BRAZIL

POVERTY IN BRAZIL IN THE EIGHTIES

A REVIEW

by

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Poverty in Brazil in the Eighties. A Review

Introduction

The eighties in Brazil clearly represented a rupture from the relatively successful path the country has followed since the thirties, but especially after the Second World War, to attain the status of a developed country. From 1968 to 1980, per capita GNP grew at an average yearly rate of 6.25%, as a result of a brisk pace in investment and modernization. Although the benefits of income growth were unevenly distributed, people were better off at all income levels, which guaranteed social peace. The general awareness in the academic milieu that questions concerning social inequality and poverty were not automatically solved as a function of economic growth (Adelman,1975) did not affect the conduct of economic policy in Brazil. It was taken for granted that growing inequality was a necessary result of productive bottlenecks, especially the scarcity of qualified manpower, and that trickle down effects would soon begin to operate. As a consequence, economic policy was tacitly geared to the attainment of high growth rates as an objective in itself.

High liquidity in international financial markets fueled domestic investment in the seventies. As a result, Brazil entered the eighties as highly dependent on flows of foreign capital and was badly hit by the money shortages and rise of interest rates at the beginning of the decade. The debt crisis and the process of adjustment that followed led to successive short-term economic cycles all along the decade, which resulted in a decline in investment and a deplorable result in terms of income growth: from 1980 to 1994 GDP grew at a dismal 1.07% yearly average. Forcefully, per capita results were still more adverse, per capita GDP presenting a reduction in the same period. That the outcome did not turned out worse was due to a strong decline in the rate of population growth.

Macroeconomic policy, although highly successful on the foreign front, seemed unable to deal with monetary and fiscal unbalances which plagued Brazilian economy. High rates of inflation - the consumer price index attained 1863.6% in 1989 - penalized individuals with lower incomes and increased income inequality from already unbearable levels (Bonneli and Ramos, 1993).

Stagnant income and growing inequality combined placed Brazilian society under strong pressure. It caused a sudden rupture in the rapid growth and high social mobility pattern the Brazilian society had become used to. Social unrest and urban decay in areas affected by the long period of low and unsteady economic growth brought the poverty theme to the center of national attention. Questions such as `What is the nature of poverty in Brazil? How many are the poor? What are the characteristics of the poor? What are the implications of these characteristics for fighting poverty?' became central in a debate that mobilized not only politicians and academics, but the whole society.

One way to determine who is poor in a modern society is to associate a money value to goods and services needed to function in that society. This "poverty line" is the parameter

which can be used to distinguish poor from non-poor based on their incomes. In Brazil this income-related approach is the most commonly used in poverty studies, although many different procedures have been applied to establish poverty lines.

The focus here is on absolute poverty alone, since relative poverty - that is, income inequality - encompasses a specific and rich set of studies. Furthermore, since a large proportion of the Brazilian population still has insufficient income to guarantee access to basic necessities, social policy priority is to deal with absolute poverty. Eventually, improving the lot of the absolute poor might also reduce inequality.

Only studies referring explicitly to the use of a poverty line are considered here. This excludes the ones examining the relationship between low income and certain personal or family characteristics. This is the case, for instance, of studies of the impact of changes in the minimum wage (Ramos and Reis, 1994), which is of especial interest because of the widespread use of the minimum wage as the poverty line. As 27.1% of workers received wages lower than the minimum wage in 1990, wage policy and the growing informal labor market are relevant concerns when absolute poverty is considered. Also, since labor income accounts for 84% of family income, the way individuals participate in the labor market are closely related to poverty incidence. Studies on the relationship between educational level and income (Lam, 1989) show the high returns of schooling when future income flows are considered and the need for a better access to education as a way to reduce poverty. Studies centered on known characteristics of the poor, like belonging to female-headed households (Paes e Barros et al., 1993), living in the rural Northeast (Jatobá, 1993) or having small children in the family (Camargo and Paes e Barros, 1991) highlight the need for social policy mechanisms aimed at specially vulnerable groups.

The following Section 1 presents studies which use the minimum wage to define the poverty line. Section 2 deals with poverty studies based on poverty lines derived from observed consumption patterns. Section 3 presents information on the data used in poverty studies. The concluding section synthesizes the main results about poverty in Brazil and their implications for social policy.

1. The minimum wage as poverty line

Minimum wages were established in Brazil in 1940 as part of a newly created body of labor legislation. The wages, at first defined for 50 different areas, were supposed to correspond to the cost of acquiring basic necessities for a worker. In fact the wages were from the onset lower than that, and, from then on, price inflation and irregular indexation resulted in further diminishing their value. It is estimated that in 1980, when the number of regional minimum wages had already been reduced to two, the real value in São Paulo corresponded to 62% of its 1940 value; in Rio de Janeiro, the 1980 minimum wage was 21% above its 1940 value (Sabóia, 1985).

Despite the fact that the minimum wage does not necessarily correspond to the minimum living cost of a worker, which also varies according to local determinants, the minimum wage, or a multiple of it, has often been used for establishing poverty lines in Brazil.

Pfefferman and Webb (1983) used a two minimum wage per family poverty line[1] to identify the poorest group. This value corresponded to around US$ 260 per capita annually, which was roughly the double of the poverty line then currently used by international agencies in assessing poverty in developing countries. They argued that cost of living in Brazil was substantially higher than that usually found in underdeveloped economies and that the worsening of social indicators for families having incomes below this level gave support to their choice.[2] Using two current minimum wages per family as a poverty line, 62% of the population were identified as poor in 1972, and only 27% in this condition in 1974-5.

These results require an explanation. Although the pace of economic growth was brisk in the early seventies - GDP grew at an average yearly rate of 10% between 1972 and 1975 -, increase in income was not the only cause of the reduction in the proportion of poor of people. Actually, income data for 1972, from the Pesquisa Nacional por Amostra de Domicílios (PNAD), is not compatible with income data from Estudo Nacional da Despesa Familiar (ENDEF) referring to 1974-5. Since ENDEF is a more complex survey, which investigated consumption and expenditure in great detail, its records for income are more complete than the ones from PNAD.

It is obvious that analysis for different years cannot be based on data with different characteristics. Additionally, cross sectional comparison among regions for any given year is necessarily prejudiced when a single poverty line is used for the country as a whole. However, this has been the most frequently adopted procedure. Pffefferman and Webb, for instance, found that the proportionsof poor were 9% metropolitan, 25% urban and 66% rural in 1974-5, neglecting that cost of living is generally the lowest in rural areas and the highest in metropolitan areas. Thus, using a single poverty line implies underestimation of metropolitan poverty or overestimation of rural poverty.

The choice of the income variable has a significant impact on the results. Hoffman (1984) argued that global expenditure is a better proxy for permanent income than declared income, and used this variable from ENDEF in conjunction with a two minimum wage per family poverty line. Nevertheless, the proportion of poor thus obtained for Brazil in 1974 - 56.2% - practically doubles Pfefferman's result using declared income.

Pastore, Pagotto and Zylberstajn (1983) also used a single national poverty line, but they introduced several improvements in relation to previous studies. They defined as poverty line the value equivalent to 1/4 of minimum wage. Though equally arbitrary, it took explicitly into consideration family size, which is known to be larger among the low income population. Using Demographic Census income data, they found the proportion of poor had declined from 43.9% in 1970 to 17.7% in 1980. In absolute terms, the number of poor families would have declined from 7.3 million in 1970 to 4.4 million in 1980. Nevertheless, since the poverty

line refers to current minimum wages and the real minimum wage was not constant in the period,[3] there are price biases embodied in the results.

Probably the most important contribution by Pastore et al. (1983) was the use of Census data to generate a special set of tabulations to compare various characteristics of the poor and the non-poor subpopulations, since previous analysis were generally based on published data. Indicators referring to demography, labor market, education and housing conditions, show the impact of the income increase during the seventies, which occurred simultaneously with rapid productive change and urbanization. It is noteworthy that, if differentiated poverty lines had been used in the study - higher in urban than in rural areas -, instead of a single national parameter, the increased proportion of urban population (56% in 1970 and 67% in 1980) would obviously result, *coeteris paribus*, in a smaller reduction in the proportion of poor than the one obtained in the study.

Fox (1990) presents a very careful analysis of poverty evolution in Brazil considering explicitly the price problem and other conceptual questions. Although a single and arbitrary per capita poverty line is adopted[4] - 1/4 of the highest 1980 minimum wage -, which translates into an income of roughly US$200 per year, or about 13% of per capita GDP,[5] it is expressed in real terms for different years. Results based on the 1970 Census naturally differ from the ones obtained by Pastore et al. (1984), which used current minimum wages as basis for the poverty line (Table I). Nevertheless, it is surprising that different authors came out with quite different results for 1980 (Pastore et allii (1984); Fox (1990); Tolosa (1990), since the same methodology and the same data base were used. The proportion of poor families directly derived from published Census results for 1970 and 1980 are 65.6% and 19.1% respectively.

Both Fox (1990) and Tolosa (1993) present a set of poverty indicators based not only on Census data, but also on PNAD data. In both cases results refer to urban and rural strata in different regions.

Poverty rates in the eighties (Table II) show extreme variation over time: the rates, both in rural and in urban areas, are very sensitive to the short term cycles, whose ups and downs have characterized Brazilian economy in the last decade. Proportions of poor in 1981 were affected by an unprecedented drop in real GDP (-4.5%), the first occurring since the official national accounting began in 1947. Poverty incidence worsened as the crisis reached its peak in 1983. In 1985, the effects of the export-led growth that had started in the previous year was already visible. The poverty reduction process was maintained in 1986, when the anti-inflation shock (Cruzado Plan), followed by significant real wage increases, led to a consumption boom, that propelled the economy until it was checked by the re-erupting of inflation and new short-term cycles in the late eighties. The decline of GDP in 1990 (-4.4%), contributed to the absence of per capita gains when compared to 1981. Economic performance deteriorated further till 1993, when an upturn began. Unfortunately, PNAD data is not available for years later than 1990, but trends in the eighties suggest that absolute poverty has probably increased till 1993.

Table I
Proportion of Poor in Brasil for Census Years
Using Minimum Wage-Based Poverty Lines

Authors	1970	1980	Poverty Line Definition
Pastore (1983)	43.8	17.7	1/4 of current minimum wage
Fox (1990)	54.7 (a) 47.9 (b)	26.2	1/4 of the highest 1980 min.w.
Tolosa (1990)	54.1 (a)	34.8	1/4 of the highest 1980 min.w.
Published Census Data (c)	65.6	19.1	1/4 of the current min.wage

Source: IBGE, 1970 Demographic Census, Table 10, page 226 and 1980 Demographic Census, Table 1.13, page 44.
Notes:
(a) General Price Index (FGV/IGP-DI) used as deflator.
(b) Implicit GDP deflator.
(c) Percentages refer to families, not persons as in the other cases. For 1970, the proportion refer to families below the 2 minimum wages poverty line.

Data presented in Table II highlight other aspects of poverty incidence in Brazil. Poverty is higher in rural areas, but, because of rapid urbanization, the rural poverty share is declining. Also, there are significant differences among regions: poverty in the Northeast is the highest, both in terms of income, as shown here, and from the social indicators point of view. The Southeastern region, where the States of Rio de Janeiro and São Paulo are located, has traditionally had the least adverse poverty indicators. Albuquerque (1994) uses social indicators for the poor sub population to derive a poverty typology using the 1/4 of the 1980 minimum wage per capita poverty line. Although the poverty incidence moves in the same direction in all areas, the impact of short term cycles is stronger in the most developed areas, where the poverty incidence is the lowest and the least "structural" in its nature.

Table II
Proportion of Poor
when using a 1/4 Minimum Wage Family per Capita Poverty Line
1981-1990

	Fox						Tolosa		
	1981		1983	1985	1986	1987	1990		
	Proportion (%)	Share (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Number (thousand)	Share (%)
Urban	14.9	42.5	21.6	17.1	9.6	14.8	17.7	19,057	48.6
Rural	46.8	57.5	54.2	47.1	33.7	46.3	53.4	20,151	51.4
Brazil	24.8	100.0	30.9	25.4	16.1	23.3	27.0	39,208	100.0
Northeast	44.9	54.2	52.5	46.3	32.9	44.2	51.1	21,770	55.5
Southeast	13.5	24.3	19.4	15.5	8.2	13.0	14.9	9,682	12.8

Sources: from 1981 to 1987, Fox (1990); for 1990, Tolosa e Rocha (1993).

Note: The Northeast is the poorest region and the Southeast is the least poor region in Brazil.

2. Poverty Lines Derived from Food Baskets

Obtaining the poverty line from food basket values and Engel coefficients has always been the "preferred" procedure as far as international literature on poverty is concerned. Its main advantage is to have a basis for defining the minimum food basket which guarantees the satisfaction of nutritional requirements. Deriving non-food consumptin a simplified way is often considered an inevitable shortcoming in the absence of any theoretical basis for defining its minimum adequate level and value.

In a comparative study on poverty in Latin America, Altimir (1979) established poverty lines for each country based on a common methodology: the food basket was derived from per capita consumption of food items known to compose the national diet, adjusted to meet nutritional requirements defined by FAO. For Brazil, this diet was initially valued on the basis of the available average urban prices. Although recognizing the importance of local specificities in prices and in consumption patterns,[6] Altimir ended up with two poverty lines, one referring to urban areas (US$197), and the other to rural areas (US$130). The national poverty line obtained as a result of the average rural and urban poverty lines weighed by population shares corresponded to US$162 in 1970, which was roughly 20% lower than the often adopted minimum wage poverty line (see previous section). The most relevant fact about Altimir`s study is that, for the first time, different poverty lines were used for subareas in the country [7]. Hence, national results for poverty incidence have a different meaning when compared to those from previous studies. Table III shows proportions of poor and core-poor, the last one having per capita family income below the value of the food basket value, the indigence line. It is noteworthy that poverty incidence in rural areas remains much higher than in urban areas, despite the use of a rural poverty line that is considerably lower. Results

for the country as a whole are similar to the ones obtained by Fox (Table I) using a single poverty line (implicit deflator variant).

Table III
Proportion of Poor and Core Poor - Altimir's Estimates for 1970

	Poor	Indigent
Urban	.35	.15
Rural	.73	.42
National	.49	.25

Source: Altimir (1979), pag.63.

By then the World Bank, according to its 1979 Guidelines, was using a relative poverty concept for poverty assessment and policy: the poverty line was estimated as one-third of the national per capita income (in Brazil, 1/3 of 1979 per capita income represented Cr$ 18,396 annually or Cr$ 6,745 monthly family income). Considering the specific minimum wages, it meant from 3.2 to 4.1 times the local minimum wage per family.

The arbitrariness and growing confusion which resulted from using different parameters for assessing poverty in Brazil in international comparisons as well as among subareas within the country motivated the study by Vetter and Hicks(1983) for the World Bank. As a matter of fact, the Bank needed a parameter to determine to what extent its programs correctly targeted the urban poor. Hence, the study was aimed at evaluating cost of living for the urban poor in different regions, and how acceptable and at what cutting point the national poverty line should be established. They defined an optimized diet considering Rio de Janeiro food preferences and prices, and estimated a set of poverty lines based on the local cost and local Engel coefficients derived from ENDEF. Despite using a single food basket, it was found that both food costs and the share of food expenditures in total expenditures differed significantly among regions. Thus the researchers recommended the use of a a higher value for the poverty line (four minimum wages per family) in the North, Northeast and Center-West, and a lower value (three minimum wages) in the other regions. Although the differences referred to urban areas, no recommendation was made concerning urban-rural differentials. Furthermore, no poverty incidence estimates were generated based on these parameters.

Vetter and Hicks`s choice was to resort to ENDEF only for Engel`s coefficients, but by then the survey's complete results were already available. Family expenditures - with food consumption was the object of especial emphasis - were published at a very detailed income and regional breakdown. The new data allowed for the application of a wide choice of methodologies for defining poverty lines, both concerning the food basket as other expenditures. Nevertheless, even the poverty studies which had resorted to ENDEF more

intensely had used the basic "food cost- Engel coefficient- poverty line" approach, that is, the same as Altimir`s, although now based on observed low-income consumption. In this sense, conceptual progress was modest, but empirically the gains were important, since it became possible to define specific poverty lines based on low-income consumption patterns according to a quite detailed regional breakdown (22 sampling areas).

Thus, using the ENDEF data, the World Bank Special Report on Brazil (1979) estimated the cost of three variants of 22 regional diets which considered low income consumer's preferences and met the national average calorie requirement (2242 kcal/day). For the higher priced diet, typical of families just meeting the calorie requirement, this monthly per capita cost varied from US$10.8 in rural Northeast to US$29.1 in metropolitan São Paulo. Although these results were presented in the scope of a analysis of consumption and nutrition, and were not used to derive poverty lines or to measure poverty incidence in Brazil, it is interesting to relate them to values later used by other authors in order to assess poverty incidence in Brazil (Table IV).

Table IV
Estimates of Minimum Monthly per Capita Food Costs and
Poverty Lines Based on ENDEF - US$ and % of Minimum Wage (*)

	World Bank		**Thomas**				**Fava**			
	Indigence Line (**)		**Indigence Line (**)**		**Poverty Line**		**Indigence Line**		**Poverty Line**	
	US$	**MW**	**US$**	**MW**	**US$**	MW	US$	MW	US$	MW
Metropo-litan Sao Paulo	29.1	.53	20.6	.38	40.7	.75	18.2	.34	53.0	.99
Rural Northeast	10.8	.20	10.5	.19	16.6	.30	9.2	.17	13.5	.25

(*) August 1974 Rio de Janeiro Minimum Wage (Cr$376,80).
(**) Indigence Line corresponds to the cost of meeting food needs.

Thomas (1983) resorted to the 1979 World Bank Report diets to estimate poverty lines using observed Engel's coefficients. Having the choice among three sets of food baskets, he selected the one embodying exogenous constraints. The more strictly observed diet was rejected because its higher value would necessarily mean a larger proportion of poor than adequate for social policy purposes.

Thomas (1983) and Fava (1984) used practically identical methodologies based on regionalized food costs and Engel's coefficients to derive 22 poverty lines referring to ENDEF areas of analysis. Nevertheless, their poverty line values differ: Fava`s values are generally higher in metropolitan areas, but lower in rural areas.

Some summary poverty incidence results are presented in Table V. Poverty rates for the country as a whole are quite different, 29% and 36% obtained by Thomas and Fava respectively. Although the ranking of subareas in Table V is the same, it is not maintained when the 22 areas are considered. Furthermore, for social policy purposes, to have either 16% or 27% of the total number of the poor in metropolitan areas have quite different

policy implications. Differences between Thomas's and Fava's parameters and indicators using essentially the same methodology on the same data base highlights the difficulties in making comparisons between different periods using empirical results obtained by different authors.

Using expenditure survey-based income distribution to be compared with poverty lines, both derived from ENDEF has an obvious advantage for poverty studies. One reason is that expenditure data reflect permanent income better than income data. Another reason is that expenditure-based distribution guarantees a better coverage of income of lower income groups. As a result, a more reliable approximation of poverty incidence is obtained. Hence, from a theoretical point of view, the best poverty estimates are the ones to be derived entirely from the expenditure survey. Using poverty lines based on observed consumption and income from Population Census or from PNAD produce some overestimation of poverty because of the income underestimation bias.

Table V

Poverty Incidence Estimates Using Poverty Lines derived from ENDEF Data - 1974-5 (*)

	Thomas			Fava		
	Poor (%)	Number of Poor (*)	Share (%)	Poor (%)	Number of Poor (*)	Share (%)
Metropolitan	17.4	4,403	17	34.2	9,488	27
Urban	22.6	6,944	28	34.4	10,562	31
Rural	39.4	13,978	55	38.6	14,664	42
Total	29.4	25,325	100	36.0	34,713	100

Sources: Thomas (1983), p.87.
Fava (1984), p.105.

(*) Absolute numbers must be viewed with caution. Thomas and Fava results refer to a total population of 93,408 and 96,425 respectively.

This is the reason why poverty incidence for 1974-5 is not comparable with results obtained using the same poverty lines price-adjusted for other years. Rocha (1988) used Fava's food baskets and Engel's coefficients derived from ENDEF for the nine metropolitan areas with local product prices from the Consumer's Price Survey to estimate local and time specific poverty and indigence lines for the eighties. This was used as a departure point to generate income-based poverty indicators (proportion of poor, income gap ratio, gap as proportion of non-poor income, Gini coefficients, Sen's and Foster Greer and Thornbeck's indexes) for each metropolitan area and the metropolitan stratum as a whole, which accounts for 30% of Brazilian population. Once the poor subpopulation was defined, labor market,

housing conditions and educational indicators were obtained for the poor, the non-poor and total population for all the years using the PNAD data base (Table VI) (Rocha 1992).

The set of comparable poverty indicators over several years showed how strongly poverty incidence is affected by short-term economic cycles. For all metropolises, the proportion of poor was the highest in 1983 (38.2 %) and the lowest in 1986 (22.8%). Differences in poverty incidence are also remarkable among metropolises. In 1990, for instance, when the proportion of poor in Brazilian metropolises as a whole was 28.9%, it changed in the interval from 47.4% in Recife (located in the less-developed Northeastern region) to 12.2% in Curitiba (in the South), reflecting the well-known regional disparities in Brazil. When considering a set of social indicators referring to the poor subpopulation, São Paulo performed best among the metropolises, while two metropolises in the Northeast, Recife and Fortaleza, had the most adverse score (Rocha and Villela, 1990). Also, an analysis of poverty incidence and characteristics of the poor in the nucleus and in the periphery of each metropolis offers evidence of a life-cycle of Brazilian metropolises in three stages: the three Northeastern metropolises (Fortaleza, Recife and Salvador) appear in the most backward position in terms of economic, social, and, more generally, urban development. São Paulo, presenting relatively low poverty incidence, the best social indicators for the poor and the non-poor alike, and a periphery which tends to replicate the nucleus social and economic functions, is clearly the most advanced Brazilian metropolis (Rocha and Tolosa, 1993).

Table VI
Selected Income Based Poverty Measures and
Social Indicators for the Poor Subpopulation - 1981-1990

	Recife		São Paulo		All Metropolises	
	1981	1990	1981	1990	1981	1990
Poor (1,000)	1,348	1,338	2,902	3,277	10,828	12,260
Proportion	0.56	0.48	0.22	0.22	0.29	0.29
Gap Ratio	0.48	0.46	0.38	0.40	0.42	0.42
Squared Gap Ratio	0.16	0.13	0.04	0.05	0.07	0.07
Children out of School	0.21	0.14	0.19	0.11	0.21	0.15
Inadequade Sewerage	0.88	0.80	0,47	0.30	0.68	0.43
Informal Employment	0.41	0.45	0.33	0.30	0.36	0.39

Source: Rocha (1992).
Note: The three indicators are selected from a much larger set, limited only by the scope of PNAD. The social indicators here refer only to the poor subpopulation, but they were also obtained for non-poor and poor and non-poor subpopulations. Definitions: Children out of School - poor children aged 7 to 14 years old not attending school, in relation to total number of poor children in this same age bracket; Inadequate Sewerage -

number of poor living in dwellings with inadequate sewerage in relation to the total number of poor; Informal Employment - % of poor employees without a labor card, thus without labor legislation guarantees (paid holidays, insurance, retirement and other benefits), in relation to the total number of poor employees.

According to Rocha's studies, evolution of poverty in Brazilian metropolises in the eighties presents three basic features. First, income-based indicators show a remarkable stability, despite adverse economic conditions. Second, social indicators reveal an obvious improvement, both the for poor and the non-poor subpopulations, although in many instances, especially in sanitation, performance has remained critically low. Third, labor market indicators have deteriorated for the poor and the non-poor alike.

Taking as departing point the metropolitan poverty lines, Rocha (1994) also estimated poverty incidence and characteristics for the country as a whole and 22 subareas. Since no consumer price data are available for rural and urban areas, cost relationships between the metropolises and the urban and rural areas in each region, derived from the ENDEF, were used. Results show declining income-based indicators, both for the poor and the core-poor, between 1981 and 1990 (Table VII).

These evidences of declining absolute poverty in the eighties contradict the general findings concerning the reduction of average household per capita income in the eighties (Paes e Barros, 1993), as we well as income-based poverty indicators obtained by Psacharopoulos et al. (1992). There are three important methodological reasons which could explain the disparity in the results. First, if living costs for the poor decline comparatively to income, it is possible to have lower absolute poverty even when incomes are reduced. Second, Psacharopoulos used a single poverty line for the country as a whole, while Rocha used 22 local and price specific poverty lines. Third, since poverty increased between 1980 and 1981, part of the disparity can be explained by this difference in the baseline year.

Other studies used poverty lines derived from ENDEF expenditure data to estimate income-based poverty indicators for Brazil, but most of them did not generate a complete series of income indicators for the eighties. Cepal (1991), considering differentiated poverty lines for metropolitan, urban and rural areas[8], finds stability in absolute poverty levels between 1979 and 1987. Romão (1990), using poverty lines derived from the 1979 World Bank food baskets, obtained results similar to Rocha's for 1983, but much higher proportions for subsequent years. Peliano (1993), using Cepal's food baskets, found a rate of 22% core poor in 1990. This last result has served as basis for a grass root national mobilization aimed at fighting undernutrition and poverty, which evolved to become a priority under the new government of president Cardoso.

A recent report by the World Bank (1995) sums up a series of studies on poverty in Brazil, which were sponsored by the Bank in the last two years. It encompasses both a complete set of poverty indicators, as well as considerations and data on public policies affecting the poor. Income-based poverty indicators and profiles for poor and non-poor were obtained from PNAD using newly estimated poverty lines (Rocha, 1993) derived from the 1987/1988 family expenditure survey (POF). Since this new survey investigates expenditures by metropolitan

families only, urban and rural poverty lines were generated on the basis of cost relationships between metropolitan, rural and urban poverty lines from ENDEF. The studies in this project have the advantage of referring to a single methodological benchmark and, consequently, generating a large set of comparable information on poverty in Brazil in the eighties and in 1990. Poverty rates for the country as a whole in the 1981-1990 period are presented in Table VII. It is noteworthy that income-based indicators for 1981 and 1990 show a decline of absolute poverty, although this decline is smaller than the one obtained using higher poverty lines derived from ENDEF (Rocha, 1994).

Table VII (a)
Proportion of Poor Using Expenditure-Based Poverty Lines

	Romão (1990)	Cepal (1991)	Psacharopoulos (1992)	Rocha (1994)	World Bank (1995)
1979		.45			
1980	.24		.34		
1981				.34	.20
1983	.42			.41	.27
1985				.35	.22
1986	.28			.24	
1987	.35	.45		.28	.18
1988	.39			.29	
1989				.30	.17
1990			.41	.30	.17

Table VII (b)
Proportion of Core-Poor Using Expenditure-Based Indigence Lines

	Cepal (1991)	Peliano (1993)	Rocha (1994)
1979	.22		
1980			
1981			.14
1983			.16
1985			.13
1986			.11
1987	.23		.10
1988			.11
1989			.12
1990		.22	.12

3. Data Sources for Studies on Poverty in Brazil

A quite complex statistical system has been developed in Brazil, which covers most relevant economic activity and population characteristics using surveys of differentiated detail and periodicity. The Instituto Brasileiro de Geografia e Estatística (IBGE) is the federal agency that beside coordinating the statistical system, is also in charge of most national surveys, specifically all those mentioned below.

When considering poverty incidence from the income point of view, it is essential to refer to income distribution. For poverty assessment purposes, the most adequate approach is to take the family as income and consumption unity, and to estimate family per capita income to be compared to the established per capita poverty line. This means taking into account both the sum of all kinds of revenue (labor income, transfers, rent) received by all members in the family and family size.

In Brazil there are two basic data sources for income, where all individual incomes are surveyed in the family context: 1) the Demographic Census and 2) the National Family Survey (PNAD).

The Demographic Census is an universal household-based survey taking place regularly every ten years since 1940. It investigates an increasing but essentially comparable set of data, which allows for income estimation at a very detailed level: the statistical unit is a 150 household cluster, making possible analytical breakdown well below the 5,000 county level. Since results from the 1991 Census are not completely processed, the most recent income estimates derive from the 1990 PNAD.

Originally a quarterly survey, when it was created in the sixties, the PNAD has guaranteed a comparable set of annual data since the mid-seventies. Based on a household sample, its results are subjected to restrictions: estimates are significant for urban and rural areas separately at state level (21 states) and for the nine metropolitan areas and Brasilia. Since PNAD investigates not only income, but also characteristics of the family and the individuals concerning demographic, labor market and dwellings aspects, a poverty profile can be easily derived from a given poverty line. Naturally, this depends on access to the PNAD data base. Published data from PNAD present some income results expressed in minimum wage intervals, making it easier to derive proportions of poor based on minimum wages poverty line directly from them.

Income data is also available from surveys where the main objective is to obtain data on family expenditure. These surveys constitute the essential sources when poverty lines are to be derived from observed consumption patterns. In Brazil, two national expenditure surveys are available, the National Study of Family Expenditure (ENDEF) and the Family Budget Survey (POF).

ENDEF's survey, conducted in 1974-75, is undoubtedly the most complete survey of this kind. It is specially detailed in terms of food expenditure and consumption, but it has also investigated a large set of non-food expenditures by income bracket for 8 regions, considering for each one the urban, rural and metropolitan breakdown. ENDEF was used as

basis for establishing the Consumer's Price System, created in 1979 in order to follow monthly consumer prices in metropolitan areas, Goiania and Brasilia. Despite of the time lag, it is still an essential source when deriving poverty lines for Brazil, since it encompasses the only national data on consumption patterns and prices in non-metropolitan areas.

POF's survey, conducted in 1987-88, had as main objective to update products weights in the consumer price system. Contrary to ENDEF's, its scope was limited to the nine metropolitan areas, Goiania and Brasilia. It investigated expenditures, and even in the case of specific food items, prices and quantities have to be derived indirectly using exogenous prices. Because of high inflation rates and the consequent relative prices volatility, converting prices to the October 1987 baseline has necessarily introduced some distortions. Consumption and income from POF are significantly above income from PNAD referring almost to the same period (September 1987). Thus deriving poverty lines from POF and using them with income data from PNAD implies some overestimation of income-based poverty indicators.

4. Concluding Remarks

There is enough empirical evidence to show that poverty incidence was undoubtedly reduced in the seventies, whatever poverty lines are used. In the eighties, in face of stagnant per capita income, there was a marked rupture in this trend. Authors using different poverty lines to take into account regional and local cost of living differences, demonstrated stability or a weak decline in poverty, while those using a single poverty line showed an increase. On the other hand, social indicators for the poor have presented a steady improvement in the post-war period, and even at a faster pace in the eighties, despite the adverse economic results in general and the fiscal crisis in particular.

Methodological differences among studies have led to disagreement about the actual number of the poor. However, this is not the main issue when poverty in Brazil is considered. As a matter of fact, absolute poverty is still widespread and the country is clearly short of resources - financial and others - to procure the basic minimum to all the poor, even considering the most conservative count. Thus, the main issue seems to be to reach an agreement on the relative incidence of poverty when subareas in the country are considered. This is empirically related to the use of a set of poverty lines in order to take into account differences in the cost of living for the poor in different areas. Once relative values for the poverty lines are defined, the poor subpopulation for social policy purposes may have the politically agreed absolute number. To attain such number departing from a set of reference poverty lines, it is sufficient to apply percent variations of the same magnitude and direction to all local specific poverty lines.

There is consensus on the fact that differentiated poverty lines are a must. However, the lack of updated information on expenditure and prices in non-metropolitan areas are a serious hindrance to meeting this objective. Using a single poverty line for the country as a whole, that is, ignoring that cost of living is generally lower in rural than in urban areas, leads to a relative overestimation of rural poverty and to underestimation of a crucial tendency:

poverty in Brazil has become increasingly urban and metropolitan as a result of rapid urbanization. The visible and increasing number of the absolute poor in urban areas, where inequalities of income and wealth are striking, has prompted the general feeling that poverty has increased in the country as a whole.

In spite of rapid urbanization, rural poverty is still critical in Brazil, especially in the Northeast. Some argue that rural poverty is in fact larger than measured because a high percentage of the poor in so-called urban areas are dependent on agricultural activities for a way of living. In the Northeast, for instance, 29% of the poor urban household heads work in agriculture (World Bank, 1995), making the distinction between rural and urban areas irrelevant. As a matter of fact, poverty is more widespread and acute in the Northeast: the poor represent 32% of the total population, accounting for 55% of the Brazilian poor (World Bank, 1995). Fighting poverty in the Northeast means both facing the agrarian problem in particular, and dealing with the general issues of regional economic and social development.

While in the Northeast poverty is widespread, it is highly concentrated in the metropolises of São Paulo (pop. 15.4 million) and Rio de Janeiro (pop. 9.8 million). In these Southeastern metropolises poverty presents essential features associated both to urban size and density, and to inequality among the individuals. Fighting metropolitan poverty means guaranteeing adequate urban infrastructure, and providing jobs for the poor in a increasingly complex labor market. Recent evolution has shown that a new cycle of economic growth may have a much smaller impact in terms of job creation than in the past. Thus, in the short run, the challenge consists in creating a "positive duality" or a way to keep the poor in the labor market, while measures aimed at fighting poverty roots -like providing good quality schooling for all, which normally demands time to produce results- will reduce absolute poverty and inequality in the long run.

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NOTES

[1]They used the Rio de Janeiro minimum wage of August 1974 - Cr$ 376,8 -, which was the highest minimum wage in Brazil. It corresponded to US$ 1,300 annually or a US$ 260 per capita poverty line for a family of five.

[2]"...there is much direct evidence of the high levels of malnutrition, mortality rates and severely deficient services and living conditions that correspond to income levels in the vicinity of two minimum wages"(G. Pfefferman, 1978).

[3]The real value of the minimum wage evolved from 69 to 62 in São Paulo and from 109 to 101 in Rio de Janeiro (Sabóia, 1985,p.34).

[4]Fox would had preferred to use a poverty line based on the price of a minimum basket of commodities. Nevertheless, valuing in 1980 prices the cost of regional baskets estimated by Thomas for 1974 Endef data resulted in values too much high to be used with PNAD income data. This incompatibility can be explained by the greater income coverage of the expenditure survey.

[5]In purchasing power parity terms, this poverty line is 20% lower than the one established for Venezuela and roughly equal to the one established for Turkey. At the same year the United States poverty line was around $ 3000, or 18% of U.S. per capita GDP.(Ravallion et allii, 1990, as cited by Fox (1994)).

[6]It was assumed that the cost of the food basket in rural areas was 25% below the one estimated for rural areas. It was also assumed the food expenditures represented 25% of total expenditures in rural areas, but 50% in urban areas. (Altimir (1979), p. 55 and 57)

[7]In fact Fishlow (1972) conceived that a lower poverty line should apply to the Northeast.

[8]Poverty lines in urban and rural areas are, respectively, 90% and 75% of the estimated value for metropolitan areas.