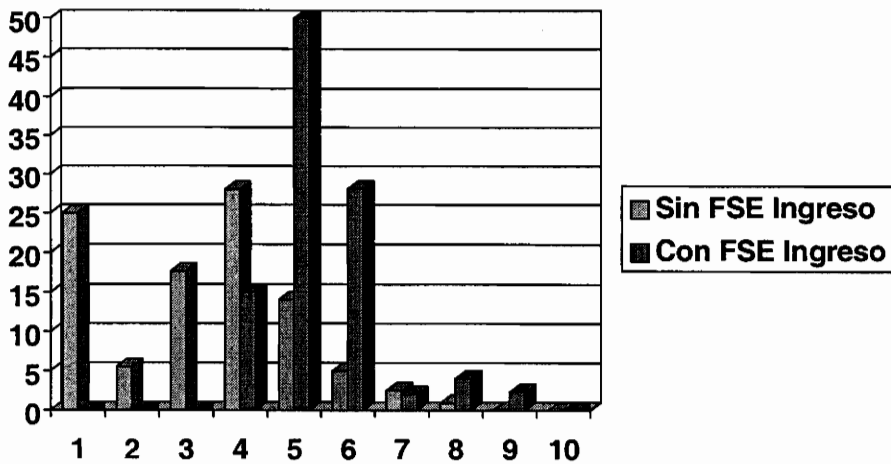
Un número negativo señala una pérdida de calorías. Se omite de las estimaciones la introducción de productos nuevos desde 1993. Requerimiento calórico diario por persona de 2165, (Instituto Nacional de Estadística, tunisia).

Fuente: Tuck y Lindert (1996), tables 27 y 28.

Bolivia:
Distribucion de Ingreso de trabajadores urbanos del FSE con el empleo en el FSE



Bolivia:
Distribucion de Ingreso de trabajadores urbanos del FSE sin el empleo en el FSE



REQUISITOS PARA MEJORAR LAS POLÍTICAS SOCIALES

- Poder decidir si existe un problema
- Poder identificar las causas del problema
- Simular los cambios que resultarían con políticas alternativas
- Monitorear
- Evaluar y medir impacto

SISTEMA DE ENCUESTAS

- ✓ Censo
 - Nacional – cada 10 años
- ✓ Ingreso/gasto
 - Nacional – cada 10 años
 - Urbano – cada 5 años
- ✓ Encuesta de empleo
 - Grandes ciudades -- mensual
 - Resto del área urbana -- trimestral
 - Area rural – semestral
- * Multi-temática/ENNIV
 - Entre annual y cada 5 años, según circunstancias

EJEMPLO: ARGENTINA

Hoy: sistema no integrado

- Encuesta de hogares
 - urbana
 - otros modulos en adición al empleo, ad hoc
- ENNIV – urbano todavía

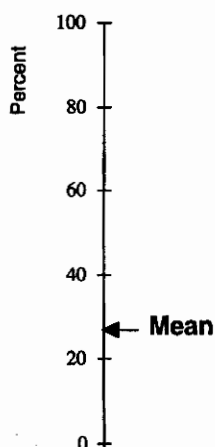
Futuro: Sistema integrado

- ENNIV; cada 3 años, nacional
- Encuesta de hogares
- Ingreso y gasto (cada 10 años (87% cobertura))
- Otras Encuestas de propósitos especiales (demografía, salud)

SURVEYS BRING AN ADDED DIMENSION

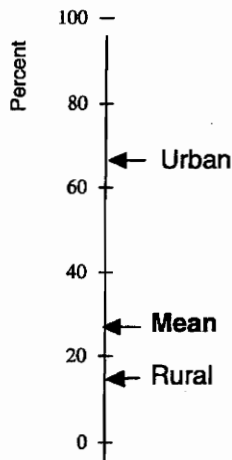
- Social indicators become more meaningful when disaggregated, so that comparisons can be made between different population groups
- School enrollment rates provide a good example

Surveys bring an added dimension



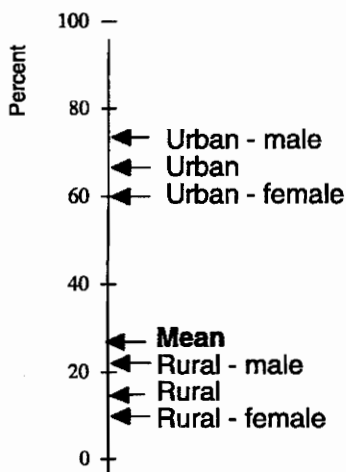
- In most countries, all we have is a single statistic - a national average. In this case (Niger) the national primary school enrollment rate is 26%.
- This may be somewhat interesting for monitoring changes

Surveys bring an added dimension



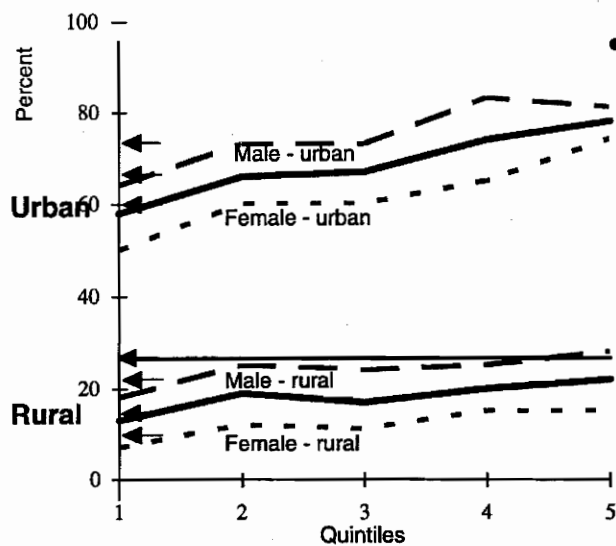
- ... in some countries, we can have this statistic broken down for rural and urban areas - what a contrast!
- The striking difference in urban and rural enrollment rates helps to highlight the extent to which rural

Surveys bring an added dimension



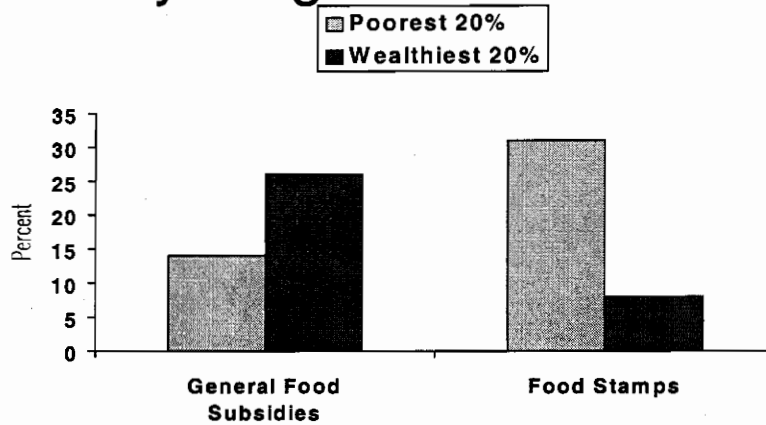
- ... with luck the official statistics may be able to add in a gender dimension
- ... the figures show how, in both rural and in urban areas, female enrollment rates lag badly behind men's

Surveys bring an added dimension



- ... but with a household survey we can show enrollment rates by expenditure quintile - and add a whole new dimension

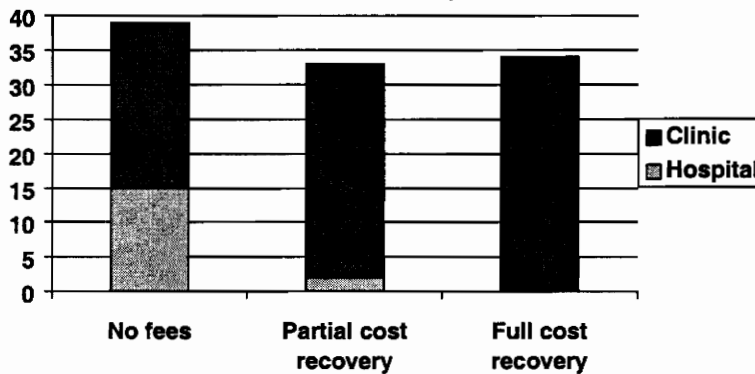
Who Benefits from Food Subsidy Programs in Jamaica?



Food stamps are more pro-poor than food subsidies

Simulated Impact of Raising Hospital Fees in Côte d'Ivoire

Percentage of ill children seeking care in clinics and hospitals



Increased hospital fees shift demand from hospitals to clinics

Poverty in Slovakia and in France: A Comparison

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INSEE - FRANCE

Version as of December 1997

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Abstract: At the same time that we can acknowledge socio-economic differences between France and Slovakia, the different measures of relative poverty in these two countries lead us to notice some significant similarities between them. The younger and more rural population of Slovakia receives a lower average of incomes, and yet it has a more equal distribution of resources than does France. If basic comforts are assured in both countries, Slovakian families are less well-equipped with durable goods than the members of French households; they are also more worried about their futures. Slovakia has just recently moved from a Socialist economy run by the State to a market economy and problems related to this transition can in part explain this concern.

In France as well as in Slovakia, the risk of poverty is greater for one-parent families. In both countries, the most impoverished people often have a low level of training or are in poor health. The experiences of being a tenant or of not being able to depend economically on someone close to oneself (a friend or family member) in case of difficulty are also more common for the poor. There are also in both countries few households determined poor by all three notions of poverty used in this study (opinion polls, living conditions and monetary evaluation).

Spread out over 49,000 km², 60% of Slovakia's manual workers and 43% of its total inhabitants live in rural areas. In France, on the other hand, which covers an area of 550,000 km², 20% of manual workers and 25% of the total population live in the countryside (see box 1). With Gross Domestic Products (GDP) per inhabitant of 7036 SPP² and of 18,516 SPP respectively, these are two countries that seem very different, even more so when we consider their recent histories³. To try to compare the poverty in these two countries might be considered a real challenge: the common international comparisons of income or of quality of life are usually performed on countries that are more similar (Chambaz and Maurin, 1997; Lechene et al., 1994; Eurostat, 1997a). But beyond the differences already mentioned above, there are several points of similarity between France and Slovakia: they are geographically close, culturally similar, and have histories that diverged only in 1945. While it is important to be aware of certain methodological problems that may pose themselves, it is possible to make a comparison between the poverty in these two countries.

The Slovakian population is younger and more rural

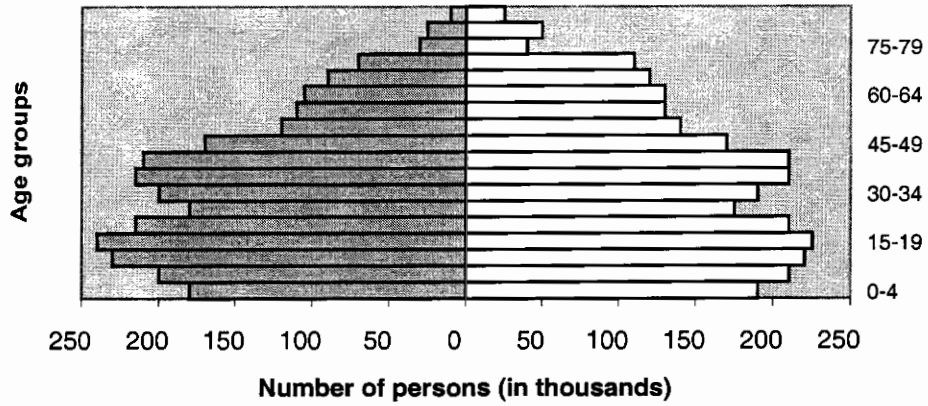
The population densities of Slovakia and France are very similar, with each country having about 110 inhabitants per km². However, while almost half of the Slovakian population is rural, only one French citizen in four lives in the countryside. Slovakia also has a greater number of younger people than France (see graph I). In 1995, 31% of the population was less than 20 years old, in contrast with 26% in France. In addition to these numbers we must consider differences in life expectancy: in Slovakia, it is 69 for men and 76 for women, whereas it is 74 for men and 82 for French men and women, respectively. The elders who are more than 65 years old represent 15% of the population in France, while in Slovakia, they constitute 11%, (with only 3% being over 75, in contrast with 7% in France.)

² SPP : Standard purchasing power's parity

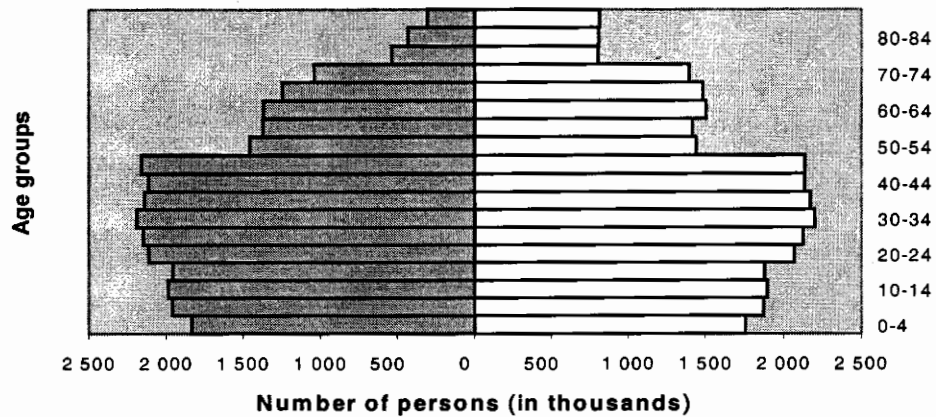
³ The secession of the Czechoslovakian Republic in 1993 has brought about two distinct republics, the Czech Republic and the Slovakian Republic, which had together formed republic for the preceding seventy-five years. (1918-1993).

**GRAPH I
POPULATION PYRAMID FOR 1995**

A - Slovakia (1995)



B - France (1995)



Sources: Civil State, 1995 (Insee) and the 1991 Census (Statistical Office of the Slovakian Republic).

Box 1**A Pioneer Investigation on the Living Conditions in Slovakia**

The date for France used in this article comes from the first wave of the European panel, which describes the situation of households at the end of 1994. Our principal source of information for Slovakia is the inquiry *The Social Situation of Slovakian Households*, carried out in March of 1995.

This inquiry of the statistical Office of the Slovakian Republic, which was carried out by using a survey, aims to discern the conditions of life in households at the beginning of the process of moving toward a market economy. Besides the fact that it describes the objective situation of households, (incomes, employment, demographic composition, comfort and equipment of lodgings,) this inquiry includes an important subjective component, in which the households give their impressions of their present situation and its evolution. 8,676 households, constituted by a population of 28,411 people, responded to the survey. The information on the incomes obtained in this way was checked against the results of the *Microcensément* inquiry of 1992, which was concerned with the incomes and the expenditures of Slovakian households. For this reason we can attribute more credibility to our results. The questionnaire was written in such a way as to allow a comparison with the information acquired by the European panel: all gaps between the two questionnaires are justified by the differences between the economic and social situations of the two populations. The carrying out of this inquiry was the result of a cooperation between the Insee and the Statistical Office of the Slovakian Republic, which took the form of a Eurostat program called "Phare."

These demographic profiles must be considered in light of the differences between family structures in the two countries: on the one hand, Slovakian households are on average of a larger size (3.1 persons as opposed to 2.5 in France) and on the other hand, 65% of the heads of household⁴ are between 30 and 60 years old, in comparison with 55% in France. Cohabitation is much more common in Slovakia: young Slovaks live with their families while they are still in school, while in France, 17% of students live on their own house. Young Slovakian households are exclusively composed of people who have not pursued higher education and who work. Moreover, in Slovakia, the elders often live with their adult children. As a result, in 1994, Slovakia had twelve times fewer households than did France (1,820,000 and 22,840,000 respectively). Young households (composed of people under 30) and old households (of people over 75) were fewer in Slovakia (7.5% and 8% as opposed to 12% and 11% in France). While nearly 30% of French households are composed of people living alone, the corresponding figure in Slovakia is barely 20%.

The number of one-parent families is equivalent in the two countries, while there are more households without children in France (see figure 1). This relatively larger number of households without children can be explained by a longer life expectancy in France (thus there are a greater number of older households without children) and also by the number of students who live alone (in this way both a parent's and an adult child's household becomes classified as a "household without children"). In rural settings, the structure by age is almost the same in both countries (see table 2).

⁴ This term is used in preference to the one called "reference persons," canonical in French analyses, since a term this precise does not exist for Slovakia.

TABLE 1
MORE PEOPLE PER HOUSEHOLD IN SLOVAKIA
%

	Slovaquie	France
Men alone	5,3	10,8
Women alone	13,7	17,2
Couples without child	15,4	26,3
Couples with one child	13,4	14,2
Couples with two children	22,8	13,7
Couples with three children or more	12,0	7,4
One-parent families	7,4	6,3
Other families	10,1	4,0
All	100,0	100,0

Sources: European panel, wave 1994 (Insee); *The Social Conditions of Households* inquiry, 1995 (Statistical Office of the Slovakian Republic)

TABLE 2
HOUSEHOLD STRUCTURE BY AGE SIMILAR IN RURAL COMMUNITIES
%

Type of district	Under 30 years old		30 to 39 years		40 to 49 years		50 to 63 years		64 to 74 years		75 years and over		All	
	SK	FR	SK	FR	SK	FR	SK	FR	SK	FR	SK	FR	SK	FR
Urban	8,9	14,5	23,8	19,5	25,6	20,2	20,5	20,3	14,7	15,2	6,5	10,3	56,6	75,2
Rural	5,7	5,7	17,8	19,1	20,2	21,4	26,4	22,2	19,7	17,6	10,2	14,0	43,4	24,8
All	7,5	12,3	21,2	19,4	23,3	20,5	23,1	20,8	16,9	15,8	8,1	11,2	100	100

SK : Slovakia; FR : France

Sources: European panel, 1994 (Insee); *The Social Conditions of Households* inquiry, 1995 (Statistical Office of the Slovakian Republic)

Training More Technical in Slovakia

The principal difference between the education of heads of household (the indicator of "human capital") in Slovakia and France can be understood in relation to the nature of the educational systems of these two countries: training is more often technical in Slovakia, while higher education is more common in France. Slovakia, with a tradition of heavy industry, presents a profile of human capital that is fairly marked by technical training: 55% of heads of household have done technical training (not including higher education) in relation to 40% in France. Inversely, the number of people who have a higher education is two times higher in France: in 1994, more than 20% of French heads of household had pursued a higher education, in relation to 10% in Slovakia (see table 3).

These levels of training determine the social categories for each country. The predominately technical training system results in a relatively large population of trained manual workers in Slovakia (41% in comparison with 22% in France) and a smaller number of managers (9% in comparison with 14% in France) and employees (17% in comparison with 21% in France).

TABLE 3
TRAINING AND SOCIAL CATEGORIES
A - TRAINING MORE TECHNICAL IN SLOVAKIA

%

Level of education attained by the household's reference person (1)	Slovakia	France
Primary school not finished	4,2	2,1
Primary education	27,6	28,5
Secondary education (technical)	15,2	13,0
Secondary education (profesional)	21,2	21,1
Technical certificate of education	18,6	5,6
General certificate of education	3,5	9,2
Higher education	9,8	20,5
All	100	100

1. In order to make comparable our data on the level of education attained, we have estimated French equivalents for each Slovakian category

B - MORE MANUAL WORKERS IN SLOVAKIA

Social category of the household's reference person (1)	Slovaquie	France
Unskilled manual workers	23	10
Skilled manual workers	41	22
Technicians and administrative employees	17	21
Managers (2)	9	21
Other	7	26
Non-declared	3	
All	100	100

1. Approximate comparison, as a less-detailed nomenclature of professional classification is used in Slovakia

2. For France, liberal professions are included (7%).

Sources: European panel, 1994 (Insee); *The Social Conditions of Households* inquiry, 1995 (Statistical Office of the Slovakian Republic)

Incomes in Slovakia Lower and Less-Widely Distributed

The GDP per inhabitant in Slovakia is around three times lower than that of France (see box 2). Obtained through *The Social Conditions of Slovakian Households* inquiry, the analysis of income instantaneously corrected by purchasing power's parity, shows a relationship of the same size between Slovakian and French household incomes.

Box 2**Measures of Consumption and the Comparability of Purchasing power**

Comparing the levels of quality of life between two countries requires us to take the various modes of life (notably the structures of consumption) and the gaps between the values of goods which satisfy this consumption into account. These two aspects have a direct impact on our comparison: the structures of consumption determine the equivalent scales by each household and the relatively high cost of goods allows people to meet their needs fairly easily. We are thus led to define the measures of consumption pertinent to our study and to take the current price levels in the two countries into account.

Which measures of consumption should be held constant?

The measures of consumption cited by the OECD⁵ are being used more and more in studies on poverty. If in the case of France, the estimations seem to be in favor of this scale (Hourriez and Olier, 1997) we can ask ourselves to what extent the structures of consumption in Slovakia, which are different from those in France, would require recourse to a different scale: the arguments advanced in criticism of the Oxford scale⁶ in the case of France certainly do not have the same pertinence for a study of the Slovakian population, where consumption is still marked by the relative importance of spending for food. In lacking a way to make estimations that would justify an optimal choice, we have adopted in this study a scale slightly different from that of the OECD. The latter is in any case often used to make international comparisons and requires that each household take as its number of unities of consumption the square root of the number of individuals within it⁷.

The estimation of correspondences in purchasing power

In order to make a comparison of the level of quality of life in the two countries, we must convert the incomes expressed in local currencies into a common unit. The simple application of the exchange rate is not adequate for obtaining comparable values. Between the French franc and the Slovakian crown, the rate of exchange is around five crowns per franc. Yet with 500 francs the French tourist can buy many more goods than with 100 francs in France. We must therefore take this differential of real price level in the two countries into account. Statisticians generally use of two techniques for estimating this correspondence in purchasing power: the GK method (Geary-Khamis) and the EKS method (Elteto-Köves-Szulc), both named after their authors. These two methods for the estimation of correspondences in purchasing power have different properties. The GK index is based on the average prices in a reference area composed by the countries to be compared; it works very well for comparing countries whose standards of living and social structures are not very dissimilar. The IKS index, using series of calculations for different intermediate countries, presents some favorable properties for comparing countries that are very different from one another. For our comparison of France and Slovakia, we have chosen the KG index. The estimation of correspondences in purchasing power can be biased by problems with the quality and comparability of the data: the principal deficiencies arise from differences in theoretical concepts used by national accounts (certain transitional economies have methods of national accounts that are different from those Western countries,) from differences in the exhaustiveness of accounts and from limitations on the base data for price statements in goods and services.

Presentation of the GK method (Geary-Khamis)

This index was proposed by Geary in 1958 and was modified in 1978 by Khamis. It is based on the averages prices in a zone of reference composed by the K countries that we are going to compare.

First we choose a common unit that expresses the average prices.

⁵ The consumer unit is worth 1 for the first adult in each household, 0.5 for the other adults and 0.3 for children under 14.

⁶ The consumer unit is worth 1 for the first adult in each household, 0.7 for the other adults and 0.5 for children under 14.

⁷ The experiments done on Slovakia using the three commonly used scales (Oxford, OCDE and the square root of the number of individuals) have not shown that estimations vary significantly with the choice of scale.

Let us suppose that there is a total N of products and that we know the price $({}_i p_k)$ and the quantity $({}_i q_k)$ that constitutes the GDP for each country (k).

The average price Π_i of product i is defined by the average price of each country expressed in the common value $({}_i p^*_k)$ and weighted by its corresponding quantities.

$$\text{Given that } \Pi_i = \frac{\sum_{k=1}^K {}_i p^*_k \cdot {}_i q_k}{\sum_{k=1}^K {}_i q_k} \text{ where } i=1,2,\dots,N$$

When converting $({}_i p_k)$ into $({}_i p^*_k)$, it is not worthwhile to use the exchange rates, since they do not sufficiently take into account the relationship between prices in the two countries. It is necessary to use the correlation of purchasing power of global spending $({}_r p_k)$ in the currency of reference to the currency of country k given that: ${}_i p^*_k = \frac{{}_i p_k}{{}_r p_k}$ where r represents the reference country.

Thus

$$\Pi_i = \frac{\sum_{k=1}^K \frac{{}_i p_k}{{}_r p_k} \cdot {}_i q_k}{\sum_{k=1}^K {}_i q_k} \text{ where } i=1,2,\dots,N$$

It remains for us to find the ${}_r p_k$. By definition, the correlation of global purchasing power ${}_r p_k$ of the reference currency to the currency of country k is equal to the value of the GDP of country K expressed in national currency, divided by the value of this GDP with the help of average international prices in the zone of reference.

$$\text{From which it follows: } {}_r p_k = \frac{\sum_{i=1}^N {}_i p_k \cdot {}_i q_k}{\sum_{i=1}^N \Pi_i \cdot {}_i q_k} \text{ where } k=1,2,\dots,K$$

Thus in total we have a system of linear equations in Π_i et $\frac{1}{{}_r p_k}$ at $N + K$ equations and unknowns.

Being homogenous, this system has an infinite number of solutions. It is necessary to add a supplementary constraint in order to obtain a single solution. For the European community, we require that the communal GDP expressed in the unit coincide with the GDP expressed in ECU (European Currency Unit). This unit is called the standard of purchasing power (SPP).

In the case of France and Slovakia, we use two estimates, one by Eurostat (see table), the other by the United Nations Program on Development (UNDP) for 1993 in its global report on human development in 1996. The two values are closely related: life is on average two times more expensive in France than in Slovakia. The GDP report by inhabitant, after corrections for differences in purchasing power, is staggered from 2.6 to 3.7 following the estimations made by the two institutes. In the case of this study, the estimations lead us to retain a relationship equal to 3.7 for the average monetary standard of living in the households studied⁸.

GDP PER INHABITANT MEASURED WITH THE PRICES AND STANDARDS OF PURCHASING POWER (SPP) OF 1995

	GDP (in SPP)	Exchange Rates (1 ECU in units of national currency)	Purchasing power 's parity ((1 SPP in units of national currency)	Price Index (SPP/ECU)
Average of 15 (1)	17 264	-	-	100
France	18 516	6,4 F (2)	7 F	92
Slovaquie	7 036	38,9 SK (3)	13,6 SK	35

1: 15 countries belong to the European Union.; 2. F: French franc; 3. SK: Slovakian crown
Source: Eurostat, 1997

In 1994, an average Slovakian household has an annual income of 7,050 SPP, in other words 3.7 times less than its French analogue (25,760 SPP). In units of consumption, this income is 4,000 SPP in Slovakia, a level four times lower than that of France (16,900 SPP).

The spread of incomes is clearly less important in Slovakia than it is in France (see table 4, and box 3). It is also more symmetrical and less flattened. The inequalities therefore do not have the same magnitude in the two countries. With a Gini coefficient of 0.33 by comparison with 0.25 for Slovakia, France appears more inegalitarian.

When comparing inequalities in standard of living, Lorenz curves are generally used to plot the respective assessment of the total of the incomes by unit of consumption in each country. For understanding the distribution of wealth among households we can use a model of a cake that is to be divided and shared. The larger the part of the cake shared among the least wealthy, the weaker the inequalities. The application of such a standard confirms that inequalities are smaller in Slovakia than in France (see graph III-A).

TABLE 4
DISTRIBUTION OF INCOMES BY UNITS OF CONSUMPTION
SPP*

	Slovakia	France
1st decil	2 110	6 610
Median	3 650	13 970
9th decil	6 070	37 920

*SPP: standard purchasing power

Sources: European Panel, 1994 (Insee) and the *Social Condition of Households* inquiry, 1994, (Statistical Office of the Slovakian Republic).

⁸ The numbers furnished by the two inquiries analysed here are quite compatible with these macroeconomic estimations.

Box 3**Non-parametric estimation of the density of a variable using Epanechnikov's CORE method**

When representing the distributions of income it is not useful to use the crude histograms, which are very irregular. The chosen method has been to estimate the densities by non-parametric methods. These allow us to RESTORE the extreme ends of the distribution, especially the lower one, better than the parametrical adjustments normally used (to a log-normal distribution or a Pareto distribution, to refer only on two of the adjustments most frequently used with income distributions). These methods called of "core", (Delebroix, 1997; Fougère and Verger, 1997) involve smoothing out the histogram by moving averages : the density at one point is an average weighted by the numbers situated around this point, with a weight all the greater when it is close to the point of which the density is being estimated.

The general form of an estimator at the core of a function of density is:

$$\hat{f}_n(y) = \frac{1}{h_n} \sum r_i K\left(\frac{y - y_i}{h_n}\right)$$

where r_i is the weight of the household i , y_i its income, K the function of the core and h_n the size of the window

The function K must verify the following properties:

$$K(u) \geq 0, K(-u) = K(u), \forall u \in R, \text{ and } \int_R K(u) du = 1$$

Several choices for K and h_n can be used in order to smooth out the rough distributions. Here we have used Epanechnikov's core

$$\left[K(u) = \frac{3}{4} (1 - u^2) \mathbb{1}(|u| \leq 1) \right]$$

and for the width of the window the thumb rule $h_n \approx 1.06 \hat{\sigma}_y n^{-1/5}$, where $\hat{\sigma}_y$ is the standard deviation of the analyzed variable.

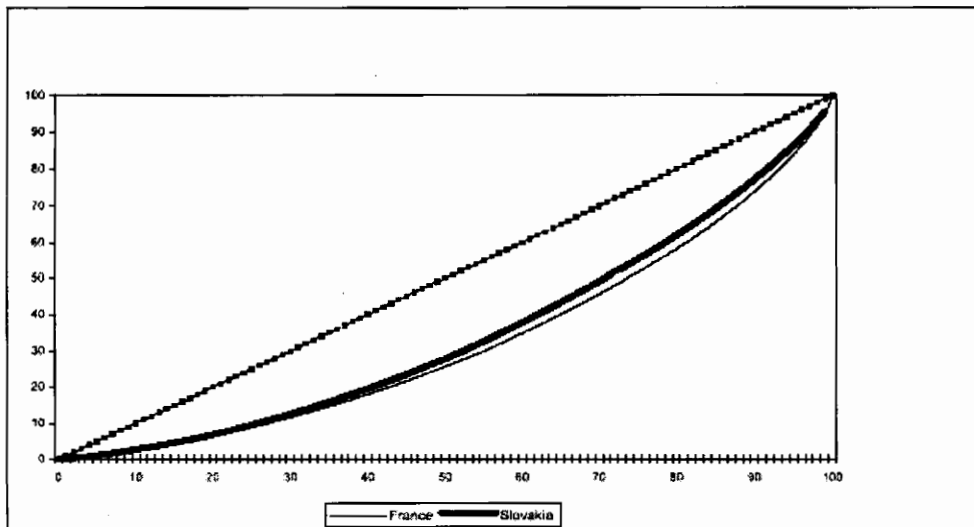
Deducing well-being from inequality does not work in the same way. In general, it is not sufficient that the inequality be lesser in order to make the situation preferable: it is also necessary, if we continue to use the metaphor, to take into account of the size of the cake. It has been demonstrated that if we want to make the situation preferable in the second country, the inequality must be lesser **and** the average standard of living higher (Shorrocks, 1994). In the comparison between Slovakia and France, inequality is weaker in Slovakia. Yet, once correspondences in purchasing power have been taken into account, the average income is shown to be four times higher. In order to analyse this type of situation, Shorrocks has used a general Lorenz standard which involves multiplying the coordinates of the Lorenz curve by the average income. The classification changes when we consider this new standard, the situation seeming better in France from the lower end of the distribution (see graph III-B).

This generalized Lorenz criteria has prompted certain criticisms, since it has the tendency to give considerable importance to the gaps in average standard of living in relation to the gaps of dispersion. According to this criteria it is only necessary that all the incomes be the same except for the highest, in order for the situation to be preferable in the second country. More recent analyses lead us to relativize the importance of the average by bringing in a weighted factor. This is no longer the average level which is used to multiply the ordinates of the Lorenz curve, but the average income increased to a certain power between 0 and 1. This concept generalizes the two preceding notions since a null parameter allows us to

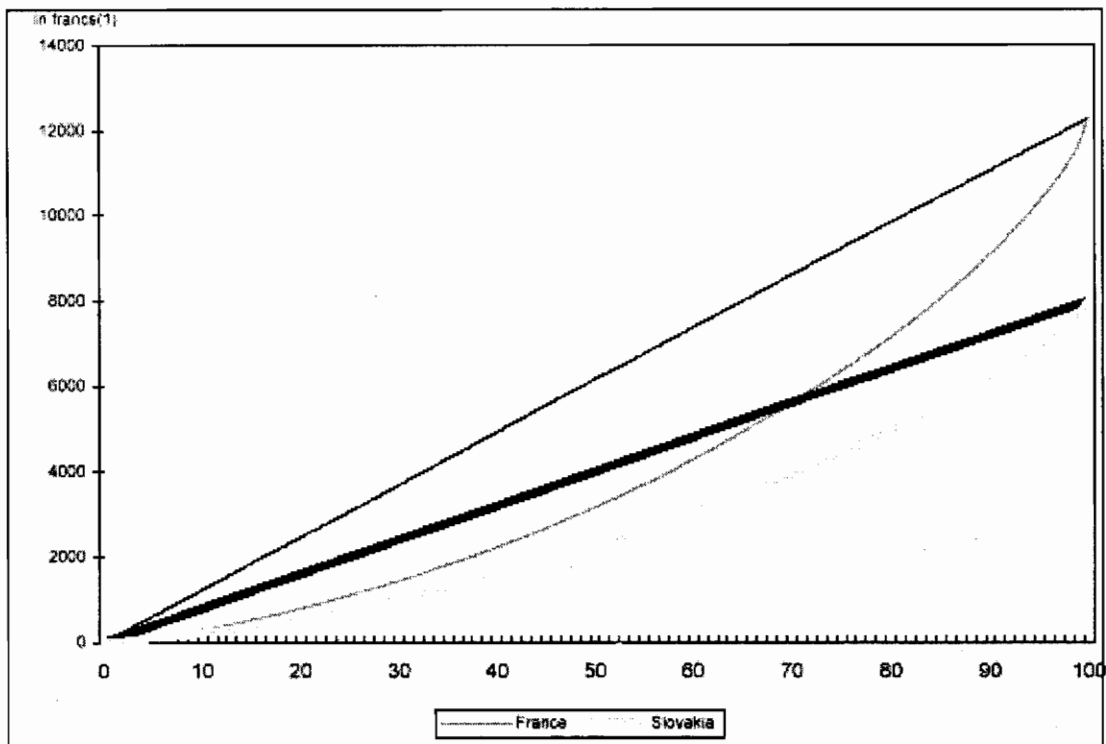
find the standard Lorenz curve (with a strong aversion to inequality) while the parameter equal to 1 leads to the generalized Lorenz curve (with a weak aversion to inequality). In order to take account of the two aspects, we have plotted the curve with a parameter equal to 0.5 to midway between the two extremes. The result is less clear-cut than it is with Shorrocks' criteria, nevertheless the situation remains favorable for France. In fact, the gaps in distribution between the two countries are quite weak, while the gaps of average standard of living are broadened. It is therefore necessary to present the very strong aversion to inequality in such a way as to make the Slovakian situation seem preferable (see graph III-C).

The more egalitarian character of the Slovakian distribution reflects quite different social realities with respect to the remuneration systems presently in effect in the two countries. On the one hand, being a blue collar worker in Slovakia was traditionally more lucrative than being "white collar" workers. By contrast, the highest-paid jobs in France are the intellectual professions. Until 1990 the Czechoslovakian Socialist State also guaranteed minimum standard of living to its entire population. Moreover, the lack of diversity of professions contributed to a narrow distribution of monetary resources. On the other hand, the income taken from the detention of capital is at a level in France that Slovakia has not had until recently. The increasing emergence of individual entrepreneurs (with the massive privatization of businesses,) of high-paid executives and workers in the liberal professions (doctors, lawyers, etc.)-- a trend following the institution of the market economy-- is going to modify the distribution of the standard of living in Slovakia. The country will certainly become more inegalitarian than it is at the moment. However, we have not yet observed some important modifications in the scope of the structure of inequalities.

GRAPH III
LORENZ CURVES
A - SIMPLE CURVES

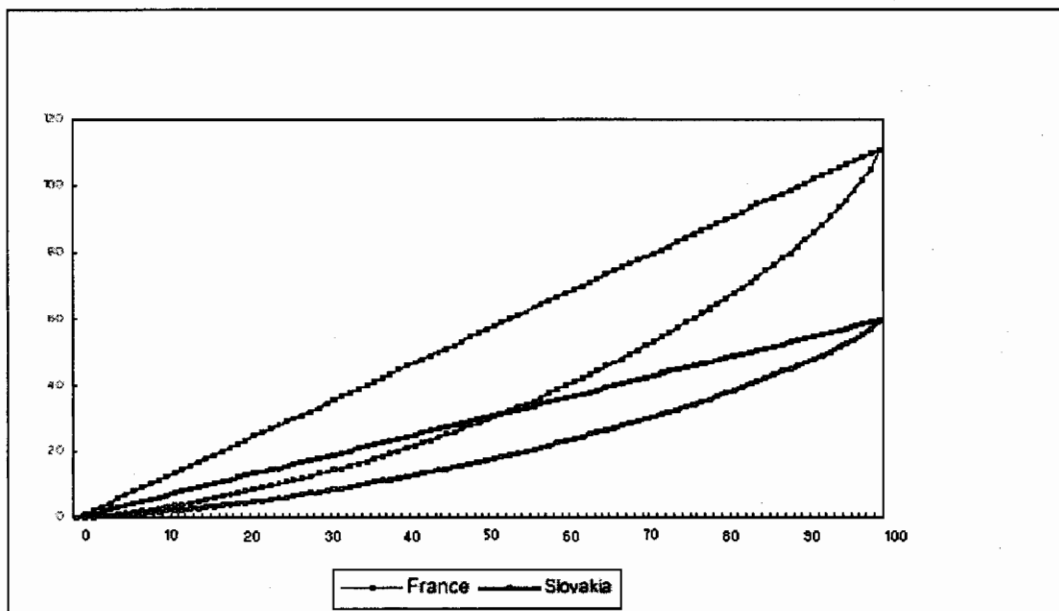


B - "GENERALIZED" CURVES



1. The Slovakian incomes have been converted into francs by means of comparisons of purchasing power (see box 2).

C - "WEIGHTED" CURVES (0.5)



Sources: European Panel, 1994 (Insee) and the *Social Condition of Households* inquiry, 1995, (Statistical Office of the Slovakian Republic).

MANY HOME-OWNERS AND AN ASSURED BASE OF COMFORT IN BOTH COUNTRIES

In examining two countries marked by such different social histories, we must take different approaches with each as we do an analysis of monetary resources that is based on study of standard of living. On the one hand, the slovakian state played a fundamental role in the recent past, assuring a significant number of benefits to its citizens. On the other hand, many Slovakian households cultivated a high level of domestic production (from gardens, domestic services, etc.) which helped them to assure a standard of living higher than that which corresponded to monetary incomes from their professions. This aspect of its culture shows that some of the differences observed between the standards of living in Slovakia and France are smaller than one might have supposed.

For this reason, differences as regards the number of people who own their lodgings, the existence of comforts such as central heating and the frequency of certain inconveniences (dampness, absence of light, etc.) are quite insignificant, even if, on all these points, the advantage is systematically in favor of France. On the other hand, the existence of a separate kitchen is more common in Slovakia. This must not be interpreted as the sign of a higher level of comfort, but only as an indication of its higher proportion of large and rural households. The French real estate park offers a significant number of small apartments with only a kitchenette to people who live alone (students, singles, etc.). The politics of Slovakian housing, which must respond to a different sociological reality (6), including the longer cohabitation of young people with their parents, has not tended toward the construction of lodgings of this type, but has instead served the needs of families: 63% of Slovakian households are lodged in at least three rooms. The housing policy was for that matter a priority of the Slovakian state, which was committed to assuring lodgings and related conveniences to every household; the French policy of providing social lodgings equipped with all the base comforts and of eradicating slums has also strived toward such standards by providing a more widespread distribution of running water, central heating and supply of energy. However, once we go beyond basic comfort levels, the gaps expand: running hot water, indoor toilets, and bathtubs or showers are clearly less widespread in Slovakia.

Comparable Nuisances in the large cities

On a global scale, Slovakian households have a more favorable opinion of their environments (less complaints about vandalism and noisy neighbors). These nuisances are above all felt by urban households and more precisely by those of the very large cities. For this reason, both in France and in Slovakia, households living in the capital (Paris and its suburbs or Bratislava) have a more negative opinion about their environments. With the households of big cities, the frequency with which nuisances are mentioned is not very different between the two countries (see table 5).

The problems with vandalism are, in both countries, closely related to apartment living: French households living in the cities are more confronted by it than the others; it is the same way for Slovakian households living in the suburbs of Bratislava (a recent neighborhood, formed of large groups which together add up to 145,000 inhabitants within one small area, is a good example of this). Nuisances related to neighbors are also reported more often among people living in these large groups, creating a wish in some households to change neighborhoods once their financial situation enables them to do so.

Another indicator of the comfort of a dwelling is the average rate of occupation of rooms. This is higher in Slovakia: for 5% of Slovakian households, the number of people per room is higher than two while in France, this number is almost zero (0.3%).

The higher rate for the possession of a vegetable garden, an orchard, or a vineyard (41% of households) and the significant portion of Slovakian households which spend their vacations at home certainly indicates the high presence of autoproduction⁹ and an economy less monetarized than that of France: this domestic production, which is not evaluated in the inquiry, certainly helps to raise the actual standard of living.

TABLE 5
SIMILAR NUISANCES FOR SLOVAKIAN AND FRENCH CITY-DWELLERS

%

	Slovakia	France
Noisy neighbors	20%	15%
Noisy outdoors environment	-	26%
Noisy neighbors or environment	-	34%
Polluted environment	31%	21%
Vandalism	50%	34%

Sources: European panel, 1994 (Insee) and Social Situation of Households inquiry, 1995 (Statistical Office of the Slovakian Republic).

TABLE 6
ANALYSIS OF POVERTY IN TERMS OF LIVING CONDITIONS

%

	Slovakia	France
Households that do not own their lodgings	48	37
General comfort of the lodgings: does not have the use of....		
... separate kitchen	1	10
... indoor toilet	30	3
... bathtub or shower	11	4
... running hot water	14	2
... central heating	26	27
... electric radiators	95	75
... other means of heating	88	57
... garden or terrace (1)	59	42
Inconveniences of the lodging; being confronted with the problems of a...		
... lodging that is too small	19	16
... damp lodging	11	19
... dark lodging	7	11
... lodging out of order (2)	25	-
... ineffective heating	d.u	13
... roof leaks	d.u	6
... windows, floor in need of repair	d.u	11
... noisy neighbors	11	11
... noisy outdoor environment	d.u	21
... polluted environment	19 (3)	16

⁹ Domestic production, which in the past allowed an improvement in standard of living, is not necessarily going to disappear with Slovakia's transition to a market economy; it could even become more common, at least at first. In fact, the renovation of household equipment is becoming more and more common with the use of products coming from the old Western block, which brings about a coexistence of equipment from before the transition (for example the old generation Skoda cars) with the new (the new Skodas with Volkswagen technology). Commercial services allow for the repair and maintenance of old models that are at risk of becoming more rare, a circumstance which requires modest households which cannot change equipment to make use of domestic services.

	Slovakia	France
... vandalism	19	25
... lack of greenery	25	d.u
... more than two people per room	5	ε
Equipment with durable goods: does not own.....		
... stove	15	ε
... refrigerator	35	1
... washing machine	9	11
... car	64	21
... telephone	59	4
... color television	33	8
Current consumption: does not have (or only with difficulty) the financial means to		
... buy clothes and shoes	44	10 (4)
... maintain the lodging at a good temperature	d.a	8
... make routine payments related to lodgings	15	-
... eat meat, chicken, or fish every two days	-	6
... buy basic foods (bread, potatoes, vegetables, meat)	15	-
... pay for a week of vacation away from home one time per year	69	35
... replace worn or broken furniture	d.u	39
... receive parents and friends for a drink or a meal	-	13
... finance children's studies	20	d.u
... satisfy cultural needs and hobbies	68	d.u

d.u: data unavailable.

1. The question for Slovakia concerns the unavailability of a vegetable garden, an orchard, or a small vineyard, in helping us to appreciate the possibility of domestic food production, is therefore not directly comparable with the panel question which concerns the possession of a garden or a terrace as a sign of . spatial ease in the main home, without any reference to some domestic production whatever it might be.
2. This global item can be considered as the synthesis of three detailed items that have been measured for France, namely "INEFFECTIVE heating," "roof leaks," and "windows or floor in poor condition." The percentage of households which claim at least one inconvenience is equal to 32%, nevertheless this rate is not completely comparable with the 25% of Slovakian lodgings in a poor state, as the French seem to judge their households more harshly than do their Slovakian counterparts.
3. Including noisy environment.
4. New

Sources: European panel, 1994 (Insee); Social Situation of Households inquiry, 1995, and census of 1991 (Statistical Office of the Slovakian Republic).

SLOVAKIAN HOUSEHOLDS ARE LESS EQUIPPED

Contrary to this relative resemblance in the area of lodging, and by virtue of the differences in standard of living between the two countries, some important gaps exist for the equipment of households with durable goods for leisure activities or for transportation. The car, the telephone or the television can be considered in Slovakia to be luxury products. In France, their distribution is somewhat general and their absence reflects more a choice than a budgetary constraint. Even the equipment which seems necessary in France does not exist in many Slovakian households: for example, the non-possession of a refrigerator is the reality of 35% of Slovakian households in contrast with 1% in France. Yet, considering the average size of households, its absence in Slovakia is certainly due to financial difficulties; its non-possession is perhaps also a revealing indicator of poverty in terms of living conditions for Slovakia, which is not the case for France (see box 4 and table 6).

Comparing the two countries on the basis of certain aspects of consumption could not be done through a simple comparison of spending: differences in habits, which help to create the structure of consumption that we have observed, cannot be ignored. The creators of the inquiries have tried to take account of them. In France the response to the question, "Do you eat meat, chicken or fish every two days?" allows us to take note of difficulties, but in Slovakia it is more pertinent to ask households if they

are able to buy basic foods (bread, milk, potatoes, vegetables, meat) on a daily basis. In the same way, to receive parents or friends for a drink or a meal is an important indicator of financial ease in France (different studies underline the significance of poverty as the cause of ruptures of social ties-- Jegouzo, 1984). On the other hand, the creators of the Slovakian questionnaire have judged that the introduction of such an item would not be pertinent in this country: in Slovakia, receiving parents or friends is a uniformly widespread social practice, which does not seem to be reduced by any lack of monetary resources (perhaps because of its widespread lack of resources). Similarly, not being able to finance a week of vacation away from one's home at least one time per year is a sign of poverty for French households (35% cannot do it, which, by virtue of the application of controls by frequency and consensus, authorises us to introduce it into the score of poor living conditions (Lollivier and Verger, 1997) while in Slovakia, going on vacation is so rare as to not merit inclusion in the social minimum we have used for it.

A MAJORITY OF SLOVAKS JUDGE THEIR RESOURCES TO BE INSUFFICIENT

Slovakian households are subjectively less at ease than are their French homologs (see table 7)¹⁰. Added to this widespread perception of daily difficulties is a certain worry about the future: 79% of Slovakian households fear falling below the poverty line in the future. This fairly widespread pessimism is certainly related to the society's recent movement toward a market economy.

Following the examples of Dickes (1994) with reference to the Lorraine region, Nolan (1996) on Ireland, and Lollivier and Verger on France (1997), the problem of poverty in the two countries has been analyzed with three methods: we have constructed an indicator of poverty in terms of living conditions, a subjective indicator of poverty and *in fine* a monetary indicator of poverty.

The indicators of poverty in terms of living conditions are obtained from the scores of (bad) living conditions defined for each country, each score having been constructed in such a way that it could be adapted to the real situation of each country: in this way the only elements taken into consideration are the living conditions considered as elements of a "social minimum" (one that may be different in Slovakia and in France); the number of elementary items and therefore the maximal values of scores are different for the two countries (see box 4).

LIVING ALONE AND HAVING LITTLE TRAINING INCREASES PROBABILITIES OF BEING POOR

In broad terms, the determinants of poverty in terms of living conditions are analogs in France and in Slovakia (see in the appendice the results of the econometric analyses that we have been done on this point¹¹): a low level of training (a fairly low social position, such as that of unskilled worker,) the impossibility of receiving financial aid from one's family in case of difficulty, isolation from a family situation (being alone or living in a one-parent family). In both countries, the probability of being poor in terms of living conditions is much lower for old households than for young ones, a datum which reflects the effect of the life cycle. Nevertheless, in Slovakia the very old households (80 years old and more,) which essentially live in rural areas, have a higher probability of being poor than the young ones. Unlike in France, being the owner of one's home in a rural district raises a bit the probability of being

¹⁰ The weakness of these indicators is their sensitivity to the formulation of questions (Lollivier and Verger,1997). Therefore their comparability from one country to the other, acknowledging the specificities of the two countries, can only be approximate (see box 4).

¹¹ The same reference situation is used in the two regression groups

poor in terms of living conditions: old houses of home-owners, have not benefited from the material improvements made in base comforts in the recent constructions offered for rent by the State. In France, poverty in terms of living conditions most frequently affects the inhabitants of Paris and its suburbs.

TABLE 7
ANALYSIS OF SUBJECTIVE POVERTY

%

	Slovakia	France
Income	Yes	yes
The situation has been deteriorating for the past two years	21	d.u
The income allows one to live only with difficulty or with much difficulty	25	19
Present situation: must go into debt (included decapitalization in France)	8	12
Income equal to or below the Minimum necessary	71	36
Late payments		
Rent, services for lodgings, electricity, gas, water, heating	11	6 (1)
Other bills (included taxes for France)	d.u	9
d.u. data unavailable		
1. Not including income taxes		

Sources: European panel, 1994 (Insee) and Social Situation of Households inquiry, 1995 (Statistical Office of the Slovakian Republic).

LARGE AND ONE-PARENT FAMILIES ARE THE MOST DESTITUTE

To construct indicators of poverty that are comparable between the two countries is even more difficult when we are trying to measure **subjective poverty** (see box 4). Poor Slovakian households present more characteristics in common with French households, having the same kinds of difficulties than they do differences. The probability of poverty is higher in one-parent families and in large families (those having three children or more). Furthermore, not being able to count on the help of people close to one in case of difficulty augments the probability that one will feel destitute. Elders have a lower probability than the young of feeling poor. So even though the recent history of the two countries has been very different, this similarity is particularly remarkable: it leads us to believe that the particular position of old households is due more to one effect of age than to an effect of generation (attrition of needs, an analogous way of judging the present in terms of the past...). Being in good health predisposes people in both countries to subjective non-poverty. The type of district of residence of a given household is not a deciding factor on poverty.

As regards **monetary poverty**, an identical analysis can be made: there are a few differences and many similarities. The most important factors for both countries are level of education, family situation, the existence of mutual support and the possession of lodgings. The principal difference comes from the fact that in Slovakia, working at an intellectual profession does not protect one against monetary poverty (the corresponding coefficient is not significant,) while in France, working at an intellectual profession strongly lowers, and in a very significant way, the probability of being poor (see tables in appendice); in Slovakia there persist memories of a recent past in which the remuneration of "blue-collar workers" was on the average higher than that of "white collar" ones.

TABLE 8
THE THREE FORMS OF POVERTY
A - COEFFICIENTS OF CORRELATION BETWEEN THE DIFFERENT FORMS OF POVERTY

	Slovakia	France
Living conditions - monetary	0.16	0.27
Living conditions - subjective	0.27	0.25
Monetary - subjective	0.19	0.22

B - DISTRIBUTION OF HOUSEHOLDS IN THE THREE FORMS OF POVERTY

%

	Slovakia	France
Three forms of poverty	1.9	1.8
Two forms of poverty	6.2	6.0
No form of poverty	72.7	75.3

Sources: European panel, 1994 (Insee) and Social Situation of Households inquiry, 1995 (Statistical Office of the Slovakian Republic).

LITTLE CORRELATION BETWEEN THE THREE FORMS OF POVERTY

The three analyses of poverty-- subjective, monetary, and that in terms of living conditions, lead to similar conclusions in Slovakia and in France. Are these three forms of poverty correlated in the same way in the two countries? To put it differently, is there a significant overlap between these three approaches to poverty (Lollivier and Verger, 1997). In general, the correlations in France are situated a bit below those obtained in Slovakia, except between subjective poverty and poverty judged in terms of living conditions, but their orders of importance are very comparable¹² (see table 8-A).

The specific characteristics of each type of poverty are very similar between the two countries and very few households in either country present the three forms of poverty at the same time (see table 8-B). For this reason the pertinence of multidimensional approaches to poverty is not limited to the French reality. Poverty is as multiform in Slovakia as it is in France in spite of their very different recent social histories.

Box 4

Construction of Poverty Thresholds

In defining different levels of poverty, we must maintain a balance between two major requirements: on the one hand, by taking into account of differences between sociological realities and the norms in place in the two countries, and on other hand, by maintaining a high degree of comparability. Acknowledging that there are gaps between the situations of the two countries, the only way that we can obtain this is by using base results that are marginally different: the experts have been led to establish reasonable correspondances between indicators, different in their details but basically equivalent as far as their significance is concerned. This is the same way of thinking which prevailed during the running of two analyses, an identical concretization would not have made any sense. The comparability has thus been assured to be the best according to the experts; nevertheless it cannot be considered perfect.

¹² The difference is nevertheless too insignificant for one to be able to affirm that the link between monetary poverty and the elements of living conditions is more automatic in France; a larger gap between the two notions in Slovakia would nevertheless not be surprising if we consider the greater importance of domestic production that appears to exist there.

Poverty line in terms of living conditions

The different items that have been used in the construction of scores of poverty are chosen from among those described in table 6. The choice of elements to be taken into account respond to the following principle: it was assured for each country that the controls by frequency and by consensus were respected, either directly in light of the statistical results (control by frequency,) or according to the experts of the respective countries: in this way a certain number of elements of living conditions relating to the general comfort of a lodging (separate kitchen, central heating...) or to material consumption (vacations, hobbies) have not been used for the construction of the score for Slovakia. In the same way, the non-possession in France of certain durable goods has not been considered as a sign of poor living conditions (stove, refrigerator, washing machine...): nowadays their absence is more an indication of a choice, an absence of need, or even a temporary non-possession, than a real financial impossibility.

The choice of a baseline from which we can speak about poverty in terms of living conditions being arbitrary for every country, one could not hope of fixing poverty lines in such a way as to compare the relative size of poor populations in the two countries. We have thus fixed the poverty lines in such a way as to isolate the proportions of the least rich households that are of the same nature: if we consider the choices made for France, we can fix the Slovakian poverty line in such a way as to isolate around 10% of underprivileged households: this has lead us to consider poor in living conditions any household for which the score is definitely beyond 7 (out of a maximum of 19) (see table A).

TABLE A
DISTRIBUTION OF HOUSEHOLDS ACCORDING TO THE POVERTY SCORE IN
TERMS OF LIVING CONDITIONS

%

Value of score	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Proportion of Slovakian households	3	9	14	15	15	13	11	7	5	3	2	1	1	1	0	0	0	0	0
Proportion of French households	11	15	15	14	11	9	8	5	4	3	2	1	1	1	0	0	0	0	0

Sources: European panel, 1994 (Insee) and Social Situation of Households inquiry, 1995 (Statistical Office of the Slovakian Republic).

Subjective Poverty-Line

The items allowing us to define the indicator of subjective poverty in Slovakia have been taken from the following questions:

- Do you think that your situation has been worsening for the past two years?
- Does your monthly income allow you to live only with difficulty or with great difficulty?
- Does your present financial situation oblige you to go into debt?
- Is the income that you spend equal to or lower than the minimum income necessary to make ends meet in your household?
- Does it sometimes happen that you have to make late payments on your rent or for the services relating to your lodgings?
- Does it sometimes happen that you have to make late payments on your bills for electricity, gas, hot water, etc.?

The analysis of responses compared between the two countries is interesting. When one asks households if their income allows them to live with difficulty or with much difficulty, one obtains percentages of households in difficulty that are quite close (19% and 25%); this is consistent with other information about respective standards of living in the two countries. Yet it is also possible that the Slovakian households have particular difficulties in managing their budget during times of economic change: the diversity of products as well the brands and the prices offered are new; this can generate new demands and even surprise a consumer who is not used to shopping for the least expensive items (by finding the least expensive stores, by taking advantage of sales...). On the other hand, the results are different when we are looking at the responses to the question about minimum income: in France, 35% of households claim to have a income inferior to that which they estimate to be necessary to live on; in Slovakia this rate reaches 71%! This rate gap between Slovakian and French households reflects a poverty level that is actually much higher in Slovakia. Yet, the Slovakian households have not in all likelihood interpreted this question as restrictively as have French households. Either the minimum income to live on has been interpreted as the minimum income for living without problems, or even as the income that they would wish to have; or, the households questioned have implicitly raised the value of their domestic production by integrating it into the minimum income which then becomes higher than the monetary income measured in the inquiry.

As the Slovakian inquiry is the first of its kind in this country, no calibration of this question has been made, even though the international results prove the high sensitivity of answers to the formulation of the question and to the context of the inquiry. The solution adopted here serves to register the answer as an indication of dissatisfaction while toning down its relative importance by fixing the subjective poverty line at a level higher than that of France: it is necessary that at least two other indications of difficulties be used to corroborate this one if we want to it to be more decisive.

The Slovakian score differs even more from the French score in two ways: the question of late payments of taxes and bills not related to one's lodgings, which does not seem to have sense in Slovakia, has not been used; it has been replaced by an item relative to recent changes in their financial situation, which are judged particularly informative in a country undergoing disturbances related to the transition.

Each time that a household responds affirmatively, we increase the value of its score by one (cf table B). The scores obtained in this way allow us to determine a subjective poverty level: as with an indicator of living conditions, we have looked to isolate a percentage of underprivileged households comparable to that measured in France. Thus we consider poor any household in which the score is (strictly) higher than three. For France, the poverty level was fixed at two out of six.

Monetary Poverty threshold

The monetary poverty threshold commonly measured in France corresponds to the half median of one's income per units of consumption (Hourriez and Legris, 1997) which establishes the poverty level France in 1994 at 3500 francs per month, rising from the order of minimum age.

In using this definition, we obtain for France a monetary poverty rate of 4.3%. This result might seem not very intuitive, but in fact it arises quite naturally from the relative character of the notion of poverty that we have used: since the distribution of Slovakian incomes is not very well spread out below the median, there would not be very many households "dragging behind" there. In the absence of any direct measure of the way in which households are affected by a wage gap in the median income, we can not affirm that the comparability is assured by a limit identical to that of France (half of the median income): being at the half median in a society where many households are even lower is perhaps less difficult than being at 60% or 70% of this median value in a society where no one is lower. In the same way we have seen before, we adapt the threshold used for Slovakia in such a way as to isolate a comparable proportion of households (on the order of 10%) situation at the lowerest point on the scale of standard of living: this gives us to consider monetarily poor any Slovakian household whose standard of living is less than 60% of the median in standard of living.

It happens that the value obtained by this procedure is close to the social minima that currently exist in Slovakia, as was the case in France with the half median, a datum which justifies this approach. In this way, the monetary poverty threshold used for Slovakia is at 2,495 crowns per units of consumption and per month that which is equal to 416 francs or to 1530 francs after correction through parity in purchasing power.

TABLE B
DISTRIBUTION OF HOUSEHOLDS ACCORDING TO THE SCORE OF SUBJECTIVE POVERTY

	%						
Value of score	0	1	2	3	4	5	6
Portion of Slovakian households	22	42	15	10	6	3	2
Portion of French households	53	24	12	6	3	1	1

Sources: European panel, 1994 (Insee) and Social Situation of Housholds inquiry, 1995 (Statistical Office of the Slovakian Republic).

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APPENDICE

The econometric model: its specification and its interpretation

For all three types of poverty in the two countries, we have done analyses in which the principle "all things otherwise being equal" holds, and with the help of regressions of a dependant dichotomous variable with the logistic distribution (Logit model). The choice of variable is done on the following rule: the same variables are used in all the regressions, even if these are not always significant.

The Variables Common in Both Countries

- possession of lodgings: this partial indicator of inheritance has been preferred at the global level of inheritance; the latter is too highly correlated with the indicators of poverty in Slovakia. Another solution would have been to use it in this model by instrumenting it (not by introduction of the variable, but of its prediction from an *ad hoc* model);
- the age of the person in question (as grouped by decade);
- the level of studies of the person in question (see table 3);
- social category of the reference person : the differences in social structure cause the nomenclature used for Slovakia to be less detailed than that used for France;
- type of family;
- type of district

The variables yield a higher level of equivalence between the two countries.

- in Slovakia, the presence of a person who is handicapped, ill, or very old in the household correspond in France to the introduction of the variable state of poor health of a member of the household.
- the absence or the deficit of social items is measured in a different way in the two countries. In Slovakia, it reflects the inexistence of people who would help the family in case of difficulty and in France it reflects the existence of strong isolation.

The variable not having an equivalent in one or the other country but with a strong explicative power

- possession of a garden or of a vineyard; this variable has been introduced in order to demonstrate the important role played by domestic production an poverty in Slovakia; the introduction of this variable would not have had the same pertinence in France.

The introduction of the variable called "the presence of an unemployed person in the household, which could seem pertinent in France, has not been kept. In this period of transition, compensation for unemployment, assured by the Slovakian state, reduces very little monetary loss in relation to wages. The effect of unemployment on poverty has lessened for this reason.

TABLE A
LOGISTICAL REGRESSIONS ON THE THREE FORMS OF POVERTY IN SLOVAKIA

Type of poverty	Monetary		Living Conditions		Subjective	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Constant	-3,4	0,2	-1,5	0,2	-1,1	0,2
Possession of lodgings						
Possesses	Ref.		Ref.		Ref.	
Does not Possess	0,3	0,1	-0,2	0,1	n.s	n.s
Presence in the household of a person who is handicapped, ill, or very sick						
Yes	Ref.		Ref.		Ref.	
No	n.s*	n.s	0,3	0,1	0,4	0,1
Existence of people who would help the family in case of difficulty						
Yes	Ref.		Ref.		Ref.	
No	0,5	0,1	0,7	0,1	0,5	0,1
Age of the reference person						
Under 30 years	1,1	0,1	1,0	0,1	n.s	n.s
30 to 39 years	0,6	0,1	n.s	n.s	0,0 *	0,1
40 to 49 years	Ref.		Ref.		Ref.	
50 to 59 years	-0,6	0,1	-0,4	0,1	n.s	n.s
60 to 69 years	-0,5	0,1	-0,3	0,1	-0,4	0,1
70 to 79 years	-0,4	0,2	n.s	n.s	-0,6	0,1
80 years or older	n.s	n.s	n.s	n.s	-0,7	0,2
Level of education of the reference person						
With or without a primary school education	Ref.		Ref.		Ref.	
Ecole d'apprentissage	-0,5	0,1	-0,5	0,1	-0,2	0,1
Technique secondaire sans bac	-0,8	0,1	-0,6	0,1	-0,6	0,1
Bac	-0,7	0,1	-0,8	0,1	-0,7	0,1
High school or university	-1,3	0,2	-1,0	0,2	-1,2	0,2
Social category of the reference person						
Not declared	1,7	0,2	0,5	0,2	0,3	0,2
Unskilled worker	0,4	0,1	0,7	0,1	0,4	0,1
Skilled worker	Ref.		Ref.		Ref.	
Administrative employee	n.s	n.s	-0,4	0,2	n.s	n.s
Technician	n.s	n.s	n.s	n.s	-0,4	0,1
Executive manager	n.s	n.s	-2,0	0,4	-0,7	0,2
Other	n.s	n.s	n.s	0,2	n.s	n.s
Type of family						
Man living alone	2,4	0,2	0,8	0,2	0,5	0,2
Woman living alone	2,5	0,2	n.s	n.s	-0,4	0,1
Couples without child	1,2	0,2	-0,4	0,1	n.s	n.s
Couples with 1 child	1,0	0,2	-0,4	0,1	-0,2	0,1
Couples with 2 children	0,6	0,2	-0,4	0,1	n.s	n.s
Couples with 3 children	0,7	0,2	n.s	n.s	0,3	0,1
One-parent family	1,8	0,2	0,3	0,2	0,8	0,1
Other	Ref.		Ref.		Ref.	
Type of district						
Small city	n.s	n.s	n.s	n.s	n.s	n.s
Large city	Ref.		Ref.		Ref.	

Type of poverty	Monetary		Living Conditions		Subjective	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Rural district	0,2	0,1	0,3	0,1	-0,2	0,1
Possession of a garden or a vineyard						
Does not possess	Ref.		Ref.		Ref.	
Possesses	-0,2	0,1	-0,6	0,1	-0,4	0,1

n.s : not significant at the level of 5%

Source: Social Situation of Households inquiry, 1995 (Statistical Office of the Slovakian Republic).

Note : We can calculate the reference's probability of being poor in the following manner:

$$P = \frac{1}{1 + e^{-\alpha}} \text{ avec } \alpha = \text{constant parameter}$$

The gap in relation to the probability FOR the reference for an effect i:

$$\Delta P \beta_i = \left[\frac{1}{(1 + e^{-(\alpha + \beta_i)})} \right] - P \text{ with } \beta_i = \text{parameter associated with modality } i$$

the gap in relation to the probability for the reference for the combined effects i and j:

$$\Delta P \beta_i \gamma_j = \left[\frac{1}{(1 + e^{-(\alpha + \beta_i + \gamma_j)})} \right] - P \text{ where } \beta_i = \text{parameter associated with the modality } i$$

and $\gamma_j = \text{parameter associated with the modality } j$

TABLE B
LOGISTICAL REGRESSION FOR THE THREE FORMS OF POVERTY IN FRANCE

Type of poverty	Monetary		Living conditions		Subjective	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Constant	-2	0,3	-2,2	0,3	-2	0,3
Possession of lodgings						
Possesses	Ref.		Ref.	-	Ref.	-
Does not Possess	0,7	0,1	1,1	0,1	0,7	0,1
State of health						
No handicap, no poor health	Ref.		Ref.	-	Ref.	-
No handicap, feeling of poor health	n.s	n.s	0,4	0,2	0,4	0,2
Small handicap	0,6	0,1	0,4	0,1	0,4	0,1
Severe handicap	0,8	0,1	1	0,1	0,9	0,1
Existence of great isolation						
Yes	0,4	0,1	0,6	0,1	0,4	0,1
No	Ref.		Ref.	-	Ref.	-
Age of the reference person						
Under 30 years	0,6	0,2	0,4	0,1	n.s	n.s
30 to 39 years	n.s	n.s	0,3	0,1	n.s	n.s
40 to 49 years	Ref.		Ref.	-	Ref.	-
50 to 59 years	n.s	n.s	n.s	n.s	-0,4	0,1
60 to 69 years	-0,7	0,2	-0,5	0,1	-1,3	0,2
70 to 79 years	-0,7	0,2	-0,6	0,2	-1,9	0,2
80 years or older	-0,5	0,2	-0,5	0,2	-2,4	0,3
Level of education of the reference person						
With or without a primary school education	Ref.		Ref.	-	Ref.	-
Ecole d'apprentissage	-0,4	0,1	-0,4	0,1	0,2	0,1
Technique secondaire sans bac	-0,6	0,1	-0,4	0,1	0*	0,1
Bac	-0,8	0,2	-0,2	0,1	n.s	n.s
High school or university	-0,8	0,2	-0,5	0,2	-0,4	0,2
Social category of the reference person						
Without professional activity	1,1	0,2	n.s	n.s	-0,6	0,3
Farmer	0,9	0,2	0,6	0,2	n.s	n.s
Self-employed other than farmer	Ref.		Ref.	-	Ref.	-
Executive manager	-2	0,3	-1,1	0,2	-0,7	0,2
Profession intermédiaire	-1,7	0,2	-0,9	0,2	-0,3	0,2
Employee	-0,7	0,2	-0,1	0,2	n.s	n.s
Skilled worker	-0,7	0,2	n.s	n.s	n.s	n.s
Unskilled worker	n.s	n.s	0,4	0,2	n.s	n.s
Type of family						
Man living alone	0,5	0,2	0,3	0,2	n.s	n.s
Woman living alone	0,6	0,2	0,5	0,2	n.s	n.s
Couples without child	-0,5	0,2	-0,6	0,2	-0,5	0,2
Couples with 1 child	-0,6	0,2	n.s	n.s	-0,4	0,2
Couples with 2 children	n.s	n.s	-0,6	0,2	-0,4	0,2
Couples with 3 children	n.s	n.s	-0,5	0,2	n.s	n.s
One-parent family	1,0	0,2	0,3	0,2	0,4	0,2
Other	Ref.		Ref.	-	Ref.	-

Type of poverty	Monetary		Living conditions		Subjective	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Type of district						
Rural district	0,4	0,1	-0,4	0,1	n.s	n.s
Small city	n.s	n.s	-0,6	0,1	n.s	n.s
Large city	n.s	n.s	-0,5	0,1	n.s	n.s
City of Paris	Ref.	-	Ref.	-	Ref.	-

n.s : not significant at the level of 5%

Source : European panel, 1994 (Insee)

TABLE 1
HOW CHANGING THE EQUIVALENCE SCALE CHANGES THE DISTRIBUTION OF THE POOR
1A - POVERTY RATE BY FAMILY TYPE

		'OECD' scale	Oxford scale
Single	under 60	19.7%	14.8%
people	60 years or older	12.0%	7.4%
Couples with	under 60	6.6%	6.5%
no children	60 years or older	5.2%	5.0%
Couples	1 child	5.9%	7.3%
with	2 children	6.3%	9.2%
children	3 or more children	10.7%	19.2%
Lone-parent families		22.0%	26.5%
Others		12.2%	15.0%
	Aggregate	10.4%	10.6%

Source: 1995 Family Budget Survey

1B - POVERTY RATE BY AGE OF THE HEAD OF HOUSEHOLD

		'OECD' scale	Oxford scale
	Under 30 years	23.6%	23.2%
	30 to 39 years	8.0%	10.3%
	40 to 49 years	8.8%	10.7%
	50 to 59 years	9.6%	9.6%
	60 to 69 years	6.6%	5.8%
	70 to 79 years	7.7%	5.7%
	80 years or older	14.1%	10.5%
	Aggregate	10.4%	10.6%

Source: 1995 Family Budget Survey

Key: The 'OECD scale' column corresponds to the poverty measurement used in Tables 3 to 7. As a variant, the 'Oxford scale' column shows the poverty rate when another equivalence scale with higher coefficients is used. The Oxford scale assigns 0.7 consumption units for additional adults in the household, instead of 0.5 and 0.5 consumption units per child, instead of 0.3.

TABLE 2
COMPARISON OF THE POVERTY LINE AND SOME REPRESENTATIVE CASES IN 1994

French-franc income per household per month	Poverty line (1)		Minimum Wage + benefits (2)		Basic Old-Age Benefit (3)		Minimum income + benefits (4)	
	in FRF		in FRF	ratio	in FRF	ratio	in FRF	ratio
single people	3,800		5,200	1.37	3,200	0.85	3,200	0.86
couples with no children	5,600		5,400	0.95	5,700	1.01	4,300	0.77
couples, 1 child	6,800		5,900	0.86	/		5,000	0.74
couples, 2 children	7,900		6,700	0.84	/		5,800	0.73
couples, 3 children	9,000		8,600	0.95	/		6,800	0.75
lone-parent families, 1 child	(4,900)		6,400	(1.31)	/		4,500	(0.91)
lone-parent families, 2 children	(6,000)		7,700	(1.27)	/		5,100	(0.84)
lone-parent families, 3 children	(7,200)		10,100	(1.41)	/		6,100	(0.85)

(1) The poverty line is defined as one half the median monetary income per OECD consumption unit. The poverty line expressed in French francs per household is FRF 3,763 multiplied by the number of consumption units in the household.

(2) The monetary income of a household living in rented housing where the head earns a wage equal to the statutory minimum wage, and the other members are jobless: the sum of the wage, housing benefit and family benefits.

(3) The monetary income of a household living on the basic old-age benefit that owns its home or is housed for free. This benefit is the only resource.

(4) The monetary income of a household receiving minimum income support and living independently in rented housing: the sum of the minimum income support and housing benefit.

Key: Single people are deemed to be poor if their monetary income is less than FRF 3,750 per month. The assumptions used for the representative cases mean that a single person earning the minimum wage has a monetary income of FRF 5,200, which is 1.37 times the poverty line, versus FRF 3,200 for a single person living on the basic old-age benefit or minimum income support, which is 0.85 times the poverty line.

Remarks:

- The representative cases presented are just examples and can in no way be taken as representing all of the people living on the statutory minimum wage, the basic old-age benefit or minimum income support.
- For more details about the calculation of the representative cases, see Box 2.
- The poverty line shown in parentheses is the one for lone-parent families, since the equivalence scale used may underestimate the needs of such families. In this case, the poverty line would have to be raised for these families and they would thus appear to be even poorer.

TABLE 3
THE NUMBER OF POOR BY THE OCCUPATION OF THE HEAD OF HOUSEHOLD IN 1994
TABLE 3A - IN NUMBER OF POOR HOUSEHOLDS

Categories defined by the occupation of the head of household	Number of households in the national population	Proportion of poor households (poverty rate)	Number of poor households	Distribution of poor households	Distribution of poor households (excl. students)
Aggregate	23,156 000	10.4%	2,408,000	100%	100%
Head in labour force:					
Unemployed	1,328,000	39.1%	519,000	22%	25%
Short-term jobs	1,480,000	21.5%	319,000	13%	15%
Steady full-time jobs	9,880,000	2.1%	211,000	9%	10%
Self-employed	1,672,000	12.1%	203,000	8%	10%
Head not in labour force:					
Former wage-earners	5,933,000	5.2%	311,000	13%	15%
Former self-employed	1,312,000	16.1%	211,000	9%	10%
Students	363,000	83.4%	302,000	13%	...
Others, of which:					
Women under 60	252,000	44.0%	111,000	5%	5%
Men under 60	250,000	28.8%	72,000	3%	3%
over 60	685,000	21.8%	149,000	6%	7%

Source: 1995 Family Budget Survey

TABLE 3B - IN NUMBER OF POOR PEOPLE *

Categories defined by the occupation of the head of household	Number of poor people	Distribution of poor people	Number of poor children**	Distribution of poor children**
Aggregate	5,516,000	100%	1,105,000	100%
Head in labour force:				
Unemployed	1,346,000	24%	404,000	37%
Short-term jobs	730,000	13%	188,000	17%
Steady full-time jobs	840,000	15%	236,000	21%
Self-employed	625,000	11%	134,000	12%
Head not in labour force:				
Former wage-earners	536,000	10%	0	0%
Former self-employed	331,000	6%	0	0%
Students	393,000	7%	0	0%
Others, of which:				
Women under 60	305,000	6%	90,000	8%
Men under 60	231,000	4%	53,000	5%
over 60	180,000	3%	0	0%

(*) All individuals living in poor households are deemed to be poor.

(**) Under 14 years of age

Source: 1995 Family Budget Survey

TABLE 3C - IN THE FOSTER INDEX (SEE BOX 3)

Categories defined by the occupation of the head of household	Poverty rate (memo)	Average income per cu. of poor households (FRF per year)	Foster synthetic index	Contribution of the categories to the index	Contribution of the categories to the index (excl. students)
Aggregate	10.4%	32,400	0.014	100%	100%
Head in labour force:					
Unemployed	39.1%	33,800	0.038	15%	26%
Short-term jobs	21.5%	33,600	0.021	10%	16%
Steady full-time jobs	2.1%	38,900	0.001	2%	4%
Self-employed	12.1%	33,100	0.015	7%	12%
Head not in labour force:					
Former wage-earners	5.2%	36,100	0.004	7%	12%
Former self-employed	16.1%	36,200	0.010	4%	7%
Students	83.4%	17,200	0.366	40%	---
Others, of which:					
Women under 60	44.0%	31,000	0.078	6%	10%
Men under 60	28.8%	33,000	0.036	3%	5%
over 60	21.8%	32,900	0.027	6%	9%

Source: 1995 Family Budget Survey

Key: The households were classified according to the head's occupation at the date of the survey:

- Heads in the labour force are divided into the unemployed, wage-earners and self-employed. Wage-earners are further divided into those with steady full-time jobs (steady jobs mean jobs that are not temporary or on subsidised contracts) and those with short-term jobs (to wit part-time and temporary jobs).
- Heads not in the labour force are divided into retired wage-earners and retired self-employed, students and others. The others not in the labour force are divided into three categories by age and gender.

The categories defined above are used in Tables 4 to 7.

TABLE 4
DEMOGRAPHIC DISTRIBUTION OF DIFFERENT CATEGORIES OF THE POOR

TABLE 4A - DISTRIBUTION BY TYPE OF HOUSEHOLD

Categories defined by the occupation of the head of household	Single people	Couples with no children	Couples with children			Lone-parent families	Others	Total
			1 child	2 children	3 or more children			
Head in labour force:								
Unemployed	41	7	8	10	12	14	6	100
Short-term jobs	9	10	10	8	7	20	7	100
Steady full-time jobs	38	12	14	22	24	13	9	100
Self-employed	15	13	19	27	9	1	15	100
Head not in labour force:								
Former wage-earners	49	42	6			1	8	100
Former self-employed	57	29	1	0	0	0	8	100
Students	75	7	0	1	0	2	15	100
Others, of which:								
Women under 60	29	0	...	...	...	58	14	100
Men under 60	24	16	24	8	16	0	12	100
over 60	83	5	...	...	...	0	12	100
All poor households	44	15	7	8	7	10	10	100
All households	29	26	12	13	7	5	8	100

Source: 1995 Family Budget Survey

TABLE 4B - DISTRIBUTION BY AGE

Categories defined by the occupation of the head of household	under 30	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	over 80	Total
All poor households	26%	15%	18%	13%	10%	8%	10%	100%
Head in labour force:								
Unemployed	23%	30%	28%	17%	2%	0%	0%	100%
Short-term jobs	17%	21%	44%	16%	2%	0%	0%	100%
Steady full-time jobs	42%	27%	20%	9%	2%	0%	0%	100%
Self-employed	7%	24%	35%	26%	6%	2%	0%	100%
Head not in labour force:								
Former wage-earners	0%	0%	1%	5%	38%	29%	27%	100%
Former self-employed	0%	0%	0%	3%	20%	30%	48%	100%
Students	96%	4%	0%	0%	0%	0%	0%	100%
Others, of which:								
Women under 60	10%	5%	39%	46%	0%	0%	0%	100%
Men under 60	9%	18%	24%	49%	0%	0%	0%	100%
over 60					33%	33%	33%	100%
All households	11	20	21	14	15	11	7	100

Source: 1994 Family Budget Survey.

TABLE 4C - DISTRIBUTION BY EDUCATIONAL QUALIFICATION OF HEAD OF HOUSEHOLD

	Primary school or no qualification	Middle school	Baccalaureate or higher education	Total
All poor households	65	23	13	100%
Head in labour force:				100%
Unemployed	53	30	17	100%
Short-term jobs	46	29	25	100%
Steady jobs	58	34	8	100%
Self-employed	43	47	11	
Head not in labour force:				100%
Former wage-earners	91	4	4	100%
Former self-employed	92	4	4	100%
Students	0	0	100	
Others, of which:				100%
Women under 60	72	18	10	100%
Men under 60	60	36	3	100%
Over 60	87	8	5	100

Source: 1995 Family Budget Survey.

TABLE 5
BENEFITS AND ALIMONY PAYMENTS RECEIVED BY THE DIFFERENT CATEGORIES OF THE POOR

Categories defined by the occupation of the head of household	Number of poor households (Income, excl. benefits and support under the poverty line)	Alimony payments received by the poor% of beneficiaries	Amount per beneficiary	Number of households remaining below the poverty line after alimony is added to income	% of poor households lifted above the poverty line by alimony payments	Average amount of support received by poor households
Head in labour force:						
Unemployed	519,000	5.7%	16,644	507,423	2	8,963
Short-term jobs	318,833	13.0%	19,772	295,206	7	11,028
Steady full-time jobs	211,003	5.0%	22,768	204,075	3	2,584
Self-employed	202,567	0.9%	21,000	202,567	0	1,381
Head not in labour force:						
Former wage-earners	310,544	1.4%	77,870	306,339	1	1,150
Former self-employed	211,309	0.0%		211,309	0	397
Students	302,485	3.4%	21,118	298,559	1	44,455
Others, of which:						
Women under 60	110,780	24.8%	6,000	85,507	23	4,962
Men under 60	71,948	2.3%	55,432	71,948	0	1,462
over 60	149,140	2.8%	87,065	146,903	1	2,850
All poor households	2,408,000	5.4%	31,436	2,329,837	3	9,952

Source: 1995 Family Budget Survey

Key: The income used to measure poverty does not include alimony payments or financial support from the family. Of the 519,000 households of the unemployed poor, 5.7% received alimony payments of an annual amount of FRF 16,644, but only 2% receive enough alimony payments to lift them over the poverty line when added to their income. This leaves 507,000 households of the unemployed living in poverty, even after alimony payments are added to their income. In addition, the 519,000 households of the unemployed poor receive an average of FRF 8,963 in financial support from their families per year.

TABLE 6
ASSETS, CONSUMPTION AND FINANCIAL POSITION OF THE DIFFERENT CATEGORIES OF THE POOR
TABLE 6A - MEDIAN ASSETS AND DISTRIBUTION BY ASSET VALUES

Categories defined by the occupation of the head of household	Median asset value(FRF)	< FRF 20,000	FRF 20,000 to 100,000	FRF 100,000 or more	Total
All poor households	49,000	30%	33%	36%	100%
Head in labour force:					
Unemployed	29,000	42%	39%	20%	100%
Short-term jobs	41,000	31%	41%	28%	100%
Steady full-time jobs	49,000	29%	40%	31%	100%
Self-employed	552,000	1%	16%	78%	100%
Head not in labour force:					
Former wage-earners	92,000	19%	34%	45%	100%
Former self-employed	236,000	4%	29%	67%	100%
Students	18,000	55%	33%	12%	100%
Women under 60	44,000	33%	30%	37%	100%
Men under 60	69,000	34%	19%	43%	100%
over 60	150,000	17%	28%	55%	100%
All households	462,000	8	20	72	100%

Source: 1995 Family Budget Survey

TABLE 6B - DISTRIBUTION BY OPINIONS ABOUT FAMILY BUDGETS

Categories defined by the occupation of the head of household	proportion of households declaring...			Balance
	... 'I'm well off', or I'm getting by'	... 'it's tight'	'I have trouble making ends meet'	
	(1)	(2)	(3)	(1) - (3)
All poor households	19%	42%	39%	-20%
Head in labour force:				
Unemployed	7%	29%	64%	-57%
Short-term jobs	15%	39%	46%	-31%
Steady full-time jobs	16%	44%	40%	-24%
Self-employed	9%	66%	26%	-17%
Head not in labour force:				
Former wage-earners	20%	49%	31%	-11%
Former self-employed	23%	55%	22%	2%
Students	52%	41%	7%	45%
Others, of which:				
Women under 60	10%	30%	60%	-49%
Men under 60	11%	26%	62%	-51%
over 60	12%	54%	35%	-23%
All households	42%	44%	14%	28%

Source: 1995 Family Budget Survey

Key: The balance of households' favourable and unfavourable opinions about their family budgets is a household satisfaction indicator. The unemployed are the most pessimistic about their budgets, while students are the most optimistic.

TABLE 6C - CONSUMPTION STRUCTURES AND LEVELS

Categories defined by the occupation of the head of household	Ratio Luxury goods/ necessities	Household consumption average = 100)
	(1)	(2)
All poor households	77%	56
Head in labour force:		
Unemployed	60%	53
Short-term jobs	80%	53
Steady full-time jobs	71%	68
Self-employed	78%	56
Head not in labour force:		
Former wage-earners	58%	46
Former self-employed	64%	47
Students	153%	68
Others, of which:		
Women under 60	78%	56
Men under 60	81%	60
over 60	55%	46
All households	106%	100

Source: 1995 Family Budget Survey.

(1) Ratio of spending on luxury goods to spending on necessities

Luxury goods are clothing, telecommunications, leisure, culture, restaurant meals and miscellaneous.

Necessities are food and shelter.

(2) Deviation of consumption per consumption unit (average household consumption = 100)

Key: For all poor households, spending on luxury goods is 77% of spending on necessities and household consumption is 56% of the average for all households. The higher these two percentages are, the higher the standard of living is.

TABLE 7
POVERTY TRENDS FROM 1984 TO 1994
1984

Categories	Number of households in total populations	Proportion of poor households	Number of poor households	%	Number of poor people	%	Number of poor children	Foster synthetic index
Aggregate	20,322,550	10.3%	2,100,378	100%	5,426,895	100%	1,082,868	0.018
Head in labour force:								
Unemployed	786,894	32.4%	254,569	12%	805,346	15%	281,030	0.065
Wage-earners	11,184,270	3.1%	341,086	16%	1,354,681	25%	375,236	0.002
Self-employed	1,483,811	19.8%	293,848	14%	1,065,670	20%	273,761	0.040
Head not in labour force:								
Retired	5,654,453	14.0%	788,955	38%	1,473,477	27%	53,796	0.013
Students and others	1,213,123	34.8%	421,921	20%	727,721	13%	99,045	0.121

Source: 1984 Family Budget Survey.

1989

Categories	Number of households in total populations	Proportion of poor households	Number of poor households	%	Number of poor people	%	Number of poor children	Foster synthetic index
Aggregate	21,191,685	10.3%	2,184,201	100%	5,426,895	100%	1,005,030	0.017
Head in labour force:								
Unemployed	826,984	37.2%	308,006	14%	805,346	15%	326,033	0.051
Wage-earners	11,020,988	2.9%	322,984	15%	1,354,681	25%	310,985	0.001
Self-employed	1,735,382	15.8%	274,610	13%	1,065,670	20%	218,892	0.032
Head not in labour force:								
Retired	6,180,573	11.3%	700,723	32%	1,473,477	27%	19,593	0.008
Students and others	1,427,758	40.5%	577,878	26%	727,721	13%	129,527	0.134

Source: 1989 Family Budget Survey

1994

Categories	Number of households in total populations	Proportion of poor households	Number of poor households	%	Number of poor people	%	Number of poor children	Foster synthetic index
Aggregate	23,155,880	10.4%	2,408,046	100%	5,426,895	100%	1,104,895	0.014
Head in labour force:								
Unemployed	1,328,346	39.1%	519,438	22%	805,346	15%	382,339	0.038
Wage-earners	11,360,160	4.7%	529,836	22%	1,354,681	25%	410,700	0.003
Self-employed	1,672,199	12.1%	202,567	8%	1,065,670	20%	134,499	0.015
Head not in labour force:								
Retired	7,245,832	7.2%	521,853	22%	1,473,477	27%	22,010	0.005
Students and others	1,549,344	40.9%	634,353	26%	727,721	13%	155,347	0.116

Source: 1995 Family Budget Survey

**Comparative Poverty Assessment Using Purchasing Power
Parities for Low Income Households**

**YONAS BIRU
WORLD BANK**

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ABSTRACT

Quantifying purchasing power differences across regions and income groups within a country is critical to measure poverty, appraise the effectiveness of poverty alleviation policies and assess the social implications of structural adjustment programs. As demand for data goes, poverty specific purchasing power parities (PPPs) remain high in the wish list of poverty researchers. This study represents a step toward filling this gap in development data. The paper integrates price and expenditure data, respectively, from the International Comparison Programme (ICP) and Zambia's Priority Survey to compile information that would permit PPP calculation by regions and income groups. The use of Zambia's data is only for illustrative purposes. The statistical issues raised in Zambia apply in varying degree to other developing countries both in Africa and elsewhere. The empirical investigation brings to light two important points. One is that when poverty specific PPPs are used instead of the more conventional PPPs for consumption, poverty incidences of the richer regions go down while those of the poorer regions go up. The second equally important finding is that preliminary estimates of PPPs by income groups reveal that the bottom deciles face higher price relatives compared to the top deciles in poorer regions, further aggravating their poverty positions.

I. INTRODUCTION

It is widely recognized that quantifying purchasing power differences across income groups and regions is critical to measure poverty, appraise the effectiveness of poverty alleviation policies and assess the social implications of macro-economic policies and structural adjustment programs. However, Purchasing power parities (PPPs) by regions and income groups are unavailable and remain high in the wish list of poverty researchers. This paper integrates price and expenditure data, respectively, from the Intentional Comparison Programme (ICP) and Zambia's Priority Survey to compile information that would permit PPP calculation by regions and income groups. While acknowledging that the ideal price data for computing PPPs for the poor are income group specific prices, in the absence of such information the paper argues that integrating price and expenditure information from ICP and household budget surveys can help fill the critical gap in micro poverty data. Using the integrated data, the paper computes PPPs, which are then used to obtain real values of the incomes of different regions and income groups.

The evidence shows that incomes of poorer regions and income groups tend to have lower purchasing powers compared with their more affluent counterparts. The use of poverty specific PPPs results in higher poverty incidences in poorer regions and lower poverty incidences in richer regions compared with the results obtained from conventional measures based on PPPs for total consumption. Preliminary estimates of PPPs by income groups reveal that the bottom deciles face higher price relatives compared to top deciles in poor regions.

The use of Zambia's data is only for illustrative purposes. The statistical issues raised in Zambia apply in varying degree to other developing countries both in Africa and elsewhere. An earlier World Bank case study of Cote d'Ivoire, (Grootaert and Kanbur, 1994), lends credence to this proposal. The study shows that bringing price and expenditure data from ICP and Living Standard Survey sources can help produce a regional price index that the authors argue to be superior to previous estimates based solely on Living Standard Survey. The authors assert that the integrated data have a significant effect on evaluation of poverty.

The remaining part of the paper will be organized as follows. Section II provides background information on the state of data on poverty and inequality. Section III proposes integrating data from ICP

and household budget surveys. Section IV explains why the study uses PPPs for cross regional cost of living comparisons and poverty analysis. Section V presents the main findings of the study. Section VI provides the conclusions of the study.

II. BACKGROUND

The 1997 World Development Indicator shows that one-fifth of the world population lives in poverty, based on "a dollar a day" intentional poverty threshold. In this environment, the view that "the ultimate aim of development is to improve human well being" (World Bank, 1997) has achieved a status of "global objective" (OECD, 1996), measured not least by "the way the poor and the deprived fare in each community" (UNDP, 1997).

With the global effort to alleviate poverty, the impact of government macro-economic policies on income distribution and poverty has emerged as an important area of analysis and research. This, in turn, has brought to the fore long-standing data issues and underscored the fact that the conventional development data leaves much to be desired. The poor need to be identified and the severity of their poverty need to be assessed much more precisely than they have been in the past.

Data on real income distribution necessary to guide poverty alleviation policies and assess their impacts on distributional shifts across income groups is needed with urgency. In this context, the most pressing problems are:

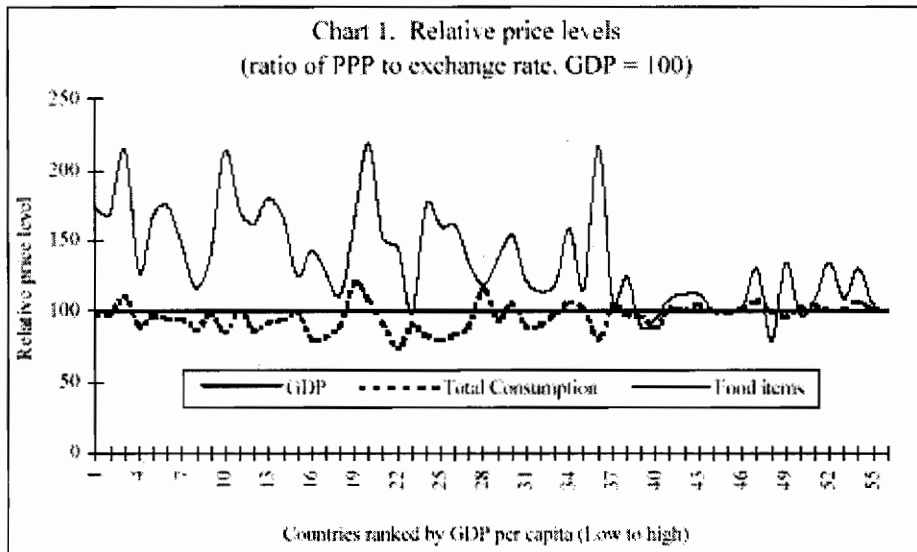
1. The lack of income group specific price indexes, which capture differences in expenditure patterns and relative price levels across income groups.
2. The absence of regional price indexes reflecting cost of living variations across regions and urban and rural areas.
3. The absence of PPPs of poverty specific baskets for cross-country poverty comparison.

II.a. Purchasing power differences across income groups

It is widely recognized that the poor exhibit different consumption pattern and face different price relatives than the non-poor. Based on ICP results, it has been established that the average price levels of items of basic goods (particularly food) relative to the average price of total consumption is considerably higher in low income countries than in their high income counterparts (Biru and Ahmad, 1994). As shown in Chart 1, relative price levels of food items with respect to those of total consumption vary systematically according to level of income.

The relative price for food with respect to average price embodied in GDP is relatively higher in low-income countries than their more affluent counterparts. There are sufficient reasons to believe that this tendency holds across income groups within a country.

CHART 1
RELATIVE PRICE LEVELS



The poor in developing countries in particular have to contend with the problem of not only having to pay higher prices for essential items, but also needing to spend a large proportion of their income on relatively more expensive items. This is accentuated often by the need to buy in small quantities without the benefits of discounts associated with bulk purchases, due to cash constraint and lack of credit. The poor are also usually unable to travel to larger and cheaper outlet stores.

In the absence of detailed price statistics specified by income groups, the common practice is to use generic cost of living indices constructed from average prices, covering essential and non-essential items consumed by all income groups. While adequate for constructing aggregate poverty profile, such practice has serious drawbacks. First, to the extent the price relatives that the poor face systematically differs from the average price relatives embodied in the cost of living index used to deflate the expenditures of all income groups, the purchasing power of the poor and, hence, their real level of consumption could be wrongly assessed. Second, such general profiles neither tell the severity of poverty nor distinguish the ultra poor from the poor.

II.b. Purchasing power differences across regions

Regional price differentials are important sources of variation in poverty thresholds. Cost of living differentials are likely to be substantial in countries where different regional patterns of development are observed and cost of transportation is high. However, because of lack of regional price indexes, poverty comparisons often do not account for regional price differentials. As a result, regional comparison of poverty has become an exercise in crude approximation and far less robust than it should be.

It is a common practice, for example, to use consumer price index (CPI) based on the price and expenditure patterns of major cities as a generic deflator for all purposes, including for regional poverty comparisons. To the extent price levels are different across regions, and rural and urban areas, the practice of using CPIs computed for restricted areas will overstate the number of poor in regions with low prices and understate the poverty level in areas with higher prices relative to the national average. Such practice can have detrimental policy impact if the price index used to deflate nominal expenditure

values has inherent bias against poor regions. This would be the case, for example, where poor regions within a country face higher price levels relative to the CPI reference region(s).¹

In some cases researchers have sought to estimate regional price differences making the best use of whatever is available in terms of regional price information. For example, regional price indexes for Cote d'Ivoire have been compiled using regional food prices only (McKay, 1992). Glewwe's (1987) case study of the same country has attempted to compile regional price indexes from food prices with some adjustment for non-food items using a proxy. The use of limited information in compiling regional price indexes has been shown to give misleading results (Grootaert and Kanbur, 1994). Grootaert's and Kanbur's study was based on regional price indexes computed using 260 products from the ICP database in conjunction with expenditure patterns from the country's Integrated Household Survey. Comparison of poverty indices constructed using the three alliterative price indices in the above studies provides a telling example of the sensitivity of poverty with respect to regional price variation.

As shown in Table 1, poverty incidence that is obtained using McKay's price indexes yields the lowest average rural poverty incidence (average for East Forest, West Forest and Savannah). McKay's results also suggests that rural poverty incidence is lower than urban poverty incidence. In contrast, poverty incidences obtained from Glewwe's price indexes suggest significantly higher poverty incidence in rural area. It is also interesting to note that depending on which scenario we choose, the poverty incidence at the national level could be 17.6 or 31.4%.

TABLE 1
POVERTY INCIDENCES USING ALTERNATIVE PRICE INDICES

Regions	Gootaert & Kanbur	Glewwe	McKay
Abidjan	34.0	34.0	34.0
Other Cities	23.6	20.4	11.9
East Forest	47.9	46.3	28.5
West Forest	17.8	21.4	6.2
Savannah	50.2	59.1	32.2
National	30.0	31.4	17.6

Source: Grootaert and Kanbur (1994)

Comparison of Glewwe's and Grootaert's and Kanbur's results provides important lesson. At the country level the two alternatives provide virtually the same poverty incidence, at regional level they paint different pictures. For example, according to Glewwe's study poverty incidence in Savannah region is 59 percent, whereas Grootaert's and Kanbur's result suggests 50 percent.

II.c. Purchasing power differences across countries

As we move from country specific poverty analysis to cross country poverty comparison, the need for more disaggregated and directly comparable price information becomes all the more essential. Cross-country poverty comparison involves estimating national currency based poverty lines, and then converting these values into a common currency using PPP rates. While problems associated with identifying poverty baskets satisfying the criteria of international comparability and country representativeness are formidable in their own right, the absence of PPPs reflecting the expenditure and price relative patterns of the poor proves to be a more pressing hindrance to poverty comparisons.

¹ A recent study on inter-area price comparison in different cities in Brazil, for example, showed that price levels for basic food items were higher in the poorer regions than in richer regions (Aten, 1996).

The existing PPP estimates in the ICP database cover all expenditure items (implicitly covering all income groups) and are influenced by the spending habits of all countries in the comparison. In the absence of "PPPs for the poor", the common practice is to use PPP rates for aggregate consumption constructed using national average price relatives and expenditure weights of all countries that are included in ICP exercise.

The main problem with such practice is that total consumption includes a large number of items that are not in poor peoples' consumption basket. Two other factors compound the problem. First, to the extent differences exist between countries in absolute price levels and relative price structures, PPPs for aggregate consumption would be different from PPPs for its components (see Annex I). As could be seen from the annex, of particular interest to this paper is that this happens to be more true for African countries than for any other group.

The second problem is that in so far as income distribution profiles vary across countries, the practice of using average price relatives and expenditure values results in underestimation of poverty in countries with strongly skewed income distributions compared to those with a fairly even income distributions. It is, for example, feasible for a country with a relatively high income per capita coupled with a fairly even income distribution to be found to have more poor compared to a country with a relatively low income per capita and uneven income distribution.

Two factors are at play here. One is that poor people in general - and those in less developing countries in particular - spend relatively more on items of basic necessities and less on services. The other is that prices of basic necessities are relatively more expensive than services in developing countries. Consequently, average prices that do not reflect differences in expenditure patterns between income groups tend to underestimate prices more in countries where relatively more people spend the bulk of their income on more expensive items. Put differently, national average prices of a country with skewed income distribution tend to underestimate price levels, compared with those of a country with a fairly even income distribution. Obviously, underestimated prices lead to underestimation of poverty.

III. THE INTERNATIONAL COMPARISON PROGRAM AND HOUSEHOLD BUDGET SURVEYS

The ICP is a program set up to facilitate cross-country real income comparison based on the conversion of national currency values to a common currency using PPPs. The potential scope for the use of ICP data, however, is wider than the specific objective for which ICP was initially created, namely international comparison. The particular gains of participating in ICP include more uniform classification of expenditures, more attention to item specification and improved outlet and spatial coverage. A characteristic feature of ICP survey framework is its detailed specifications of individual items that are classified into policy relevant categories. The selection of items within the detailed categories is governed by two principles: representativeness and comparability. Representativeness refers to the importance of a specification in the consumption pattern of a country. A specification is said to be representative of a consumption pattern of a country if it constitutes a considerable expenditure weight. The second principle governing the selection of items is that each specification chosen for pricing had to be comparable across countries.

The ICP typically provides a detailed account of regional price variation not only across countries, but also across regions within each country. Some of the African countries who took part in the 1985 Africa regional comparison used the ICP survey framework to improve their permanent price statistics system, (Eurostat, 1989). The number of African countries in the ICP exercise has grown from 3 in 1975

to 15 in 1980 and to 22 in 1985. The latest survey anchored on 1993 also included 22 countries. It is expected that the number will be significantly higher in the upcoming 1999 comparison.

On the expenditure side, significant strides have been made in producing nationwide household survey data. Since the early 1990s, 72 household surveys have been conducted in 35 African countries under the framework of SDA. Fifty-six of the 72 surveys are national surveys based on different survey frameworks (World Bank 1996). These surveys have produced a wealth of information in terms of detailed expenditure data specified by regions, urban and rural areas, and by socio-economic attributes. Detailed and far reaching though the outputs of these surveys may be, their usefulness for poverty study has been limited due to lack of corresponding region and income group specific price information. This has created a situation that Professor Robert Summers refers to as "useful numerators in search of denominators."

Integration of data from ICP and Household Budget Surveys: A case study of Zambia

Though ICP provides a detailed account of regional variation in prices, its expenditure side of the matrix leaves much to be desired. The opposite holds for household budget surveys. Typically, household budget surveys provide detailed breakdown of expenditures by regions as well as by income groups. But the price side of their matrix is mostly sparse, if not virtually blank. The story of this paper is a story of integrating the two databases. The integration of the two programs stands to bear valuable output, as each covers the weak areas of the other.

Zambia is one of the twenty-two countries that participated in the latest African regional ICP survey, that was carried out in late 1995. In the same year, Zambia conducted a national expenditure survey, under the so-called Priority Survey (PS) framework. Each survey covered all the 9 regions in the country: Central, Copperbelt, Eastern, Luapula, Lusaka, Northern, North Western, Southern, and Western. This paper brings together the two data sets and arranges them in a consistent framework by establishing a correspondence between the expenditure breakdown of the PS survey and the basic classification of the ICP framework.

The classification of the priced items by categories type is provided in Table 2. Only items priced in at least 7 of the 9 regions were retained. Gaps were filled using the country product dummy (CPD) method.²

² The CPD method is a generalized bridge-country method using regression in which all available price ratios are used. The prices are regressed against two sets of dummy variables. The first set represents dummy for each specification with price information. The second set consists of a dummy for each country excluding the base country. The regression equation is represented by the following equation.

$$\ln P_{ij} = \alpha + \beta_1 x_{ij} + \beta_2 x_{ij}^2 + \dots + \beta_n x_{ij}^n + \gamma_1 z_{ij} + \gamma_2 z_{ij}^2 + \dots + \gamma_m z_{ij}^m + U$$

Where n represents the number of countries (4 in this case) and m is the counter for the number of items in a basic heading (6 in this example). P_{ij} is the natural logarithm of the price of item i in country j . Whereas the coefficients of the x dummy variables represent the natural logarithms of the estimated country parity for the respective heading, the coefficients of the z dummy variables provide the natural logarithms of the prices in the currency of the base country.

TABLE 2
NUMBER OF ITEMS PRICED IN VARIOUS CATEGORIES

	Classification Scheme	Number of Products Priced
I	Household Consumption	268
I.a	Food, Beverage & Tobacco	116
I.a.1	Food	90
I.a.2	Beverages	20
I.a.3	Tobacco	6
I.b	Clothing and Footwear	28
I.c	Gross Rent, Fuel and Power	7
I.d	Household Equipment and Operation	32
I.e	Medical Care	25
I.f	Transport and Communication	32
I.g	Recreation and Education	11
I.h	Miscellaneous Goods and Services	11

IV. WHY PPPs FOR COUNTRY SPECIFIC REGIONAL POVERTY COMPARISONS

The most commonly used cost of living index is the so-called Paasche price index. Paasche indexes are regularly used to convert nominal expenditures of different regions to real expenditure estimates valued at the price of the base region. This approach, however, has a number of drawbacks. First, the results are not base region invariant. When the base region is changed, the results change not only in absolute but also in relative terms. This implies the ranking of regions by level of poverty may vary depending on the choice of the base region. Secondly, and most importantly, if the price structure of the base country is different from the country under investigation, the Paasche price index will be underestimated. Consequently, the real value of the country being compared to the base country will be over estimated.

The ICP methodology has a number of attractive features for multi-regional inter-area comparison. In ICP the calculation of PPPs is governed by a number of desired statistical properties that the calculated results must meet, including base-country (region) invariance and transitivity. The condition of base-country (region) invariance is satisfied when the final results are invariant to the choice of base country (region). The criterion of transitivity is met when two countries (regions) can be compared either directly or indirectly through a bridge country (region).

Purchasing power parities are computed in a two-stage process. The first stage involves computing unweighted parities at the lowest possible aggregation (basic heading) level. In the second stage, on the basis of the PPPs obtained for each basic heading and the corresponding expenditure values as weights, PPPs for different aggregates of consumption are computed.³

V. THE MAIN RESULTS

The following conclusions are drawn from the empirical investigation. The study confirms that accounting for regional cost of living variations can make significant difference in poverty measurements. The results bring to light two important points. One is that when poverty specific PPPs

³ For discussion of alternative PPP aggregation methods readers may consult (United Nation 1992) and the references noted therein.

are used instead of the more conventional PPPs for consumption, poverty incidences of the relatively rich regions tend to decline while those of the poorer regions show a tendency to go up. The second equally important finding is that preliminary estimates of PPPs by income groups reveal that the bottom deciles face higher price relatives compared to top deciles within each region.

The results presented in the tables below are obtained using Lusaka as a base region. The figures are, however, standardized so that the PPPs at the national level equal to 1. The choice of Lusaka as a base region is rather arbitrary and does not have any influence on the overall results. The paper will not go into discussion of the conceptual issues pertinent to determination of poverty cutoff line(s). For illustration purposes, a relative definition of poverty is used, with a cut-off point fixed at 50% of average national expenditure per capita.

Table 3 provides cost of living variations across 9 provinces of Zambia, using total consumption and poverty basket as alternatives. The standardized poverty basket in this study excludes services and products that are not representative of poor peoples' consumption, for example, refrigerators, cars, television sets, etc. Table 3 tells two important stories. First, regardless of the basket chosen, Lusaka comes as the most expensive region. Lusaka's cost of living is 9 percent above the national average if items of basic necessities (poverty basket) are used as the basis for the comparison. If, on the other hand, total consumption is the basis of comparison, Lusaka's cost of living becomes 13 percent higher than the national average. The corresponding figures for the poorest region (Western) are 95 and 92 percent, respectively.

TABLE 3
PURCHASING POWER PARITIES FOR ALTERNATIVE BASKETS
(REGIONS RANKED BY EXPENDITURE LEVEL HIGH TO LOW)

	Poverty Basket	Total Consumption	PPP for Total Consumption=100	
			Poverty Basket	Total Consumption
Lusaka	1.09	1.13	96.8	100.0
Copperbelt	1.07	1.10	97.6	100.0
Southern	0.96	0.97	99.2	100.0
Luapula	1.00	0.99	101.3	100.0
Central	0.99	0.95	104.1	100.0
Eastern	0.91	0.91	99.8	100.0
N. Western	1.00	0.99	101.6	100.0
Northern	0.96	0.94	101.8	100.0
Western	0.95	0.92	103.3	100.0

Furthermore, the results indicate that PPPs for poverty basket are generally higher than the corresponding PPPs for total consumption in poor regions. The opposite proves to be true in relatively rich regions (see column 3). As could be seen in table 4, this has effect on evaluation of poverty.

Table 4 shows that in richer regions the use of consumption PPPs gives higher poverty incidences than those obtained by using poverty specific PPPs. By way of contrast, the use of poverty specific PPPs give higher poverty incidences in poorer regions than would be the case if total consumption PPPs were used. This shows the use of consumption PPPs results in overestimation of poverty incidences in richer regions and underestimation of poverty in poorer regions.

TABLE 4
Poverty Incidence below the 50th Percentile using Alternative PPPs

Lusaka	1.09	1.13	96.8	100.0
Copperbelt	1.07	1.10	97.6	100.0
Southern	0.96	0.97	99.2	100.0
Luapula	1.00	0.99	101.3	100.0
Central	0.99	0.95	104.1	100.0
Eastern	0.91	0.91	99.8	100.0
N. Western	1.00	0.99	101.6	100.0
Northern	0.96	0.94	101.8	100.0
Western	0.95	0.92	103.3	100.0

As noted above the study also shows that the bottom deciles in poorer regions face higher price relatives. The differences in PPPs by income group are more pronounced in Western and Northern regions, the two poorest. Ideally, PPPs by income group would be calculated using price relatives specified by income group. In the absence of such data, the PPPs in table 5 are computed by simply taking the weighted averages of the PPPs for items of basic needs and PPPs for non-basic items. The PPPs for items of basic needs are higher than PPPs for non-basic consumption items.

TABLE 5
PURCHASING POWER PARITY BY INCOME GROUPS AND REGIONS

	Lusaka	Copperbelt	Southern	Luapula	Central	Eastern	Northern W.	Northern	Western
Decile 1	1.13	1.10	0.97	0.98	0.96	0.91	0.98	0.94	0.92
Decil 2	1.13	1.10	0.98	0.99	0.95	0.91	0.98	0.94	0.91
Decil 3	1.14	1.11	0.97	0.98	0.95	0.91	0.98	0.93	0.91
Decil 4	1.14	1.11	0.97	0.98	0.94	0.91	0.98	0.93	0.91
Decil 5	1.14	1.11	0.97	0.97	0.94	0.91	0.99	0.93	0.91
Decil 6	1.14	1.11	0.98	0.98	0.94	0.91	0.98	0.93	0.90
Decil 7	1.15	1.11	0.98	0.97	0.94	0.91	0.98	0.93	0.91
Decil 8	1.15	1.11	0.98	0.96	0.94	0.91	0.97	0.93	0.91
Decil 9	1.15	1.12	0.98	0.97	0.93	0.91	0.97	0.92	0.90
Decil 10	1.17	1.13	0.98	0.98	0.92	0.91	0.96	0.91	0.87

The structure of consumption (see Table 6) shows that poor people spend more on items of basic necessities and the share declines as one moves higher up the income ladder. For example, in Western province, the share of items of basic necessities is 84% for the lowest decile. The corresponding figure for the highest decile is 57%. The PPP for the lowest decile in Western province, for example, is obtained taking the weighting the PPP for items of basic necessities and that of non-basic items by the corresponding expenditure shares.

TABLE 6
SHARE OF EXPENDITURE ON ITEMS OF BASIC NECESSITIES (POVERTY BASKET)
AS % OF TOTAL CONSUMPTION
(REGIONS AND DECILES ARRANGED FROM LOW TO HIGH)

	Western	Northern	North West	Eastern	Luapula	Central	Southern	Copperbelt	Lusaka
Decile 1	84	83	84	89	78	82	77	75	72
Decil 2	79	79	83	80	79	75	72	70	70
Decil 3	81	80	87	81	77	74	78	66	66
Decil 4	81	80	82	78	78	68	72	67	62
Decil 5	82	78	88	79	68	68	75	68	65
Decil 6	74	74	81	80	76	69	71	67	64
Decil 7	78	72	78	77	66	66	66	67	60
Decil 8	77	73	71	73	56	65	63	66	60
Decil 9	73	69	69	72	61	62	63	62	55
Decil 10	57	61	66	70	79	58	56	47	40

VI. CONCLUSION

The paper demonstrated that integrating ICP and household budget survey data can contribute a great deal toward meeting the data needs for poverty measurement and monitoring. In this context, the paper highlighted that the potential scope for the use of ICP data is wider than the specific objective for which the programme was initially created viz. inter-country comparison.

The empirical investigation brings to light two important points. One is that when poverty specific PPPs are used instead of the more conventional PPPs for consumption, poverty incidences of the richer regions go down while those of the poorer regions go up. The second equally important finding is that preliminary estimates of PPPs by income groups reveal that the bottom deciles face higher price relatives compared to the top deciles in poorer regions, further aggravating their poverty positions.

The use of Zambia's data is only for illustrative purposes. The statistical issues raised in Zambia apply in varying degree to other developing countries both in Africa and elsewhere. Twenty-two African countries have taken part in the latest ICP exercise, which was carried out in 1995. Many of these have also conducted expenditure surveys around the same time frame. The marrying of price and expenditure data that was done for Zambia can be replicated in many countries.

ANNEX 1

	Price Level (PPP/exchange rate)			Relative Price Level (Total Consumption = 100)		
	Total consumption	Food clothing	FOOD	Total consumption	Food Clothing	FOOD
1 Ethiopia	0.36	0.47	0.63	100	132	177
2 Mali	0.38	0.55	0.65	100	145	173
3 Tanzania	0.77	1.31	1.51	100	169	195
4 Malawi	0.24	0.27	0.33	100	113	142
5 Sierra Leone	0.37	0.56	0.64	100	153	174
6 Madagascar	0.35	0.54	0.65	100	153	183
7 Rwanda	0.34	0.42	0.53	100	123	153
8 India	0.33	0.45	0.44	100	136	133
9 Bangladesh	0.19	0.27	0.27	100	140	143
10 Zambia	0.27	0.46	0.69	100	170	252
11 Nigeria	0.97	1.47	1.65	100	152	171
12 Kenya	0.25	0.38	0.48	100	148	187
13 Benin	0.19	0.27	0.38	100	140	196
14 Senegal	0.29	0.39	0.51	100	136	175
15 Pakistan	0.23	0.28	0.29	100	118	126
16 Zimbabwe	0.29	0.42	0.51	100	146	178
17 Cote d'Ivoire	0.34	0.48	0.53	100	140	155
18 Philippines	0.30	0.37	0.37	100	124	125
19 Sri Lanka	0.23	0.30	0.32	100	128	136
20 Swaziland	0.24	0.33	0.48	100	138	205
21 Morocco	0.21	0.26	0.35	100	127	166
22 Congo	0.36	0.59	0.70	100	166	195
23 Thailand	0.27	0.34	0.30	100	128	111
24 Botswana	0.25	0.35	0.54	100	139	213
25 Cameroon	0.29	0.41	0.58	100	142	201
26 Egypt	0.34	0.56	0.65	100	166	191
27 Tunisia	0.29	0.40	0.44	100	136	151
28 Turkey	0.34	0.38	0.35	100	112	103
29 Korea	0.49	0.68	0.72	100	138	146
30 Poland	0.50	0.73	0.73	100	146	146
31 Iran	0.70	0.92	0.95	100	132	135
32 Yugoslavia	0.38	0.49	0.48	100	130	125
33 Hungary	0.34	0.44	0.41	100	129	121
34 Portugal	0.41	0.63	0.61	100	152	149
35 Greece	0.56	0.67	0.64	100	118	114
36 Mauritius	0.15	0.31	0.39	100	214	271
37 Ireland	0.80	0.81	0.82	100	101	103
38 Spain	0.55	0.73	0.70	100	134	128
39 New Zealand	0.65	0.66	0.60	100	101	92
40 Hong Kong	0.53	0.58	0.57	100	110	108
41 Belgium	0.77	0.87	0.82	100	112	106
42 Italy	0.69	0.78	0.76	100	114	111
43 Austria	0.84	0.92	0.90	100	110	107
44 U.K.	0.74	0.73	0.73	100	99	100
45 Netherlands	0.76	0.77	0.77	100	101	102
46 France	0.83	0.85	0.83	100	103	100
47 Finland	1.04	1.25	1.26	100	121	121
48 Australia	0.86	0.74	0.69	100	86	80
49 Japan	0.90	1.18	1.25	100	131	139
50 Germany	0.87	0.85	0.83	100	98	95
51 Denmark	0.97	1.00	1.02	100	102	105
52 Sweden	0.96	1.27	1.27	100	133	133
53 Luxembourg	0.74	0.84	0.80	100	113	108
54 Norway	1.08	1.28	1.31	100	118	122
55 Canada	0.90	0.94	0.93	100	104	103
56 USA	1.00	1.00	1.00	100	100	100
Average						
SSA	0.35	0.53	0.65	100	148	189
Asia	0.36	0.47	0.47	100	128	129
Non-OECD	0.35	0.50	0.58	100	141	166
OECD	0.78	0.87	0.86	100	112	110

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SESSION 3:

**STATISTICAL INSTRUMENTS FOR THE
MEASUREMENT OF POVERTY**

**Impact of Edit and Imputation on Income Estimates:
A Case Study**

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1. INTRODUCTION

Statistics Canada has recently concluded a review of its household and family income statistics programs. This review was inspired by a need to harmonize income data emanating from various surveys and administrative sources. Apart from issues of coverage, data collection techniques, response rates and classification issues, edit and imputation procedures appear to have a considerable impact on the final results.

This paper looks at the work of the task force, and at one of associated program changes, namely, the integration of two major sources of annual income data in Canada, the Survey of Consumer Finances (SCF) and the Survey of Labour and Income Dynamics (SLID). This integration has triggered a number of evaluation studies that shed some light on the impact of edit and imputation on the final survey results.

The following section reviews the context, mandate and recommendations of the Income Statistics Task Force. The major data issues that need to be addressed in integrating SLID and SCF are outlined in Section 3. The subsequent three sections discuss some of the quantitative differences between the two surveys, including differences in low income rates.

2. INCOME STATISTICS TASK FORCE

2.1 Background

The Survey of Consumer Finances began in the 1950s, and has been a high-profile source of information on income distributions in Canada. The Census of Population and Housing began collecting income data in 1961 and, for many years, the SCF and the Census were the only major sources of family income data.

In the 1970s, Statistics Canada began exploiting income tax file data as a statistical source but for many years, the coverage of the tax system (both in terms of the population covered and the income sources covered) was not sufficiently high to serve as a comprehensive source of information. This changed in the 1980s, when various tax credits were introduced in Canada. The availability of these credits had the effect of increasing the number of tax filers. Moreover, several non-taxable sources of income (formerly unreported) are now reported because they affect entitlements to the tax credits. The result has been a great improvement in the coverage of the tax file data. Although the SCF and tax file data have different strengths and weaknesses, the results are increasingly compared to each other. Differences can be difficult to explain and risk causing some confusion.

In 1993, the Survey of Labour and Income Dynamics started up. Although primarily intended to provide longitudinal labour, income and family data, SLID is also capable of producing cross-sectional income estimates. The income questionnaire is very similar to SCF's, although survey respondents are offered the option of allowing us to access their tax file information directly (assuming they have filed a tax return) rather than completing an income interview. Currently, tax file data are used for 75% of all respondents. SLID has become a third potential major source of annual data on income distributions. While there are benefits in having a range of sources, the scope for conflicting results and confusion among users has also expanded.

Finally, SLID is not the sole source of data on income dynamics, A sample drawn from the tax file has been linked longitudinally, and provides a second source of information on for the analysis of income transitions, spells of low income, and so on. The Longitudinal Administrative Database (LAD) has the advantage of covering a longer time period than the SLID file.

Income data are very high on the agenda of governments, policy analysts, anti-poverty groups and academics. There was increasing concern in Statistics Canada about the possibility of deriving inconsistent messages about trends in average income, income inequality or income inadequacy from the various data sources. Accordingly, an Income Statistics Task Force was created in 1996, with a mandate to recommend ways of harmonizing the Agency's income statistics; of producing them at lower cost; of improving the range and quality of income estimates; and to develop a conceptual framework.

2.2 Task force recommendations

The work of the task force ended early in 1998. The main recommendations were, first, to complete the conceptual framework. This framework will cover income, expenditures, assets and debts. In addition to articulating the concepts and their interrelationships, this framework will develop "ideal" operational definitions that are thought to be achievable, and then evaluate the current data sources against these operational definitions. The framework will also be linked to the conceptual framework of the National Accounts. Differences will be noted explicitly, along with their rationale. This is a major undertaking and will take some time to complete but the document is pivotal to our efforts to align the various income data sources.

Second, throughout its deliberations, the task force members were repeatedly struck by the variation in edit and imputation procedures across the various data sources, and their potential impact on the final results. Because income is considered a sensitive topic by the public, income surveys (or income questions included in other surveys) are prone to higher refusal rates than, for example, labour market surveys. Moreover, some respondents can recall that a certain source of income was received but not the amount. In short, income data may require substantial editing and imputation, and discrepancies between data sources can arise because of differences in these procedures. Therefore, the task force recommended that a set of data processing guidelines be developed, taking the best practices from the various sources of income data.

Third, income estimates from surveys should be post-stratified using administrative data. This would not only help to harmonize estimates from various sources but would also stabilize the estimates and compensate for some of the weaknesses inherent in survey results, such as poor representation of high income earners, while retaining their subject matter richness.

Fourth, a new Income Statistics Division should be created, responsible for producing information on income, expenditures, assets (including pensions) and debts. This recommendation, which will facilitate the achievement of the other recommendations, has already been implemented.

The work of the task force was actually the continuation of a process that began with the decision to integrate the Survey of Consumer Finances and the Survey of Labour and Income Dynamics, for reasons of harmonization and efficiency. The rest of this paper looks at what we have learned so far about the differences between the two surveys.

3. INTEGRATION OF THE SLID AND SCF

The decision to integrate the two surveys was made in 1995. Over the 1996-1998 period, the surveys are running in parallel. This is a period where we can evaluate the differences, eliminate the unnecessary ones, understand and document the remaining ones. In 1999, SCF will be discontinued. The cross-sectional income estimates for the 1998 reference year will come from SLID.

Over the past two years, the staff of SLID and SCF have been collaborating closely to ensure the smoothest possible transition to the new survey. This is matter of concern in the user community, as the SCF data feed into microsimulation models used to develop and monitor social and fiscal policies. The

4. SLID/SCF COMPARISONS

Estimates of aggregate and average income from the two surveys have been compared, as well as income distributions and low income rates. In general, these comparisons are reassuring, but there are features that will require further analysis.

4.1 Aggregate income

Aggregate income refers to the sum of the income reported for the full population covered by the survey. It can be useful as a broad measure of over- or under-estimation for various sources of income through comparisons to external data sources, such as taxation data and National Accounts.

TABLE 1
AGGREGATE INCOME, SELECTED INCOME SOURCES, SLID, SCF AND TAXATION STATISTICS, 1994

	SCF \$B	SLID \$B	Tax \$B	SCF/ Tax	SLID/ Tax
Total Income	527.5	533.1	546.8	.96	.97
Wages & Salaries	373.0	375.9	332.5	1.12	1.13
Old Age Security	19.3	18.5	17.6	1.07	1.05
Employment Insurance	13.0	14.6	14.4	.90	1.01
Social Assistance	11.2	12.0	12.0	.93	.84
Worker's Compensation	2.7	3.5	3.5	.75	.97
Private Pensions	20.9	25.9	24.7	.85	1.05

As Table 1 shows, both surveys yield estimates of aggregate income that are quite close to the taxation estimates. It is not surprising that the SLID results are slightly closer, because three-quarters of the data come from the tax file.

However, there are some interesting anomalies when the results for particular income sources are examined. For example, SLID underestimates social assistance (income assistance) to a greater extent than SCF. Moreover, the taxation data themselves are thought to be an underestimate of social assistance payments. Some possible explanations are:

- attrition in the SLID sample is higher at the lower end of the income scale because the population in question is more mobile and difficult to trace;
- differences in imputation procedures, which result in greater boosting of social assistance in income in SCF than they do in SLID.

Wages and salaries earned by employees, as estimated by the two surveys, exceed the level indicated by the taxation data. This could be due in part to unreported earnings in the taxation data but this is certainly not the whole story. As will be seen later, average incomes are very close. Another possible reason lies in the demographic estimates (population by age group, sex and province) that are used to weight the sample data. Both surveys use the same set of independent estimates to benchmark their data, which will tend to align them with each other. But the population estimates are themselves subject to error so that the survey data may differ from other sources (such as the taxation statistics) that are conceptually comparable but not dependent on the same demographic estimates.

TABLE 2
AGGREGATE INCOME BEFORE AND AFTER TAX, SCF, SLID AND TAXATION STATISTICS, 1994

	SCF \$B	SLID \$B	Tax \$B	SCF/ Tax	SLID/ Tax
Income before tax	527.5	533.1	546.8	.96	.97
Taxes Paid	102.5	101.9	100.5	1.02	1.01
Income after tax	425.0	431.2	446.4	.95	.97
After tax/Before tax ratio	.81	.81	.82		

In SLID, income tax information generally comes directly from the tax file, unless authorization to use tax data was not obtained. In that event, the amount is generally imputed based on a regression model of taxes payable. The model reflects among other things income level, family circumstances, allowable income tax deductions, and province. The model has been tested against actual tax file data and found to be quite reasonable. In the SCF, the methodology for imputing income taxes payable is different. In both cases, the surveys are estimating taxes owing, which may be different from taxes actually paid. This may be a factor contributing to the overestimation.

The taxation statistics are a useful benchmark, but by no means the only one. The National Accounts provide alternative estimates of aggregate income. In effect, the National Accounts gain strength from the use of several administrative and survey sources. In the table below, the estimates from the National Accounts have been adjusted to the extent possible to correspond conceptually to the content and population covered by the two surveys.

TABLE 3
AGGREGATE INCOME, SELECTED SOURCES, SCF, SLID AND NATIONAL ACCOUNTS, 1994

	SCF \$B	SLID \$B	NA \$B	SCF/ NA	SLID/ NA
Total Income	527.4	533.1	497.9	1.06	1.07
Wages & salaries	373.0	375.9	349.9	1.07	1.08
Investment Income	18.7	20.6	35.3	.53	.58
Old Age Security	19.3	18.5	18.8	1.02	.98
Employment insurance	13.0	14.6	14.9	.87	.98
Workers' Compensation	2.7	3.4	3.9	.68	.88

In this comparison, both surveys overstate aggregate income. Wages and salaries (the overwhelmingly largest component) is overstated to roughly the same extent. Among the other income sources shown in Table 3, investment income stands out. Household surveys typically have great difficulty capturing investment income, and these two are no exception. This phenomenon, which is probably due to a combination of factors (survey non-response of high income earners and under-reporting of investment income by survey respondents) is one instance where benchmarking to external estimates would have a very beneficial effect.

4.2 Average income

The following two charts show the proportion of the population reporting income, and average income estimates. The estimates of the population reporting some income are somewhat higher in SLID, particularly in the 24 to 44 age band. This is important because the average income estimates are calculated by dividing aggregate income by the number of income earners, so a higher number of income earners will drive down the average income level, other things being equal.

The reason the estimates of income earners are higher in SLID appears to be largely due to differences in the way the processing systems handle government transfers that are essentially made to the family unit. SLID assigns them to whatever family member reports them. SCF used a more complex approach, but has since aligned its procedures with SLID.

CHART 2
PROPORTION OF PERSONS WITH INCOME BY AGE GROUP, 1994

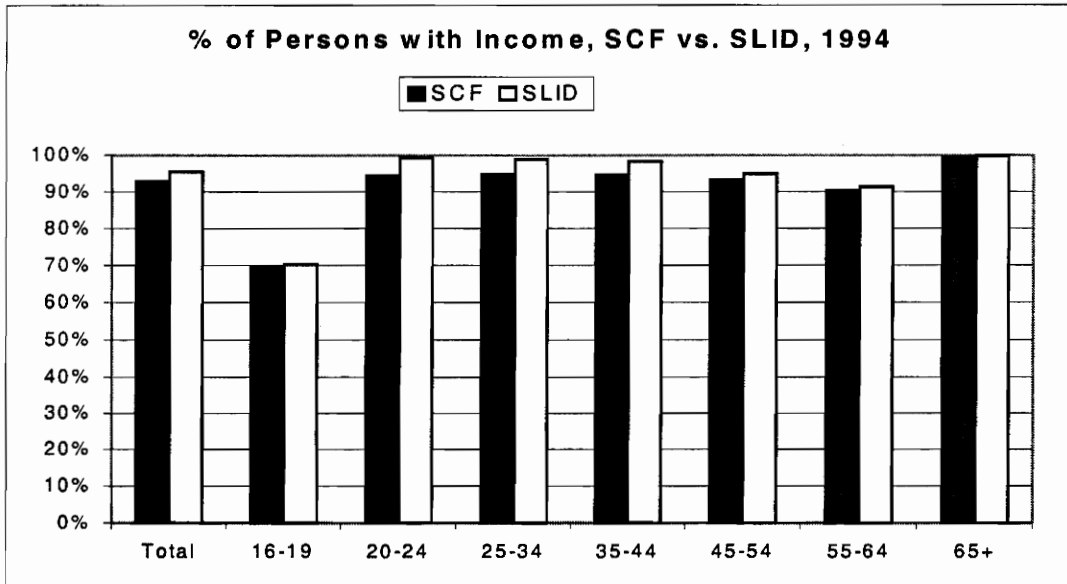
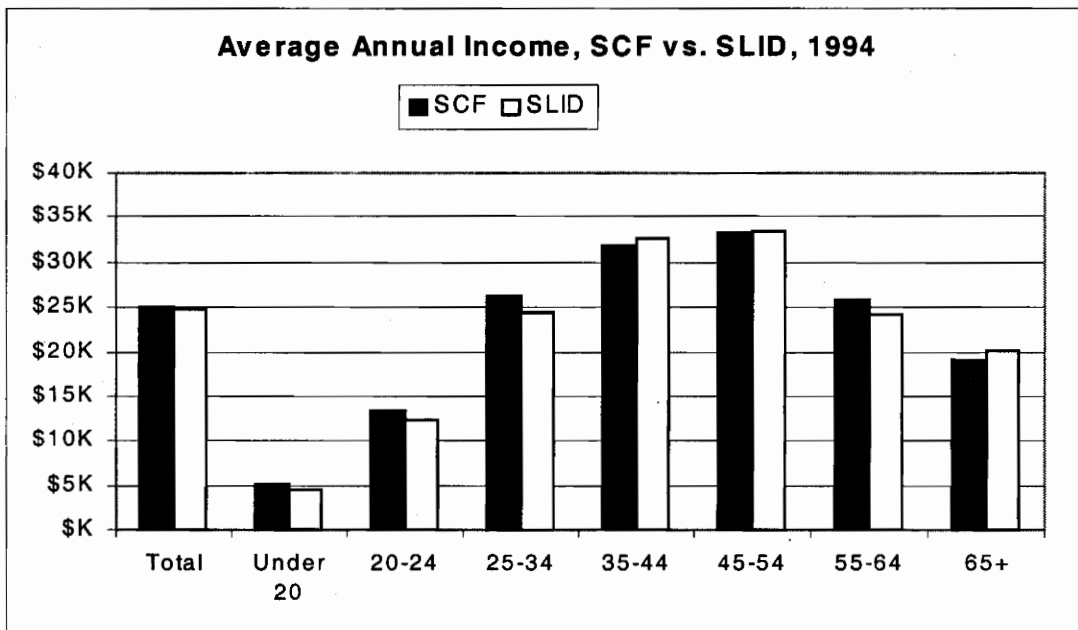


CHART 3
AVERAGE ANNUAL INCOME, INDIVIDUALS WITH INCOME BY AGE GROUP, 1994

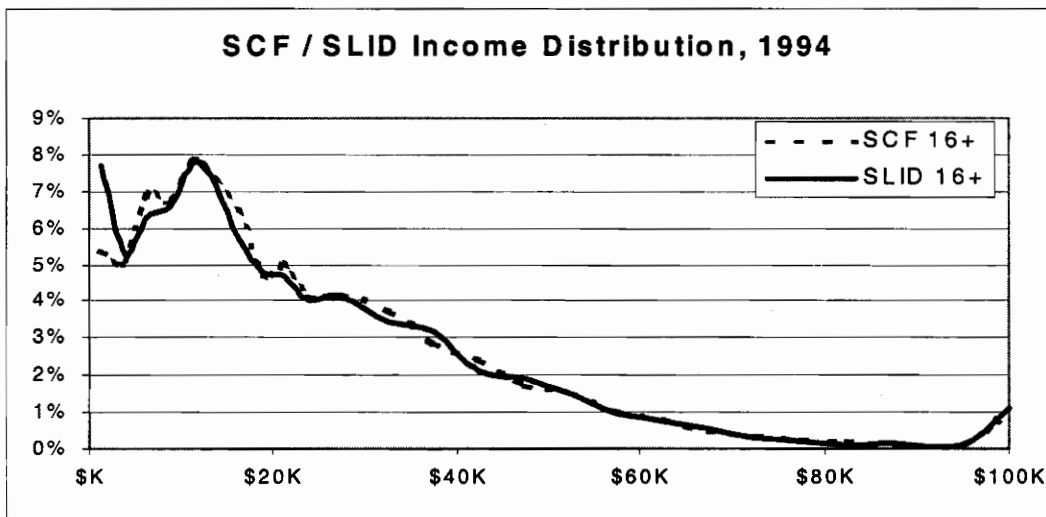


The average income for all ages is similar in SCF and SLID. However, SCF shows higher salaries in the three younger age groups, while SLID gives higher salaries in three of the four older age groups.

4.3 Income distribution

Income inequality is a major concern and so it is important to examine the "story" that the two surveys tell with respect to income distribution: are they similar? The fact that SLID uses tax data might lead one to suspect that it would capture more in the high end of the income distribution curve than SCF, which relies entirely on reported income. However, the opposite is the case. SLID actually captures a higher proportion of low income earners (Chart 4) than SCF.

CHART 4
DISTRIBUTION OF POPULATION BY PERSONAL INCOME (BEFORE TAX), 1994



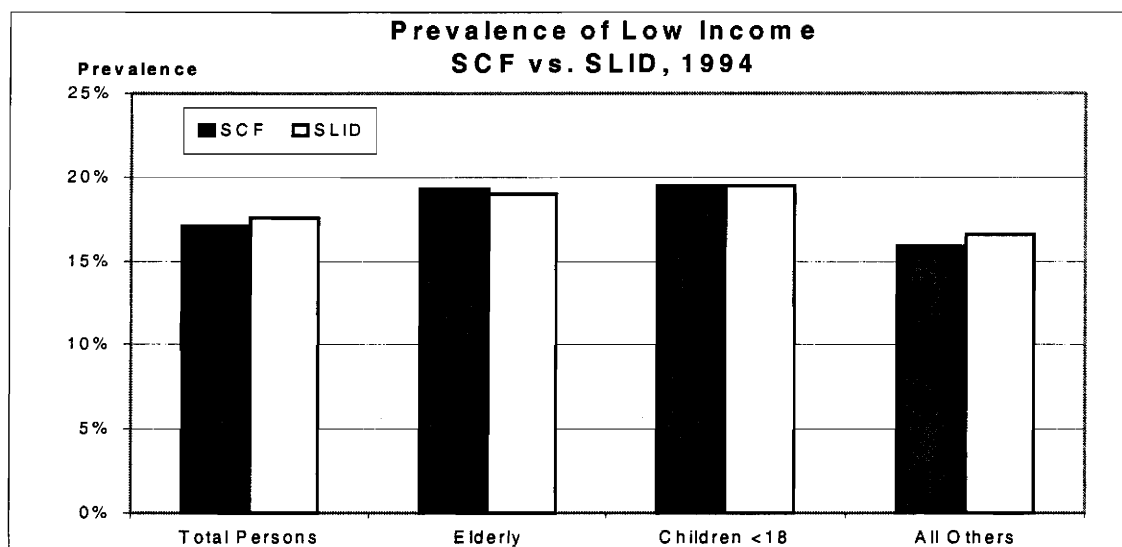
This is certainly a phenomenon that will require further study.

4.4 Low income rates

Statistics Canada produces a measure of low income called the Low Income Cutoff (LICO). This measure is based on household income and expenditure data. It is the line where 55% of a family's before-tax income is likely to be spent on food, shelter and clothing. LICOs are calculated for different family sizes and different sizes of community.

Although low income rates are contentious, movements receive a great deal of public scrutiny. Therefore, consistency in the rates between SLID and SCF is an important issue. Chart 5 compares the rates for 1994.

CHART 5
LOW INCOME RATES, 1994



Despite the higher aggregate and average income levels, SLID produces higher estimates of low income. However, the results are close: the prevalence of low income is 17.1% based on SCF and 17.6% based on SLID. The rate for SLID among seniors (aged 65 and over) is lower than SCF's, and there are indications that this occurs because of SLID's use of tax data.

5. IMPACT OF USING TAX DATA: STUDY

Since data users have expressed particular concern about the fact that SLID uses tax data, a special study was devised to assess the impact of this factor. The SCF sample for 1995 was matched to the tax file, using such matching characteristics as name, address, date of birth and marital status. A match rate of about 80% was achieved. For those records where a match was found, we substituted the tax data for the income data collected via interview. This gave us two data sets to compare – the original SCF data and the SCF records with tax data substituted for 80% of the records – to allow some analysis of the impact of moving to tax data holding other factors constant.

Table 4 shows that the use of tax data increases the aggregate income estimate by \$11 billion or 1.9%, based on this set of respondents.

TABLE 4
AGGREGATE INCOME, SCF AND COMBINED TAX/SCF, UNATTACHED INDIVIDUALS AND FAMILIES*, 1995

	SCF \$B	Combined Tax/SCF \$B	Difference
Total	549.8	560.2	1.9
Unattached individuals	93.6	93.4	-0.2
Elderly	20.9	21.3	2.2
Non-elderly	72.7	72.0	-0.9
Families	456.2	466.8	2.3

* Based on economic families, defined as all persons related by blood, marriage or adoption and living in the same dwelling.

Table 4 highlights the situation of persons aged 65 and over living alone, as this group has historically had high rates of low income. Both elderly persons living alone and families show higher levels of income based on their tax data than what was reported in the SCF.

The low income rate (which is based on each person's family income) is nevertheless somewhat higher when tax data are used: 18.5% compared with 17.8% in SCF, indicating that the underlying income distribution is different.

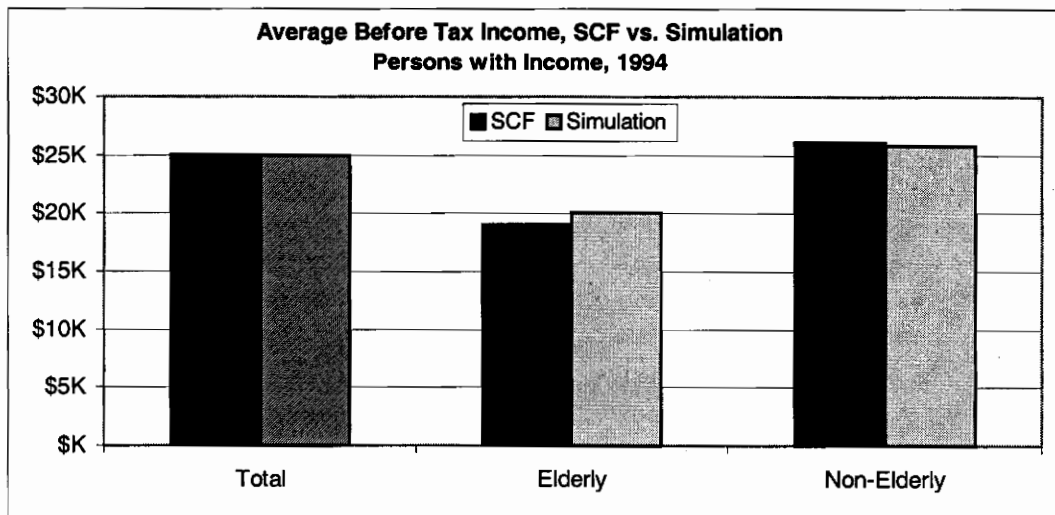
6. SIMULATION STUDY

A second study was undertaken to assess the impact of moving to the SLID sample. There is a risk that sample attrition will bias estimates of family income since geographical mobility and our ability to successfully trace movers is thought to vary according to income level. Also, the SLID panel design leads to possible under-representation of immigrant households. At the beginning of a panel, immigrant households are represented but, as the panel ages, new households made up solely of immigrants are not captured. (Immigrants who move in with existing households are represented in the sample because SLID captures information on persons who move in with anyone originally selected for the panel).

To test the impact of sample differences, data for the SLID respondents were processed through the SCF processing system. This required some preparatory work to make the SLID input variables "look like" the SCF variables. However, by comparing the results of this simulation with the SCF results, we gain some understanding of the sample differences, since the processing system is a constant.

Chart 6 shows the impact on average income estimates. There is very little difference for the population at large, although the seniors in SLID's sample appear to be "better off". This is consistent with other results indicating that the use of tax data boosts the income levels of seniors somewhat.

CHART 6
AVERAGE BEFORE TAX INCOME, SCF VS. SIMULATION



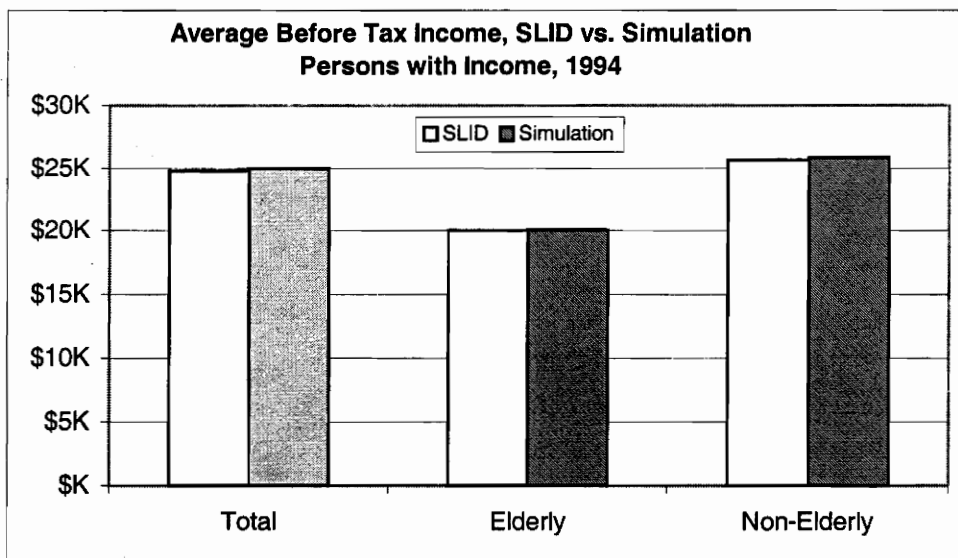
The impact on low income rates was also slight. The 1994 rate for all persons from SCF was 17.1%; the SLID sample processed through the SCF system yielded a low income rate of 17.2%. The

rates for seniors were identical. For children aged 18 and under, the simulation produced a slightly lower rate — 18.7% compared with 19.5% for SCF.

This same simulation can also be compared to the SLID results. In this case, because the same sample records have been processed through two distinct systems, it helps to isolate the impact of processing differences.

Chart 7 compares average income estimates for SLID and for the SLID sample processed through the SCF system. At this high level, the two sets of estimates are very close indeed. However, the SCF system yielded a low income rate of 17.2% against SLID's 17.6% and, for children under 18, the rates were 18.9% and 19.5% respectively. Thus, the two processing systems do generate differences in the distribution of income.

CHART 7
AVERAGE INCOME BEFORE TAX, SLID VS. SIMULATION



7. CONCLUSION

These studies have shown that the differences observed between SLID and SCF in 1993 were greatly moderated through adjustments to the processing systems. On the whole, the cross-sectional income estimates for 1994 are reasonably close. These results have reassured data users somewhat, although they remain concerned about how well the similarities hold up when the data are disaggregated.

The evaluation studies have also shown us how difficult it can be to disentangle and pinpoint exact sources of differences between surveys so that these can be documented and shared with data users. The work we have done so far is helping to point out the areas where further work is needed. Beyond the SLID/SCF merger, it is a first step towards the development of processing guidelines that will help us to align income estimates from various sources.

**Pesquisa sobre Padrões de Vida
1996-1997**

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INTRODUÇÃO

Com as transformações recentes da sociedade brasileira, a intensificação da crise econômica na década passada e os sucessivos planos de ajuste econômico, aparecem novas indagações sobre o impacto e a eficácia de políticas públicas nas condições de vida da população. O grande desafio hoje é pesquisar e acompanhar os efeitos do crescimento e dos planos de ajuste econômico no padrão de vida da população, em especial, no da população mais pobre.

Como pré-requisito de um processo de desenvolvimento econômico e social com equidade, é de fundamental importância a disponibilidade de um sistema de informações que subsidie e oriente, com eficiência e eficácia, as políticas públicas e acompanhe o impacto de medidas intervencionistas. À produção de informações sociais e econômicas típicas soma-se a necessidade de pesquisas que integrem as várias dimensões da vida social.

O IBGE, embora dispondo de um elenco variado de pesquisas nas áreas social e econômica que têm permitido a divulgação de informações relevantes para o conhecimento do estado social da nação e para o planejamento, precisa suprir lacunas de informação existentes nas estatísticas socioeconômicas. Hoje, o IBGE conta com uma ampla abrangência de informações estruturais na área econômica que resulta nas Contas Nacionais. As informações estruturais na área social são menos sistemáticas. Exceto as investigações sobre população, trabalho, rendimento, migração e educação levantadas pelo Censo Demográfico e atualizadas anualmente através da Pesquisa Nacional por Amostra de Domicílios (PNAD) e a Pesquisa Mensal de Emprego (PME), as demais áreas sociais oscilam quanto à periodicidade e à abrangência de temas cobertos¹.

Cada vez mais há a necessidade de se acompanhar e explicar os efeitos das transformações macroeconômicas na vida das pessoas, na organização domiciliar. As informações levantadas pelas pesquisas socioeconômicas, hoje existentes, são relevantes para acompanhar e medir variações em indicadores chaves através do tempo. Normalmente, são pesquisas que, por terem amostras amplas, permitem a divulgação de resultados a níveis mais desagregados, possibilitam a identificação de grupos sociais mais vulneráveis e identificam tendências de indicadores básicos. A explicação e o diagnóstico dos efeitos das transformações macro na organização domiciliar, no entanto, dependem de informações adicionais, mais completas e integradas. A coleta de informações descritivas, típicas e a coleta de informações explicativas multitemáticas devem ser atividades paralelas e consolidadas para que formem um sistema integrado de informações socioeconômicas.

No intuito de aprimorar o sistema das estatísticas socioeconômicas, o IBGE, em convênio com o Banco Mundial, iniciou um projeto piloto de pesquisa multitemática para atender a necessidade de informações que (a) qualifiquem e indiquem os determinantes do bem-estar social de diferentes grupos sociais e (b) permitam identificar os efeitos de políticas governamentais nas condições de vida domiciliar.

¹ Os temas sociais foram objeto, principalmente, de suplementos da PNAD. Na década de 1970 foram realizados os seguintes suplementos: Mão-de-obra, Cor e Características da Habitação. Em 1974/75 foi realizada uma pesquisa especial - Estudo Nacional de Despesas Familiares (ENDEF) que investigou o consumo alimentar e orçamentos familiares. Na década de 1980, os suplementos cobriram áreas como: Saúde, Educação, Mão-de-obra e Previdência, Fecundidade, Menor, Acesso a Serviços de Saúde - Suplementação Alimentar - Associativismo - Anticoncepção, Participação Político-Social e Trabalho. Em 1985, foi levada a campo a Pesquisa de Orçamento Familiar, pesquisa que foi repetida em 1996. Em 1989 foram realizadas as pesquisas de Saúde e Nutrição e Saneamento Básico.

PESQUISA SOBRE PADRÕES DE VIDA

I. Objetivos

O objetivo da pesquisa é fornecer informações adequadas para planejamento, acompanhamento e análises de políticas econômicas e programas sociais em relação ao seus impactos nas condições de vida domiciliar, em especial nas das populações mais carentes. Por este motivo, as informações devem estar integradas e disponíveis o mais rápido possível para uso de estudiosos e formuladores de política.

Substantivamente, a pesquisa proporciona um panorama do bem-estar dos moradores dos domicílios e possibilita o estudo de seus determinantes. Partindo da premissa que quantificar e situar um problema não é suficiente, a pesquisa busca explicações que permitam indicar soluções. Por exemplo, o conhecimento de quantos pobres existem, como e onde moram e o que fazem é apenas uma parte da investigação. Para se produzirem informações que possam subsidiar soluções mais efetivas, é necessário um levantamento detalhado sobre as causas e conseqüências da pobreza. O mesmo princípio se aplica a outras áreas do bem-estar social.

Desta forma, o questionário da pesquisa é planejado para fornecer um conjunto de informações integradas com o objetivo de:

- medir a distribuição do bem-estar e o nível de pobreza, principalmente, em áreas onde predominam a agricultura de subsistência, a economia informal e o emprego sazonal;
- descrever os padrões de acesso e utilização de serviços públicos - educação, saúde, saneamento básico, etc.;
- compreender como os moradores dos domicílios reagem às condições econômicas e aos impactos de medidas governamentais; e
- permitir análises complexas das relações entre os vários aspectos do bem-estar social, como o impacto da saúde no emprego, o padrão de gastos nos níveis nutricionais dos moradores, etc.

A pesquisa, no entanto, não trata os vários temas investigados com a mesma profundidade que as informações levantadas em pesquisas tópicas. Ao mesmo tempo, por ter uma amostra pequena, a precisão dos resultados é menor do que aqueles das pesquisas tópicas. Mas, pela sua abrangência temática, a pesquisa permite um bom resumo multidimensional do bem-estar e o estudo das interações entre os vários fatores.

II. Características

A Pesquisa sobre Padrões de Vida - PPV, aplicada no Brasil, nas Regiões Nordeste e Sudeste, caracteriza-se pela:

- abrangência de temas socioeconômicos estudados de forma integrada em uma mesma amostra de domicílios;
- permanência no campo durante um ano (março de 1996 a março de 1997) com o objetivo de captar fenômenos sazonais;
- manutenção de rígido controle tanto na aplicação dos questionários quanto no processo de entrada de dados e de plano de crítica;
- incorporação do processamento de dados como parte integrante da pesquisa, visando a agilidade na divulgação dos resultados;

Para se alcançar estes objetivos, novas metodologias foram adotadas com o intuito de minimizar problemas comuns em pesquisas integradas.

Questionário Domiciliar

O questionário² coleta uma diversidade de temas sociais e econômicos a nível do domicílio. Para se atingir os objetivos de analisar o bem-estar social e as características e determinantes da pobreza, os temas incluídos na pesquisa foram examinados de forma a definir o número mínimo de questões, para cada tópico, necessárias à avaliação das condições de vida.

Pela importância de se avaliar o bem-estar social, foi dada ênfase aos aspectos relativos às despesas domiciliares. Investiga-se o gasto com moradia, educação, saúde, consumo alimentar, despesas com bens e serviços, assim como com o custo da produção para moradores envolvidos em atividades de indústria, comércio, serviços, agropecuária e pesca. Além dos gastos monetários, os bens e serviços doados ou trocados pelos moradores do domicílio poderão ter seus custos estimados a partir do valor de mercado, coletados através do questionário de preços.

As características e determinantes da pobreza são mensurados por uma série de indicadores de renda. Para as pessoas no mercado formal de trabalho, foram incluídas questões detalhadas sobre salário, bonus, compensações e benefícios, tanto para o trabalho principal quanto para o secundário. No âmbito do domicílio, são investigados rendimentos líquidos provenientes de empreendimentos exercidos por moradores, de investimentos financeiros e de outras fontes variadas de renda, como transferências, pensões, ganhos em loterias, etc.

Como a caracterização da qualidade de vida e a identificação dos níveis de pobreza da população vão além da análise de dimensões econômicas, no questionário se investiga as condições de moradia, as tendências demográficas (migração, fecundidade, história dos nascimentos), acesso aos serviços de educação e saúde, nutrição, antropometria e avaliação das condições de vida. É através da disponibilidade de informações sociais e econômicas mais detalhadas que se espera obter análises das inter-relações destas dimensões com vistas a uma definição mais acurada da desigualdade social, da pobreza e de seus determinantes.

O questionário da pesquisa é aplicado em duas visitas ao mesmo domicílio em um intervalo de duas semanas. Este procedimento visa a obter um maior controle de qualidade em relação às informações sobre despesas familiares (é pedido ao entrevistado que anote as despesas durante as duas semanas que antecedem a segunda visita); a esclarecer eventuais dúvidas e/ou lacunas encontradas na primeira parte do questionário, detectadas pelo plano de crítica; e, finalmente, a reduzir o tempo de cada entrevista.

Questionário de Preço

O questionário de preço é um instrumento que serve de apoio às informações levantadas no domicílio. Como os preços variam consideravelmente entre as Grandes Regiões e as áreas urbanas e rurais, a avaliação de preços locais ajuda a dimensionar o custo de vida das comunidades onde estão localizados os domicílios selecionados na amostra.

Como já existem informações disponíveis sobre custo de vida levantadas pelo IBGE para as Regiões Metropolitanas, a aplicação do questionário de preço está restrita às pequenas cidades e áreas rurais. Tão pouco se trata de um questionário exaustivo sobre locais de compra; o levantamento se atém à relação de preços dos principais produtos alimentícios, farmacêuticos, higiene pessoal, material de limpeza e suplementos agrícolas nas áreas rurais.

² Em anexo, encontra-se o resumo dos temas e principais dimensões do questionário da Pesquisa sobre Padrões de Vida - PPV - 1996/97.

Amostra

A amostra³ da PPV é probabilística, selecionada em dois estágios: o primeiro, a unidade primária, é composto pelos setores censitários da base geográfica do Censo Demográfico de 1991; e, o segundo, a unidade secundária, é formado pelos domicílios.

Para a estratificação dos setores foram adotados os seguintes procedimentos:

- foram criados dez estratos geográficos: Região Metropolitana de Fortaleza, Região Metropolitana de Recife, Região Metropolitana de Salvador, outras áreas urbanas do Nordeste, área rural do Nordeste, Região Metropolitana de Belo Horizonte, Região Metropolitana do Rio de Janeiro, Região Metropolitana de São Paulo, demais áreas urbanas do Sudeste e área rural do Sudeste;
- com base na renda média mensal do chefe do domicílio, apurada no questionário da não-amostra do Censo Demográfico, foram criados três estratos estatísticos em cada estrato geográfico;
- os setores foram distribuídos dentro dos estratos estatísticos selecionando-se, então, em cada um destes estratos, com probabilidade proporcional ao total de domicílios, os setores que compõem a amostra da pesquisa.

Após a seleção dos setores, a cada trimestre, é realizada a operação listagem, que tem por finalidade construir um cadastro atualizado dos domicílios existentes. A partir da listagem são selecionados os domicílios com equiprobabilidade.

Com o objetivo de tornar a pesquisa mais ágil, foi elaborada uma amostra de, aproximadamente, 5.000 domicílios distribuídos em 554 setores censitários⁴ nas duas regiões selecionadas (278 no Nordeste e 276 no Sudeste). Os setores da amostra foram distribuídos, proporcionalmente, pelos quatro trimestres do ano, de forma que, em cada trimestre, houvesse a representatividade dos dez setores geográficos. Nos setores metropolitanos e urbanos são realizadas entrevistas em oito domicílios e dezesseis nos setores rurais.

Processamento dos Dados

Uma das características inovadoras da PPV é a incorporação do processamento de dados como parte integrante da pesquisa. O que se pretende é diminuir o tempo entre a coleta e a divulgação da informação e criar mecanismos mais rígidos de controle da qualidade dos dados produzidos.

A apuração descentralizada da pesquisa foi realizada durante o trabalho de campo. Para tanto, foram criados 13 polos de digitação e crítica. Ao término da primeira etapa da entrevista, o questionário era digitado e criticado e, em caso de inconsistências e/ou omissões, o entrevistador fazia as correções quando da aplicação da segunda fase da entrevista. Este procedimento não só agilizou a apuração como melhorou a qualidade da entrevista. A tendência foi do entrevistador aprender com o erro e dificilmente cometia o mesmo erro em uma outra entrevista.

³ Para maiores detalhes sobre o plano amostral da pesquisa, ver Albieri, Sonia, Zélia Magalhães Bianchini & Ricardo Luiz Cardoso "Pesquisa sobre Padrões de Vida - Planejamento da Amostra".

⁴ Ver mapa dos setores em anexo.

Para levar a apuração ao campo, foi criado um sistema de informatização automatizado que permite, ao leigo em informática, acesso fácil à digitação e crítica. Os procedimentos foram desenvolvidos em linguagem DOS com a incorporação de alguns módulos do IMPS⁵.

Após o término da apuração nos centros de processamento, os arquivos foram transmitidos eletronicamente para a equipe central que realizou a consolidação dos diversos setores a cada trimestre. Os dados foram processados por microcomputadores, o que agilizou o trabalho e facilitou o acesso às informações. Terminada a montagem dos arquivos, eles podem ser transferidos para programas estatísticos (stata, sas, spss, excel, access, etc.) que facilitam a análise dos dados.

Divulgação dos Resultados

Os resultados da pesquisa estarão disponíveis em disquete e CD ROM para utilização dos diversos usuários de informações estatísticas como, por exemplo, agências governamentais, universidades e organismos internacionais.

Um produto imediato da pesquisa será a divulgação de tabelas selecionadas, com indicadores de diferentes aspectos das condições de vida da população, acompanhadas de textos analíticos multitemáticos.

Até o momento, foram tomadas algumas iniciativas junto a pesquisadores do IBGE, de outras instituições governamentais e acadêmicas com o objetivo de desenvolver estudos mais aprofundados sobre os temas cobertos pela pesquisa.

Como as informações da pesquisa são muito ricas e com uma ampla divulgação dos resultados, certamente, surgirão vários estudos que contribuirão para um melhor entendimento do bem-estar social

⁵ O IMPS (Integrated Microcomputer Processing System) é um programa de apuração de pesquisa desenvolvido pelo Bureau de Censo dos Estados Unidos.

ANEXO

**TEMAS DO QUESTIONÁRIO DA PESQUISA SOBRE PADRÕES DE VIDA
1996 - 1997**

1ª FASE DA ENTREVISTA

Tema	Subtema	População pesquisada	Referência
Habitação	Características do domicílio	Domic. particular permanente	data da entrevista
	Gastos com moradia		últimos 30 dias
Moradores	Característica Demográfica	Todos os moradores	data da entrevista
	Informações sobre os pais		
	Relações de convivência	Moradores 12 anos e mais	
Migração	Interestadual	Todos os moradores	data da entrevista
	Rural/Urba		
	Motivo		
Educação	Freqüência à escola	Todos os moradores	data da entrevista
	Gastos		últimos 30 dias e últimos 12 meses
	Histórico escolar		data da entrevista
	Curso profissionalizante		
Saúde	Avaliação da saúde	Todos os moradores	data da entrevista
	Morbidade		
	Atendimento		
	Gastos		últimos 30 dias
Trabalho	Primeiro trabalho	Moradores 5 anos e mais	data da entrevista
	Trabalho comunitário/assist.		
	Trabalho doméstico		
	Trabalho principal		últimos 7 dias
	Trabalho secundário		
	Trabalho principal		últimos 12 meses
	Procura de trabalho		últimos 30 dias
Fecundidade	Fecundidade	Mulheres de 12 a 49 anos	data da entrevista
	Anticoncepção		
	História da união	Mulheres 12-49 anos que vivem com cônjuge	
	História de nascimento	Mulheres que tiveram filhos	últimos 5 anos

2ª FASE DA ENTREVISTA

Tema	Subtema	População pesquisada	Referência
Rendimentos	Aposentadoria/pensão	Moradores de 10 anos e mais	últimos 30 dias
(Exclusivo de trabalho)	Abono		
	Seguro de vida		
	Pensão alimentícia		
	Aplicações financeiras		
	Indenização		
	Herança, jogos		
	Aluguel/venda (imóvel, etc.)		
	Seguro desemprego		
	Doação		
	Outros		
Investimentos e	Ações	Moradores de 18 anos e mais	últimos 30 dias
	Poupança		
Crédito	Ativos financeiros		
	Compra de imóvel		últimos 12 meses
	Compra de terreno		
	Automóvel		
	Telefone, moto, barco, etc.		
	Empréstimo/financiamento		últimos 30 dias
Gastos e	Alimentação fora do domic.	Domicílio	últimos 30 dias
	Higiene pessoal		
Inventário bens	Material de limpeza		
	Transporte		
	Empregada doméstica		
	Lazer		
	Vestuário		
	Medicamentos		
	Seguro saúde		
	Livros, assinaturas, etc.		
	Bens e serviços pessoais		
	Outros gastos		
	Conservação do domicílio		últimos 6 meses
	Móveis para o domicílio		
	Seguro de veículo		últimos 12 meses
	Seguro de bens/domicílio		
	Casamento		
	Funeral		
	Advogado, arquiteto, etc.		
	Pensão alimentícia		últimos 30 dias
	Doações		
	Imposto de renda		
	Outros impostos		
	Contribuição à previdência		
	Prêmios seguro de vida		
	Cotas de títulos de clube		
	Inventário de bens existentes no domicílio		data da entrevista
	Remessa de contribuições (bens ou dinheiro) para não moradores do domicílio		

Tema	Subtema	População pesquisada	Referência
Despesas e Consumo de Alimentos	Relação de alimentos Obtenção do alimento Gasto Quantidade consumida	Domicílio	últimos 14 dias
Conta-própria e Empregador	Informação sobre a empresa (indústria, comércio e serviço) Gastos da empresa Capital e inventário de bens	Domicílio	últimos 12 meses últimos 30 dias data da entrevista
Atividade agropecuária	Informação empreendimento Produção agrícola Produto agrícola elaborado Produção pecuária Produto pecuário elaborado Gastos com a pecuária Extração vegetal Reflorestamento e produção madeireira Gastos com agricultura, extração vegetal e reflorestamento Máquinas, implementos e utensílios agrícolas	Domicílio	data da entrevista últimos 12 meses
Atividade Pesqueira	Informação empreendimento Produção pesqueira Equipamento pesqueiro Gastos com atividade pesca	Domicílio	últimos 12 meses
Avaliação das Condições de Vida	Avaliação sobre a renda Avaliação sobre condições de vida Itens prioritários das condições de vida	Chefe do domicílio	data da pesquisa
Antropometria	Altura/comprimento Peso	Todos os moradores	data da pesquisa

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**Program for the Improvement of Surveys and the
Measurement of Living Conditions in Latin America
and the Caribbean (ISLC/MECOVI)
CEPAL-IDB-IBRD**

**RUTHANE DEUTSCH
IDB**

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I. BACKGROUND AND JUSTIFICATION

- 1.1 Poverty reduction and improvements in social equity are among the most important objectives of governments in the region and multilateral organizations. Even though a great deal has been learned in recent years, the need to better understand how government policies affect the poorest households remains pressing. In order to assess how government policies can contribute to poverty reduction, it is necessary to have information about the characteristics and behavior of households: e.g., sources of income, geographic location, socio-demographic characteristics, consumption patterns, use of social services, etc. Information must be available at both the household and community levels, with national coverage, be comparable across time, and be reliable, timely and relevant.
- 1.2 There are currently a great number of household surveys available in the region. However the problem is that very few of them are reliable, timely, or comparable across time, nor do they include all the information that is needed to perform an analysis of how public policies impact on the poor. The deficiencies vary depending on the survey, but the most common are the following:
 - (a) *Insufficient coverage, particularly of rural areas:*
 - (b) *Limited questionnaires;*
 - (c) *Problems with the reliability of the data.*
 - (d) *Sufficient integration with other sources of information.*
 - (e) *Limited topic coverage.*
- 1.3 Recognizing the urgent need for an information system with reliable data for the measurement of poverty, inequality, and, in general, social indicators in all the countries in the region, the IDB - together with the World Bank, ECLAC and the country governments- is executing a program to strengthen the institutional capacity in each country to implement and analyze a high quality multipurpose household survey system. This program is called the Program Improving the Surveys of Living Conditions in Latin America and the Caribbean (ISLC/MECOVI).

II. PROGRAM OBJECTIVES

- 2.1 ISLC/MECOVI's general objective is to adequately generate better and more information regarding the living conditions of the Region's population. Specifically, information must be improved in terms of its scope, coverage, reliability, and, most importantly, its relevance for policy making. In sum, the Program hopes to generate the information necessary for the design, follow up, and evaluation of the programs, projects and policies aimed to reduce poverty and reduce inequality.

III. PROGRAM DESCRIPTION

- 3.1 The Program is being implemented by the IDB, the World Bank and ECLAC, in partnership with the participating countries' specialized agencies.
- 3.2 The Program has two main components: (1) Region wide activities; and (2) activities in the participating countries.
 - (1) **Region wide activities**
- 3.3 This component has the following specific objectives:

- (i) improvement in the estimation and analysis of the social indicators obtained from the household surveys; and
- (ii) maintenance, improvement and updating of a data bank of household surveys from all countries in the region, to be made accessible to users across the region.

3.4 These objectives will be achieved through the implementation of the following activities:

- (a) Organization of Regional Workshops, designed to discuss methodological issues regarding the systems of household surveys implemented in the region.
- (b) Organization of Regional Training Courses dealing with best practices in the production and use of household survey data.
- (c) Financing of the maintenance, improvement and updating of a user friendly data bank of household surveys. This data bank will include the data sets for the available surveys in the region and will be easily accessible to users.

(2) Country specific activities

3.5 The Program's country specific activities are carried out only in participating countries, and have the following specific objectives:

- (i) establish and/or improve institutional capacity in the design, implementation and use of household survey data for the analysis and evaluation of policies aimed at the reduction of poverty and inequality;
- (ii) improve the use of the information derived from existing and new surveys, and improve the estimation procedures to generate social indicators; and
- (iii) create and maintain data bases with household survey data, in order to make the information easily and promptly accessible to users in the country.

3.6 These objectives will be reached through the implementation of the following activities in the beneficiary countries:

- (a) Financial and technical assistance to improve the design and implementation of the household survey's systems.
- (b) Financial and technical assistance for the creation, maintenance, improvement, and updating of a household surveys data bank, which should be accessible to users in a prompt and easy way.
- (c) Financial and technical assistance for institutional strengthening in the use of the information obtained from household surveys for policy analysis. This assistance will be provided through:
 - (i) contracting topic specific studies relevant to policies' impacts;
 - (ii) local personnel training in the study and analysis of survey data; and
 - (iii) the use of a "Studies Fund" to finance research by national professionals in topics dealing with poverty alleviation policies.
- (d) Financial and technical assistance to improve the quality and timeliness of the publication and dissemination of household surveys summary results.
- (e) Financial and technical assistance to develop training courses at the national level dealing with household survey methodology topics and data analysis.

- (f) Financial and technical assistance to organize national workshops to discuss the results of the household surveys and the studies based on their information.
- 3.7 As of the first quarter of 1998 the Program is being implemented in El Salvador, Paraguay and Peru. The plan for Argentina was being signed in February 1998. Depending on the availability of financial resources and technical requirements, other countries could be incorporated to the Program, with the expectation of incorporating two new countries per year for the next three years. Possibilities being considered for 1998 are Bolivia and Nicaragua.
- 3.8 The requirements for technical assistance are defined as a function of the needs in each particular country. The technical assistance is mainly aimed at the statistical offices or the relevant agency responsible for administering national household surveys.

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Renda e Pobreza
Medidas per capita versus adulto-equivalente

SONIA ROCHA¹
IPEA - BRASIL

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1. INTRODUÇÃO

A noção de pobreza conceitual e operacionalmente relevante depende das condições de vida vigentes e do nível de desenvolvimento do sistema estatístico em cada sociedade.² Nos países de renda média e de economia preponderantemente urbana, onde a maior parte das necessidades de consumo privado são atendidas através de transações mercantis, medidas de insuficiência de renda representam o ponto de partida usual para monitorar a evolução da indigência e da pobreza ao longo do tempo, assim como para estabelecer as relações de causa e efeito com variáveis macro-econômicas, e focalizar políticas sociais³.

É sabido que o estabelecimento de parâmetros de renda - as chamadas linhas de indigência e de pobreza - dependem de múltiplas escolhas, determinadas tanto por restrições da base de dados disponível, como por julgamento do analista. O fato fundamental é que os resultados obtidos em termos de incidência de pobreza e do perfil da população pobre devem ser entendidos e analisados em função dos conceitos e opções metodológicas adotadas na construção da renda das famílias e na determinação do valor utilizado como linha de pobreza.

Em estudos sobre pobreza no Brasil tem ficado evidente a elevada proporção de crianças dentre os pobres, o que poderia resultar, em parte, da utilização do procedimento per capita: nos estudos de pobreza que se baseiam no critério de renda normalmente a renda familiar per capita é comparada a um valor representativo das necessidades básicas médias de um indivíduo da população, independentemente das características de composição de cada família, isto é, das necessidades de consumo de seus membros. Se, na verdade, a satisfação das necessidades mínimas de consumo de um criança tiverem um valor inferior às de um adulto, este procedimento poderá delimitar como pobre (ou indigente) um conjunto de famílias onde as crianças estariam indevidamente sobre-representadas. A alternativa consiste em levar em conta que indivíduos apresentando características diferentes têm necessidades mínimas diversas às quais correspondem valores monetários distintos. Escalas de equivalência entre indivíduos, que podem ser estabelecidas com base em pressupostos de toda a ordem, têm como objetivo gerar um coeficiente de necessidade para cada família que resulta das características individuais de seus membros.

O objetivo deste artigo é analisar as implicações de adotar as abordagens per capita ou adulto-equivalente para fins de delimitação da população indigente, tanto no que concerne aos resultados que se obtêm em termos das medidas usuais de indigência enquanto insuficiência de renda, como do perfil das famílias. Na próxima seção, são discutidas as questões relativas à disponibilidade de dados para adotar um ou outro procedimento. A terceira seção trata do formato do teste empírico. Na quarta seção são analisados os indicadores que se obtêm para subáreas do Estado do Ceará ao utilizar parâmetros per capita ou adulto-equivalente com os micro-dados Pesquisa Nacional por Amostra de Domicílios (PNAD), 1996. Finalmente a quinta seção reúne as conclusões.

² A respeito das restrições quanto ao nível de desenvolvimento e disponibilidade de dados estatísticos para estabelecer o modelo adequado e possível para mensuração da pobreza e ação de política social, ver Rocha, 1998.

³ Ao longo deste texto *indigência* significa a ocorrência de nível de renda familiar inferior ao valor necessário para atender às necessidades alimentares da família, enquanto *pobreza* está vinculada à insuficiência de renda para a satisfação de todas as necessidades básicas, alimentares e não-alimentares.

2. NECESSIDADES BÁSICAS E PARÂMETROS DE RENDA PARA MENSURAÇÃO DE INDIGÊNCIA E POBREZA

Desde os primeiros estudos empíricos com o objetivo de medir pobreza como insuficiência de renda (Rowntree, 1901), tem havido a preocupação de, ao estabelecer o valor da cesta alimentar básica (linha de indigência) ou das necessidades totais de consumo no âmbito privado (linha de pobreza), levar em conta, explicitamente, os hábitos de consumo da sociedade em questão. Trata-se de arbitrar valores de despesas que representem o mínimo aceitável em relação às condições de vida predominantes em determinado tempo e lugar.

O desenvolvimento dos sistemas estatísticos nacionais no pós-guerra, envolvendo freqüentemente a realização de Pesquisas de Orçamentos Familiares (POFs), tem fornecido a base de dados necessária para que se evolua do consumo arbitrado ou, no caso dos alimentos, eventualmente do consumo otimizado, para estruturas de consumo observadas, isto é, reveladoras das reais preferências das famílias em termos dos diferentes tipos de despesa, dada a sua restrição de renda.⁴ Essas pesquisas investigam o consumo da família⁵, e não de cada um de seus membros⁶. Nada se conhece, portanto, sobre a real repartição do consumo⁷ entre os membros das famílias, o que poderia servir de base para a derivação de parâmetros de consumo mínimo necessário em função de características dos indivíduos quanto a sexo, idade, atividade, fase do ciclo de vida da família e outros determinantes que se julgem relevantes em determinada sociedade.

A disponibilidade de POFs tornou o consumo observado a melhor e mais completa informação para derivar estruturas de consumo de baixa renda que, valoradas, podem ser utilizadas como linhas de indigência ou de pobreza. No entanto, a noção de indivíduo médio tem sido mantida como elemento central dos métodos de estimação de indigência e de pobreza, apesar de se reconhecer que indivíduos têm necessidades de consumo diversas. O problema consiste em definir quais são essas necessidades diferenciadas e como valorá-las. No que concerne especificamente ao consumo alimentar, há parâmetros que estabelecem as necessidades dos diversos nutrientes de acordo com as características dos indivíduos. As recomendações da FAO a esse respeito, sujeitas a revisões periódicas, são universalmente aceitas. Neste sentido a adoção de necessidades nutricionais médias de uma dada população para a determinação da cesta alimentar básica, que desemboca na linha de indigência e na linha de pobreza, representa uma simplificação metodológica que não é determinada, na maioria das vezes, por restrições quanto à base de dados. Passo a passo o procedimento per capita geralmente adotado é o seguinte:

- a) determinar para uma dada população as características que se quer levar em conta para a determinação das necessidades nutricionais (medidas antropométricas, sexo, idade, tipo de atividade, etc.)

⁴ O que se denomina aqui *consumo arbitrado* é a determinação de uma cesta básica e de seu valor de forma totalmente arbitrária, isto é, apenas em função da percepção do analista sobre quais seriam os consumos essenciais e o custo privado correspondente em determinada sociedade. Quanto a *consumo otimizado*, que se aplica somente à determinação da cesta alimentar, trata-se de utilizar as informações de aporte nutricional e preços associados aos produtos alimentares de modo a, através de programação linear, derivar uma cesta de custo mínimo que atenda às necessidades nutricionais e a outras restrições, como as de palatabilidade e variedade da cesta.

⁵ O conceito de família relevante se refere ao grupo de pessoas conviventes, ligadas por laços de parentesco ou não, que operam de forma solidária quanto ao uso da renda de todos para atender às necessidades de consumo do grupo.

⁶ Alguns raros inquéritos de orçamento investigam o consumo individual. Ravallion (1994, p.10) cita como exemplo a pesquisa realizada nas Filipinas em 1990.

⁷ O que se deseja conhecer é o consumo efetivo, mas por dificuldades de investigação as pesquisas muitas vezes investigam despesas, que passam a ser utilizadas como proxy de consumo. No Brasil o Estudo Nacional da Despesa Familiar (ENDEF/IBGE, 1974/1975) investigou tanto a despesa como o consumo. As POFs realizadas pelo IBGE mais recentemente, em 1987/1988 e em 1995/1996, tiveram abrangência e objetivos mais restritos, de modo que apenas as despesas foram investigadas.

- b) classificar a população segundo estas características, minimamente idade e sexo, mas freqüentemente também tipo de ocupação.
- c) estabelecer para cada indivíduo as necessidades nutricionais em termos de caloria, proteínas e demais nutrientes⁸.
- d) calcular as necessidades nutricionais médias com base em todos os indivíduos na população.
- e) escolher, com base na POF, a cesta alimentar de menor custo que permite atender às necessidades nutricionais médias. Seu valor é a linha de indigência per capita.
- f) adotar como valor mínimo necessário para as despesas não-alimentares aquelas observadas para a classe de renda que atende às necessidades alimentares ao custo mínimo.

São, portanto, parâmetros individuais nutricionais aceitos e reconhecidos que constituem o ponto de partida para estabelecer o valor de um consumo não-alimentar para o qual não se tem parâmetros. Mesmo que a premissa simplificadora seja inevitável para a determinação do valor da linha de pobreza, a saber, “quando as necessidades nutricionais são atendidas todas as outras também o são”⁹ - é relevante examinar o efeito da utilização das necessidades nutricionais médias sobre as medidas de indigência.

3. UMA SIMULAÇÃO PARA O BRASIL

O procedimento per capita geralmente adotado nas estimativas de pobreza e indigência no Brasil tem como base as necessidades calóricas médias¹⁰, considerando-se por vezes parâmetros locais específicos para incorporar peculiaridades regionais da estrutura populacional. A Tabela I apresenta as estimativas elaboradas por diferentes autores utilizando parâmetros e bases de dados às vezes distintas relativas ao período 1970/1991.

⁸ No Brasil os especialistas em nutrição verificaram que devido à estrutura das dietas alimentares, pode-se considerar apenas o atendimento das necessidades calóricas como restritivas: quando o consumo calórico é adequado, todas as demais necessidades nutricionais são atendidas.

⁹ A premissa utilizada é pouco lógica. Na medida que as necessidades alimentares são mais essenciais que as demais, seria razoável conceber que fossem atendidas prioritariamente, não significando portanto o atendimento adequado das necessidades não-alimentares.

¹⁰ Especialistas em nutrição verificaram que, devido à composição das dietas alimentares brasileiras, pode-se considerar apenas o atendimento das necessidades calóricas como restritivas: quando o consumo calórico é adequado, todas as demais necessidades nutricionais estão atendidas.

TABELA I
QUANTIDADES CALÓRICAS MÉDIAS RECOMENDADAS (KCAL/DIA)
SEGUNDO DIFERENTES AUTORES PARA AS REGIÕES METROPOLITANAS E BRASÍLIA

	Thomas (1983) (1)	Fava (1984) (2)	CEPAL (1991) (3)	Ellwanger (1992) (4)	Feres (1996) (5)
Belém	2.242,0	2.382,2	2.142,8	2.055,0	2.191
Fortaleza	2.242,0	2.326,2	2.126,0	2.047,0	2.200
Recife	2.242,0	2.326,2	2.126,0	2.071,0	2.200
Salvador	2.242,0	2.326,2	2.126,0	2.043,0	2.200
Belo Horizonte	2.242,0	2.378,2	2.198,5	2.144,0	2.288
Rio de Janeiro	2.242,0	2.381,2	2.213,7	2.123,0	2.288
São Paulo	2.242,0	2.376,4	2.152,4	2.135,0	2.288
Curitiba	2.242,0	2.396,7	2.217,6	2.120,0	2.313
Porto Alegre	2.242,0	2.396,7	2.217,6	2.128,0	2.313
Brasília	2.242,0	2.382,2	2.154,8	2.073,0	2.259

(1) Brazil: Human Resources Special Report, vol.2, The World Bank, 1983 - Fonte: ENDEF/FAO-WHO.

(2) Urbanização, Custo de vida e Pobreza no Brasil, IPE/USP, 1984 - Fonte: ENDEF/Martins e Hidalgo.

(3) Magnitud de la Pobreza en America Latina en los Años Ochenta, Nações Unidas, 1991; e Descrição da Metodologia utilizada na Revisão das estimativas de Indigência de 1990, IPEA/Diretoria de Pesquisa Social, 1996 - Fonte: ENDEF.

(4) "Participação na Subcomissão Técnica sobre Linhas de Pobreza - Projeto Política Nacional de Salários", IBGE/DPE, 1992 - Fonte: POF, PNSN, PNAD 1990.

(5) Una Estimación de las Necesidades de Energia e Proteinas de la Población, CEPAL, 1996. Fonte: PNSN, PNAD 1993.

São esses requerimentos médios calculados em função das características da população que se constituem no ponto de partida para a determinação da cesta alimentar, da linha de indigência, e em última instância, do tamanho e perfil da população indigente, tendo como base as informações de consumo alimentar observado.¹¹ É importante notar que as necessidades nutricionais se modificam ao longo do tempo muito lentamente, não havendo necessidade de atualização destes parâmetros para comparações de médio prazo. Note-se, ainda, que parcela das mudanças nas necessidades calóricas estimadas ao longo do tempo não se devem a alterações nas características da população brasileira - a redução da fecundidade e o envelhecimento da população levam a necessidades médias mais elevadas, - mas à redução das necessidades nutricionais como estimadas pela FAO entre 1973 e 1985.

Pode-se argumentar que, ao utilizar parâmetros nutricionais médios como base para todo o procedimento, seria introduzido um erro na seleção das famílias cuja composição se afastasse da média da população. Assim, em famílias onde a participação de crianças fosse mais elevada do que na população em geral, o uso do parâmetro médio estaria exigindo como norma desejável um consumo calórico maior do que suas reais necessidades. Ao não atingí-lo, a família seria indevidamente classificada como indigente. Situação oposta ocorreria em famílias formadas preponderantemente por homens adultos, quando o parâmetro médio subestimaria as necessidades calóricas e a renda necessária para satisfazê-las, resultando, eventualmente, em não considerar a família como indigente, quando de fato ela o seria.

Com o objetivo de verificar qual a magnitude do erro que se incorre ao utilizar um único parâmetro nutricional médio para determinada população, procedeu-se ao experimento com base em medidas de adulto-equivalente, as quais levam em conta, explicitamente, as necessidades calóricas das pessoas no interior da famílias segundo suas características individuais.

¹¹ A base estatística não apresenta restrições ao detalhamento. Os Censos Demográficos permitem derivar as necessidades calóricas com base em características de sexo, idade e ocupação. Inquéritos especiais como o ENDEF e a Pesquisa Nacional de Saúde e Nutrição (PNSN/IBGE, 1989) investigam características de antropometria que permitem relacionar com segurança parâmetros internacionais relativos a necessidades nutricionais por sexo e idade a características físicas específicas da população brasileira.

TABELA II
NECESSIDADES CALÓRICAS SEGUNDO SEXO E IDADE,
CONSIDERANDO NÍVEL DE ATIVIDADE MODERADA

Sexo / Faixa etária	Requerimentos calóricos (Kcal/dia)								
	menos de 1	1 a 3	4 a 6	7 a 9	10 a 13	14 a 17	18 a 30	31 a 60	mais de 60
Homem	757	1.390	1.800	2.070	2.283	2.740	2.762	2.776	2.291
Mulher	700	1.297	1.623	1.827	2.015	2.143	1.991	2.063	1.869

Fonte: CEPAL (1989) com base nos parâmetros definidos pela FAO (1985).

O procedimento que utiliza para o cálculo dos requerimentos nutricionais das famílias a sua efetiva composição, isto é, número e características dos indivíduos que a compõem, se baseia num esquema de equivalência entre indivíduos derivado das diferenças nas suas necessidades nutricionais. A Tabela III apresenta os pesos dos indivíduos construídos com base nas necessidades calóricas para a população brasileira estimados pela CEPAL (Tabela II). Atribuiu-se peso unitário aos indivíduos masculinos adultos com idades entre 18 e 30 anos, enquanto os demais pesos são determinados proporcionalmente em função das necessidades calóricas dos indivíduos nas diferentes categorias de sexo e idade. Para todos, consideraram-se as necessidades calóricas associadas à atividade moderada.

TABELA III
PESOS DAS PESSOAS NO INTERIOR DAS FAMÍLIAS COM BASE NAS NECESSIDADES CALÓRICAS
SEGUNDO SEXO E IDADE, CONSIDERANDO NÍVEL DE ATIVIDADE MODERADA

Sexo / Faixa etária	Pesos alimentares								
	menos de 1	1 a 3 anos	4 a 6 anos	7 a 9 anos	10 a 13 anos	14 a 17 anos	18 a 30 anos	31 a 60 anos	mais de 60 anos
Homem	0,269	0,494	0,640	0,736	0,812	0,974	1	1,001	0,843
Mulher	0,249	0,461	0,577	0,650	0,717	0,762	0,721	0,739	0,678

Assim, por exemplo, numa família nuclear de quatro pessoas, composta de mãe e pai na faixa de 18 a 30 anos, uma filha de dois anos e um filho de quatro, as necessidades calóricas seriam de 7.850 e o somatório dos pesos na família de 2,82. Deste modo, se o valor da linha de indigência associada ao indivíduo de peso 1 fosse 100, a renda necessária para a família atender ao seu consumo calórico teria de ser igual ou superior a 282. Portanto, somente para valores de renda familiar inferior a 282 esta família seria considerada como indigente.

A seguir serão apresentados os resultados empíricos obtidos para o Estado do Ceará, para o ano de 1996, com base nas duas abordagens alternativas, a saber:

a) *procedimento per capita* - utilizaram-se linhas de indigência diferenciadas por estratos metropolitano (Fortaleza), urbano e rural. A composição da cestas alimentares implícitas foi derivada do ENDEF de modo a atender às necessidades médias calóricas, estimadas em função de características da população nas diferentes regiões, no caso, 2326,2 calorias/dia para o Nordeste (Fava, 1984). Para

Fortaleza, o valor da cesta básica foi atualizado com base nos preços alimentares praticados naquela região metropolitana em setembro de 1996¹², data de referência da Pesquisa Nacional por Amostra de Domicílios (PNAD) daquele ano. Na ausência de informação de preços para os estratos urbano e rural, adotou-se a relação de custo obtida por Fava entre linhas de indigência das metrópoles e demais estratos do Nordeste (Tabela IV).

Para distinguir a população indigente no conjunto da população para cada estrato de análise, é feita a comparação, para cada família, entre a renda familiar per capita¹³ e o valor médio da linha de indigência¹⁴. O conjunto de pessoas ou famílias indigentes são aquelas para as quais a renda familiar per capita é inferior ao valor da linha de indigência.

b) *procedimento adulto-equivalente* - As linhas de indigência médias e diferenciadas por estratos como descritas em a), que correspondem ao aporte de 2.126 calorias/dia, tiveram o seu valor ajustado para corresponder ao atendimento das necessidades calóricas da categoria de indivíduos a qual foi atribuído o peso 1, isto é, adultos do sexo masculino com idade entre 18 e 30 anos, cujas necessidades calóricas diárias são de 2762 calorias (Tabela IV). Para cada família da PNAD foi calculado o seu peso como somatório dos pesos dos seus membros, determinados em função de suas características de idade e sexo (Tabela II). Famílias indigentes são aquelas para as quais a renda familiar total é inferior a linha de indigência "adulto-equivalente" vezes o peso da família.

TABELA IV
LINHAS DE INDIGÊNCIA

Estratos	R\$ set / 1996	
	per capita	adulto-equivalente*
Ceará		
R.M. de Fortaleza	18,20	22,00
Urbano	18,90	22,85
Rural	16,63	20,11

*Indivíduos de peso 1, isto é, do sexo masculino com idade entre 18 e 30 anos.

4. RESULTADOS EMPÍRICOS

A delimitação da subpopulação segundo os dois procedimentos diverge devido ao fato de que as famílias não correspondem à família típica implícita na determinação do valor médio da linha de indigência per capita. Os resultados obtidos para os indicadores clássicos de pobreza enquanto insuficiência de renda¹⁵ são apresentados na Tabela V.

¹² Índice de preços ao consumidor (alimentação) do DESIP/IBGE.

¹³ Renda familiar per capita - trata-se do somatório de todas as rendas (rendas do trabalho, pensões e aposentadorias, doações recebidas, aluguéis recebidos, rendimentos de capital, etc.) percebidas por todos os membros da família, dividido pelo número de membros na família.

¹⁴ Família é o conjunto de pessoas que funciona de forma solidária em termos de rendimento e consumo. Quando existem empregados, parentes de empregados ou pensionistas conviventes, estes são excluídos da família para fins deste tipo de análise.

¹⁵ Para uma descrição das propriedades dos indicadores, ver Hagenaars (1986). Rocha apresenta esses indicadores para o Brasil distinguindo 34 áreas de análise e utilizando linhas de pobreza derivadas do ENDEF (Rocha, 1997) e da POF (Rocha, 1998).

Era de se esperar um número de pobres mais elevado com o uso do procedimento per capita: reconhecidamente há maior concentração de crianças nos estratos mais baixos da distribuição de renda das famílias e atribuir-lhes o peso unitário implica, necessariamente, sobre-representar estas famílias com crianças em relação ao procedimento adulto-equivalente. Em consequência, o número de indigentes obtido com o procedimento per capita para o Estado do Ceará como um todo é 14,63% superior ao obtido com o de adulto-equivalente.¹⁶ A divergência dos dois resultados é menor no município de Fortaleza, provavelmente devido ao fato de, em função da urbanização, ocorrer freqüência mais baixa de famílias com crianças. A discrepância maior ocorre no estrato urbano, e não no rural como era de se esperar. A este respeito vale observar que no Nordeste em geral, e no Ceará em particular, o conceito estatístico de área urbana inclui aglomerados populacionais, que, embora significativos em termos de tamanho e densidade demográfica, apresentam funções urbanas freqüentemente incipientes. Estas áreas oficialmente urbanas são pólos de atração para população pobre, na qual a presença de crianças é marcante, afetando o resultado obtido.

TABELA V
INDICADORES DE INSUFICIÊNCIA DE RENDA (INDIGÊNCIA)*
COM BASE NOS DOIS PROCEDIMENTOS ALTERNATIVOS

Ceará - 1996

Procedimento / Estratos	No. de Pessoas	Proporção	Gap Ratio	Gap Index	Índ. Sintético	Total Relevante
Adulto Equivalente						
Ceará	917.736	0,137	0,553	0,076	0,059	6.720.416
R.M. de Fortaleza	165.258	0,065	0,755	0,049	0,046	2.540.977
Mun. Fortaleza	100.520	0,053	0,797	0,042	0,041	1.899.351
Demais municípios.	64.738	0,101	0,689	0,070	0,061	641.626
Urbano	190.239	0,103	0,563	0,058	0,047	1.854.699
Rural	562.239	0,242	0,491	0,119	0,085	2.324.740
Per capita						
Ceará	1.051.991	0,156	0,528	0,083	0,063	6.720.416
R.M. de Fortaleza	182.933	0,072	0,715	0,051	0,047	2.540.977
Mun. Fortaleza	107.547	0,057	0,774	0,044	0,041	1.899.351
Demais municípios	75.386	0,117	0,632	0,074	0,063	641.626
Urbano	226.804	0,122	0,518	0,063	0,049	1.854.699
Rural	642.254	0,276	0,479	0,132	0,092	2.324.740

Fonte: IBGE/PNAD 1996 (Tabulações Especiais).

(*) Índices de insuficiência de renda propostos por Foster, Greer e Thorbecke (1984):

$$P_a = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right)^a ; a \geq 0$$

A proporção de pobres, o gap index e o índice sintético são os indicadores desta "família", para α assumindo valores de $\alpha=0$, $\alpha=1$ e $\alpha=2$ respectivamente.

¹⁶ Simulação semelhante realizada para o Chile chegou a uma estimativa de pessoas superior em 10% no caso do procedimento per capita (CEPAL, 1996). Um experimento feito para a Argentina (Minujin e Scharf, s/d) com diferentes alternativas de escala de equivalência, não permite a comparação com os resultados do procedimento per capita.

O *gap ratio* é um indicador de intensidade de pobreza, fornecendo uma medida de quão pobres são os pobres através do desvio entre a renda média dos pobres e o valor da linha de indigência. O fato de que os resultados são sistematicamente mais adversos quando o procedimento adulto-equivalente é utilizado revela que ele conduz à seleção de famílias em média mais pobres. Esta relação inversa entre variação da proporção e do *gap ratio* é o que geralmente ocorre quando se varia o valor do parâmetro de renda para uma dada população, sugerindo assim que os conjuntos de famílias selecionadas nos dois critérios tem um elevado grau de intercessão.

O *gap index*, que sintetiza os indicadores de proporção e de intensidade de pobreza, apresenta desvios menores devido à compensação que ocorre em função de seus componentes variarem em sentidos opostos. Finalmente, observa-se que os desvios entre indicadores obtidos segundo os dois procedimentos são os mais baixos quando se consideram os resultados para o índice sintético, o que resulta de uma desigualdade entre os pobres - único componente novo da pobreza considerado no índice sintético -, a qual é apenas ligeiramente mais elevada dentre a população indigente delimitada através do procedimento per capita.

TABELA VI
DESVIOS RELATIVOS ENTRE OS INDICADORES DE INSUFICIÊNCIA DE RENDA OBTIDOS
SEGUNDO OS PROCEDIMENTOS ALTERNATIVOS

Ceará - 1996

Estratos	No. de Pessoas	Gap Ratio	Gap Index	Ind. Sintético
Ceará	14,63	-4,56	9,40	6,13
R.M. de Fortaleza	10,70	-5,26	4,87	2,18
Mun. Fortaleza	6,99	-2,98	3,80	1,47
Demais municípios	16,45	-8,29	6,79	3,58
Urbano	19,22	-8,05	9,62	6,10
Rural	14,23	-2,51	11,37	8,47

Fonte: IBGE/PNAD 1996 (Tabulações Especiais)

Os desvios entre os valores dos indicadores obtidos segundo os dois procedimentos são pequenos - chegando no máximo a 16% -, e sua importância pode ser minimizada ao constatar-se que a população obtida através do procedimento adulto-equivalente se constitui em um subconjunto daquela selecionada segundo o procedimento per capita.¹⁷ Como resultado, os perfis das duas populações pouco se diferenciam. Os dados das Tabelas VII (a) e (b) fornecem indicadores de estrutura da família e características dos chefes para os conjuntos de famílias indigentes e não-indigentes de acordo com os dois procedimentos, além de para a população total (indigente mais não-indigente).

¹⁷ Verificou-se que, na amostra para Fortaleza, apenas uma família que não era classificada como indigente segundo o procedimento per capita passa a sê-lo segundo o procedimento adulto-equivalente. Todas as demais famílias indigentes segundo o procedimento adulto-equivalente constituem-se num subconjunto das famílias mais numerosas selecionadas segundo o procedimento per capita.

TABELA VII (A)
PERFIL DAS SUBPOPULAÇÕES INDIGENTES E POPULAÇÃO TOTAL,
SEGUNDO OS DOIS PROCEDIMENTOS DE SELEÇÃO - RM DE FORTALEZA - 1996
CARATERÍSTICAS DAS FAMÍLIAS

Indicadores	Per Capita		Adulto-Equivalente		Total (1)
	Indigentes	Não Indig.	Indigentes	Não Indig.	
Tamanho médio da família	3,66	3,73	3,56	3,74	3,73
No. de crianças					
no.: menores de 3 anos	27.685	141.827	23.000	146.512	169.512
menores de 10 anos	71.979	499.155	61.121	510.013	571.134
% (2): menores de 3 anos	15,13	6,01	13,92	6,17	6,67
menores de 10 anos	39,35	21,17	36,99	21,47	22,48
Tipos de família					
no.: nuclear (3)	19.804	306.447	17.034	309.217	326.251
monoparental	22.362	107.540	21.510	108.392	129.902
outras	7.881	218.058	7.881	218.058	225.939
%: nuclear (3)	39,57	48,48	36,69	48,64	47,83
monoparental	44,68	17,01	46,33	17,05	19,04
outras	15,75	34,50	16,98	34,30	33,12
Origem da Renda (%)					
do trabalho	86,76	79,68	83,27	79,69	80,20
da previdência	8,29	17,09	15,15	17,08	16,44
de outras fontes	4,95	3,23	1,58	3,23	3,36

Fonte: IBGE/PNAD, 1996 (tabulações especiais).

Notas: (1) Se refere às características da população indigente mais não-indigente.

Percentual de crianças no total de pessoas nas famílias

Família composta por pai, mãe e filhos.

TABELA VII (B)
CARACTERÍSTICAS DOS CHEFES DAS FAMÍLIAS

Indicadores	Per Capita		Adulto-Equivalente		Total (1)
	Indigentes	Não-Indig.	Indigentes	Não Indig.	
Idade					
no.: até 25 anos	15.547	76.029	14.056	77.520	91.576
26 a 49 anos	28.110	356.695	26.193	358.612	384.805
50 anos ou mais	6.390	199.321	6.176	199.535	205.711
%: até 25 anos	31,06	12,03	30,28	12,20	13,43
26 a 49 anos	56,17	56,44	56,42	56,42	56,42
50 anos ou mais	12,77	31,54	13,30	31,39	30,16
Sexo					
no.: masculino	24.491	446.349	21.934	448.906	470.840
feminino	25.556	185.696	24.491	186.761	211.252
%: masculino	48,94	70,62	47,25	70,62	69,03
feminino	51,06	29,38	52,75	29,38	30,97
Status Ocupacional (2)					
no.: ativo	23.638	490.642	20.443	493.837	514.280
ocupado	7.880	476.162	5.537	478.505	484.042
conta-própria	3.833	137.142	3.407	137.568	140.975
outros	3.621	337.955	1.704	339.872	341.576
desempregado	15.758	14.480	14.906	15.332	30.238
não-ativo	26.409	141.403	25.982	141.830	167.812
%: ativo	47,23	77,63	44,03	77,69	75,40
ocupado	15,75	75,34	11,93	75,28	70,96
conta-própria	7,66	21,70	7,34	21,64	20,67
outros	7,24	53,47	3,67	53,47	50,08
desempregado	31,49	2,29	32,11	2,41	4,43
não-ativo	52,77	22,37	55,97	22,31	24,60
Alfabetização					
no.: alfabetizado	39.825	511.083	36.843	514.065	550.908
analfabeto	10.222	120.962	9.582	121.602	131.184
%: alfabetizado	79,58	80,86	79,36	80,87	80,77
analfabeto	20,42	19,14	20,64	19,13	19,23
Nível de escolaridade (2)					
no.: até 4 anos de estudo	26.620	316.461	24.273	318.805	343.078
de 5 a 8 anos de estudo	17.677	144.167	16.825	145.019	161.844
mais de 8 anos de estudo	5.750	169.926	5.324	170.352	175.676
%: até 4 anos de estudo	53,19	50,07	52,28	50,15	50,30
de 5 a 8 anos de estudo	35,32	22,81	36,24	22,81	23,73
mais de 8 anos de estudo	11,49	26,89	11,47	26,80	25,76

Fonte: IBGE/PNAD, 1996 (tabulações especiais).

Notas: (1) Se refere às características da população indigente mais não-indigente.

(2) Os percentuais eventualmente não totalizam 100 devido aos *missings*.

Apesar de os perfis dos dois conjuntos de indigentes serem muito semelhantes devido à elevada intercessão entre eles, alguns aspectos merecem ser comentados. A adoção do procedimento adulto-equivalente reduz, naturalmente, o número de crianças com menos de 10 anos dentre as famílias selecionadas. No entanto, tendo em vista que a redução do peso das crianças nesta faixa etária é forte - em média 50% do peso do adulto de referência -, a proporção de crianças de menos de 10 anos no conjunto de pessoas permanece surpreendentemente elevada - 37 % (versus 39% no caso alternativo). Isto ocorre porque a maioria das famílias com crianças selecionadas num e noutro caso se encontram na base da distribuição de rendimentos, sendo pouco afetadas na sua classificação como indigente pela redução do peso das crianças. Fica evidente, portanto, que a elevada incidência de crianças entre pobres e indigentes, que se observa sempre que se trata do perfil destas populações no Brasil, não resulta da adoção do procedimento per capita, mas permanece mesmo quando se leva em conta explicitamente as

menores necessidades nutricionais das crianças, e, em consequência, seu peso mais baixo no interior da família. A elevada proporção de crianças entre os pobres e indigentes - dentre as famílias não-indigentes a participação das crianças é de 21% - está associada a um conjunto de fatores adversos da família e dos seus membros, onde a presença das crianças é apenas um dos elementos.

As famílias delimitadas segundo o critério adulto-equivalente apresentam características mais adversas do que o conjunto de famílias alternativo. Assim, famílias monoparentais têm maior participação, o que apresenta desvantagens óbvias se comparada à família nuclear (pai, mãe e filhos) quando se trata de obtenção de renda do trabalho e provimento de cuidados gerais com a família. A chefia feminina, que se vincula preponderantemente às famílias monoparentais, é também mais elevada. O nível de escolaridade dos chefes é mais baixo e a inserção no mercado de trabalho mais precária. Mais do que as diferenças sutis entre os dois perfis, chama a atenção as características adversas das subpopulações indigentes delimitadas segundo ambos os procedimentos: as famílias monoparentais são maioria, representando mais de 40% das famílias, e a chefia é feminina em mais da metade dos casos. Poucos chefes são ocupados - entre 12 e 15% deles, e a maioria trabalha como conta própria, o que significa, para indivíduos com este perfil, ocupação eventual sem qualquer salvaguarda trabalhista. A conceituação de desemprego é obviamente inadequada à forma de inserção no mercado de trabalho: os mais de 30% de desempregados reúnem, na verdade, tanto os conta própria sem trabalho no período de referência, como aqueles que procuram trabalho sem possibilidade de sucesso. Finalmente, no que diz respeito à taxa de alfabetização e ao nível de escolaridade a diferença não é só tênue entre os dois conjuntos de famílias de indigentes, mas os indicadores são semelhantes para os não-indigentes: em todos os casos, cerca de 50% dos chefes tem menos de quatro anos de estudo.

5. CONCLUSÕES

As considerações feitas sobre os procedimentos de delimitação de populações pobres e indigentes com base na renda mostram que as insuficiências teóricas para parametrizar as necessidades não-nutricionais levam a que se utilize, direta ou indiretamente, critérios relativos à satisfação das necessidades nutricionais para distinguir indigentes de não-indigentes e pobres de não-pobres em determinada população. Embora seja desejável evoluir no sentido de definir o que são necessidades não-alimentares mínimas, de modo a desvinculá-las da simplificação implícita na adoção do coeficiente de Engel para a derivação da linha de pobreza, a determinação do mínimo alimentar para a estimação da linha de indigência é uma questão equacionada. O que se destacou aqui é que a adoção do requerimento nutricional médio de uma população, que leva a medidas de indigência per capita, é apenas uma alternativa "agregada" a considerar medidas de adulto-equivalente com base na composição efetiva de cada família. Discutiram-se então as implicações empíricas de delimitar o conjunto de famílias indigentes utilizando, por um lado, o procedimento per capita - que recorre ao custo de atender às necessidades nutricionais médias da população; por outro lado, ao procedimento adulto-equivalente, que leva em conta, explicitamente, as necessidades nutricionais diferenciadas de cada família em função das características de sexo e idade dos seus membros. Os resultados obtidos para os estratos de residência do Estado do Ceará em 1996 mostram que:

- a) a população indigente delimitada segundo o procedimento adulto-equivalente é, como se esperava, menor e com incidência de crianças inferior à do procedimento per-capita, mas os desvios que se obtêm na derivação dos indicadores de insuficiência de renda segundo os dois procedimentos são relativamente pequenos: os desvios máximos obtidos para o número pessoas indigentes chegam a 16% na área urbana não-metropolitana. A pequena amplitude do desvio se deve ao fato de que o procedimento per capita utilizou como parâmetro de referência as necessidades nutricionais médias da população, e não as relativas ao indivíduo-padrão (sexo

masculino e idade de 18 a 30 anos). Desvios pequenos evidenciam, ademais, que as famílias apresentam baixa variância do seu peso (somatório do peso dos indivíduos) em relação à média

- b) a população indigente definida segundo o procedimento adulto-equivalente é um subconjunto daquela definida como indigente segundo o procedimento per capita. Ao atribuir pesos específicos segundo as características de sexo e idade dos indivíduos no interior da família obtém-se uma subpopulação indigente em condições mais adversas no que concerne à inserção no mercado de trabalho, o que se reflete no nível da renda per capita média, apesar da taxa de dependência menos adversa devido ao menor presença de crianças.

As diferenças observadas entre as duas subpopulações, assim como a elevada intercessão entre elas, evidenciam que a opção por um ou outro procedimento pode ser determinado essencialmente por uma escolha de política social. Trata-se essencialmente de decidir se o peso menor da criança é uma escolha adequada, significando pois que a repartição dos recursos no interior da família, pelo menos no que diz respeito à alimentação, se dá de forma coerente com esses parâmetros. Ou alternativamente, que a repartição dos recursos no interior das famílias se dá segundo critérios que não correspondem necessariamente aos das necessidades. Neste segundo caso, atribuir peso unitário às crianças permite atribuir prioridade na delimitação da população pobre ou indigente às famílias de baixa renda com crianças, com o objetivo de identificá-las e protegê-las.

A escolha entre os dois procedimentos colocada nestas bases significa que a delimitação da população indigente não serviria apenas para a monitoração de sua evolução, mas como um instrumento efetivo de focalização da política social. O que importa em última instância é o tamanho e o perfil da população que se pode e deseja atender, já que, para fins exclusivos de monitoração a partir das informações de pesquisas de orçamentos familiares, a adoção de um ou outro procedimento é tecnicamente trivial, tendo custos e implicações pouco relevantes.

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**El Programa Editorial sobre Pobreza para el Censo
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**J. WALTER RANGEL
INEGI - MEXICO**

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INTRODUCCIÓN

El incremento y diversificación de la demanda de estadísticas en México en las últimas décadas, ha determinado una respuesta vigorosa de los servicios estadísticos del país, que con la creación del Instituto Nacional de Estadística, Geografía e Informática (INEGI) en 1983, ha significado el desarrollo amplio de las estadísticas nacionales en todos los campos. Las estadísticas relacionadas con la medición y caracterización de la pobreza han sido objeto de atención particular, lo que ha sido posible con la ampliación del sistema de encuestas y el aprovechamiento de la información censal; ésta última incrementada con la realización en 1995, del primer Censo de Población y Vivienda que actualiza la información demográfica a mitad del período intercensal.

La información sobre pobreza y condiciones de vida generada en los últimos años se ha utilizado intensamente en los centros académicos de investigación y en oficinas públicas, facilitando la elaboración de programas de atención social en general y a grupos marginados en particular.

Entre las actividades previstas para los próximos años en materia de estadísticas sobre la pobreza se tiene la explotación de la información que se captará con el Censo de Población y Vivienda del año 2000, bajo un esquema de diversidad de productos que permita conocer los distintos aspectos asociados con el fenómeno, además de dimensionarlo y caracterizarlo en los contextos regionales.

En el presente documento se describen las características del plan editorial de divulgación de resultados del censo mexicano del 2000, sobre la temática de la pobreza, además de referir a los antecedentes en esa materia.

ANTECEDENTES

La explotación intensa de la información censal en relación con los estudios sobre pobreza se inició en México con los trabajos de la Coordinación General del Plan Nacional de Zonas Deprimidas y Grupos Marginados (COPLAMAR), que operó en el período de 1976 a 1982 con importantes recursos y facultades para coordinar a las oficinas públicas con funciones de atención social. Para cumplir su función, COPLAMAR efectuó detallados estudios sobre la marginación en las diversas regiones del país, utilizando para ello los datos del Censo de Población y Vivienda de 1970 y aplicando métodos estadísticos de estratificación. Así, a partir del municipio como unidad de observación, se tipificaron las zonas de mayor marginación, utilizándose el método de componentes principales para la estratificación de municipios conforme a indicadores relacionados con las condiciones de vida. Esta línea de investigación sería también atendida por diversos organismos y centros académicos con la información de los censos posteriores.

En otra línea de estudio y principalmente con base en los resultados de la Encuesta Nacional de Ingresos y Gastos de los Hogares, diversidad de trabajos se orientaron a medir la distribución del ingreso y la estructura del gasto de los hogares, aunque los resultados eran limitados en desglose geográfico, dadas las características de esa encuesta, cuyos levantamientos se han realizado en 1977, 1984, 1989, 1992, 1994 y 1996.

Se destaca el esfuerzo por ampliar la cobertura geográfica de la encuesta para obtener resultados sobre el Área Metropolitana de la Ciudad de México y algunas entidades federativas.

Un estudio especial sobre la pobreza con datos de esta encuesta se efectuó por el INEGI en coordinación con la CEPAL, bajo el enfoque de líneas de pobreza, en el cual se examinan los cambios ocurridos entre 1984 y 1992.

Fue sin embargo con los resultados del Censo de Población y Vivienda de 1990 y la aplicación de sistemas informáticos que manejan la cartografía censal, que fue posible efectuar estudios más detallados en cuanto al desglose geográfico. Así se realizó primeramente el documento Niveles de Bienestar en México, en el cual se presentan, con gran variedad de mapas, los resultados de aplicar un método de estratificación multivariada a los datos tanto a nivel de municipios como de entidades federativas, sobre indicadores relacionados con las condiciones de vida y organizados por temas, además de combinar una selección de cada tema. Los grandes temas considerados son: Aspectos demográficos, Educación, Ocupación, Urbanización y Vivienda. Fue así posible la identificación de zonas en condiciones de pobreza, para cada uno de los temas y el conjunto de los mismos, además de que se conoció el perfil sociodemográfico de cada estado según indicadores seleccionados. Dicho esquema de trabajo se desarrolló posteriormente hasta el nivel de áreas geoestadísticas básicas, las cuales son divisiones territoriales mínimas definidas con fines de captación estadística.

Estos estudios fueron posibles por haberse logrado digitalizar toda la cartografía censal del país, además del desarrollo, en el propio INEGI, de un sistema que opera sobre la cartografía y la información estadística, con amplias características de consulta y operación.

Cabe mencionar que la información censal de 1990 se utilizó también en dos monografías censales sobre la pobreza y distribución del ingreso, realizadas por investigadores académicos especializados, mediante un convenio formal del INEGI con centros de investigación.

EL CENSO DE POBLACIÓN Y VIVIENDA DEL 2000 Y EL PROGRAMA DE PRODUCTOS SOBRE POBREZA

En la preparación del censo mexicano del año 2000, se considera la experiencia reciente del INEGI en la materia, principalmente la del Censo de 1990 y la del Conteo de Población y Vivienda de 1995; éste, el primer proyecto de enumeración total a mitad de un período intercensal, que además incluyó una encuesta por muestreo con un cuestionario de cobertura conceptual amplia.

Se dispondrá además para ese censo, de la estructura regional del INEGI, que facilita la realización de actividades operativas y de procesamiento.

El censo del 2000 combinará también la enumeración total con el muestreo, con un cuestionario básico similar al de 1990 y un cuestionario ampliado que profundiza en algunos temas del básico y capta otros. Así, además de los tópicos tradicionalmente captados en los censos mexicanos, en relación con la pobreza se captarán los temas de subsidios, acceso a servicios médicos, discapacidad y derechohabencia a servicios de seguridad social.

El tamaño de muestra propuesto para la encuesta es de 2 millones de viviendas, con esto será factible el desglose de la información a nivel municipal, los estudios sobre pobreza con los temas tradicionales y nuevos, podrán efectuarse también a ese nivel geográfico, aparte de que los tópicos de la enumeración total harán posible desgloses mayores.

Con esas ventajas en la captación el programa editorial del 2000 aprovechará también la experiencia previa rica en diversidad de productos que cubren necesidades de consulta general y especializada, mediante series de publicaciones por entidad federativa, subpoblaciones, temas relevantes y documentos monográficos, además de la presentación en medios magnéticos y ópticos, de información bajo sistemas de fácil consulta y operación.

En particular sobre el tema de la pobreza, el programa editorial para el Censo del 2000 incluye los productos descritos a continuación.

Población con necesidades básicas insatisfechas

En este estudio se expondrá el perfil socioeconómico de la población ubicada bajo umbrales de satisfacción en necesidades de vivienda, educación y acceso a servicios médicos, considerando el hogar como unidad de análisis y diferenciando límites mínimos de satisfacción rural y urbana.

Este trabajo ofrecerá el cálculo de población en situación de pobreza, su distribución geográfica y los aspectos que requieren de mayor atención en cada zona, lo que orientará la acción de los servidores públicos responsables de cubrir servicios básicos, así como definir prioridades programáticas en materia de política social.

Este producto ofrecerá tanto cuadros estadísticos como mapas elaborados a partir de áreas geoestadísticas básicas, con presentación en medios ópticos y en publicación impresa.

Regionalización por niveles de vida

Se presentará un documento con diversas regionalizaciones derivadas de estratificar unidades municipales conforme a grupos de indicadores relacionados con el nivel de vida, aplicándose un método de estratificación multivariada y caracterizándose el perfil socioeconómico de cada estrato de nivel de vida. Como el producto anterior, se presentará en medios impresos y ópticos, con despliegue de mapas.

Adicionalmente, se desarrollará un producto en medios magnéticos, que contenga los valores de un índice de marginación generado por el método de componentes principales, para unidades geográficas altamente desagregadas, como localidad y AGEB.

Estos productos se orientan al apoyo de estudios socioeconómicos del territorio y programas enfocados al impulso de regiones rezagadas.

Pobreza y factores asociados

En este trabajo se analizará la correlación existente entre los niveles de pobreza medidos por un indicador compuesto a partir de variables sobre factores básicos respecto a otras variables del contexto socioeconómico, demográfico y del medio ambiente, de tal forma que puedan identificarse factores de causa y efecto. Para este estudio se utilizará, además de información censal, la de registros y encuestas. Entre los factores a ser estudiados en su relación con la pobreza se tienen: Infraestructura económica, inversión pública y privada, accesibilidad, densidad poblacional, ventajas comparativas, tamaño medio de los hogares, clima y condiciones del medio físico, especialidad y diversidad de la producción.

Pobreza y tamaño de localidad

En el marco de los estudios sobre lo rural y lo urbano, se realizará un trabajo especial sobre la pobreza, con la diferenciación de indicadores relacionados con la misma en una estratificación preestablecida por tamaño de localidad, distinguiendo en el extremo inferior un rubro de población dispersa y en el extremo superior las áreas metropolitanas y grandes conurbaciones, además de considerar, en el caso de las localidades pequeñas, las cercanas a centros urbanos de las alejadas y con dificultades de comunicación. Se caracterizaría así, en cada categoría de asentamiento humano, las modalidades de la pobreza.

Pobreza y migración

Relacionado con los estudios de la migración interna y externa, se realizará un trabajo especial que permita conocer el peso que tiene la pobreza en el fenómeno, tanto en la perspectiva de los lugares de origen como en las áreas de mayor atracción poblacional, lo cual implicará el uso de información tanto censal como de encuestas.

Pobreza en la población indígena

Por la magnitud de la población indígena de México y la diversidad de étnias, se efectuará también un estudio sobre el nivel de pobreza en estos grupos, distinguiendo a los que habitan zonas tradicionales de asentamiento indígena de los grupos que residen fuera de sus asentamientos de origen étnico, principalmente en ciudades y zonas de contratación y empleo de trabajadores temporales. Conforme al criterio utilizado en los censos para identificar indígenas, se utilizará el de lengua hablada, considerando la unidad hogar y la lengua del jefe de hogar para clasificar a los miembros.

Género y pobreza

Aprovechando las experiencias ya logradas en la explotación de estadísticas censales y de encuestas desde una perspectiva de género, se efectuará un estudio multidimensional de la pobreza que permita identificar las condiciones de vida de las mujeres pobres de México y se ofrezca, en este sentido, información útil para la toma de decisiones sobre políticas que combinen el mejoramiento de la calidad de vida de la población, especialmente las mujeres, con equidad de género.

Pobreza y estratificación social de México

Al igual que en el censo del 90, como parte del programa de difusión del próximo censo, se prevé una serie de publicaciones impresas denominadas "*monografías censales*", entre éstas la correspondiente a la *pobreza y estratificación social*. Para ello, el INEGI a través de convenios con instituciones académicas invitará a destacados especialistas en materia de pobreza. El contenido del documento será definido de manera libre por los propios investigadores; por su parte, el instituto se limitará a proporcionar una amplia base informativa integrada por tabulados básicos y específicos, además de muestras a nivel de registro individual.

Sistema de indicadores sobre la pobreza

Se trata de una base de datos y un sistema manejador de la misma, donde se integran información histórica relacionada con la pobreza, no solamente del censo del 2000 sino de otras fuentes complementarias. La base de datos contendría un mínimo de indicadores relevantes para niveles geográficos desagregados, cuidando en lo posible la comparabilidad nacional en el tiempo y en el espacio, con la posibilidad de referenciar la información estadística al espacio geográfico correspondiente, y elaborar mapas temáticos en forma automatizada.

COMENTARIO FINAL

Para atender adecuadamente las necesidades de información, el INEGI mantiene estrecha comunicación con los usuarios en foros especializados. Respecto a la información sobre pobreza, el INEGI ha establecido convenios con dependencias públicas responsables de programas relacionados con la política social y el combate a la pobreza, para efectuar estudios conjuntos sobre la geografía de la marginación, la pobreza y las desigualdades en general, mediante los cuales pueden sustentarse con mayor objetividad los programas respectivos. Las amplias posibilidades de desglose de la información censal y las poderosas herramientas informáticas han determinado avances notables en el conocimiento de las desigualdades regionales y el perfil socioeconómico de los grupos más pobres, sin embargo conviene insistir en que la causalidad del fenómeno y sus efectos en el desarrollo general exigen planteamientos más integrales y estudios que implican el uso de diversas fuentes de información, lo cual se podrá cubrir sólo mediante trabajos conjuntos de productores de la información con especialistas del medio académico y los funcionarios responsables de programas de política económica y social, en lo cual

el INEGI realiza esfuerzos especiales, de tal manera que bajo un mejor conocimiento de las causas de la pobreza, los programas se orientan más a superar estas y no sólo atenuar sus efectos.

**Experience of SEADE on Poverty
and Living Conditions Studies**

**PAULO JANNUZZI
SEADE - BRAZIL**

SEADE: STATISTICAL OFFICE OF SÃO PAULO STATE

- Deals with economic, social and demographic data for public planning purposes

Two Household Surveys

- **PED**: Unemployment and Employment Survey

Objective: collect data on labour market characteristics (unempl. Rate, wages etc)

Area: São Paulo Metropolitan Region

Since 1985

Sample: 3.000 households/month

Statistics based on three month database

- **PCV** : Living Conditions Survey

Objective: Investigation of multiple aspects of living conditions, integrating Basic Needs approach, Income (Poverty line) and Labour Market characteristics

1990 : São Paulo Metropolitan Region (SPMR) - 6.500 hh

1994: SPMR + 37 major cities in State - 14.400 hh

1998: Being planned

Analysis:

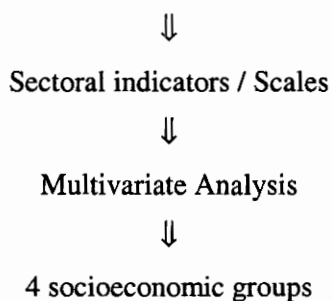
Unit: Family

Basic Needs

Education

Housing + Employment + Income (9 sources)

Health services



Dissemination : Books (PCV Collection, ILO Publ.) Internet (Error! Bookmark not defined.)

FAMILIAS: COMPOSIÇÃO
DISTRIBUIÇÃO DOS INDIVÍDUOS, SEGUNDO FAIXA ETÁRIA, POR
GRUPOS SOCIOECONÔMICOS MUNICÍPIO DE SÃO PAULO

Faixa Etária	Grupos Socioeconômicos					Total	Miseráveis
	A	B	C	D			
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0
De 0 a 6 Anos	11,0	9,3	13,9	16,3	12,2	18,3	18,3
De 7 a 14 Anos	13,0	14,4	18,1	19,3	15,9	19,3	19,3
De 15 a 17 Anos	(4,3)	6,2	(5,3)	6,7	5,7	(6,2)	(6,2)
De 18 a 24 Anos	10,5	12,9	13,7	14,1	12,8	12,7	12,7
De 25 a 39 Anos	30,8	22,3	27,6	23,7	25,5	24,4	24,4
De 40 a 59 Anos	22,2	21,6	15,4	14,7	19,0	14,1	14,1
60 Anos e Mais	8,2	13,3	(6,0)	5,2	8,9	(5,0)	(5,0)

Fonte: Seade-PCV

Nota: () os valores entre parênteses estão sujeitos a erro amostral relativo superior a 30% Coeficiente de Cramer = 11,2% (Média associação).

SEADE/IPEA RESEARCH AGENDA

1. Redistributive impact of public expenditures

Data source: PCV 98 + additional questions detailing access to social programs

2. Monitoring per capita income, poverty and its determinants in SPMR in the 90's

Data source: PED + additional features to improve income data

Coordinators: Felícia Madeira (SEADE), Alfonso Árias (IPEA)

Objectives: Analyse evolution of per capita income

Explain this evolution by determinants linked to Labour Market and Demographic Dynamics

Study the evolution income levels and determinants patterns of specific population groups

Simulate the impacts of social programs over income and poverty

Analytical model based on Árias (1995)

Per capita income average decomposed on 6 factors:

1. Proportion of Population in Active Ages
2. Participation rate
3. Occupation rate
4. Main job income average
5. Contribution of other jobs on income
6. Contribution of other sources of income

Algebraic identity: Per capita Income avg = $\prod F_i$, $i = 1,6$

Projects Activities in 1997-1998

1. Studies on the quality of income data
 - Contribution of diferent sources over family income
 - Non response rate
 - Other public or private benefits
 - Income under-reporting
2. Produce a study covering 1990-1997 (All pop, specific groups)
3. Produce a bulletin every 3 months, starting at 2. Semester 1998

SESSION 4:

POVERTY STATISTICS AND SOCIAL POLICY

**Policy Oriented Analysis of Latinamerican Urban Poverty:
An example of three key factors**

**PASCUAL GERSTENFELD
ECLAC**

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I. INTRODUCTION

The high degree of heterogeneity of Latin America's poverty, and especially its urban poverty, is widely recognized. This heterogeneity is evidenced in various aspects:

- on the one hand, in the varying levels of accumulated deficiencies that are recorded by households in terms of gaps in their incomes and in concrete insufficiency in their basic needs.
- and, on the other hand, in the specific instances of poverty by type of employment. These factors quantify the link between the main fields of income generation and the share of persons occupied in them that live in households with income below the poverty line.

For its part, the design of policies directly or indirectly oriented to the relief and elimination of poverty respond to different emphasis in interpretation with respect to the issue of what are the principle factors that produce and reproduce poverty in each country and at each point-in-time.

In the Latin American debate in particular, a number of different factors emerge that, even though they are universally accepted as determinants of poverty, at the time of designing policies and programs they receive a different degree of attention by those instructing socioeconomic and interpretative models.

A number of questions are answered one by one without simultaneously quantifying the relative importance of each factor in each case; these questions include the following: i) what is the responsibility of high fertility in various instances of poverty, or ii) is unemployment the principle generator of poor households at certain times and, if it is, then to what extent is this the case; or iii) is the poverty that is recorded largely structural and associated with low levels of educational capital and earnings?

The analysis presented in this work refers to urban poverty in 12 Latin American countries in the mid-nineties and constitutes an example of:

- (i) the design of relatively simple indicators that facilitate the simultaneous quantification of diverse factors that determine poverty, such as the scarcity of educational capital and inadequate earnings, unemployment and high fertility.
- (ii) the interesting regularities that are observed when heterogeneous urban poverty, is disaggregated even in countries that display significant differences in their social and economic development as well as in the proportions of poor households, which vary, approximately between 10% and 70% of the number of total households.
- (iii) what should be the point of emphasis on the global level in the design of policies and programs for the elimination of poverty, respecting the relative importance recorded by each factor in the set of poor households structure; and
- (iv) what can be expected of each set of policies and programs, in dimensioning the impact of short- and medium-term measures, such as the reduction of unemployment, distinguishing between those measures that operate over the long-term, such as reducing fertility, the increasing schooling, and generating quality employment.

II. THE INDICATORS USED

The three factors which were taken into consideration for the analysis of urban poverty in the mid-1990s are: demographic situation, unemployment and low labor income associated with limited human

capital. For purposes of analysis, a "threshold" was defined for each factor and the households were classified accordingly.

Demographic situation: this refers to the dependency ratio, i.e., to the number of children and adolescents in the home relative to the total number of adults of a fully economically active age. High-dependent households are those where the number of minors aged 0 to 17, divided by the number of persons aged 18 to 59 is greater than or equal to two.

Unemployment factor: this refers to open unemployment and takes account of the presence in the household of at least one unemployed person, either the head or another member.

Low labor income and insufficient education: this is estimated on the basis of labor earned income and the number of years of education of the head of the household or main breadwinner. The low earning line is to 2.5 times the value of the per capita poverty line of each country, while persons with less than 10 years of schooling completed are considered as having low education levels.

The threshold of 2.5 times the poverty line is a minimum acceptable level for attaining well-being, since this level of earnings enables a wage earner to keep a family of two above the poverty line. When both the head of household and the spouse work, they can keep a family of up to four members, including two children who do not work, above that line, but the addition of a third child would put them on the borderline of poverty. The figure of 2.5 times the per capita poverty line is equivalent, in most countries, to monthly earnings of between US\$ 170 and US\$ 230, depending on the value of the line in the urban areas of each country.

III. RESULTS AND REGULARITIES

As can be observed out of every ten poor households, the outstanding feature in seven is the low earned income and insufficient education of the head or principal breadwinner; in two, unemployment of one of its members; and in the rest, the large ratio of minors to adults. Of the seven households with low earned income, in three there are also a high number of dependents in the household, which aggravates the situation.

Despite the overall similarity, there are some atypical patterns that should be mentioned. With respect to unemployment, Argentina is the most obvious exception, since in 1994 four out of every ten households living in poverty had at least one member (either the head of the family or another of its members) out of work, in contrast to the regional average of two out of every ten. Clearly, this is due to the close correlation between high rates of urban unemployment and the probability of falling below the poverty line in that country. A similar, albeit less striking, situation exists with respect to the effect of open unemployment in Panama, Uruguay and Venezuela.

IV. REFLECTIONS ON POLICIES

Taking in account the incidence of each factor on urban poverty in the mid-1990s, an assessment can be done of the percentage of poor households which would stand to benefit the most from different social and economic policy instruments. For example, policies geared to direct increases in productivity and earned income (wage policies, policies on training and skills upgrading and support policies for micro-enterprises) could help to alleviate poverty for around 70% of urban households in this condition.

On the other hand, job-creation policies designed to reduce unemployment would help approximately 16% of poor households, while for countries with high unemployment rates the percentage could reach 20% or more.

Moreover, analysis of urban poverty shows that in approximately 40% of affected households, there is a relatively large number of minors in relation to the adults who have to support them. All would stand to benefit directly from policies to raise the quality and extend the coverage of general education through their effect on earning power and, indirectly, through their effect on fertility rates.

The above-mentioned figures, corresponding to a simple average for 12 countries that account for over 85% of the region's population, show very similar patterns, with very few exceptions in some of the areas under consideration and minimal variations between countries with very different poverty levels (see table below). This means that while policies for poverty alleviation should be similar in terms of topics and target households, policy instruments should be specifically tailored to each case.

For example, countries with similar urban poverty rates attributable to low earned labor income, but with significant differences in the degree of formality of the employment structure and labour institutions, will have to adopt different priorities and combinations of instruments.

In countries with a limited informal sector, wage policies, labour reforms aimed at increasing flexibility and other measures such as the establishment of an unemployment insurance will clearly have a greater impact than in those where wage earners account for only a small proportion of the labour force. Hence, similarity between countries with respect to the incidence of the key factors associated with urban poverty is no guarantee that government policies will have the same degree of effectiveness.

V. SOME PROSPECTIVE FIGURES

In view of the determining factors of urban poverty in the region, it may be assumed that if the prevailing mode of economic growth and the mechanisms for social distribution of such growth were maintained with sustained per capita GDP growth rates on the order of 5% per annum for a period of no less than five years and if, at the same time, earned labor income increased by about 3%, poverty levels could decline by 20% to 30%. Naturally, the adoption of policies to increase the number and quality of jobs generated by economic growth or impart a greater spirit of solidarity to government action in a climate of consensus would yield better results in terms of poverty alleviation given the same rates of growth.

The figures mentioned suggest, for example, that under this scenario a country with a 35% poverty index would be in a position to reduce it to a level of between 25% and 28%. This reduction could be achieved by reducing unemployment in poor households with at least one member out of work and, above all, by increasing earned labor income. In the longer term, a reduction in the number of dependents (especially minors) per household in relation to the number of economically active adults, as a result of the increasing integration of women into the work force, would also contribute to a decline in poverty.

**LATIN AMERICA (12 COUNTRIES): PERCENTAGE BREAKDOWN OF POOR URBAN
HOUSEHOLDS BY CHIEF DETERMINING FACTORS A/**

Countries	Low earnings and limited education			One or more members out of work	Large number of minors in relation to adults	Other factors and combinations	Total
	Total	Alone	Combined with large number of dependents				
Argentina	33	13	20	37	10	20 b/	100
Bolivia	67	41	26	10	12	11	100
Brazil	73	46	27	13	9	5	100
Chile	71	47	24	15	10	4	100
Colombia	75	51	24	10	8	6	100
Costa Rica	53	27	26	15	14	18 b/	100
Honduras	74	41	33	10	11	5	100
Mexico	83	48	35	8	7	2	100
Panama	59	32	27	20	13	8	100
Paraguay	72	42	30	11	10	7	100
Uruguay	68	27	41	20	10	2	100
Venezuela	61	29	32	20	9	10	100
Simple average	66	37	29	16	10	8	100

Source: ECLAC, on the basis of special tabulations of data from household surveys.

a/ Data are from around 1994. See box for definitions of indicators used.

b/ A high percentage of poor households consist of senior adults, including low-income retirees and pensioners.

SESSION 5:

POVERTY MEASUREMENT IN AFRICA AND ASIA

Trends in poverty and inequality in Asia

ANDREW FLATT

ESCAP

Some recent work on poverty measurement issues has been done at ESCAP in the context of discussing the relationship between growth and equity¹. In this work, apart from the confounding fact that growth and equity affect each other in numerous ways, the difficulty of quantifying "equity" was recognized: the analysis has depended primarily on the share of population below the "absolute poverty line", the Gini coefficient, and the income share of different quintiles of the population. Some aspects of this work are summarized in this note.

As background, taking the "global poverty line" of \$1 per day capita at 1985 prices², it has been estimated that 77 per cent of the world's poor lived in the ESCAP region in 1987, declining to 73 per cent in 1993; but this translates into an increase in numbers, from around 890 million in 1987 to 950 million in 1993. Participants in the Rio Group will be more than aware of the quality of such figures, although they serve to illustrate the magnitude of the poverty problem in Asia and explain why poverty alleviation remains a key thrust of ESCAP's work. ESCAP researchers concentrated on examining longitudinal data from selected Asian countries, including most of those with significant numbers of poor people. The resulting trends in poverty, based on country-specific poverty lines, are shown in Table 1.

For the 1970s, given the lack of data utilized in this analysis especially for China and India, very little can be said about the numbers of poor people in the above countries. In the 1980s, the incidence of poverty in most of the countries decreased, although in the last few years the rate of decrease has slowed. Bearing in mind the differences in poverty line definitions, the total number of persons considered poor in the countries studied seems to have remained quite stable since around 1988, at some 560-570 million; increases in population appear to have been in balance with decreased poverty incidence overall.

The Gini coefficient is arguably the most popular statistical indicator of inequality, having a predictable maximum value even though it is relatively more sensitive to changes in the middle part of the income distribution. However, since no aggregate measure can capture the details of income distribution, the ESCAP study also examined the quintile distribution of income in those Asian countries for which these estimates are available. The main data source used is the very rich data set compiled by Deininger and Squire³, supplemented by data drawn by ESCAP from national sources. Surveys of both income and consumption expenditure were used as sources, and additional caution needs to be sounded in that expenditure data yield a lower estimate of inequality than that based on income data.

Trends in inequality in terms of the Gini coefficient and quintile shares were computed for 13 Asian economies over as long a time period as the data permitted (35 years in the case of India and the Republic of Korea, only 12 for China). The trends are shown in Table 2. In the case of quintile shares, the measure of inequality was the ratio of the income (or expenditure) of the top 20 per cent of the population to that of the bottom 20 per cent. This figure varied historically from 3.4 (China, 1984) to 17.4 (Malaysia, 1976), and more recently from 4.4 (Sri Lanka, 1990-- expenditure data) to 15.8 (Thailand, 1992).

TABLE 1
TRENDS IN POVERTY IN SELECTED COUNTRIES OF THE ESCAP REGION

Country and period	Head count index (percentage)			Number of poor (million)		
	First year	Middle years	Final years	First years	Middle years	Final year
Bangladesh (1974,1982,1986,1992)	83	73 52	48	63.0	67.3 51.2	51.6
China (1981,1985,1990)	20	- 9	8.2	197.7	- 100.5	94.8
India (1978,1984,1988,1994)	51	45 39	36	329.0	323.0 307.0	320.0
Indonesia (1970,1980,1987,1993)	58	29 17	14	67.9	30.0 27.2	25.9
Malaysia (1973,1984,1989,1995)	45	20 15	9	5.1	3.0 2.6	1.8
Mongolia (1989,1992,1993,1994)	0	17 24	27	0.0	0.4 0.6	0.6
Nepal (1977,1989)	40	- -	40	5.3	- -	7.4
Pakistan (1979,1985,1991,1993)	31	25 22	22	24.7	23.3 25.1	27.1
Philippines (1971,1985,1991,1994)	52	54 45	41	19.6	29.9 27.8	27.1
Sri Lanka (1963,1979,1987,1991)	37	19 27	22	3.9	2.7 4.4	3.8
Thailand (1975,1981,1988,1992)	30	23 22	13	12.4	11.0 11.9	7.5

Source: Asian Development Bank, Asian Development Outlook 1994 (Hong Kong, Oxford University Press); United Nations Development Programme, 1994. Poverty and the Transition to a Market Economy in Mongolia Ulaanbaatar; ESCAP, 1996. Role of the Informal Service Sector in Urban Poverty Alleviation, ST/ESCAP/1706, (United Nations, New York); The World Bank, 1990. World Development Report 1990, (New York, Oxford University Press); and national sources.

Note: Poverty estimates are based on country-specific poverty lines.

TABLE 2
TRENDS INEQUALITY IN TERMS OF GINI COEFFICIENT AND QUINTILE SHARES IN SELECTED ECONOMIES OF THE ESCAP REGION

	Period	No. of observations	Time trend coefficient of Gini	Time trend coefficient of top 20% /bottom 20%
Bangladesh	1963-1992	10	0.0010	0.1129
China	1980-1992	12	0.0080	0.2363
Hong Kong, China	1971-1991	7	0.0021	-0.0868 ^a
India	1959-1994	23	-0.0008	-0.0257
Indonesia	1964-1993	11	-0.0002 ^a	-0.1419
Malaysia	1970-1989	6	-0.0018	-0.9330
Pakistan	1969-1993	10	0.0063	0.0783
Philippines	1957-1991	7	-0.0011	0.0600 ^a
Republic of Korea	1953-1988	14	0.0010	0.0723 ^a
Singapore	1973-1989	6	0.0001 ^a	0.6650
Sri Lanka	1953-1987	8	-0.0006 ^a	-0.1943 ^a
Taiwan Province of China	1964-1993	26	-0.0002 ^a	0.0313
Thailand	1962-1992	8	0.0031	1.1694

Source: Estimated by ESCAP from the Deininger and Squire data set³, and from national sources.

Notes: Gini coefficient and quintile shares are based on income in all the countries except India and Indonesia where they are based on consumption expenditure.

^a Indicates that the coefficient is statistically insignificant at 10 per cent level; other coefficients are significant at 10 per cent level or better.

The time trend coefficients of the Gini coefficient and of the top/bottom quintile shares indicate a mixed experience among the countries studied. Inequality seems unequivocally to be decreasing (negative sign) in two countries and unequivocally increasing in four; for the remaining economies, one or the other trend coefficient (or both, for Sri Lanka) was statistically insignificant at the 10 per cent level, and in two cases the signs of the two coefficients were different. The analysis is also sensitive to the time selected; a more detailed investigation showed that a broad trend in one direction over the long haul could mask reversals within selected time periods. Such reversals are of particular interest to policy-makers seeking to adopt effective inequality reduction programmes.

Among other things, the ESCAP study demonstrates the difficulties which researchers and analysts in this field, continue to face, even when working with the latest and most comprehensive data sets. Clearly the scope for both methodological and empirical work in the measurement of poverty and inequality is vast. Given the unenviably prominent position of Asian countries in poverty league tables, the ESCAP Committee on Statistics has rated work on poverty statistics as a priority, and the secretariat hopes to pursue such work as far as possible within the framework of the Rio Group. In this regard, we intend to revisit the recommendations made by an Expert Group Meeting on National Poverty Concepts a Measurement organized by ESCAP in 1993 in the light of the Rio Group's work.

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SESSION 6:

POVERTY MEASUREMENTS BY TOPICS

**International poverty statistics and indicators:
an assessment of the international data and uses**

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This paper reviews poverty statistics and indicators that have been compiled at the international level in the last decade and some of the main uses that have been made of them. The paper focuses on major international programmes and publications including the United Nations Development Programme's, *Human Development Report*¹; the United Nations *Economic and Social Survey*², and *The World's Women 1995*³; and other reports and publications by ECLAC, World Bank, International Fund for Agricultural Development and the International Labour Office. The poverty statistics and indicators published by these organizations are reviewed specifically in terms of their relevance and reliability for the policy analyses for which they have been used by the publishing organizations.

I. WHAT IS POVERTY?

Statisticians must have very clear definitions of concepts or items they are measuring. However in the area of poverty statistics there is no commonly agreed general definition of poverty. One of the rare attempts to describe the scope of poverty is provided by the United Nations Development Programme, *Human Development Report 1997*¹:

"Poverty has many faces. It is much more than low income. It also reflects poor health, and education, deprivation in knowledge and communication, inability to exercise human and political rights and the absence of dignity, confidence and self-respect. There is also environmental impoverishment and the impoverishment of entire nations."

This attempt to describe and define poverty results from the broadening of the scope of the general poverty concept. In recent years there has been a move to including other aspects to the basic income model of poverty. Elements related to poverty such as health, nutrition, gender, education, housing are now being included as aspects of general poverty definitions. In addition, the various elements to the concept of poverty (health, nutrition, gender, education, housing, etc.) are being included in an *ad-hoc* fashion.

But does it matter that there is no generally accepted definition of poverty? Yes, since policy makers and other users of statistics are misled by not being provided a theoretical basis for the measurements. The general concept of poverty has many related elements which contribute to the overall concept. There is a need to understand how these related concepts contribute to poverty and use them to build a framework and generally agreed definition. This will provide users of poverty statistics with a clear understanding of the scope of the information they are using. It will assist in rationalising the number of indicators at the international level. Currently one of the problems of international statistics is the proliferation of indicators, and this includes poverty indicators. Each aspect of poverty (health, education, housing, human development, gender etc.) has a number of poverty indicators, all measuring some aspect of poverty but each unique. This is not beneficial to the users of the statistics as they become confused with which statistics to use and what they mean about poverty.

II. THE OBJECTIVES OF INTERNATIONAL ORGANIZATIONS FOR COLLECTING POVERTY STATISTICS AND INDICATORS

Why do international organizations collect poverty statistics and indicators? On reviewing the objectives of these organizations various objectives were put forward. The United Nations Development Programme's *Human Development Report 1997* highlights the objectives as follows: "UNDP has made the eradication of poverty its overriding priority", and "the unprecedented progress in reducing poverty in

the 20th century sets the stage for eradicating poverty in the early 21st century. - a moral imperative, an attainable goal...".⁴

ECLAC's *Social Panorama*⁵ aims to provide the information and analysis that governments at the regional level and inter-governmental groups such as the United Nations Conference on Human Settlements (Habitat II) and the Hemispheric Conference on the Eradication of Poverty and Discrimination can use for policy and strategy development.

The International Fund for Agricultural Development (IFAD) states in *The state of world rural poverty - an inquiry into its causes and consequences*, that "the eradication of poverty and the ending of hunger have long been recognised as among the most central challenges before human society".⁶

The World Bank in *Poverty reduction and the World Bank - progress in Fiscal 1996 and 1997*, states that "the World Bank's fundamental objective is to help client countries reduce poverty and improve living standards through a strategy of inclusive development".⁷ The Bank also states that reducing poverty and minimizing the disparities in income, access to education, health care is a major objective to reduce poverty and increase living standards.

The United Nations Children's Fund report *The State of the World's Children 1998* provides a focus on an aspect of poverty the "right to nutrition".⁸ The aim of UNICEF in this respect is to ease child malnutrition.

The International Labour Office in its report *The incidence of poverty in developing countries*, provides a comprehensive summary of the stock of poverty statistics in 1993.⁹ This publication is different from the others discussed as it does not provide analysis of the poverty statistics but aims to direct users to the statistics that are available and provides details of the methods and coverage so they can be used in an appropriate manner. However guidelines on appropriate use and discussion on the quality of the data and methods.

In summary, these international organizations generally collect poverty statistics and indicators with the same general objective of reducing the incidence of poverty in the short term and eradicating poverty in the medium term. The specialized agencies and funds have a particular focus, such as health, employment, nutrition and so on but have similar overall objectives. In line with these objectives, poverty statistics and indicators have been collected for many years.

III. THE COLLECTION AND DEVELOPMENT OF POVERTY STATISTICS AND INDICATORS

Poverty statistics and indicators are collected or produced at household, country, regional or world levels. At each of these levels the international organizations have specific objectives with their data collection or indicator development.

The World Bank is one of the major collectors and compilers of general country level poverty statistics and indicators. They have conducted 94 country poverty assessments (83 countries and 11 updates) since 1989. The poverty assessments "synthesize information on poverty from many sources, identify key issues, and recommend a strategy for reducing poverty."

The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) concentrates on estimating poverty statistics based on the income method, thus calculating poverty lines for the Latin America region.

The United Nation's agencies such as the World Health Organization, the International Labour Office, the United Nations Children's Fund also compile poverty statistics and indicators but tend to focus on their particular area of interest. These statistics are often further massaged or adapted into models to provide some sort of poverty measure or composite index.

Various poverty indexes have been developed or used by the various international agencies. They include: the UNDP's human poverty index; the World Bank's head count index, poverty gap index and poverty severity index; the IFAD's food security index, basic needs index, integrated poverty index and the relative welfare index.

IV. THE USES INTERNATIONAL ORGANIZATIONS HAVE FOR POVERTY STATISTICS AND INDICATORS

Monitoring Poverty -

Most international organizations have some monitoring function in the use of poverty statistics and indicators which is conducted using poverty indexes, poverty lines or country assessments. This section describes these uses and comments on their reliability and relevance.

Indexes

The various indexes mentioned in the previous section were generally developed to make it easier for comparisons to be made between countries. The profusion of poverty indexes: human poverty index; head count index, poverty gap index and poverty severity index, food security index, basic needs index, integrated poverty index and the relative welfare index just to name some of the commonly used indexes indicates the number that are currently available.

Many of these indexes aim to reflect specific elements of poverty related to a specific area such as food availability. These indexes are generally constructed using currently available data sources as a starting point. The general purpose indexes most commonly use this approach and often do not have any strong theoretical basis.

An example of a recent addition is the UNDP's Human Poverty Index (HPI). The HPI aims to indicate "the proportion of the population affected by the three key deprivations in their lives - showing how widespread human poverty is."¹⁰

The HPI is constructed with three elements:

Longevity: percentage of people not expected to survive to age 40.

Knowledge: percentage of adults who are illiterate.

Living standard (simple average):

- the percentage of people without access to safe water;
- the percentage of people with access to health services;
- the percentage of moderately and severely under-weight children under five.

$$\text{HPI} = \frac{[P_1^3 + P_2^3 + P_3^3]}{3}$$

3

UNDP is aware that the Human Poverty Index has "weaknesses in data and method".¹¹ In particular these include; no clear theoretical justification for inclusion of variables, equal weighting of

variables, highly correlated variables. Other problems with indexes is the treatment of missing data, and differing methodologies between countries. These sorts of problems are common with poverty indexes and are highlighted here to show the room for improvement that is available. The severity of these deficiencies is better evaluated when we examine how the index is used.

UNDP suggests that the Human Poverty Index can be used in three ways. Firstly, as a tool for advocacy. "The HPI can help summarize the extent of poverty along several dimensions, the distance to go, the progress made. Income poverty also needs to be measured - but income alone is too narrow a measure."¹² Secondly, as a planning tool for identifying areas of concentrated poverty within a country. Used in ranking countries or districts, thus highlighting those that have been disadvantaged. As an alternative to individual ranking by indicator such as illiteracy rate, access to health services, or percentage in income poverty. Thirdly, to be used by researchers as a composite measure of development. They suggest that the HPI could be augmented by unemployment information and others.

The use of an index such as HPI as a "tool for advocacy" is suitable use to highlight differences between countries and can give an indication of where progress is being made. The problems however arise when unsophisticated users believe that the index is an precise measure of poverty and they use it as such. The index can not be used to quantify poverty. The HPI will highlight differences between regions or countries, but the quantification of these differences can be provided with more reliability and stability with other tools such as poverty lines and the World Bank's Country Assessments.

Poverty Lines

Poverty lines are used extensively to monitor trends in poverty by the United Nations Economic Commission for Latin America and the Caribbean in their publication *Social Panorama of Latin America*.¹³ Household level data on the extent of poverty measured by percentage of households below the poverty line were collected for 19 countries from the region. The data were collected for both urban and rural areas. The analysis was further broken down by country which highlighted the importance of country by country analysis, as some countries had made substantial reductions in urban poverty, this being masked by the rise in urban poverty in highly populated countries. When international organizations collect and provide poverty statistics for a region they are used by other international organizations in their analyses of poverty. An example of this is the re-use of ECLAC data by the United Nations in the *World Economic and Social Survey 1997 - Trends and Policies in the World Economy*.¹⁴

Country Assessments

Recent World Bank country assessments have been used to develop agendas of issues for the design of the country assistance strategies. The analysis and recommendations from the country poverty assessments have been included in the country assistance strategies. The World Bank states that "assessing the links between poverty assessments and country assistance strategies can be difficult, since it is not always clear whether the lack of coherence between recommendations of a poverty assessment and a proposed country strategy is due to oversight or a deliberate prioritization of issues and actions. Linkages are clear in cases in which poverty assessments have been completed within a year or so before the country assistance strategy".¹⁵

Understanding Poverty

Poverty statistics and indicators are often used to attempt to understand the changes in the levels of poverty in countries. For example, ECLAC in its *Social Panorama of Latin America* discusses the relationship between poverty lines, poverty statistics and indicators and what occurred in the economic environment of each country. Thus factors such as economic growth, price stability and employment are used to explain the poverty and any changes in the poverty estimates. Drawing causal relationships such as these is prone to error as there is little evidence that these factors did in fact reduce the estimated level of poverty. Even though they seem sensible.

Poverty related statistics and indicators are used extensively in socio-economic analysis such as in the United Nations publication, *The World's Women 1995 – Trends and Statistics*.¹⁶ This United Nations publication provides analysis of the situation of women using poverty indicators such as: percentage of urban and rural population without safe drinking water; percentage of urban and rural population without sanitation services as tools to highlight differences.

Poverty indicators are often used as support to strategies and policies. An example of this sort of use of poverty indicators comes from the publication of the United Nations Children's Fund, *The State of the World's Children 1998*.¹⁷ The report focuses on the "right to nutrition" as an aspect of poverty. The poverty indicators (per cent of families with income below poverty line, per cent of underweight children) are used to support the arguments rather than as an analysis tool. The World Bank in its report *Poverty Reduction and the World Bank - progress in Fiscal 1996 and 1997 state*,¹⁸ states that 'greater' data availability has improved the Bank's understanding of the relationships between growth, inequality and poverty reduction.

Since there is no sound theoretical basis or model of how these various poverty indicators relate to overall levels of poverty, it is impossible to test them. Users are therefore left making "common sense" analysis of the statistics.

IV. POLICIES AND ACTIONS PROPOSED BY INTERNATIONAL ORGANIZATIONS BASED ON THEIR POVERTY STATISTICS AND INDICATORS

Some international organizations have formulated policies and strategies to meet their objectives of reducing poverty in the world. It is unclear how these are derived from the analysis of poverty statistics and indicators collected by these organizations. Whilst these policies and strategies may have considerable merit, there is no clear linkage between them and the poverty statistics and indicators collected. For example, UNDP sets six priorities for action to eradicate poverty:¹⁹

1. Everywhere the starting point is to empower women and men - and to ensure their participation in decisions that affect their lives and enable them to build their strengths and assets;
2. Gender equality is essential for empowering and for eradicating poverty;
3. Sustained poverty reduction requires pro-poor growth in all countries and faster growth in the 100 or so developing countries where growth has been falling;
4. Globalization offers great opportunities but only if it is managed more carefully and with more concern for global equity;
5. In all areas the state must provide an enabling environment for broad-based political support and alliances for pro-poor policies and markets;
6. Special international support is needed for special situations - to reduce the poorest countries' debt faster, to increase their share of aid and to open agricultural markets for their exports.

The World Bank has put forward the following policies to achieve its poverty reduction objectives²⁰:

1. To promote broad-based, labour-demanding growth and increase productivity and economic opportunities of the poor.
2. Policies and institutions to improve access to social services, particularly in basic education, primary healthcare, and nutrition.

3. Safety nets and poverty-targeted programs for those who cannot take advantage of income-earning opportunities or who are heavily risk-prone.

This is to be achieved through the following strategy: "A shift from describing poverty to formulating strategies for reducing poverty. Much of the working this area will be linked to operational strategies in individual countries. A shift from counting poverty-focussed projects to assessing their impact on the poor. The Bank is moving toward better evaluation of the impact of lending and projects on household welfare." The World Bank is aware of the need for strong linkages between poverty statistics, indicators, analysis and policies and strategies. The Bank highlights this in its report *Poverty Reduction and the World Bank - progress in Fiscal 1996 and 1997*: "There is still scope for stronger linkages between policy assessment findings and country assistance strategies to enable the country assistance strategies to play a pivotal role in the Bank's poverty reduction efforts."²¹

V. WHAT IS NEEDED AT THE INTERNATIONAL LEVEL AND WHY?

Poverty is a concept that statisticians view with a great deal of caution. It cannot be directly measured, it changes from place to place and household to household. It is however possible to measure some related dimensions of the poverty concept such as housing, nutrition, health, education. There is not commonly agreed general definition of poverty at the international level. Such a definition would provide users of poverty statistics with a clear understanding of the scope of the information they are using. It would assist in rationalising the number of indicators at the international level.

The large number and wide variety of poverty statistics collected and used by international organizations poses many problems for the users of these statistics. These include the problems associated with choosing between various methodologies and statistics providers. The various international organizations either collect and analyze poverty statistics from a general perspective or from a specific focus. Thus the United Nations and its Regional Commissions, the United Nations Development Programme and the World Bank are collecting and analyzing poverty statistics and indicators at the general level. Specialized United Nations agencies and funds such as the International Labour Office, the World Health Organization, the Food and Agriculture Organization and the United Nations Children's Fund have concentrated their efforts and focus on their specific areas of expertise.

Often international organizations have not developed statistics and indicators specifically designed to measure a specific aspect of poverty. They tended to use a statistical indicator that was already collected and use it as a measure of an aspect of poverty. Consequently, a wide variety of poverty statistics are being used for various reasons.

Definition of poverty is a problem as each user or collector has a different definition. The definition changes as we have seen recently, a broader definition which now includes aspects of exclusion is being used. Will it be possible to develop a general concept definition of poverty and statistics for it? This will depend on the work of expert groups such as this one and development work which specially concentrates on the uses of the statistics and the development of a general indicator of poverty with theoretical basis supported by the major producers and users of poverty statistics. The first stages of this sort of general purpose indicator have been started by the United Nations Development Programme in its Human Poverty Index, which as discussed is not without its problems.

The uses that are made of poverty statistics and indicators must not be ignored. The type of policy decisions being made, the analysis using poverty statistics and indicators must be considered in the development of these measures. For the best possible decisions on policies and strategies to eradicate poverty to be made, the statistics and indicators need to be tailored to provide the specific information analysts and policy makers require.

International statistics on poverty compiled and published by many different organizations use a variety of concepts and methods of estimation. For households and individuals, these include such disparate approaches as a concept of low money income on the one hand and a purely nutritional concept of food sufficiency on the other. Many other non-economic social measures are introduced in different studies and in some cases aggregated into indexes in these approaches. Different uses of international poverty include country comparisons, measurement of trends overtime, identification of policy and resource needs and assessment of the impact of national economic performance. The Latin American region seems to be the only region in which a measure of inter-country agreement has been reached on the concept and its use for policy purposes. A wider political consensus on the scope and purpose of poverty statistics seems to be needed before more consistent data and methods can be developed for users globally.

NOTES

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SESSION 7:

THE FUTURE AGENDA FOR THE RIO GROUP - DISCUSSION

The Statistical Measurement of Poverty

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This document is a summary of the work of the "Expert Group of Poverty Statistics", which met in Santiago and Rio de Janeiro in 1997 and 1998. It was written by Simon Schwartzman, IBGE, Brazil, and incorporates comments and suggestions in reaction to a first draft. The full text of the papers presented to the Expert Group can be found at <http://www.ibge.org/poverty>.

BACKGROUND

The United Nations Statistical Commission, in its 28th Session of 1995, created a Group of Experts to study the statistical consequences of the World Summits of the United Nations on Population and Development (Cairo, 1994), on Social Development (Copenhagen, 1995) and the conditions of Women (Beijing, 1995) and to make proposals on the use of statistical information to follow up and monitor the objectives and goals approved in those summits. One outcome of this work was the recommendation, approved in the session of 1997, of a "Minimum National Social Data Set" of indicators to be adopted by countries.

In its session of 1996, and following another recommendation of the Group of Expert, the Working Group of the Statistical Commission decided to hold a Seminar on Poverty Statistics in Santiago, Chile, in May 1997, and to create an Expert Group on Poverty Statistics (Rio Group), chaired by the Brazilian Institute for Geography and Statistics (IBGE) with the UN Economic Commission for Latin America, ECLAC, acting as Secretary.

The Santiago Seminar was an opportunity for many countries to present and compare their experiences and methodologies in measuring and analyzing the situation of poverty in their different aspects. The second meeting took place in Rio de Janeiro in May 1998, focusing on specific issues, as described in the meetings' agenda. Following that meeting, two documents, prepared by the Brazilian Institute for Geography and Statistics and ECLAC, were distributed to the participants in the meetings and other interested parties, to elicit criticisms, comments and suggestions. This document is a summary of the Expert Group conclusions and recommendations; further documents, materials and information can be obtained from ECLAC and from the Expert Group's Internet home page, at <http://www.ibge.org/poverty>.

1. The renewed interest in poverty statistics

Poverty has been a constant presence in man's history, but its meaning has changed through time. Most people in traditional societies were poor, and this was accepted as natural and unavoidable. The current understanding, on the contrary, is that the condition of poverty is unacceptable, and that it should be possible to find the ways to eradicate it. This is based on ethnical and moral considerations: the notion that all human beings are equal, and should be entitled not only to civil and political rights, but also to social rights such as food, shelter, education and personal security. Besides, poverty, particularly when associated with war and economic disorder, leads to social unrest, reduces the values of salaries and goods, leads to national and international migration, and threatens the life styles of those who are better off.

Poverty is a relatively new subject in the realm of public statistics, or rather a renewed one, since it was a central concern in the earlier days of the European statistical offices in England and other countries.¹ Later, however, the issues of poverty came to be treated in terms of income distribution and unemployment, and also as a condition derived from personal handicaps, rather than as poverty as such. The assumption was that in a well-organized and modern economy everybody should have a stable employment and a "satisfactory" income, and it was the task of statistical agencies to monitor deviations to this general expectation, in order to prompt

¹ For the surveys of Charles Booth, Seeboorn Rowntree and Arthur Bowley in 19 th Century England, see Hennock, E. P., "The Measurement of Poverty: from Metropolis to the Nation, 1880-1920", *Economic History Review* 2 nd series, XL, 2, 1987, p. 208-227, quoted by Alain Desrosières, "Les pauvres: comment les décrire qu'en faire?", *La politique des grands nombres* (Paris, La Découverte, 1993), 271 ff.

for the necessary corrective measures. For the developed countries, social welfare policies were called for; in the poorer parts of the world, economic development was to be the answer.

The renewed interest on the subject of poverty started already in the 1950's with the severe problems of famine afflicting large population groups in Asia and Africa, and studies showing the worldwide problems of malnutrition and their long-term consequences. The relevance of poverty as an issue increased with the perception that economic development was not being successful in many countries, and, even when it was successful, it often left large groups at the margins, suffering the impact of social, economic and political change on traditional patterns of social and economic organization. Finally, it became clear that the exclusion of significant segments of the population from the benefits of a modern economy was not something limited to the less developed economies, but a something that occurred at the very core of highly industrialized and developed societies.

2. Absolute and relative poverty

What is poverty? who defines it? to what extent is the development of regular systems of poverty statistics influenced by the agendas of governments, political and religious groups and associations? how does the existence of such data affect public opinion and policies? Like all major statistical constructs, the definition of poverty and associated measurements are not just a technical matter, but are shaped by a confluence of social concerns, governmental demands, the contributions of researchers in economics and the social sciences, and the technical expertise of professional statisticians.

Two very broad concepts of poverty are being utilized today by statistical agencies and researchers throughout the world, responding to different concerns. One is the concept of *absolute poverty*, understood as the minimum set of resources a person needs to survive. The other is the concept of *relative poverty*, a measurement of the resources and living conditions of parts of the population in relation to others. Absolute poverty is a matter of acute deprivation, hunger, premature death and suffering. In practice, it may be difficult to measure it in a consistent way, since the dividing line between acceptable and unacceptable deprivation is not just biological, and can change from society to society. The consensual understanding, however, is that absolute poverty is an intolerable situation, requiring prompt corrective action. The measurement of relative poverty, on the other hand, is clearly a matter of social equity, and is associated with the development of policies for the reduction of social inequalities and the creation of mechanisms to compensate for the more extreme differences in wealth, living conditions and opportunities. The measurement of absolute poverty is typical of less developed countries in Latin America, Africa and Asia, while the measurement of relative poverty is more typical of highly industrialized and developed countries, such as the United States, Canada and Australia.

These two, very broad definitions of poverty have led to different approaches in the measurement of poverty which are being adopted by statistical offices throughout the world. The dominant practice is to measure the poverty levels of households or dwellings. Absolute poverty can be measured, in principle, in terms of the *basic needs* a person has to meet in order to survive adequately in modern society. Depending on the availability of data, the satisfaction of basic needs can be measured directly, through anthropometric and medical measurements of the physical conditions of the population; or indirectly, through the study of the population consumption patterns or income levels. Ideally, the three kinds of information should be used.

The use of the expressions "adequately" and "modern society" show that it is very difficult, if not impossible, to define "absolute poverty" objectively, without introducing value judgements and elements of comparison. One approach used by several countries is to estimate the minimum intake of calories and proteins a person needs in order to survive, and use this measurement as a yardstick for the measurement of absolute poverty. There is a long list of technical problems with this approach: the biological definition of this "minimum"; its variation according to the age, sex, season, climate, physical built and type of activity of each person; the equivalences among different types and quantities of food and nutrients; the problems associated with food imbalances; and the need to add a few other essential non-food needs, such as shelter and clothing,

with similar problems of variance and equivalences. "Adequate" survival in modern societies, besides, it should include, among other things, resources for health maintenance and medical care, transportation, education, access to information and socially accepted clothing and living conditions. As we introduce these other elements, the notion of what is the "minimum" becomes a matter of values, preferences and comparisons - and absolute measurements turn into relative measurements.

The measurement of absolute poverty faces a set of typical problems. The first is the need to convert the ingredients, which enter in the minimum basket of essential goods and services, regardless of their definition, into a common denominator, usually a monetary value. This can be a daunting task, given the seasonal, regional and cultural differences in consumption patterns and prices. To do this, it is necessary to have data from consumption patterns, household budgets and prices, often provided by independent surveys. Comparisons among regions and through time require adjustments and compensations for inflation and changes in quality of consumed goods, and the construction of parity standards of purchasing power. The second problem is to account for non-monetary income and benefits, derived from production for self-consumption, personal services and transfers among members of the extended family, and benefits provided by the government or the community. The very concepts of a "household", "family" or "dwelling" are subject to significant cultural, local and historical variations, and require careful analysis. It is also important to take into account the existence of assets, in relation to current monetary and non monetary income. The poorer and less capitalized a society or a community, the larger is their reliance on non-monetary resources of all kinds, and the harder it is to translate these resources into meaningful prices. Proper procedures to measure or estimate these non-monetary resources are an essential element in all attempts to measure poverty.

The final result of this process is often the identification of one or several thresholds of poverty, and the assignation of quantities of people to these values. In some cases it is deemed necessary to identify values for poverty and for indigence, the latter referring to persons or dwellings which are below the minimum subsistence level. It is also possible to measure the poverty gap - how far away a given population is from the defined minimum, either from above or from below. Because of the large number of assumptions implied in all steps of this complex process of statistical processing, the numbers produced at the end are to some extent arbitrary, and should be carefully checked against other available information, common sense and social expectations.

The discretionary nature of poverty figures is much clearer when the goal is to measure relative, not absolute poverty. Different and more or less arbitrary poverty thresholds can be defined - persons earning below a given percentage of the national or regional income, or placed at a given distance below the national average, or having access to a given basket of goods and services.

3. Types of poverty

The measurement of poverty is just a first approximation to the problems of social and economic deprivation. Poverty can be caused by different factors and conditions, and assume very different nature and characteristics. Very often the interest of policy makers is to identify groups and regions which are particularly affected by deprivation, so that they can receive the benefits of public action - vulnerable groups such as children, the elderly, women, racial, ethnic and linguistic minorities. If the intention is not just to identify those in need, but to understand better the reasons for their predicament, it is necessary to examine the possible determinants of this condition. Rural poverty in traditional economies is very different from urban poverty in large metropolitan areas, and requires very different policies. Different determinants and correlates of poverty can be measured and sorted out by statistical means - poverty associated with demographic conditions, such as family size; created by unemployment; caused by poor quality jobs; by lack of education; by social discrimination; by lack of "social capital", such as family and community organizations and networks; by economic changes, climate changes, natural catastrophes, and war.

The procedures used for the measurement of poverty can be very complex, and require data sets that are more frequently found in rich countries, where the problems of poverty are less severe, than in poorer ones,

where they are more significant. Depending on the objectives, the following statistical instruments have been used by different countries in these measurements:

Surveys on eating habits of the population. The nutritional contents of different types of food and their relation with health indicators. This kind of study is not usually part of the work of statistical offices, but is essential for the measurement of basic needs

Surveys on family and dwelling budgets. These surveys are carried on by statistical offices with some regularity, in order to ascertain the consumption baskets of different social groups, to be used in the calculation of cost of living indexes. They provide information on the resources going to the acquisition of essential goods (food, housing, and shelter), and eventually on the access of the population to non-monetary services and money transfers.

Household surveys. Most countries carry periodical household surveys every year or lower intervals, covering aspects such as housing conditions, labor, employment, education, income and other subjects. These surveys are more detailed and broader than the continuous employment and consumer price surveys, and large enough to represent major groups and regions in a country. Household surveys are the basic instrument to follow the conditions of the population in terms of living conditions, income and employment. They have, however, some limitations: they are usually not representative of small regions or population groups; they may be not be frequent enough; and they should be combined with information on family budgets, expenditures and prices.

Continuous employment and price surveys. These are usually well targeted, monthly surveys designed to follow the short-term fluctuations of employment and prices, and, when combined with information from other surveys, can provide also information on the fluctuation of the poverty conditions of the population.

Living standards surveys. This methodology, applied in several countries with the support of the World Bank, consists in very extensive questionnaires applied to relatively small samples of households. The attempt is to combine in the same survey all main dimensions related to living conditions, specially of the poor: consumption patterns, household budgets, anthropometric indicators, income, non-monetary benefits and transfers, and so forth. This type of survey seems to be of special interest for in-depth analysis of the conditions of poverty and their correlates. Because they are usually based on a fairly large questionnaire for a small sample, it is not possible to use the results for the analysis of sub-regions within countries, or narrowly targeted groups, unless special efforts are made to focus on these groups.

Census data. Census information is essential when there is the need to measure poverty at the local level. Two difficulties, however, are apparent. The first is the long period, typically ten years, between censuses; the second is the limited number of variables in census questionnaires. Income is usually under reported in census data, and there is no or little information on non-monetary transfers. There are many ways, however, to combine and calibrate the census information through the use of household surveys of different kinds, as a way to overcome their limitations.

Administrative registers. When governments deliver benefits associated with poverty conditions, they can develop administrative records, which inform, by definition, the number and other characteristics of the population considered poor. This information should be combined with data derived from household surveys and similar sources, so that it may be possible to gauge the actual coverage of these benefits.

In short, there is a large array of instruments used in the measurement of poverty, and it is the responsibility of statistical offices to identify those that are more adequate to their specific purposes, and practical in terms of their financial resources and technical and administrative skills.

THE USES OF POVERTY STATISTICS

The definitions of poverty and the selection of statistical instruments depend on the intended use of the results. Three main uses can be identified in the current international practice:

The establishment of poverty lines. The goal, here, is to identify a threshold of income or need satisfaction dividing what is acceptable and what is not acceptable in a given society. Once defined, poverty lines can be used to distribute benefits of different kinds, either in cash or in services; to identify groups or regions requiring special policies for poverty reduction; and to monitor the progress of such programs through time. Once established by official statistical institutions or governmental agencies, poverty lines create expectations and lead to the allocation of public funds to specific programs, and are therefore very difficult to change. Whether a country decides or not to adopt an official poverty line is a matter of national policy. From the statistical point of view, the best practice to this work seem to be the use of methodologies which can be simple to understand in their procedures and implications, and with built-in mechanisms for adjustment according to changes in prices, consumption habits of the population and national wealth.

International comparisons. International organizations have a natural interest in comparing countries according to their poverty levels. This information is very useful to identify countries in need of international assistance, to monitor and to evaluate the effects of policies of social and economic development in terms of their actual effects on the most needed groups, and, more broadly, to monitor the fulfillment of the recommendations of the international conferences on matters of poverty and living conditions. The technical problems associated with international comparisons, however, are very significant, given the highly divergent approaches of different countries in the establishment of their poverty measurements, and the need to establish equivalencies among countries in terms of the consumption patterns and purchasing power of their currency for the poor population. One way of reducing this problem is for countries to adopt the same methodology for the development of their poverty statistics, and several international organizations are working in this direction, by providing technical assistance to countries interested in the development of these measurements, or by sponsoring activities geared to the comparison of experiences and the adoption of comparable methodologies by groups of countries. This is a slow process at best, and still leaves open the problems of international parities and conversions. Another approach is to adopt very simple standards of poverty (such as the "one dollar per person per day" used by the World Bank, and based on the poverty line prevalent in India in 1985) for rough estimates and overviews, under the assumption that they would not be much worse than what could come out from very elaborated procedures and calculations.

The identification of poverty syndromes and their correlates. The goal, here, is not just the measurement of poverty levels, but the understanding of the main characteristics of the poor groups, with the understanding that different kinds of poverty require different policies for poverty reduction. The kind of statistics needed for this approach is different from the those used for the establishment of poverty levels: they should include a broad set of socioeconomic variables and be amenable to complex statistical analysis, which are more important than the definition of poverty thresholds. At best, they should also allow for the follow-up of poverty-stricken groups through time, with the use of panel surveys.

These objectives are not incompatible, and statistical agencies can and often do engage in all of them, making use of a wide array of methodologies and approaches, responding differently to the demands of different constituencies. A recommendation about the best practices in poverty statistics should not stress the superiority of one among the other goals. What is necessary is to have a clear notion what will be the use of the statistics being developed; to adjust the methodology for their production, making use of the available experience; and to be very explicit about the means by which specific results are being attained?

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