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The Decline in the Incidence of Extreme Poverty
in Brazil, 1970 - 1980

English Language Version

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of a

Research Project Providing a Statistical
Description of Brazil's Poor Families

Conducted by

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I. The Social Evolution of Brazil: 1970-1980

1. Introduction.

Today's great debate in Brazil concerns severe economic difficulties whose impact is felt over the whole nation. The beginning of the decade of the 1980's was marked by a gravely accentuated external debt, a rise in the already serious rate of inflation, and an increase in unemployment in the metropolitan regions. Pessimism and resignation have been the rule throughout the first three years of the decade, sentiments have been reflected in a pronounced fatalism among practically all who have sought to analyze the current scene or to visualize the immediate future. Thus, in 1982 Brazil was seen as a nation hopelessly trapped, a country whose only way out lay in a world-wide economic recovery. That is, hope for an improvement in Brazil was seen to depend entirely on the resolution of the economic problems of the rest of the world, especially of the industrial nations which provide the markets for her products as well as loans and investment capital.

In a few words, the beginning of the decade is marked by much anxiety and little faith in the nation's ability to resolve its problems. Practically all analysts are concerned with what tomorrow will bring, in light of the innumerable problems of today. Hardly anyone has attempted to document the structural changes that occurred during the recent past, although earlier quite a few (e.g.,

Fishlow, 1972; Becker, 1964) had written on the increase in the so-called "share distribution" of income that occurred during the 1960's.

The current preoccupation with analyses of the present situation and that of the immediate future is true not only of the press and of parliamentary debates; it also dominates the technical literature in economics and sociology. In response to the grave problems of today, the academic community, too, devotes almost all of its talent to discussions of the present moment, to describing problems of the evermoving present.

In this context, the publication of the results of the 1980 census of the Brazilian population, together with the release of the original data offers an unusual opportunity to assess the changing socioeconomic structure of the nation over the past decade by comparing data from the 1980 census with those of 1970. The release during the mid-1970's of the 1970 census tapes and those of the census service's (IBGE: Instituto Brasileiro de Geografia e Estatística) massive 1973 household sample survey, made it possible to conduct deep and sweeping descriptive analyses of the socioeconomic state of the nation as matters stood in the early 1970's. Among other things, such analyses presented a picture of deep and wide-spread poverty (Pastore, Zylberstajn and Pagotto, 1981) social and economic inequality (Haller, 1982a, 1982b; Langoni, 1973).

Even so, at that time and over most of the 1960's, Brazil was one of the world's fastest growing nations, both economically and demographically. And at the same time its income disparities also increased rapidly, both among individuals and among regions.

It was precisely this, the nation's growing economic inequality, that lead to the great debate over Brazil's income distribution, a debate that spread internationally and for several years in the '70's was the subject of hundreds of pages of analyses in the economic and sociological literature. As time went on, Brazil came to be seen as the most illustrative single example of economic growth and social stagnation. In the ironic words of then-President Medici, "O Brasil vai bem mais o povo vai mal"--roughly, "things are going well for Brazil, but not for the Brazilians". In other words, not only did Brazil come to be notorious as the society where, during the 1960's, marked inequality coexisted with rapid growth. It's reputation was even more far-reaching--the nation where growth was obtained at the cost of deepening poverty and increasing inequality.

It happens that this conclusion went beyond the data. Indisputably, both inequality and per capita income increased during the 60's. And it was obvious even to untrained observers that a large proportion of the population was impoverished. But no hard evidence was available concerning the number of the very poor, their percentage in the total population, or whether their ranks were swelling or diminishing. Indeed, data analyzed as a part of the

research presented in this book provide the first solid numerical evidence of the 1970 distribution of deep poverty in Brazil. The fact is that about 44 percent of the nation's families, nearly 45 million individual Brazilians, lived on one-quarter of a minimum wage per family member during that year. At about \$20 a month per person. This means an extremely deep level of poverty afflicted nearly half of the Brazilian people. This, despite the nation's economic growth of the previous decade.

Just as results drawn from an analysis of the 1970 census data show the state of affairs at the end of the 1960's, so also those of the 1980 census may be used to mark the situation as of the end of the 1970's. Taken together, the two sets of data provide an extraordinarily rich and precise source of evidence regarding changes that occurred in socioeconomic aspects of the lives of Brazil's people during the "Growth Decade" of the 1970's. What happened to the incidence of extreme poverty? Did it increase or decrease? Did the socioeconomic situation of Brazil's families deteriorate even further or did it improve? It is known that, as measured by the usual "share-distribution" methods, the degree of income inequality increased. Can we conclude from this that the poor got poorer, or that numbers of the extremely impoverished went up, or that of all Brazilian families, the percentage at or below the line marking extreme poverty increased? However, there is no necessary connection between changes in the degree of inequality of shares of an income distribution and changes in the absolute income

of those at the bottom of the system. The numbers and proportion in extreme poverty may have gone either way, up or down, as relative inequality increased. The actual 1970-1980 changes in the incidence of extreme poverty may be determined only by examining empirical evidence.

The purpose of this monograph is to present the results of just such a comparison calculated from the Brazilian census records of 1970 and 1980. Specifically, this work presents a comparative analysis of the incidence and distribution of extreme poverty among Brazilian families. Family households—families, for short—not individuals, are the main units of analysis. Individuals enter the analysis only as members of families, and are important to it only insofar as their characteristics affect aspects of the structure of their families. Because it is much more common to use individuals as the units in demographic analyses of poverty a detailed discussion of the family as a unit is essential.

2. The Family as a Unit of Analysis.

For a decade and a half there had been a steady stream of research aimed at explaining variations in income, educational attainment and occupation, (Blau and Duncan, 1967; Mincer, 1975; Sewell and Hauser, 1975; Featherman and Hauser, 1978; Jencks, 1970.) Without exception, it would appear, the individual has been used as the unit of analysis. This is not to say that interpersonal contexts have been ignored. Rather, variables describing the

person's social environment have been used as antecedents of his or her individual attainment. Except for the important family income supplementation experiments of the 1970's conducted in the United States.

The fact is that the social situations are critical not only for their effect on a given individual, but also for the attainment of all of the people who form a given household. Certainly, Brazil is a nation whose individuals are highly dependent upon their families.

Indeed, about 93 percent of Brazil's households are organized around a familial base. The predominant form is the nuclear family household, composed of an adult couple with or without children (about 60 percent). Other familial households have these as essential elements, but in addition include other relatives or friends, (about 12 percent). Another set of familial households is composed of broken families--husband or wife--who have assumed responsibility for the whole household economy (about 14 percent). In and of themselves, these different family arrangements have a substantial impact on the economic and social situation of each individual.

The Brazilian familial household thus constitutes a singularly important economic entity. It allocates and redistributes its labor force in the market, a work-force composed of adults and often of children. The economic outcome, the family's income, depends upon the quantity, quality, and intensity by which its labor force is utilized. That is, it depends upon the family's work strategies.

Although it is hard to find families in which all the members collaborate equitably to produce the family income, there is no doubt that Brazilian family members who live in the same household do in fact share both the proceeds of each others' work and the effort by which they were obtained. In greater or lesser degree, all members add to and/or take from the family's income. Rarely does one encounter cases in which a well-to-do son leaves his parents in poverty. The normal cases are those in which family members redistribute amongst themselves both their goods and their suffering. For this reason, the economic status of the individual is a result not only of his own achievements, but also of the familial situation in which he finds himself, including the responsibilities he must face as these are conditioned by the social and economic circumstances of the family. An individual may have a good wage, for example. Yet if he is head of a large family whose other members earn but little, his level of living will be lowered accordingly. So any analyses assuming that levels of living correspond to individual income levels must be viewed skeptically. The same may be said of analyses of national well-being that one has based on individual incomes.

Remuneration appears to have two dimensions. The first refers to gains as such, the second to use. Studies that take the individual as the unit of analysis tend to focus exclusively on the person's earning ability in the labor market. In contrast, studies

that take the family as the unit of analysis are concerned with the use of the earnings gained by all members.

3. Income and Family Employment.

The research described herein is concerned with the amount of money brought into the family. For this reason, the research focuses upon total income per capita within the family. This, of course, is the withinfamily average of all the money that may be spent for the maintenance of each of its members. In the present research it has been determined that in 1970, 44 percent of Brazil's families, comprising just over half of its individuals, had to live on family incomes averaging one quarter or less of a minimum wage per person. Income data at merely the individual level would not be sufficient to obtain this information.

The point just made concerning income also applies to employment; for to say that the proceeds of total earnings are distributed within the family is tantamount to saying that the job of each individual member of the family is deployed in the service of the family. However, unusual as this may appear at first sight, it is not at all uncommon. It applies not only to the extremely poor in Brazil, but often to relatively well-to-do families of the more developed countries; secondary incomes release part of the earnings of primary bread winners, which in turn are used to serve family ends that would otherwise have been neglected or deferred.

When a serious problem occurs, as for example, when a male head of family loses his job, the usual response is for the rest of the family to mobilize their efforts and try to compensate for the resulting loss of income. For this reason, it is especially appropriate to focus on the total employment of the family, the combined labor force the family deploys into the market. Just as researchers may study individual employment, underemployment, or unemployment, so also can we study the employment situation of the family's labor force.

If we accept the premise that the situation of each individual is a result of the total earnings and remunerative work effort of the whole family, we are then in a position to respond to socially important questions that simply cannot be answered with individual data alone. For example, it is known that about 20 percent of Brazil's economically active populations (EAP) is underemployed--a category encompassing about nine million people. In what ways does this underemployment affect the well-being of families? If all nine million are heads of families, the effect would be dramatic. But if they are other members of the family, such as children, the consequences for the family would be less serious. It is this sort of concern that leads us to analyze employment, underemployment, and unemployment in terms of the family.

The analysis of these factors from the perspective of the familial household--wage income, employment, etc.--requires that we introduce concepts and operational variables. Even though the

sociological tradition insists on the importance of the family as a unit of analysis for understanding the dynamics of society, variables appropriate to the analysis of family behavior in the labor market are not yet available. It would appear that sociologists often ignore Durkheim's point that social facts often constitute a level of phenomena in their own right, one that is different from the individual level phenomena. Aggregating individual data without regard to family membership yields a distribution of individuals that tells nothing about the processes of accommodation that go on within families and that reflect both the family's and the individual's true situation.

The present research attempts to take into account the outcomes of the various within-family processes of accommodation. Particular attention is thus given to the familial level of underemployment and unemployment and of the income available to each family. All the variables are collective, and they describe the situation of each family. Besides these, other indicators describing collective variables were used. They measure important characteristics of the family, such as size, family structure, stage in the life cycle of the family, and the quality of the labor force offered to the market by the family, among others.

The central concern of the study is with extreme poverty. A familial household (or "family") was defined to be in extreme poverty if the total income reported by all of its members averaged less than one quarter of one regional minimum wage per capita. This

may sound strange to English speaking people, but it is a well understood figure of speech in Brazil. Brazil's economy has had a high rate of inflation for many, many years. Long ago the nation adopted the practice of indexing wages, readjusting them each year (today, every six months) to give them about the same buying power from year to year. The minimum wage has come to be the standard unit employed in discussions of wages and salaries. An employer may tell a newly hired worker that he can expect to earn "one wage" (um salario) per month, and the worker will understand that his pay will be whatever number of cruzeiros currently defines the meaning of one minimum wage. The value of the minimum wage, however, differs from region to region throughout the country. The states with the highest minimum wage are Sao Paulo and Rio de Janeiro. In 1970 the minimum wage of the lowest region--the Northeast from Paraiba to Piaui--was just 2/3 that of Rio and Sao Paulo. In 1980, the states with the lowest--Mato Grosso-Goiias and part of the Northeast--was 76 percent of that of Rio and Sao Paulo. Whatever the regional value of the minimum wage in cruzeiros, its value in terms of the purchase of goods and services is about the same from region to region. In 1980 the buying power of the minimum wage was calculated (by applying the index of the Brazilian Getulio Vargas Foundation) to be somewhat greater than it was in 1970, though to a degree that varied from region to region. In Sao Paulo and Rio de Janeiro it rose by 2.4 percent whilst, at the other extreme, it rose by 22.9 percent in Espirito Santo. The outcome of all this is that the meaning of the criterion

of extreme poverty is about the same from region to region, it was not quite as severe in 1980 as it was in 1970. Thus, if we had used a definition whose meaning had been corrected for 1970-1980 differences in the purchasing power of the minimum wage, the percentage of Brazil's poor families would have been slightly lower in 1980 than was computed herein.

In 1970, as we have seen, 44 percent of Brazil's families were in extreme poverty. These are the families for whom the very question of survival must be confronted with great frequency. They are the families whose children are chronically undernourished, who lack access to medical services, who live in the shanty towns of the cities and the wattle-and-daub shacks of the countryside, who are most afflicted by epidemics, such as the meningitis that swept the cities a few years ago, or the endemic diseases, such as schistosomiasis or chagas' disease, that plague some of the rural areas. That a high percentage of Brazil's people lay in such straits in 1970, following the economic growth of the 1960's, posed a dramatic social challenge to the nation--not that anyone had any useful nation-level data describing the situation. But even so, any intelligent observer, unless he stayed in the posh beach hotels and their immediate vicinity, could see for himself that large numbers of people were having a very hard time of it. The challenge was there and was widely understood, even though its dimensions were not known. This proportion dropped to 18 percent during the growth decade of the 1970's. What happened to the structure of family labor

forces during the decade? How were the family labor forces deployed in 1970 and in 1980, and what happened to the inflow pattern of family income? How can we explain the dramatic drop in the incidence of destitution?

4. Fundamental Demographic Changes.

The decade of the 70's saw profound changes in the Brazilian family. To a large extent the changes in the incidence of poverty among Brazil's families were tied to other great demographic changes.

4.1 Population Growth Rates.

As is well known, the Brazilian population has been among the fastest growing in the world. Roughly speaking the Brazilian population grew at nearly three percent per year during the 1950's and 1960's (the exact figures are given in Table 1). During the 1970's the growth rate plunged to about two and a half percent per year.

4.2 Age Composition.

One of the most direct consequences of the transformation was the relative aging of the Brazilian population. It is clear that the population is still young, but the proportion of the very young has shifted sharply. As Table 2 shows, in the decades of the 50's and 60's about 30 percent of the population was composed of children less than ten years old, whilst in the decade of the 1970's the proportion dropped to below 26

Table 1. Annual Rates of Population Growth

| <u>Decade</u> | <u>Growth Rate (percent)</u> |
|---------------|------------------------------|
| 1950-1960 | 2.99 |
| 1960-1970 | 2.89 |
| 1970-1980 | 2.49 |

Source: IBGE (1981a, 3).

Table 2. Age Composition of the Brazilian Population, 1960 to 1980
(percent)

| Age | Years | | |
|-------------|-------|-------|-------|
| | 1960 | 1970 | 1980 |
| 0-9 | 30.42 | 29.28 | 25.98 |
| 10-14 | 12.18 | 12.73 | 11.38 |
| 15-19 | 10.23 | 11.01 | 11.15 |
| 25 and over | 38.26 | 38.08 | 41.73 |

Source: IBGEa, 4.

percent. This, then, is part of the explanation for the decrease in the incidence of extreme poverty. Smaller numbers of children mean fewer mouths to feed and, if jobs are available, more workers for the family to deploy into the wider economy.

4.3 The Economically Active Population.

In short, the Brazilian population grew somewhat more slowly during the 1970's and became a little older. This meant that the economically active population (EAP) had increased. The data presented in Table 3 show the change that actually took place in the EAP. Today in Brazil, there are indeed relatively fewer children who must depend upon adults for their survival. It is important to note the magnitude. A comparison of the rates shown in Tables 1 and 3 shows that in the two previous decades the EAP grew at rates lower than the growth in population (compare Tables 1 and 3), meaning that there were more and more consumers and relatively fewer and fewer providers. Throughout the growth decade of the 1970's, this was reversed: the number of providers grew at a much faster rate (4.01 percent per year) than the number of consumers (2.49 percent per year). Herein lies the main reason why the poverty rate declined so dramatically during the 1970's. The effects of annual rates compound over the years. The EAP grew by a total of 50 percent over the decade, whilst the population grew a little more than 25 percent. Obviously, the difference between these two growth rates had great repercussions in the family employment and family income.

Table 3. Annual Rates of Growth of the Economically Active Population

| <u>Decade</u> | <u>Growth Rate (percent)</u> |
|---------------|------------------------------|
| 1950-1960 | 2.89 |
| 1960-1970 | 2.65 |
| 1970-1980 | 4.01 |

Source: IBGE (1981a)

5. Changes in the Distribution of the Population.

But these are not the only changes lying behind the precipitous decline in the rate of extreme poverty. Others, too, are of great importance. Details of the distribution of Brazil's population prior to the 1980 census are to be found in Merrick and Graham (1979). Here we present only those which are essential for an understanding in the change in the extreme poverty ratio.

5.1 Economic Sectors.

Changes in the sectoral composition of the labor force are even more important than changes in its overall size. Brazil, like the majority of the developing countries, has been undergoing transformation of the EAP from the primary to the secondary and tertiary, that is to say, from agriculture and mining to manufacturing and to services. This transformation has been going on since the 1950's, but was accentuated during the 1970's, as is shown by data presented in Table 4.

Employment in the primary sector—practically all in agriculture—occupied 54 percent of the labor force in 1960. This fell to 44 percent in 1970 and even more sharply, to 30 percent by 1980. This movement out of agriculture and into manufacturing and services obviously has positive implications. For in industry, as in commerce and the other service activities, work and remuneration are more regulated than in agriculture and small scale mining, and

Table 4. Sectoral Distribution of the Economically Active Population,
1960 to 1980 (percent)

| | Year | | |
|------------------------------|------------------------------|------------------------------|------------------------------|
| | 1960 | 1970 | 1980 |
| Primary (extraction) | 54.0 | 44.3 | 29.9 |
| Secondary (manufacturing) | 12.9 | 17.9 | 24.4 |
| Tertiary (services) | 33.1 | 37.8 | 45.7 |
| Totals | 100.0 22,750 ^a | 100.0 29,557 ^a | 100.0 43,796 ^a |

^aThousands

Source: IBGE (1981a, 6).

in these activities workers are likely to have more comprehensive benefits and higher wages.

5.2 Rural and Urban Residence.

This massive shift in the employment sector clearly implies a vast movement of people from the country to the cities. By 1970 Brazil's population had become predominantly urban. By 1980 nearly 70 percent lived in urban places, several of them metropolises of over a million people: Sao Paulo (8.5 million), Rio de Janeiro (5.1 million), Belo Horizonte (1.8 million), Salvador (1.5 million), Fortaleza (1.3 million), Recife (1.2 million), Brasilia (1.2 million), Porto Alegre (1.1 million), Curitiba (1.1 million). Besides these, several others had over 500,000: Manaus (600 thousand), Belem (900 thousand), and Goiania (700 thousand). And, outside of these great cities, 55 million others lived in smaller urban places. Between 1970 and 1980 the national percentage of urban households grew from 58.3 to 68.9, as is shown in Table 5. (Note that this does not mean that the absolute number of rural households decreased. In fact, it increased by nearly 12 percent, from about 7.4 million to about 8.2 million. At the same time, the absolute size of the rural population declined from about 41 million to about 39 million persons.

In conclusion, it may be seen that transformations occurring in the Brazilian population as the decade progressed must have induced strong repercussions in the family and in the social structure in

Table 5. Rural-Urban Distribution of Households, 1970 and 1980
(percent)

| <u>Location</u> | <u>1970</u> | <u>1980</u> |
|-----------------|------------------------------|------------------------------|
| Urban | 58.3 | 68.9 |
| Rural | 41.7 | 31.1 |
| Total | 100.0 17,628 ^a | 100.0 26,436 ^a |

^aThousands

Source: IBGE (1981a)

general. These demographic changes were experienced at the level of the family as reductions in average size and a change in the average internal structure.

6. Changes in the Family.

6.1 Family Size.

Regarding size during the 1970's, there was a noteworthy reduction in the number of persons per household. Clearly, this reduced the size of the denominator in the calculation of income per capita and tended to raise the level of family income. Table 6 (based upon original tabulations of the samples of the censuses of 1970 and 1980), shows that the proportion of large familial households (seven or more persons) decreased markedly over the decade, from about 25 percent in 1970 to about 16 percent in 1980. The counterpart to this is change in the proportion of small families (two to four persons), which increased from 49 percent in 1970 to 59 percent in 1980.

6.2 Family Structure.

Shrinking in size and getting somewhat older, the Brazilian family gained in efficiency as a productive unit. Fewer members were dependent upon the adults and more of the adults, came to participate in the labor force. But beyond this, various other changes in family structure took place during the 1970's. In the technical literature a distinction is made between the nuclear family and the extended family. The former consists of a conjugal

Table 6. Family Size, 1970 and 1980 (percent)

| Number of Persons per Family | Year | |
|---------------------------------|-------|-------|
| | 1970 | 1980 |
| Two | 14.3 | 17.4 |
| Three to Four | 34.9 | 41.4 |
| Five to Six | 26.0 | 24.9 |
| Seven to Eight | 18.4 | 12.8 |
| Ten or More | 6.5 | 3.3 |
| Total | 100.0 | 100.0 |

Source: IBGE Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

pair with or without children or the children of such a pair with or without one of the pair. The latter consists of a nuclear family plus other persons. There was a small decline in the proportion of extended families (from 14.6 to 12.1 percent), and a slight rise in the proportion of female-headed broken families and of married couples without children. These changes are presented in Table 7.

The diminution of the extended family and the increase in childless couples tends to raise the average income available to the family. The increase in the already sizeable proportion of female-headed broken families suggests an increase in the percentage incidence of precisely those families having the greatest difficulty regarding employment and income.

Both the population structure and the family structure, then, have undergone profound transformations during the decade. On the whole, these changes have tended to reduce the pressures on the family. In 1970, with a larger family, a higher rate of population growth, and a higher percentage of unemployed family members, there was relatively more pressure on the family—more mouths to feed and fewer employed persons to provide the money to do so. This was what was responsible for the high incidence of extreme poverty, the figure of 44 percent we have seen for that year.

7. Family Employment and Unemployment.

Of all of the various transformations, the reduction in the size of the family was doubtless one of the most significant for the

Table 7. Family Structure, 1970 and 1980 (percent)

| Family Structure | Year | |
|--------------------------|-------|-------|
| | 1970 | 1980 |
| <u>Nuclear Families</u> | | |
| Unbroken | 62.2 | 61.4 |
| Broken, male-headed | 2.1 | 1.9 |
| Broken, female-headed | 10.1 | 11.7 |
| Couple only | 11.0 | 12.9 |
| <u>Extended Families</u> | 14.6 | 12.0 |
| Total | 100.0 | 100.0 |

Source: IBGE Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

decrease in the economic pressure on family households. But it is neither necessary nor sufficient to draw such a conclusion purely by indirect inference.

7.1 Changes in the Family Labor Force.

This can be measured if we make a few assumptions about education and homemaking in Brazil. Literacy rates are still rather low in Brazil, by present world standards (1980: 31 percent of those over five years of age), so primary schooling roughly grades one through four is all that is considered essential, and it is not unusual for a person to return to primary school and to try to complete it at any age up to adulthood. For students in ordinary schools we assume that schooling is a full-time job; that ideally a young student would not also be holding a remunerative job. We also assume that each family's domestic affairs are complex enough so that in the ideal situation one adult family member would be withheld from the general labor market to take care of matters at home. Making these assumptions permits the construction of various indexes of the family's labor force based on the actual level of employment of the employable members of the familial household. For this purpose, the basic statistic is the "Family Employment Ratio" (FER).

Specifically, it is assumed that an employable member of the family is any person who has completed primary school and is no longer attending regular school, or any person over 18 years old who has not finished primary school. Let us call "D" the total number of employable members of the familial household, and D_t the total number of members of the familial household who were actually employed—all this being at the time the 1970 or 1980 census data were taken. D could then be called the family's potential labor force, and D_t the family's actual labor force. Now let us take into account the assumption that the family normally would, if it could, keep one otherwise employable adult at home to take care of household chores. This is an assumption that seems to fit the realities of Brazilian home life exigencies, at least in the 1960's, 70's, and 80's. The resulting number, $(D-1)$, could be called the family's normal potential labor force. The resulting FER index is thus defined as $I_{FER} = \frac{D_t}{D-1}$, that is the number of employed employable members of the familial household divided by all but one of the number of employable members, or the actual labor force divided by the normal potential labor force.

Table 8 presents a breakdown of families according to the levels of employment of their employable members. The first row shows that the percentage of families whose entire potential labor force was employed rose from 8.2 in 1970 to 15.4, or by 6.9 percent, in 1980, whilst the percentage whose whole normal potential labor force was employed declined by 4.5 percent (from 70.2 to 65.7). There was a

Table 8. Level of Employment of Employable Members of the Family,
1970 and 1980 (percent)

| Levels of Employment | Year | |
|--|-------|-------|
| | 1970 | 1980 |
| Families with all employable members employed | 8.2 | 15.4 |
| Families with all but one employable member employed | 70.2 | 65.7 |
| Families with more than one employable member unemployed | 11.1 | 6.8 |
| Families with all employable members employed | 10.5 | 12.2 |
| Total | 100.0 | 100.0 |

Source: IBGE. Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

decline in the number of families with some employables unemployed, from 11.1 to 6.8, and a slight rise in the number of families whose entire potential labor force was unemployed. Most of the changes are rather modest. Perhaps the most important are the rise in the percentage of families whose entire potential labor forces are employed and the decline in the percentage whose normal potential labor forces were fully employed. Both of these are no doubt related to the growth in women's participation in the labor force.

This increase of women in the labor force is subject to at least two interpretations. The first would argue that the economic situation has become so bad that women must go out to work in order to help support the family. Following the pattern of the more advanced societies, the second would argue that Brazilian women are making new places for themselves in the labor market, thus earning their own way. In this research we avoid choosing between either of these interpretations. Rather, we seek to examine the consequences of this development regarding the familial labor force for the income available for the family, and thus the well-being of its members. As we have seen the main outcome has been to increase the per capita income available to the family.

In general, the proportion of fully employed families rose slightly over the decade. Since, as we have seen the number of working-age family members also increased this means that the amount of income per family has gone up even more. At the same time the

proportion of families whose potential labor force was idle has increased too, however slightly (10.5 to 12.2 percent). These are the families that, despite the general improvement, have not succeeded in gearing themselves to the national labor force, whether for individual reasons or because of the market itself. Among these are a large number of broken families headed by women.

The same data may be also used to show the incidence of families experiencing unemployment. Table 9 presents this rearrangement of the data. It shows that, viewed this way, familial unemployment decrease by a bit less than three percent (2.7 percent).

The conclusions from the foregoing are as follows: 1) the level of familial employment rose during the decade; 2) this increase was due mostly to an increase in the rate of employment of employable members of the family; and 3) this all implies that between 1970 and 1980 there was an intensification of the use of the employable adult members of the family.

8. Underemployment and Overemployment.

Both underemployment and overemployment--overwork, to be exact--are matters to be taken seriously in Brazil. Underemployment is endemic and during recent times has been a matter of concern to policy makers, not to mention the individuals and families who have suffered its effects. The existence of overemployment may, however, come as a surprise to many. Both are treated here at the level of the family.

Table 9. Unemployment of Employable Family Members, 1970 and 1980.
(percent)

| Family Unemployment | Year | |
|---|-------|-------|
| | 1970 | 1980 |
| Families Experiencing Unemployment among Employable Members | 21.6 | 18.9 |
| Families Whose Employable Members Were Employed | 78.4 | 81.1 |
| Total | 100.0 | 100.0 |

Source: IBGE. Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

8.1 Underemployment.

In this research we had hoped to treat underemployment in terms of hours worked per week for nonfarm workers, and in terms of months worked per year for those employed in agriculture. Though perhaps seeming unusual to some this makes sense in Brazil. Allowing for many legal variations on the respective norms, in nonfarm jobs it is usually understood that the work week for an individual is 48 hours--eight hours per day from Monday through Saturday. This would generally be considered as full-time work. The situation is different in agriculture, where the number of hours per week is not stipulated and where the daily volume of work varies greatly by season. So a farm worker would be considered to have a full-time job if his employment lasts the year around.

Nonetheless, census data permit an assessment only in hours per week. This is well suited for nonfarm workers, of course. But it would be quite insufficient for farm workers. Note, too, that rural families might have some members working on the farm, whilst others hold nonfarm jobs. For these, an assessment of familial underemployment would probably be impossible. For these reasons the data on underemployment are presented only for urban families. Table 10 shows that in 1970 among about 23 percent of all urban families, more than one employable persons was unemployed. By 1980, this rate had fallen sharply, to less than 12 percent. Conversely, the percentage of families with no one underemployed had moved from

Table 10. Familial Underemployment in Urban Areas (percent).

| Family Underemployment | Year | |
|---|-------|-------|
| | 1970 | 1980 |
| Families with more than one employable member underemployed | 22.6 | 11.8 |
| Families with one employable member underemployed | 65.9 | 65.4 |
| Families with no employable members unemployed | 11.5 | 22.7 |
| Total | 100.0 | 100.0 |

Source: IBGE. Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

11.5 percent in 1970 to nearly 23 percent in 1980. This marked decrease in the rate of underemployment among familial households in Brazil's urban areas is another reflection of the generally more intense use of the families' labor forces.

8.2 Overemployment.

Though on the whole this increased use of the family labor force no doubt represents an improvement, it is nonetheless necessary to determine the degree to which Brazilian families may be overloaded with work.

There are two forms of overemployment in the family. One concerns the use of unemployable members of the family. These are defined here as the very young school age children, youths who have not completed primary school, children and youths who are attending school, and those too old to work. In the second form, the family is overemployed to the extent that its employable members are at work an inordinate length of time.

Regarding the first--use of the unemployable--from 1970 to 1980, there was a slight increase in the percentage of families experiencing this form of overemployment. In 1970 the percentage was 15.6 and by 1980 it had risen to 17.9. These data are shown in Table 11.

The use of normally unemployable members is nevertheless a better indicator of the problems than of the solution. This expedient has always been used by Brazil's poor families, and is one

Table 11. Family Over-employment: The Use of Unemployable Members of the Family, 1970-1980. (percent)

| Family Overemployment | Year | |
|-----------------------|-------|-------|
| | 1970 | 1980 |
| Overemployed families | 15.6 | 17.9 |
| All other Families | 84.4 | 82.1 |
| Total | 100.0 | 100.0 |

Source: IBGE, Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

of the main reasons for the low rates of school attendance and thus the high rates of child labor. Despite the small proportion of families experiencing overemployment in this manner, it is important to repeat that this phenomenon increased, rather than decreased, over the decade. As we have seen, intensifying the use of unemployables, did improve income, but overwork on the part of employables helped even more.

The incidence of the second form of overemployment is much greater than that of the first. This may be inferred from data on urban families, among whom--unlike farm families--it is feasible to measure its incidence. Actually, present data combine the incidence of the two forms of overemployment. The percentage of families who used one or more employable members more than 48 hours per week was added to the percentage who used unemployable members. This provided a more inclusive index of the incidence of overemployment. Table 12 presents the combined incidence of overemployment. It shows that family overemployment increased from nearly 35 percent in 1970 to almost 49 percent in 1980. Obviously this sharp increase is due much more to the incidence of inordinately long work weeks of employable members than to the increased use of unemployables. The main conclusion is, of course, that overemployment increased substantially over the growth decade.

Table 12. Work Overload: Families Using Unemployable Members and Having One or More Employable at Work More than 48 Hours per Week

| Family Overemployment | Year | |
|--|-------|-------|
| | 1970 | 1980 |
| Overemployed Families | 34.8 | 48.8 |
| Families that were not not overemployed | 65.2 | 51.2 |
| Total | 100.0 | 100.0 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

8.3 Summary

Thus there were substantial modifications in the employment structure of Brazilian families during the course of the decade. The two that are of the greatest significance for present purposes are the decrease in family size and the increase in the use of family labor. By 1980, the Brazilian family was smaller and worked more. As we shall see, this had significant consequence for the family's per capita income. Useable income increased as a result of the decrease in family size and the intensification of work, especially among the employable members of the family. The outcome was a general improvement in the economic situation of the families and a diminution of the incidence of extreme poverty which, as we have seen, was at a very high level in 1970.

9. Remuneration From Work.

Before presenting other changes that occurred within the Brazilian family, it would be well to provide a generic discussion of what happened to earnings from work during the course of the decade. As we have seen, in 1970 about 44 percent of Brazil's families survived on less than one-fourth of a minimum wage per person. This involved about 7.3 million families. In 1980, census data tabulated in accord with the same criterion showed a sharp decline in the proportion of families at this extreme level of poverty. Table 13 shows the reduction from 44 percent in 1970 to less than 18 percent in 1980. In absolute terms, this was a

Table 13. Income of Brazilian Families, in Minimum Wages per capita
1970 and 1980

| Number of Minimum Wages per Capita | Year | |
|---------------------------------------|-------|-------|
| | 1970 | 1980 |
| Less than .25 Minimum Wages | 43.9 | 17.7 |
| .25 - .49 Minimum Wages | 25.2 | 23.2 |
| .50 - .99 Minimum Wages | 16.6 | 25.5 |
| 1.00 - 1.99 Minimum Wages | 8.5 | 17.4 |
| 2.00 or More Minimum Wages | 5.7 | 16.2 |
| Total | 100.0 | 100.0 |

Sources: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

reduction in the number of families in extreme poverty from the 7.3 million of 1970 to 4.4 million in 1980.

Clearly, it is a matter of serious concern when 18 percent of the nation's families are destitute. Nonetheless, when viewed from the perspective of the far greater proportion of 1970, the change in the incidence of extreme poverty represents a substantial, even startling, improvement over the decade. It is to be noted that the greatest shift occurred among the families who were best off. The stratum earning from one-quarter up to one-half the minimum wage (MW) remained almost constant in percentage terms, at around one-fourth of the nation's families at both times. The next three strata presented in Table 13 all increased. The percentage of families earning from one-half up to one MW moved from 17 to 26 percent; those of one MW up to two, from nine to 17 percent; and those at or over two MW, from six to 16 percent.

Today, with the inflation and unemployment of the early 1980's afflicting the population and with a general climate of pessimism prevailing the country, an analysis such as this, which marks the rapid social progress of the 1970's, seems a bit out of place. This is due to the contrast, to which we referred in the Introduction, between a concern with present situation and the interpretation of the great structured changes of the recent past.

But the objective of this report is to describe and explain the structural change that took place between 1970 and 1980. Detailed analyses of this change are presented in the next Chapter.

Nevertheless, at this stage it is useful to review the change in family income in light of the demographic, social, and economic situation.

The demographic transformations were already mentioned. For purposes of understanding the changes in the family's per capita income, the most important item is the decrease in the size of the family. On the average, it moved from 5.2 members in 1970 down to 4.6 in 1980—a reduction of 12 percent. Even if the average family income had remained the same over the decade, during 1980 this would have yielded an increase of 13 percent more money available for each member of a typical family.¹ This was the net effect of the purely demographic change, without taking into account the increase in income which was due to the intensification of work on the part of those whom we have termed "employable," not to mention the fact the many "unemployable" family members were employed.

9.1 Income and the Employment of Family Members.

Social factors are involved in the income variation of Brazilian families lives. First of all we should re-emphasize the fact that the Brazilian family was working more in 1980 than in 1970. As we have seen there has been an intensification of work in two senses, increasing the contribution of each member to the larger of the family and decreasing the rates of under--and unemployment of family members. If it is true that the pay-rates for work remained reasonably stable, then the intensification of family work leads to

an increase in the amount of income available per person in the family. In the second place, it is useful to consider again the remuneration that is due to the overwork of those who were employable and the employment of those who were not. Table 14 shows a noteworthy decrease in the proportion of families whose income was earned exclusively by "employable" members (the third row of the Table), and a stable percentage of those whose income was provided only by "unemployable" members (row 4). In contrast, there was noteworthy increase in the proportion of families whose income came mostly, but not exclusively, from "employable" members (row 1), and a slight increase in the proportion whose income came mostly from "unemployable" members (row 1). Among these types the one that increased the most was that of row 1. In 1970, nine percent of the families were of this type, but by 1980 the percentage had changed to 16.

These results concerning the sources of family income are subject to at least two different interpretations. Recalling that income per capita in fact increased, it is clear that this change represents a general improvement. But note that much of the increase came from the efforts of family members who were unemployable, those who should not have been put out to work at all: in 1980, 16.3 percent of the families gained their income only through the efforts of "unemployable" members. This situation is cause for concern. Similarly, when we compare the change in those who obtained their income only from "employable"

Table 14. Sources of Family Income: Details, 1970 and 1980 (percent)

| | Year | |
|--|------|------|
| | 1970 | 1980 |
| Mostly from employable members of the family | 9.2 | 15.7 |
| Mostly from unemployable members of the family | 3.9 | 5.5 |
| Only from employable members of the family | 76.1 | 68.0 |
| Only from unemployable members of the family | 10.8 | 10.8 |

Source: IBGE Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

members, versus the change in the percentage of all others, we also see a troubling picture. For the percentage whose income came only from the efforts of employable persons actually fell, from 76 to 68 percent. This implies that the percentage who drew upon "unemployable" members increased from 24 to 32. (See Table 15). This is another way to say that the increase in income was involved and an intensification of work overload on the part of the family members.

9.2 The Quality of the Family Labor Force.

Nonetheless, this perspective on the matter is not to be over-dramatized. In addition to the intensification of family work effort, another point must be emphasized: there has been a significant improvement in the quality of labor offered by the family. This holds for the heads of families and for the families as wholes. Regarding the first aspect, Table 16 shows the percentage of families headed by persons who had never attended school--practically all of whom are no doubt illiterate. This fell from 40 percent in 1970 to 31 in 1980. It is true, of course, that despite this improvement, the educational level of Brazilian heads of families is still quite low. The progress revealed by the 1980 census, especially for heads completing nine to eleven years of schooling, is still quite small when compared to the general situation of the labor forces as a whole. Surely the educational deficiencies of the heads of families

Table 15. Sources of Family Income: General Picture, 1970-1980
(percent)

| Sources of Family Income | Year | |
|--|-------|-------|
| | 1970 | 1980 |
| Only from Employable members of the family | 76.1 | 68.0 |
| Unemployable plus Employable members | 23.9 | 32.0 |
| Total | 100.0 | 100.0 |

Source: Recalculated from Table 14.

Table 16. Educational Attainment of Heads of Families, 1970-1980
(percent)

| Educational Attainment (years) | Year | |
|-------------------------------------|-------|-------|
| | 1970 | 1980 |
| Unschoolled (0 years) | 39.8 | 31.2 |
| Primary only (1-4 years) | 42.6 | 46.7 |
| Secondary, 1st Cycle (5-8 years) | 9.3 | 11.0 |
| 2nd Cycle (9-11 years) | 3.5 | 6.3 |
| Tertiary (University or equivalent) | 4.7 | 4.8 |
| Total | 100.0 | 100.0 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

are reflected in the economic situation of the family even though the improvement in per capita income over the decade was quite a bit greater than the improvement in educational attainment. Could this have been due to substantial improvements in the schooling of the rest of the family, and thus the quality of labor offered by the family as a whole? Indeed, this research has sought to build upon the synthesis or whole pattern of the quality of labor offered by the family, taking into account the age and schooling of each member. ^{2/}

When a collective measure of the quality of labor offered by the family is taken into account, it may be seen that the improvement in the quality of labor was substantially greater than in the previous case.

Including the other members of the family raises the apparent quality of the family labor force quite markedly. Table 17 shows that in 1970 a "very low" quality of labor was offered by about 45 percent of the families, whilst the corresponding percentage had dropped to under 30 percent in 1980. The main increase between the two periods occurred in the category labeled "average," from 19 percent in 1970 to 30 in 1980. Roughly this means that the proportion who had attended secondary schools--junior high school and high school in American terms. In the highest category--roughly, those with at least a fair exposure to college--the percentage of families rose from 4.6 to 7.6. Altogether, this would appear to mean that quite a sharp increase

Table 17. Quality of Labor of the Family, 1970-1980 (percent)

| Quality of Family Labor ^a | Year | |
|--------------------------------------|------|------|
| | 1970 | 1980 |
| Very Low | 45.1 | 29.8 |
| Low | 31.7 | 32.6 |
| Average | 18.7 | 30.0 |
| High | 4.6 | 7.6 |

^a Arbitrary scores of the Index of Family Labor Quality; See Note 2 of this Chapter, also the Methodological Appendix. Loosely speaking "Very Low" means that almost no one in the family's labor force had any schooling, while "High" means that almost everyone had been in a university-level school for two years or more.

occurred over the decade in the quality of labor that Brazilian families sought to put out to work for them. The improvement was, of course, most pronounced among the families' younger workers. Thus the rise in family income that occurred over the decade was associated with an increase in the educational attainment of family members, especially the young.

9.3 Income and the Sex Distribution of the Family Labor Force. Finally, the increasing role of women in the labor force is a factor in the economic status of the family. Table 18 presents the evidence. The rise in the proportion of women employed outside the home represents still another component of the rise in family income and the drop in poverty.

10. Population, Production, and the Minimum Wage.

In addition to demographic and social factors it is also useful to examine the economic conditions within which the various members of the family sought to obtain their jobs and wages during the decade of the 1970's. The analysis of these factors shows that despite an unfavorable international situation and the emergence of the petroleum crises in mid-decade, the nation maintained high rates in the growth of production throughout most of the decade. Table 19 shows that the Gross Domestic Product (GDP) grew almost 129 percent over the decade. During the same period the population increased by more than 25 percent. The increase in the Gross Domestic Product per

Table 18. Labor Force Participation by Sex, 1970 and 1980 (percent)

| Sex | Year | |
|--------------------|--------|--------|
| | 1970 | 1980 |
| Male | 79.1 | 72.5 |
| Female | 20.9 | 27.5 |
| Total | 100.0 | 100.0 |
| Number (thousands) | 29,557 | 43,796 |

Table 19. Growth of Production and Population During the 1970-1980
Decade (percent)

| Growth per Unit Time | Variable | | |
|--------------------------|---------------------------|------------|--------------------------------------|
| | Gross Domestic Product | Population | Gross Domestic Product per Capita |
| 1970 - 1980 | 128.9 | 27.9 | 79.0 |
| Annual Geometric Rate | 8.63 | 2.49 | 5.99 |

Source: Various. Authors' calculations.

capita was thus nearly 79 percent. It is known that inequality (as measured by Gini and similar coefficients) increased during the decade. The present data show that the incidence of extreme poverty decreased in spite of the growth in inequality. Actually, there is nothing inconsistent about this: Under conditions of vigorous economic growth, it is entirely possible for the lot of the poor to improve while the rich are getting much richer. Perhaps this is what is meant by "trickle-down".

To what degree was the 1970 to 1980 drop in the percentage of families in extreme poverty from 44 to 18 due to changes in the purchasing power of the minimum wage? This is a meaningful question, but the answer is "not much, if any." At the beginning of the decade Brazil had a wage control policy in which the annual minimum wage (MW) adjustments for inflation were systematically set at a level below the general index of prices. Beginning in 1974, however, this policy was relaxed so that inflation adjustments were more nearly proportionate to the rise in prices. Toward the end of the decade, the Government established an absolutely realistic wage readjustment policy.

In addition to the foregoing, throughout the decade there were regional differences in the value of the annual minimum wage adjustments. The general tendency was toward a decline in the differences among regions, reducing considerably the 1970 discrepancy between the high MW of the more developed areas, and the low MW of others. But regional differences in the value of the MW still remained at the end of the decade.

Taking into account the annual wage readjustment policy and the tendency toward regional equalization, throughout the decade there was a slow rise in the real value of the minimum wage, especially in the poorer regions. This may be seen in Table 20. Thus the value of the minimum wage increased slightly and became more uniform over the decade. Consequently, if anything, this research may have underestimated the magnitude of the decrease in poverty.

In sum, the economic balance of the 1970's was more favorable to Brazil. The fact is that throughout almost all the decade Brazil experienced high rates of production and employment. The effects of the petroleum crisis and the world-wide recession came late to Brazil and were felt as a decrease in production and a rise in unemployment. More precisely, the clearest signs of the Brazilian recession appeared only in 1981, with a fall in various industrial sectors and an explosion of unemployment in the metropolitan areas. But the decade of the 1970's was utterly different: production, jobs, and wages all increased. It was the combination of this set of events with the above-mentioned demographic and social changes that explain in large measure the diminution of poverty among Brazil's families.

Finally, it should be mentioned that even more important than the increase in production was the change in the sectoral participation of the labor force. The data presented in Table 4 showed a pronounced decrease in the economically active population of the primary sector and a corresponding increase in the secondary

Table 20. Changes in the Real Value of the Minimum Wage, 1970-1980 by Region
(September 1 of each Year)

| Region ^{1/} | Minimum Wage | | | | | | | |
|--|---------------------|--------------|---------|---------|---------------------|------------|-------|-------|
| | 1970 | | | | 1980 | | | |
| | Current Cr\$ (A) | Cr\$ of 1980 | | | Current Cr\$ (E) | Real Value | | |
| | | (B) | (C) | (D) | | (E/B) | (E/C) | (E/D) |
| North | 134.40 | 3089.90 | 3327.70 | 2534.80 | 3436.80 | 1.11 | 1.03 | 1.36 |
| Northeast A | 124.80 | 2869.20 | 3090.00 | 2353.70 | 3189.60 | 1.11 | 1.03 | 1.36 |
| Northeast B, Mato Grosso and Goiás | 144.00 | 3310.00 | 3565.40 | 2715.80 | 3436.80 | 1.04 | 0.96 | 1.27 |
| Espirito Santo | 156.00 | 3586.40 | 3862.60 | 2942.20 | 4149.60 | 1.16 | 1.07 | 1.41 |
| Minas Gerais and Federal District | 177.60 | 4083.00 | 4397.40 | 3349.50 | 3149.60 | 1.02 | 0.94 | 1.24 |
| Sao Paulo and Rio de Janeiro | 187.20 | 4303.70 | 4635.00 | 3530.60 | 4149.60 | 0.96 | 0.90 | 1.18 |
| South | 170.40 | 3917.50 | 4219.10 | 3213.70 | 4149.60 | 1.06 | 0.98 | 1.29 |

Source: IBGE -- Statistical Yearbook of Brazil

The adjustments for inflation were made using three indexes:

- General Price Index of Getulio Vargas Foundation (column B)
- Cost of Living Index of Sao Paulo of DIEESE (column C)
- Cost of Living Index of Sao Paulo of FIPE (column D)

Table 21. Occupational Sector of Heads of Families, 1970 and 1980
(percent)

| Occupational Sector | Year | |
|---------------------|-------|-------|
| | 1970 | 1980 |
| Primary | 55.4 | 35.3 |
| Secondary | 10.0 | 15.9 |
| Civil Construction | 6.0 | 9.3 |
| Tertiary | 28.6 | 39.5 |
| Total | 100.0 | 100.0 |

Source: IBGE. Basic samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

Table 22. Occupational Position of Heads of Families, 1970 and 1980
(percent)

| Occupational Position | Year | |
|-----------------------|-------|-------|
| | 1970 | 1980 |
| Employee | 49.1 | 58.9 |
| Self-employed | 40.5 | 33.3 |
| Share-cropper | 7.5 | 3.0 |
| Employer | 2.6 | 4.6 |
| Unpaid worker | 0.3 | 0.2 |
| Total | 100.0 | 100.0 |

Source: IBGE. Basic samples of the Brazilian censuses of 1970 and 1980. Authors' tabulations.

and tertiary sectors. The same transformation occurred among the heads of families. Table 21 shows that in 1970, 55 percent of the families were headed by persons who were employed in the primary sector. By 1980 this percentage had dropped to less than 35, having risen in all other sectors, especially the tertiary. This transformation was accompanied by a substantial formalization of work relations, as shown by Table 22. Half of the heads of Brazil's families worked in quite precarious conditions, mostly as autonomous share croppers subject to unstable employment and fluctuating earnings. In 1980, the percentage of families whose heads were employees had increased to 60. Only 36 percent found themselves in the precarious situation of sharecroppers or self-employed. This indicates that in the midst of the foregoing economic changes--increases in production and income per capita--the capitalistic forms advanced at the expense of the non-capitalistic--a development that yielded increases in income per capita at the level of the family.

11. Conclusions

Thus the incidence of Brazil's extreme poverty dropped sharply between 1970 and 1980. By the present criterion of one-fourth of a minimum wage per capita per family, the number of families at this level of destitution dropped from 7.3 million or 44 percent of the Nation's families to 4.4 million or 18 percent. The decline in the numbers of individuals in such poverty stricken families was even more impressive. From 47 million persons or 51 percent of the Nation's non-institutionalized civilian population, the

corresponding figures fell to 25 million people, or 21 percent of the population.

This situation of course is still serious: the level of destitution to which we refer is deep; vast numbers of people were still at that level in 1980; and there is no guarantee that the situation has not worsened again since 1980. Then, too, there are reasons to be cautious in interpreting the results. Malnutrition, or even starvation, is a matter of real concern at this level of poverty. But does the poverty criterion used herein mean the same thing in rural as in urban areas? Or can poor farm people reduce the severity of their poverty by raising their own food? If so, some of the multitudes who have moved from the farms to urban areas may have come into more serious true poverty than they left. This would mean part of the apparent drop in extreme poverty could be an artifact.

Having said all this, there remains little room to doubt that, in fact, poverty and its ravages did decrease greatly during Brazil's growth decade. Indeed, the value of the minimum wage rose at least slightly everywhere; rather sharply in the less developed regions of the Nation, so that by 1980 it was much closer to that of the wealthier South.

This chapter lays the background by which to help understand the great reduction in extreme poverty during the 1970's. To begin with, there was substantial per capita economic growth during the decade of the 1970's. And despite critics who wrongly infer an increase in poverty from clear evidence of an increase in income

inequality, the fact is that Brazil's economic growth pulled everything up, including millions of those who had been--or would have been--at a level of poverty where survival itself is doubtful. In this economic growth period, agricultural employment fell in relation to that in manufacturing and services, and a general increase in productivity per capita took place. At least as important, there was a dramatic average annual increase in employment over the decade at a rate far exceeding the growth rate of the population.

Perhaps coincidentally, there was a drop in the birth rate, and in the size of families. So, by 1980, members of families were a little older. Consequently, there were fewer mouths to feed, fewer infants to care for, and more family members of an age to work. At the same time, there was a rise in the educational attainment of the population, with the result that the "family labor force" was better qualified for the new jobs that were opening up.

Overall, the effects of these changes were beneficial to families--despite some possibly adverse effects, such as the rise of broken families, the fall in the extended family, and the overemployment of urban breadwinners and a small increase in the use of child labor. On the positive side, there was a rise in the employment of family members of an age and status to work.

Thus Brazil experienced a genuine growth decade from 1970 to 1980. The cassasndras at home and abroad insisted that its only

effect was to enrich the wealthy and to further impoverish the already destitute. Despite their almost unanimous voices, marking a real increase in inequality, the Nation's vigorous growth spread widely over the population as a whole, raising the income levels of many of the destitute millions. But it remains to be seen whether the gains of the 70s can endure through the 80s. The prospects are not optimistic.

FOOTNOTES

1/ This may be calculated as follows:

$$r_{70} = \frac{R}{5.2} \text{ and } r_{80} = \frac{R}{4.6}; \text{ then } r_{70} = \frac{R/4.6}{R/5.2} = \frac{5.2}{4.6} = 1.13$$

where R is family income and r is family income per capita.

2/ The Index of Family Labor Quality (IFQL) is given by the following quotient:

$$IFQL = \frac{a}{H - 1}$$

where E refers to the number of years of schooling completed, I to the age of each member, H to the "horizon of productive life," and a to weight. The scores vary from zero to 150. Roughly speaking, a score of zero implies that the whole family labor force is completely uneducated, while a score of 150 would mean that all had attended a tertiary for two or more years. See the Methodological Appendix (C.4) for further details

CHAPTER II

The Poor Family: What Has Changed?

The previous chapter sought to show the major lines along which Brazilian society evolved in the last decade. In this chapter, we examine changes occurring among families in extreme poverty.

It will be recalled that we have divided Brazilian families into two basic groups; those whom we defined as in extreme poverty, whose per capita income is less than one-quarter of a minimum wage, versus all others. The major finding was, of course, that over the "growth decade" there was a dramatic reduction in poverty throughout the 70s -- at the end of those ten years, the percentage of poor families went from 44 percent of the total to 18 percent. This result raises two groups of questions. The first, concerning the factors responsible for the change, was the topic of the previous chapter. The second concerns the persistence of poverty. Although it has decreased greatly, poverty still affects nearly one-fifth of Brazil's families, and an even greater proportion of the population, since poor families tend to be larger. Questions such as these require a more refined analysis, and include the following: How are families in extreme poverty structured? Where are they located? What do their members do to survive? What distinguishes them from the non-poor families? Why are they still to be found in extreme poverty despite the opportunities that appeared in the 70s? These

concerns are basic in that their answers are essential to the formulation of policies which could improve the situation of the most needy part of the Brazilian population.

To provide answers to these questions, we formulated a series of variables classifying the families according to three generalizations: work, family structure, and economic situation. The results will be set forth in this chapter in the following order.

1. The Work of the Poor

Four variables were prepared to provide measures of the intensity of the work efforts of poor families. Before describing them, however, we must remind the reader of one of the key work-related concepts of this report, the "employability" of family members. There are two classes, the "employable" and the "unemployable". The first category consists of adults and of youths who have completed their primary education and are no longer in school. The second category is composed of children under 15 years of age and of youths who are in school. ^{1/} We assume that the "unemployables" would not be put out to work if family earnings were adequate. But in fact, large numbers of these are utilized. This distinction is basic to the ways of measuring the level of employment in a family. There are also two ways of measuring work overload. One takes into account only the work of the "unemployable", focusing on the employed unemployables who are overloaded. The other also takes into account the excess of hours

worked by the employable members. The fourth variable measures the incidence of underemployment in the family.

1.1 The Work of "Employable" Members

Who works in poor families? In short, what is the activity level of Brazil's poor families?

The variable, the Family Employment Ratio -- FER was constructed to obtain the desired answers.^{2/} In order to obtain this, two situations are considered. Each is discussed in normative terms. One is an acceptable situation, in which a family designates one of its employable members for domestic activities. If all other employable members have an occupation there is no unemployment. Thus, the acceptable situation is that in which all the potentially employable work, except for one who stays at home.

The other is the actual situation of the family, in which the number of employed employables is counted. The FER is simply the quotient between the actual situation and the acceptable situation. Its values mean the following. a) When FER is less than one, there is unemployment in the family, in the sense that the number of occupied expected labor force members is less than is required for an "acceptable situation."^{3/} b) When FER is equal to one, there is no unemployment and the actual situation coincides with the acceptable situation. c) When FER is greater than one, even the one who could dedicate himself only to domestic activities works, a situation designated as ideal. Thus, depending on the value of the

FER, the family can be classified either as "fully employed" or "underemployed." Within the first of these classes, we thus may distinguish between those whose situations is "acceptable" and those whose is "ideal." Among the "underemployed" we distinguish its "inactive " from the "partially active."

Cross-tabulating the level of employment in this way yielded the results shown in Table 23. In 1970, about a fourth (23.5%) of the poor families had some degree of unemployment among their "employable" members. The proportion of inactives increased to 27.0 percent in 1980. This increase was due to the increase of the proportion of inactives, which in 1980 made up 19 percent of the poor families. However, one in every five poor families had no expected labor force member working,^{4/} whilst in 1970, the figure was one in every ten. If among the poor, the proportion of at least partially unemployed families grew in the 70s, the opposite occurred among the non-poor families: it decreased from 19 percent to 17 percent. One conclusion that these data allow is that unemployment is more frequent among poor families than among families above the poverty line, and this was accentuated during the decade. Another conclusion is that three-quarters of the families remained poor despite a full deployment of the "available" labor force. It cannot be said that this group continues to be poor because its "available" members do no work or work little. The work they do and the pay they receive is not enough for them to get out of extreme poverty.

Table 23. Level of Family Employment, 1970 and 1980 (percent)

| Family Situation | Year | |
|--------------------------------|-------------|-------------|
| | 1970 | 1980 |
| <u>Families in Poverty</u> | | |
| Families with Unemployment | | |
| Inactive | 11.3 | 19.2 |
| Partially Inactive | <u>12.2</u> | <u>7.8</u> |
| Total | 23.5 | 27.0 |
| Families Without Unemployment | | |
| Acceptable Situation | 72.0 | 66.0 |
| Ideal Situation | <u>4.4</u> | <u>7.0</u> |
| Total | 76.4 | 73.0 |
| <u>Families Not in Poverty</u> | | |
| Families With Unemployment | | |
| Inactive | 9.2 | 10.7 |
| Partially Inactive | <u>10.1</u> | <u>6.6</u> |
| Total | 19.3 | 17.3 |
| Families Without Employment | | |
| Acceptable Situation | 69.4 | 65.6 |
| Ideal Situation | <u>11.2</u> | <u>17.2</u> |
| Total | 80.6 | 82.8 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations

In summary, there are families who are poor because they work little or because they have not yet found work, even after ten years of continuous economic growth. At the same time, there are those who are poor because they work much and earn little. Poverty is the fruit of an unbalanced allocation of family work and of a narrowing of the labor market in terms of opportunities offered.

1.2 Work Overload

There are two ways of viewing work overload. The first, when the families utilize the work of their "unemployables"; and the second, when they prolong the work-day of "employables."

Unfortunately, due to a 1970-1980 difference in IBGE's data collection methods, this second type of work overload cannot be comparatively qualified in the rural areas.

As for the utilization of the work of unemployables by poor families, Table 24 shows that this was happening in 18 percent of them in 1970 and 17 percent in 1980. This survival strategy neither spread nor diminished in use for all practical purposes. However, among families above the level of extreme poverty, this practice became more common, going from 14 percent to 18 percent. It is possible that the work of "unemployables" is one way that the families find to overcome their precarious condition. One should also consider that this work signifies different things, for in the poor families it represents the inclusion of children, whilst in those above the poverty line, they tend to be youths who are students (in many cases, university students).

Table 24. Families Employing "Unemployables" 1970 and 1980 (percent)

| Familial Poverty | Year | |
|---------------------------------|------|------|
| | 1970 | 1980 |
| Families in Extreme Poverty | 17.8 | 17.0 |
| Families Not in Extreme Poverty | 14.0 | 18.1 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

Among the urban families — the only ones where the second type of work overload can be compared for the two censuses — the prolonging of the work day is a practice which became much more prevalent, whether among the poor (who utilized it in a proportion of 31 percent in 1980 against 18 percent in 1970), or among the non-poor (32 percent against 26 percent, respectively). Among urban families, the employment of unemployables increased only in families above the poverty line (from 12 percent to 18 percent from 1970 to 1980), and remained relatively stable among the poor families (nine percent and 10 percent, respectively). However, the increase of work among the poor families overloaded the adult members, but did not aggravate the situation of the children. Among the non-poor families, however, the increase in work overload was manifested in two ways: more adults worked excessively long work-weeks, and more youths were launched into the labor market. (Table 25)

1.3 Underemployment

Finally, the fourth variable constructed to examine the activity of families is the Index of Underemployment.^{5/} The logic established for the construction of this variable parallels that utilized for the FER. There also we admit that it is acceptable for the family to have one employable force member underemployed. So families are considered to be underemployed only if they have more than one employable member underemployed. Unfortunately, for this variable we may compare the two sets of census data only within urban areas, due to changes in IBGE's method of collecting the data.

Table 25. Overemployment of Urban Families, 1970 and 1980 (percent)

| Work Overload by Family Situation | Year | |
|---|------|------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Families Employing ^{1/} "Unemployables" | 8.8 | 10.3 |
| Families Working Overtime | 18.3 | 31.1 |
| <u>Families Not in Extreme Poverty</u> | | |
| Families Employing "Unemployables" | 12.4 | 17.5 |
| Families Working Overtime | 25.5 | 31.9 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

^{1/} "Unemployables are those who would normally be at school or in the home.

The available results (Table 26) show that in the urban areas underemployment is most frequent in poor families, but that the incidence of familial underemployment dropped sharply across the decade. Underemployed urban poor families, which in 1970 had made up 28 percent of the total, made up 18 percent of the total in 1980.

1.4 Poverty and Work: What Has Changed?

The available information show that work was one of the ways families tried to cope with their poverty. Families that could not tie into the labor market during the 70s found that their members (whether employable or not) remained in the same condition. The relative growth of economically inactive families among the poor indicates that those poor families remained poor who were unable to find work for even one of their employable members: the strategy of including unemployables did not become generalized among the poor families, although it has increased among the non-poor families. So placing youths or children into the labor market is indeed one way to overcome poverty. As of 1980, both poor and non-poor adults were working more, inasmuch as the proportion of families with underemployment decreased for both groups, as did that of families experiencing work overload.

But, not just any work can raise the family's income. In 1970 and 1980, about three-quarters of the poor families had no unemployed adult members, and about 82% had no underemployed adult members. In the cities, about 31% had adult members with excessively

Table 26. Incidence of Familial Unemployment in Rural and Urban Areas, 1970 and 1980 (percent)

| Family Situation by Rural/Urban Residences | Year | |
|--|------------|-------------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Urban | 28.4 | 17.9 |
| Rural | <u>---</u> | <u>---</u> |
| Total | <u>---</u> | 18.2 |
| <u>Families Not in Extreme Poverty</u> | | |
| Urban | 19.8 | 11.4 |
| Rural | <u>---</u> | <u>16.6</u> |
| Total | <u>---</u> | 12.8 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

long work-weeks, and 10% put unemployable youngsters out to work. Even so, these families remained poor, showing that, for them, the problem is not employment, but too little income. Such families have work enough, but they do not make enough money out of poverty. Work is plentiful, money is not.

2. Characteristics of the Poor Family

Regarding employment, the previous section showed that many families remain poor because they cannot get work and there are others who are poor in spite of being employed or overloaded with work. This section deals with other characteristics of the poor families.

2.1 Poverty and Type of Family

In this research a typology of families was established which classifies them according to a greater or lesser complexity of the family grouping.^{6/} In terms of family structure, the great difference between the poor families and others is to be found in childless couples, which in 1980 represented only 4.0 percent of the poor but 15 percent of the non-poor. (See Table 27) This is a type of family where the income, even when small, is shared by only two persons. So it would be unlikely to result in a per capita income smaller than one-quarter of a minimum wage. It is, of course, most frequent among families with incomes higher than the line of extreme poverty. On the other hand, more complex structures, where the

Table 27. Family Structure and Extreme Poverty, 1970 and 1980
(percent)

| Poverty Status and Family Structure | Year | |
|--|-------|-------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Intact Nuclear Families | 68.4 | 68.9 |
| Nuclear Families With Additional Residents | 13.1 | 9.8 |
| Broken Nuclear Families With Male Heads | 1.7 | 1.3 |
| Married Couples, No Children | 4.8 | 3.8 |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Intact Nuclear Families | 57.4 | 59.7 |
| Nuclear Families With Additional Residents | 16.0 | 12.6 |
| Broken Nuclear Families With Male Heads | 2.4 | 2.0 |
| Broken Nuclear Families With Female Heads | 8.6 | 10.8 |
| Married Couples Without Children | 15.7 | 14.9 |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

income is shared among a greater number of members, are more frequent among the poor families. For example, the Intact nuclear family (couple and children), which is the modal type of family in both groups, represented 69% of the poor families and 60% of the non-poor.

The incidence of the several types of family structures remained practically unaltered over the decade. There were but two significant changes. One was the increase in the proportion of female-headed broken families among those in extreme poverty, this went from 12 percent to 16 percent. As will be seen later, the absence of the man destructures the family group and becomes an important factor in the family's remaining in poverty. In both groups the proportion of extended families fell from 13 percent to 10 percent (among the poor) and from 16 percent to 13 percent (among the non-poor), doubtless a consequence of the shift to urban living. Thus, the families of both groups underwent alterations in their structure during the decade of the 70s which made them less complex, but more likely to be broken apart.

2.2 Poverty and Family Size

Size is a very important characteristic for distinguishing between poor and non-poor families. Families in extreme poverty tend to be large, the rest tend to be small. While only about one-third of the poor families had four or less members, two-thirds of the families above the level of extreme poverty were of this size

Table 28. Family Size and Extreme Poverty, 1970 and 1980 (percent)

| Poverty Status and Family Size | Year | |
|--|-------|-------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Four or Fewer Members | 33.3 | 36.1 |
| Five or Six Members | 28.8 | 30.8 |
| Seven or More Members | 37.8 | 33.1 |
| Totals | 100.0 | 100.0 |
| Mean Size | | |
| <u>Families Not in Extreme Poverty</u> | | |
| Four or Fewer Members | 61.3 | 63.8 |
| Five or Six Members | 23.8 | 23.7 |
| Seven or More Members | 14.8 | 12.6 |
| Totals | 100.0 | 100.0 |
| Mean Size | 4.5 | 4.4 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

(Table 28). At the other extreme -- the large families, with seven or more members--the opposite pattern is to be seen: one-third of the poor families are large, whilst but one-seventh of the non-poor families are of this size. In the decade of the 70s however, the Brazilian family, poor or not, but especially those in extreme poverty, experienced a considerable diminution in average size. The poor families went from an average of 6.1 members to 5.6 (a reduction of eight percent) the non-poor families from 4.5 to 4.4 (a reduction of two percent). But in themselves these numbers do not tell the full story of the change in family size of the Brazilian family. It is necessary to remember that the absolute number of poor families decreased from 7,332,480 to 4,417,860, and that the structure of families which were not experiencing extreme poverty was quite different in 1980 than it had been in 1970; because among other reasons, the size of the families was smaller. It would appear, then, that many families which were large and poor in 1970 had become smaller and had moved out of destitution by 1980. The small decrease in the average size of non-poor families hides this fact. Finally, it is necessary to remember that large size is still a barrier to overcoming poverty. Although poor families are substantially smaller in 1980, they are still large and this makes it difficult for them to improve their economic situation.

2.3 Poverty and the Life-Cycle of the Family

Two ways of measuring the age of the family are used in this research. One is a more direct measurement by means of the

Life-Cycle Index (LCI).^{7/} The other, indirect, is the Age of the Head of the Family. They show essentially the same results. In general the poor families are younger than the non-poor; this tendency was accentuated over the decade. In 1970, 60 percent of the poor families were young or very young, and this proportion in 1980 approached 70 percent (see Table 29). Among non-poor families, the proportion of Young and Very Young families was also large in 1970 (56 percent) and also increased in 1980 (65 percent), but in each case was lower than that of the non-poor.

Table 30, which shows the Age of the Head of the Family, presents quite similar results, as was already mentioned. In 1970, fifty percent of the poor families had young heads (up to 39 years of age). In 1980, this proportion increased to 53 percent. Among the non-poor families, young heads represented 45 percent in 1970 and 48 percent in 1980. Therefore, one can say that the Brazilian Family in general became younger in the last decade, a tendency which was stronger among poor families. Poverty is thus most characteristic of young families. It seems to be easier for a family already formed to overcome poverty than for a couple with many children. Grown children can help in the family income, or at least can allow the mother to work.

2.4 Women and Poverty

The family labor force, formed by adults and youths no longer in school, can use the services of persons of both sexes. Given the

Table 29. Family Life Cycle and Extreme Poverty, 1970 and 1980
(percent)^{1/}

| Poverty Status and Family Life Cycle | Year | |
|---|-------|-------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Very Young | 16.2 | 24.3 |
| Young | 43.5 | 45.0 |
| Middle Aged | 36.9 | 28.9 |
| Old | 3.4 | 1.7 |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Very Young | 23.5 | 30.0 |
| Young | 32.5 | 34.9 |
| Middle Aged | 34.4 | 28.0 |
| Old | 9.9 | 7.2 |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980.

^{1/} For operational definitions of stages in the family life cycle See Appendix 1, C.3.

Table 30. Age of Heads of Families and Extreme Poverty, 1970 and 1980
(percent)

| Poverty Status and Age of Heads | Year | |
|--|-------------|-------------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| 15-29 | 18.6 | 22.6 |
| 30-39 | 31.1 | 30.7 |
| 40-49 | 25.4 | 22.5 |
| 50 or over | <u>24.9</u> | <u>24.1</u> |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| 15-29 | 19.4 | 22.9 |
| 30-39 | 25.3 | 25.2 |
| 40-49 | 22.9 | 20.8 |
| 50 or over | <u>32.4</u> | <u>31.1</u> |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

limited opportunities available to women, a family with a greater number of men in its labor force will have a greater capacity to increase its income. Inversely, the families with many women available for work will have greater difficulties. In 1970, among the poor families, 13 percent had only women in their employable members and the proportion increased in 1980 to over 20 percent (see Table 31). This indicates that the families which had at least one employable male could more easily overcome the adverse conditions of poverty. It is true that among the families above the poverty line the proportion of the "employables" including only women also increased a little (eleven percent to thirteen percent). But the same happened in those whose employables were all men: from seven to nine percent (among impoverished families there also was an increase in the proportion of the latter, from five to six percent). These numbers show a tendency towards the dissolution of the family, whether among the poor or those who are better off. Family dissolution takes on a more serious aspect when, in poor families, it means the loss of the male head. In such cases, if there are no other men in the expected family labor force, the women alone would have great difficulty in raising the standard of living of the family.

2.5 Education and Poverty

In this study, there are two ways to study the relation between education and poverty: a) through the Index of the Quality of Labor

Table 31. Sex Distribution of "Employable" Members of Families and Extreme Poverty

| Poverty Status and the Sex Distribution of "Employables" | Year | |
|---|-------------|-------------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| In Which the "Employables" are: | | |
| All Males | 4.5 | 6.4 |
| Mostly Males | 9.0 | 5.8 |
| Evenly Divided | 63.8 | 61.3 |
| Mostly Females | 9.7 | 6.5 |
| All Females | <u>13.1</u> | <u>20.1</u> |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| In Which the "Employables" are: | | |
| All Males | 6.9 | 9.3 |
| Mostly Males | 11.6 | 10.4 |
| Evenly Divided | 60.2 | 60.2 |
| Mostly Females | 9.9 | 7.2 |
| All Females | <u>11.3</u> | <u>13.0</u> |
| Totals | | |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

(IQL)^{8/} offered by the family, and b) by the Education of the Head of Household. Both are indexes of educational attainment, the former in combination with the years a person of a given educational level may expect to be productive, and his/her age, taken over all members of the family.

In 1970, 95 of the poor families offered work of low quality of very low quality (as inferred from Table 32). In 1980, this proportion was practically the same -- 92 percent. But among the non-poor families, the proportion of families with low or very low labor force quality had been 63 percent and went down to 56 percent. As can be seen, the quality of work offered in Brazil was, and continues to be, predominantly low or very low, but in the 70s enormous progress was made. Doubtless, the families which were able to increase the education of their labor force were more able to overcome poverty. However, those with the least qualified work force most probably continue among the poor.

Low or Very Low Quality of Work implies little education and/or little experience. Thus one is dealing with families with heads with little education and the other members still young. These are probably the same families which, being young and large, perhaps with relatively few employable members, were identified in the previous sections as being in a poor position to improve their lot. The second way of examining the relation between poverty and education is presented in Table 33, which shows the Education of the Head of Household. The proportions in the two tables are quite similar.

Table 32. Quality of the Family Labor Force and Extreme Poverty,
1970 and 1980 (percent)^{1/}

| Poverty Status and Quality of the Family Labor Force | Year | |
|---|------------|------------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Very Poor | 66.1 | 59.0 |
| Poor | 28.4 | 32.8 |
| Average | 5.3 | 8.0 |
| Good | <u>0.1</u> | <u>0.2</u> |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Very Poor | 28.4 | 23.5 |
| Poor | 34.4 | 32.6 |
| Average | 29.1 | 34.7 |
| Good | <u>8.1</u> | <u>9.2</u> |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations

^{1/} For operational definitions of quality of labor and its categories see:

Table 33. Education of Heads of Family and Extreme Poverty, 1970 and 1980 (percent)

| Poverty Status and the Education of Family Heads | Year | |
|--|------------|------------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Did Not Attend School | 58.3 | 58.8 |
| Attended Primary School (1 - 4 years) | 37.9 | 37.6 |
| Attended 1st Grade, Secondary (5 - 8 years) | 3.3 | 2.7 |
| Attended 2nd Grade, Secondary (9 - 11 years) | 0.3 | 0.7 |
| Attended Tertiary School (12 or more years) | <u>0.1</u> | <u>0.1</u> |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Did Not Attend School | 25.1 | 25.3 |
| Attended Primary School (1 - 4 years) | 46.5 | 48.7 |
| Attended 1st Grade, Secondary School (5 - 8 years) | 14.0 | 12.7 |
| Attended 2nd Grade, Secondary School (9 - 11 years) | 6.0 | 7.5 |
| Attended Tertiary School (12 or more years) | <u>8.4</u> | <u>5.8</u> |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

Among the poor families, about 59 percent have heads with no education and 38 percent have heads with but a primary education. Among non-poor families, these percentages were respectively, 25 and 49. Heads of poor households were and continue to be less educated and the durability of the percentages suggests that the families that escaped from poverty may well have done so by increasing the level of education of their breadwinners..

2.6 Poverty and Employment of the Head of Household

The employment of the head of household is a very important component in explaining the economic condition of the family. The manner in which he gets into the labor market -- the class ("job position") and the economic sector of the economy are two variables utilized to characterize this component.

Among the poor families, practically half of the heads of household were "self-employed" (48 percent in 1970 and 47 percent in 1980: Table 34). Here we are most probably dealing with heads of households who are self-employed vendors, small rural property holders, "jacks-of-all-trades," etc. Among the non-poor families the proportion of self-employed heads of households is much smaller and it decreased during the 70s (from 35 percent in 1970 to 30 in 1980), which probably indicates that the families which escaped from extreme poverty also underwent a transformation in the way in which they entered the labor market.

However, it is not only informal work relations that are associated with extreme poverty. Clearly this points to the

Table 34. Job Position of Heads of Families and Extreme Poverty,
1970 and 1980 (percent)

| Poverty Status and Job Position of Heads of Families | Year | |
|---|-------|-------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Employees | 37.3 | 41.8 |
| Self-employed | 48.3 | 47.4 |
| Sharecropper | 13.3 | 9.3 |
| Employers | 0.7 | 0.9 |
| Unpaid Workers | 0.4 | 0.8 |
| Total | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Employees | 58.3 | 62.4 |
| Self-employed | 34.5 | 30.4 |
| Sharecropper | 2.8 | 1.8 |
| Employers | 4.2 | 5.3 |
| Unpaid Workers | 0.0 | 0.0 |
| Total | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

existence of large numbers of low-paying jobs. Finally, the drop in the proportion of poor heads of household who are tenant farmers (thirteen percent to nine percent) should be mentioned, because it reflects the general movement toward the modernization of labor relations.

This modernization of labor relations is in its turn a reflection of the more general movement of capitalization and urbanization of economic activities. The families which, in some form, were able to accompany this movement had better opportunities to overcome poverty. But, in 1980, those that could not tended to be in the same bad jobs (or bad work) and are still in extreme poverty. About three-quarters of poor families were headed by persons occupied in the primary sector, both in 1970 and 1980. (See Table 35) Thus, agriculture and extreme poverty seem to be condemned to a lengthy partnership in Brazil. The other 25 percent of poor families have heads of household in poorly paying urban jobs: five percent in the secondary sector, five percent in civil construction, and fifteen percent in the tertiary sector. Among the non-poor families, the overall picture is more dynamic, clearly showing a movement of heads of households out of agriculture and into urban jobs. The proportion of non-poor heads of household in the primary sector fell from 38 percent in 1970 to 27 percent in 1980, while there was an increase in each of the other sectors: 14 to 18 percent in the secondary, seven to ten percent in civil construction, and 41 to 45 percent in the tertiary.

Table 35. Economic Sector of the Jobs of Heads of Families, and Extreme Poverty, 1970 and 1980 (percent)

| Poverty Status and Economic Sector of Heads of Families | Year | |
|---|-------|-------|
| | 1970 | 1980 |
| <u>Families in Extreme Poverty</u> | | |
| Primary Sector | 77.0 | 75.2 |
| Secondary Sector | 5.0 | 4.9 |
| Civil Construction | 4.6 | 5.2 |
| Tertiary Sector | 13.4 | 14.7 |
| Totals | 100.0 | 100.0 |
| <u>Families Not in Extreme Poverty</u> | | |
| Primary Sector | 38.3 | 27.2 |
| Secondary Sector | 14.0 | 18.1 |
| Civil Construction | 7.0 | 10.2 |
| Tertiary Sector | 40.7 | 44.5 |
| Totals | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

This table shows once again that poverty seems to be associated with an inability to take advantage of emerging opportunities. Families with the characteristics discussed in previous sections seem unable to find or to grasp new opportunities. They tend to stay in the same places and keep the same bad jobs. If they join migratory movements, they still do not get urban jobs, even though they are closer to them. There may be little hope for better times for these families.

3. Economic Progress and its Effects on Poverty

In sum, analysis of destitution in Brazil demonstrates two central facts. On the one hand, during the 1970s the incidence of extreme poverty fell from 44 percent of the families to 18 percent. On the other hand, the poor themselves maintained just about the same characteristics over the decade, clear evidence that large numbers of people failed to share in the new jobs and their income advantages. Poverty remained the same, though its incidence diminished in larger families, younger families, broken families, female-dominated households, and those without skills. Despite these social deficiencies, whenever opportunities arose poor families filled them as fully as possible -- increasing for example the length of their work weeks -- but remained in poverty even so. Yet the remainder of the families were more successful. They were a smaller, less complex, better prepared labor force, extended their work-weeks and -- above all -- made more money. All these facts

accelerated their rate of progress. Despite their beginning largely as impoverished families, because of transformations in size, structure and employment level, they gradually emerged from poverty. Doubtless, too, many of the unstable poor simply died. Those who stayed behind were to see progress pass them by. This difference in progress within the general picture of reduced poverty, seen in part in terms of an increase in inequality, will be a topic of the next chapter.

In Chapter One we saw that, besides the demographic and social changes experienced by the Brazilian family, its trajectory along the poverty-nonpoverty axis had a lot to do with the situation within the family — especially the head.

One of the more evident economic transformations was the sectoral change in the employment of heads of households. As noted, during the decade, Brazil underwent a rapid urbanization based on a shift from agriculture into manufacturing and services. It happened, though, that for destitute families this process was less noticeable. Table 36 shows that in both 1970 and 1980 about three-quarters of the poor families were headed by persons in the primary sector.

To work in farming or mining, then, was to continue in poverty. Social progress bypassed many of those in agriculture despite the efforts of the system to support agriculture. When it did enter farming, progress traveled in only the small minority who some way or another managed to benefit from the generous supports provided.

Table 36. Poverty and Family Head's Occupational Sector

| Families | Sector | | | | |
|----------|---------|-----------|--------------------|----------|-------|
| | Primary | Secondary | Civil Construction | Tertiary | Total |
| Poor | | | | | |
| 1970 | 77.0 | 5.0 | 4.6 | 13.4 | 100.0 |
| 1980 | 75.2 | 4.9 | 5.2 | 14.7 | 100.0 |
| Non-Poor | | | | | |
| 1970 | 38.3 | 14.0 | 7.0 | 40.7 | 100.0 |
| 1980 | 27.2 | 16.1 | 10.2 | 44.5 | 100.0 |

Source: Sample of the 1970 and 1980 demographic censuses of Brazil.
 Authors' tabulations.

In the absence of analogous social policies for the majority of farm people, it appears that in Brazil, agriculture and poverty are condemned to live in symbiosis for a long time to come.

Table 36 shows that, in counterpoint to the other families, movement toward urban employment is more accentuated. Heads of families who were not in poverty and who were in the primary sector moved from about 38 percent to about 27 percent in 1980, yielding an increase (both relative and absolute) in the remaining sectors.

But the sectoral transformation was closely associated with the formalization of work-week reductions. As noted, there has been a general shift from informal work relations to those that are more formalized and protected by labor legislation. This, however, did not take place among the poor. Nearly a half of their heads remain "self-employed" -- peddlers, small farmers, service workers, etc. Table 37 shows a slow decrease in this category, though in general it is larger among the poor families, while in the other categories more formalized jobs prevail.

It would be an exaggeration, however, to attribute all the poverty to the prevalence of "self-employment" among heads of families. We note that the percentage of the impoverished families headed by employees, already substantial, rose from 37 to 42 percent in 1980. Evidently the rise in job opportunities in the formal sector was not sufficient to erase poverty. It is quite likely, however, that a large portion of the heads of families that moved out of poverty also moved from self-employment to employment, thus getting jobs that were more stable and better paying.

Table 37. Poverty by Occupational Class, 1970-1980

| Family | Occupational Class | | | | | Total |
|----------|--------------------|---------------|---------------|----------|---------------|-------|
| | Employees | Self-Employed | Share-Cropper | Employer | Unpaid Worker | |
| Poor | | | | | | |
| 1970 | 37.3 | 48.3 | 13.3 | 0.7 | 0.4 | 100.0 |
| 1980 | 41.8 | 47.4 | 9.3 | 0.9 | 0.8 | 100.0 |
| Non-Poor | | | | | | |
| 1970 | 58.3 | 34.5 | 2.8 | 4.2 | 0.1 | 100.0 |
| 1980 | 62.4 | 30.4 | 1.8 | 5.3 | 0.0 | 100.0 |

Source: Samples of the 1970 and 1980 demographic censuses of Brazil.
 Authors' tabulations.

4. Poverty and Inequality

On the whole the 70s was a good decade for Brazil. The high rates of production and employment and the intensification of work brought a higher level of activity in the labor force, greater income per capita, and an acceleration in the vertical social mobility already in process since industrialization was launched in the 1950s. Many new jobs were created and were filled by men and women, yielding high degrees of upward mobility.

This phenomenon continued and was accentuated along the decade, even touching the lowest strata. Forty-five percent of the families were destitute in 1970, but only 18 percent in 1980.

But the new opportunities were not only available to the poor. Actually, the great majority of Brazilian families profited from them. As a result there was an increase in income per capita that touched almost all levels of the society. The benefits were felt all up and down the Brazilian social order.

But in the midst of all this general elevation, an accentuated social inequality also occurred. Because the benefits of growth were not distributed equally among the various social levels, some groups gained more, others less. Besides the obvious fact that the "rich got richer," those families that gained the most were those with intact nuclear families and those whose members had the greatest "human resources." Those who gained the least had fragmented nuclear families and whose members were poorly prepared to fill the emerging jobs, and few of whom were of working age.

Mounting inequality of poverty coupled with decreasing poverty was the result. Table 38 eloquently displays the upward shift of income, certain families advancing much more than others. An examination of the figures is instructive. As we know, the incidence of familial impoverishment dropped from 44 to 18 percent. This was an absolute decline of 7.323 million to 4.425 million families. This represents a 40 percent decrease, as Table 38 shows.

But the most impressive data (in the last column) are those showing the increasing rate of change among the various strata. While the families just above the poverty line -- those over one-quarter to less than one-half the minimum wage per capita -- moved from 4.204 million to 5.801 million, an increase of 38 percent in the higher levels, the increments accelerated rapidly moving from 130 through 203 to 326 percent. The higher groups increased more rapidly both in relative and absolute terms. This once again calls attention to the rise in social inequality experienced by Brazilians during the decade.

This is the other side of the coin of Brazil's social evolution. Practically, all groups rose. But the higher ones rose faster than the lower. This side of Brazil's socioeconomic change has received considerable attention in the technical literature and in the national debates. Usually the exercise highlights the dimension of social justice. That is, everyone recognizes that Brazil has great potentials and that its economy is evolving and will continue to do, so despite its problems. At the same time,

Table 38. Distribution of Family Income per Capita, 1970 - 1980

| Income Per Capita Families with MW | Percent of Families | | Number of Families (millions) | | Changes Over the Decade |
|---------------------------------------|------------------------|-------|----------------------------------|--------|----------------------------|
| | 1970 | 1980 | 1970 | 1980 | |
| < 1/4 | 43.9 | 17.7 | 7,323 | 4,425 | -39.6% |
| 1/4 - <1/2 | 25.2 | 23.2 | 4,204 | 5,801 | +38.0 |
| 1/2 - <1 | 16.6 | 25.5 | 2,769 | 6,376 | +130.2 |
| 1 - < 2 | 8.6 | 17.4 | 1,434 | 4,350 | +203.3 |
| ≥ 2 | 5.7 | 16.2 | 950 | 4,050 | +326.0 |
| Totals | 100.0 | 100.0 | 16,680 | 25,002 | |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980.
Authors' tabulations.

such analysts hold the nation could pay more attention to social justice than it is doing. If the 70s had seen a more just evolution, those toward the bottom would have obtained more benefit from it. In other words all would have improved but the distance between those who remained in poverty and those who did not would not have increased as it did.

Those most concerned with social justice, however, are not satisfied with the "mere" reduction of poverty from 44 to 18 percent. They would probably argue that a criterion of one-quarter of a regional minimum wage was too low in 1970 and even worse in 1980. In their favor is the concrete fact that it is practically impossible today for a head of a four-person family to support a family if he alone is employed and has merely the minimum wage -- less than 17,000 cruzeiros -- to pay for food, housing, transportation and all other costs required. For those who argue this way, the dividing line should be higher, and the picture of poverty thus drawn would appear more serious.

Nevertheless, we believe this criterion is defensible and perhaps more informative than others. We share the view of those who decry a minimum wage that is too low for those who have no choice but to try to support a family on but one minimum wage. In Brazil the most expensive item in the household budget is food, with housing just behind. Those are the items whose cost has mounted most over the decade, reducing the minimum wage to the level of mere survival, if that.

Here, we focus attention on families in extreme poverty -- families whose means are close to the level of barest survival. This is why we refer to them as the destitute, the utterly impoverished. In other words, our concern is not with relative poverty. It is not with those who are poor merely by comparison with others. This study is an attempt to reach the level of absolute poverty, the point at which survival itself is in doubt. To choose one-quarter of a minimum wage per capita is to select families who live at the limit of subsistence. It is difficult, if not impossible, to find any analysts who would argue that within this group there are those who live in a "grey area" between poverty and well-being, and that economics of scale might draw some out of poverty. Such an argument would make sense for families earning one-half of the minimum wage per capita. This would make it difficult to compare families along the decade. We would thus run the risk of comparing mixed groups, which in addition to the destitute would include many other poor people, and some who were not poor. We do not incur this risk using one-quarter of a minimum wage. There is no economics of scale, no savings plan, that could move a family at one-quarter of a minimum wage per capita out of poverty without a real increase in income. This way the homogeneity needed to draw defensible comparisons between those who are and those who are not impoverished may be secured. This is why the present study focuses on Brazilian families in extreme poverty.

FOOTNOTES

1/ For greater details about the concept of employability, see the Methodological Appendix. One might argue that this conceptualization is artificial, for to consider an adolescent of 13 years of age, for example, as "unemployable," supposing that he should devote all of his time to his studies, would be closer to an ideal situation than to the Brazilian reality. In fact, it is a useful procedure, in that it helps to describe the labor force of the poor families and to show how much they depend on the work of children and other "unemployables."

2/ If the value is zero, this indicates that the family is economically inactive or that it does not have any "employable" members.

3/ The FER measures the level of employment among "employable" family members only.

4/ Or simply there were no "employable" members. Among the poor families in urban areas percentage of inactive families reached 33 percent (or one in every three).

5/ Underemployment is understood in this study as a work load of less than 40 hours per week and includes not working and unemployment. See section A-4 of the Methodological Appendix.

6/ See Section C.2 of the Methodological Appendix.

7/ See Section C.3 of the Methodological Appendix.

8/ See Section C.4 of the Methodological Appendix.

CHAPTER III

POCKETS OF POVERTY

From what we have seen in the two previous chapters, it is clear that Brazil, underwent a profound modernization during the 70s . This movement is reflected in all key industries, whether at the individual level or at the level of the national economy. The study of deep poverty at the level of the family, however, reveals some previously unknown elements in the general picture of socioeconomic change. Although abject poverty had decreased radically, considering the relatively short period of ten years, it still affected 18 percent of the poor families in Brazil in 1980. While large numbers of families had improved their real incomes, many remained stagnant. Some needed jobs. The majority, however, were overworked, putting in very long work-weeks and putting their children out to work, but even so they remained poor.

In this chapter, our attention will continue to be given to the poor families. The objective now is to investigate pockets of poverty more deeply. We will seek to answer the following basic questions: How can we explain the differences between the poor who were unemployed and those who were overworked? Why is it that some families were working to excess, using the forces of all their theoretically employable members and even "unemployable" children, yet remained in extreme poverty? And how is it possible that some extremely poor families found themselves without jobs?

The strategy followed in this chapter is to divide the poor families according to their score levels for the available variables and to examine the differences among them. Thus, the families that were in extreme poverty will be divided according to: a) the level of family activity (unemployed, partially unemployed and employed); b) the incidence of underemployment (families with or without underemployment), c) the incidence of work overload (families with or without work overload); and finally d) the formation of the family income (mainly as obtained by the "unemployable" members of the family). Through this strategy we can answer questions such as: What distinguishes the unemployed poor families from those that were employed? How are they similar? How do the underemployed differ from those not underemployed, those overloaded with work to those who were not? What distinguished the poor families who make up their income mainly from the contributions of their theoretically employable labor force members from those who do not? Were the similarities and differences different in 1980 from what they were in 1970? In short, we will seek to identify "pockets of poverty" and to determine whether such pockets were the same at the end of the decade as they were at its beginning or whether new ones have emerged.

The last two sections of this chapter will be devoted to the examination of the regional aspects of poverty in Brazil and to the contrast between rural and urban Brazil.

1. Unemployment, Partial Unemployment, and Full Employment Among Destitute Families

We saw in the previous chapter that the great majority of the families in extreme poverty were fully employed. That is, with the possible exception of keeping one person at home to deal with household affairs, all "employable" members of most of these families had jobs. ("Employables", it will be recalled, means "if working age but not in school." See the Methodological Appendix, Section A.1). Among change across the decade.

1.1 The Jobless Destitute

Table 39 shows some of the basic characteristics of families in extreme poverty, by employment status and by seven variables describing family structure, for both 1970 and 1980.

The first category consists of those families whose employable members are all unemployed. These are the impoverished families that are severely unemployed. We note that a large percentage are broken families headed by women: 1. 47.6 percent in 1970, 47.0 in 1980. 2. Two-thirds are small: 1970, 66.2 percent, and 1980, 67.6. 3. Most are young families, over half in 1970 (58.6 percent) and almost three-quarters (72.8 percent) in 1980. 4. For both years, in almost three quarters, the employables consisted mostly of females (74.6 and 71.0 percent respectively). 5. Inexperienced at work and poorly educated, the overall quality of labor they are able to offer to employers was quite poor in both years, at 89.9 percent

Table 39. Unemployment Among "Employable"^{1/} Members of Families in Extreme Poverty, by Family Structure Variables, 1970 and 1980 (percent)

[illegible]

Table 39. Unemployment Among "Employable"^{1/} Members of Families in Extreme Poverty, by Family Structure Variables, 1970 and 1980 (percent)

| | <u>All Members Unemployed</u> | | <u>Some Members Unemployed</u> | | <u>All Members Employed</u> | | <u>Totals Families Extreme Poverty</u> | |
|--|-----------------------------------|-------|------------------------------------|-------|---------------------------------|-------|--|-------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Quality of Family Labor</u> ^{3/} | | | | | | | | |
| Very Poor | 69.1 | 60.6 | 57.9 | 47.0 | 67.0 | 59.8 | 66.1 | 59.0 |
| Poor | 20.8 | 22.6 | 39.0 | 47.9 | 27.8 | 33.9 | 28.4 | 32.8 |
| Average | 9.8 | 16.1 | 3.0 | 5.1 | 5.1 | 6.2 | 5.3 | 8.0 |
| Good | 0.3 | 0.7 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Economic Sector, Head's Job</u> | | | | | | | | |
| Primary | 94.0 | 55.5 | 73.9 | 76.9 | 75.0 | 75.5 | 77.0 | 75.2 |
| Secondary | 1.1 | 5.6 | 5.7 | 5.1 | 5.5 | 4.9 | 5.0 | 4.9 |
| Civil Construction | 1.3 | 8.2 | 4.7 | 5.2 | 5.0 | 5.1 | 4.6 | 5.2 |
| Tertiary | 3.6 | 30.8 | 15.8 | 12.9 | 14.5 | 14.5 | 13.4 | 14.7 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Income From "Unemployables"</u> ^{1/} | | | | | | | | |
| Only From "Unemployables" | 90.5 | 89.4 | 0.8 | 2.8 | 0.6 | 3.8 | 11.2 | 20.2 |
| Mostly From "Unemployables" | 0.3 | 0.9 | 3.9 | 5.5 | 2.7 | 3.6 | 2.6 | 3.2 |
| Mostly From "Employables" | 0.4 | 0.5 | 10.0 | 10.5 | 6.5 | 7.2 | 6.2 | 6.2 |
| Only From "Employables" | 8.8 | 9.1 | 85.3 | 81.2 | 90.2 | 85.5 | 80.1 | 70.5 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

^{1/} "Unemployables" are family members who would normally be in school or at home, except for economic necessity. For the operational definition see:

^{2/} For an operational definition of family life cycle concepts see:

^{3/} For an operational definition of quality of family labor, see:

in 1970 and 83.2 percent in 1980. 6. There was a tendency for them to be concentrated on the farms. In 1970 they were practically all (94.0 percent) there. Yet by 1980 the proportion had dropped dramatically, to just over half (55.5 percent). 7. Of these 850,000 destitute families whose theoretically employable members were jobless, fully nine-tenths survived by putting their "unemployables" -- mostly children and adolescents -- out to work (90.5 and 89.4 percent, respectively, in the two years).

Thus by 1980, 20 percent of the more than four million destitute families had no adult (employable) breadwinners whatsoever. They survived by putting their unemployables -- mostly school-aged youngsters -- out to work. Slightly over half still found themselves on the farms. Large numbers consisted mostly of females, nearly half were headed by women. Most of these families were young, and were ill-prepared for the world of work. In other words several million extremely poor people eked a meager living without having a single employed person of working age in their family. They were mostly women and there were ill-equipped to work.

1.2 The Partly-Employed Destitutes

Partially employed families are those in which at least one of their theoretically employable members is employed, but in which some such members are out of work. Like the foregoing, they are severely impoverished. But unlike them, at least one working age person had a job. 1. It will be seen (in columns three and four)

that practically all were intact families, married couples with dependents (over 90 percent in both years). In 1980, nearly two-thirds were nuclear families (64.9 percent) and just under one-third were extended families (28.9 percent). 2. Unlike the jobless families which tended to be small, these were large. Nearly nine-tenths (1970 -- 87.4 percent; 1980 -- 89.2 percent) had five or more members, and about a quarter (1970 -- 25.8 percent; 1980 -- 22.5 percent) had ten or more members. 3. Three-quarters were older and thus relatively stabilized families (76 percent in 1980, 74.5 percent in 1970). 4. Like the unemployed destitutes, most are made up mostly of females (63.5 percent in 1970; 62.8 in 1980). 5. Again like the first group, but even more so, the quality of work skills they had to offer was extremely low (96.9 percent "poor" or "very poor" in 1970; 94.9 percent in 1980). 6. In both periods, about three-quarters were to be found in agriculture (73.9 percent and 76.9 percent in 1970 and 1980, respectively). 7. In sharp contrast to the unemployed in extreme poverty, it was those of working age, the "employables," who provided the means for practically all (85.3 and 81.2 percent in 1970 and 1980, respectively), although helped out in about one-tenth of the families (10.0 percent in 1970; 10.5 percent in 1980).

Thus by 1980, the one-third million destitute families that were partially employed stood in rather clear contrast to the unemployed destitute. They were mostly extended large, middle-aged intact or extended families who depended largely on adults for income and who

were concentrated on the farms. Like the unemployed destitute, they were composed mostly of females, and the quality of labor they offered in the labor market was quite low — they were poorly educated.

1.3 The Fully-Employed Destitute

Yet by far the most numerous category of the destitute was consisted of families whose employable members were all employed (allowing in some cases for one such member to stay at home to take care of domestic affairs). They had what would appear to be sufficient work, yet they were still poor. These comprised 73 percent of Brazil's destitute families — very likely around 20 million people. 1. Three-quarters were intact nuclear families (76.2 and 78.9 percent in 1970 and 1980), and an additional tenth or so were female-headed broken homes. 2. They were neither as small as the destitute unemployed families nor as large as those who were partially employed. 3. Likewise they occupied an intermediate position regarding their stage in the family life cycle. 4. The sex distribution was rather even. Four-fifths fell into that category (79.3 and 79.7 percent in 1970 and 1980, respectively). 5. Like those in the other categories, three-fifths or more of these families had meager skills to offer to employers, and another one-third were hardly any better. 6. Again, in both years, three-quarters were found on the farms. 7. Finally, in both years, four-fifths or more gained earnings only from employable family

members. Yet it is worth noting that 11.2 percent obtained their earnings only from unemployables.

The main observations about these families lie in their very definition and in their numbers. Their employable members all have jobs, but their per capita incomes are so low as to reduce them to extreme poverty; and even in 1980 their numbers were vast -- more than three million families and, to repeat, perhaps 20 million individuals or three-quarters of Brazil's destitute. But more remains to be said. They tend to be rather large, complete families toward the middle of the more mature section of the family life cycles. And like other destitute families, they have little skill or experience to offer to employers.

1.4 Conclusions

Perhaps the most characteristic aspects of the destitute are their concentration in agriculture and their lack of marketable skills. For the most part their employable members are fully employed, though their earnings are meager. But of all the theoretically employed members, 20 percent or so of them are unemployed. Female-headed families are especially vulnerable to destitution in general, and to unemployment in particular, and the percentage of destitute families of this sort increased over the decade, from 12.0 percent female headed in 1970 to 16.2 percent in 1980. In about half of these, all of the theoretically employable

members were out of work, and nine-tenths of them tried to make ends meet by putting children out to work.

2. Underemployment Among the Urban Destitute

Urban families are here considered to be underemployed if more than two of their employable members were employed less than forty hours per week. As measured this way, the percentage underemployed among destitute urban families fell from 28 percent in 1970 to 18 percent in 1980. Thus 18 percent of the 1.6 million urban families in extreme poverty — about 400,000 families or well over two million persons — found themselves underemployed.

Underemployment, then, was a factor in extreme poverty in less than a fifth of the urban afflicted. The family characteristics of this set were as follows. 1. Underemployed urban families were nearly always complete families. Ninety-two percent were either intact nuclear families or extended families (see Table 40). 2. They were large. One-half (55 percent) have seven or more members. 3. They were well-established, over half being at least in the middle stages of the family life cycle. 4. They tended to be oversupplied with females; 33.5 percent are "mostly female." 5. More than half of the heads, 53.0 percent, were employees, and practically all the others, 43.0 percent, were self-employed. 6. Although these families live in Brazil's urban areas, a large percentage, 36.0 percent of the heads were employed in agriculture. (A small percentage, 3.6, were even sharecroppers.) Most of the

Table 40. Underemployment Among "Employable"^{1/} Members of Urban Families in Extreme Poverty, 1970 and 1980 (percent)

| Family Variables | Family Employment Status | | | | | |
|--------------------------------|--------------------------|---------------|---------------|---------------|--------|--------|
| | No Members | | At Least | | | |
| | Underemployed | Underemployed | Underemployed | Underemployed | Totals | Totals |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Family Type</u> | | | | | | |
| Nuclear, Intact | 63.0 | 73.8 | 57.8 | 68.4 | 61.4 | 57.6 |
| Nuclear, Extended | 9.2 | 6.3 | 24.7 | 23.4 | 23.6 | 9.1 |
| Broken, Male Head | 1.4 | 0.6 | 1.2 | 0.7 | 1.4 | 1.1 |
| Broken, Female Head | 22.0 | 17.7 | 13.5 | 6.0 | 19.6 | 28.8 |
| Couple Only | 4.4 | 1.6 | 3.0 | 1.5 | 4.1 | 3.4 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Size of Family</u> | | | | | | |
| Two to Four | 35.9 | 26.9 | 25.8 | 16.0 | 33.3 | 39.3 |
| Five or Six | 30.4 | 35.6 | 27.5 | 28.8 | 29.5 | 29.4 |
| Seven or More | 33.6 | 37.6 | 46.7 | 55.3 | 37.2 | 31.3 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Family Life Cycle</u> | | | | | | |
| Very Young | 13.0 | 18.0 | 10.1 | 9.2 | 12.9 | 22.5 |
| Young | 46.4 | 49.8 | 32.9 | 37.3 | 43.1 | 44.1 |
| Middle Aged | 37.6 | 31.6 | 49.2 | 49.7 | 40.4 | 31.7 |
| Old | 2.2 | 0.7 | 7.8 | 3.8 | 3.6 | 1.7 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Sex Distribution</u> | | | | | | |
| Male Only | 6.2 | 4.0 | 0.2 | 0.2 | 4.5 | 7.3 |
| Mostly Males | 2.8 | 2.7 | 14.7 | 25.8 | 6.2 | 3.8 |
| Evenly Divided | 61.8 | 75.0 | 44.2 | 45.3 | 56.8 | 49.6 |
| Mostly Females | 1.7 | 1.2 | 30.6 | 33.5 | 9.9 | 5.4 |
| Females Only | 27.6 | 17.2 | 10.3 | 4.2 | 22.7 | 33.9 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Quality of Family Labor</u> | | | | | | |
| Very Poor | 51.6 | 45.8 | 47.7 | 40.2 | 50.5 | 46.6 |
| Poor | 35.7 | 41.9 | 44.5 | 50.7 | 38.2 | 37.9 |
| Average | 12.3 | 12.0 | 7.7 | 9.1 | 11.0 | 14.9 |
| Good | 0.3 | 0.3 | 0.2 | 0.0 | 0.2 | 0.5 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table 40. Underemployment Among "Employable"^{1/} Members of Urban Families in Extreme Poverty, 1970 and 1980 (percent)

| | No Members Underemployed | | At Least Some Members Underemployed | | Totals | |
|--|-----------------------------|-------|---|-------|--------|-------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Structural Position of the Head's Job</u> | | | | | | |
| Employee | 66.4 | 67.9 | 54.4 | 53.0 | 63.2 | 65.4 |
| Self Employed | 30.3 | 28.4 | 38.5 | 43.0 | 32.5 | 30.8 |
| Share-cropper | 2.7 | 2.6 | 6.0 | 3.3 | 3.6 | 2.7 |
| Employer | 0.4 | 0.6 | 0.5 | 0.4 | 0.4 | 0.6 |
| Unpaid Worker | 0.3 | 0.5 | 0.6 | 0.2 | 0.4 | 0.5 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Economic Sector, Head's Job</u> | | | | | | |
| Primary | 42.1 | 32.6 | 57.2 | 36.0 | 46.4 | 32.8 |
| Secondary | 11.9 | 11.3 | 7.9 | 9.2 | 10.7 | 10.9 |
| Civil Construction | 11.9 | 15.2 | 8.2 | 11.7 | 10.9 | 14.7 |
| Tertiary | 34.1 | 40.9 | 26.6 | 43.1 | 32.0 | 41.6 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Income From "Unemployables"</u> | | | | | | |
| Only From "Unemployables" | 20.3 | 4.0 | 14.6 | 1.9 | 18.7 | 3.6 |
| Mostly From "Unemployables" | 2.4 | 2.4 | 3.0 | 3.8 | 2.6 | 2.7 |
| Mostly From "Employables" | 5.6 | 8.1 | 7.6 | 9.3 | 6.2 | 8.3 |
| Only From "Employables" | 71.6 | 85.5 | 74.8 | 85.0 | 72.5 | 85.4 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

remainder, 43.1 percent of the total, were employed in service jobs. 7. Few obtained much of the family income from the work of "unemployable" members of the family. Eighty-five percent depended only on their "employable" members, whilst another 9.3 percent depended mostly on them.

2.1 Conclusions

In a sense, it comes as no surprise that the urban destitutes tend to be found in the most poorly paid sectors of the economy, the primary and tertiary. Yet would we have expected so many to be in farming? This deserves further analysis, going beyond present possibilities, although a few observations are feasible. For one, it is not unusual in Brazil for otherwise unused urban tracts to be turned over to temporary occupancy. For example, many of the favelas, or shanty-towns, are built on property held in reserve for large organizations such as the Navy or the railroads. More to the point, one may see garden plots and the shacks of their operators on such sites as urban university campuses. On reflection, then, portions of the destitute urban farmers are involved in small scale commercial (and probably subsistence) farming on borrowed or rented land in the cities. But another phenomenon must account for much larger numbers - the "boias-frias" or "trabalhadores-volantes." The former word means "cold lunchers" and the latter "transient" or "flitting." But "day-laborer" is probably more accurate. Over the nation as a whole, a pattern has grown up in recent decades in which a person or group with access to a truck will, on any particular

day, pick up a load of city dwellers who offer themselves for farm work. The trucker drops the workers on the farms in the morning and picks them up. The trucker gets a payment in proportion to the number of workers he provides and the worker a wage for the day.

So destitute urban families tend not to be broken, but rather nuclear or extended, to have an excess of females, to draw only (or mainly) on earnings of their adult members, to be large, and to be concentrated in farming and service jobs (doubtless with low skill requirements). In any case, underemployment as such does not afflict a very high proportion of the urban families. We infer that the employable members are in unstable jobs. Within a family, the male head usually has the most stable employment. Yet the urban poor, especially the underemployed, tend to be found in the unstable primary or tertiary sectors.

3. The Use of "Unemployable" Members of the Family

Unemployables, it will be recalled, are mostly children or adolescents -- persons who would normally be expected to be full-time students. In this section, we examine the relationship between the use of unemployables and several family variables.

3.1 General Patterns

In certain of these variables the two categories of destitute families are sharply distinguished, both in 1970 and 1980 (see Table 41). Unemployable family members were much more frequently put out

Table 41. Employment of "Unemployable"^{1/} Members of Families in Extreme Poverty, 1970 and 1980 (percent)

| Family Variables | Family Employment of "Unemployables" | | | | | |
|--|--------------------------------------|------|-----------------|------|-------|------|
| | "Unemployables" | | "Unemployables" | | Total | |
| | Not Employed | | Employed | | | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Size of Family</u> | | | | | | |
| Two to Four | 38.5 | 41.5 | 10.0 | 11.7 | 33.5 | 36.1 |
| Five or Six | 30.5 | 32.3 | 20.8 | 23.3 | 28.8 | 30.8 |
| Seven or More | 31.0 | 26.6 | 69.0 | 65.0 | 37.8 | 33.1 |
| <u>Family Life Cycle</u> | | | | | | |
| Very Young | 18.7 | 26.7 | 1.7 | 4.0 | 16.2 | 24.3 |
| Young | 48.3 | 48.1 | 15.0 | 19.2 | 43.5 | 45.0 |
| Middle Aged | 30.1 | 23.6 | 77.1 | 73.1 | 36.9 | 28.9 |
| Old | 2.9 | 1.5 | 6.3 | 3.7 | 3.4 | 1.7 |
| <u>Sex Distribution</u> | | | | | | |
| Male Only | 4.9 | 6.9 | 2.8 | 3.3 | 4.5 | 6.4 |
| Mostly Males | 6.9 | 4.5 | 18.7 | 11.8 | 9.0 | 5.8 |
| Evenly Divided | 65.1 | 62.5 | 57.4 | 55.7 | 63.8 | 61.3 |
| Mostly Females | 8.4 | 5.6 | 15.4 | 11.0 | 9.7 | 6.5 |
| Females Only | 14.7 | 20.4 | 5.7 | 18.2 | 13.1 | 20.1 |
| <u>Quality of Family Labor</u> | | | | | | |
| Very Poor | 62.9 | 56.7 | 80.8 | 69.9 | 66.1 | 59.0 |
| Poor | 30.6 | 33.9 | 18.2 | 27.3 | 28.4 | 32.8 |
| Average | 6.3 | 9.1 | 1.0 | 2.6 | 5.3 | 8.0 |
| Good | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | 0.2 |
| <u>Economic Sector Head's Job</u> | | | | | | |
| Primary | 74.4 | 72.5 | 89.0 | 86.6 | 77.0 | 75.2 |
| Secondary | 5.6 | 5.4 | 2.4 | 2.8 | 5.0 | 4.9 |
| Civil Construction | 5.1 | 5.7 | 2.2 | 3.0 | 4.6 | 5.2 |
| Tertiary | 14.9 | 16.3 | 6.5 | 7.6 | 13.4 | 14.7 |
| <u>Structural Position of the Head's Job</u> | | | | | | |
| Employee | 39.9 | 44.5 | 26.2 | 29.3 | 37.3 | 41.6 |
| Self employed | 46.4 | 45.3 | 56.2 | 56.7 | 48.3 | 47.4 |
| Share-cropper | 12.6 | 8.6 | 16.4 | 12.3 | 13.3 | 9.3 |
| Employer | 0.7 | 0.9 | 0.9 | 1.1 | 0.7 | 0.9 |
| Unpaid Worker | 0.5 | 0.8 | 0.3 | 0.7 | 0.4 | 0.8 |
| <u>Income From "Unemployables"</u> | | | | | | |
| Only from "Unemployables" | 12.9 | 21.3 | 1.2 | 14.4 | 11.2 | 20.2 |
| Mostly from "Unemployables" | 0.3 | 1.2 | 13.0 | 12.9 | 2.6 | 3.2 |
| Mostly from "Employables" | 0.3 | 1.2 | 13.0 | 12.9 | 6.2 | 6.2 |
| Only from "Employables" | 86.5 | 76.0 | 52.2 | 43.4 | 80.1 | 70.5 |

to work in larger families (seven or more): three-fifths of the large families did this. They are more often used in middle-aged families; three-quarters of them used unemployables. They were more likely to be used when the quality of family labor was poor; about three-quarters of those offering unqualified labor did so. They were a bit more often used within farm families; nine-tenths did this.

3.2 Differences Between 1970 and 1980

There are only two noteworthy differences between the two times regarding the use of unemployables. First, there was a modest increase (seven percent) in the use of such workers in families composed only of females. Second, there was an increase (nine percent) in the incidence of exclusive dependence upon income from unemployables.

3.3 Conclusions

The dependence of destitute families on income from unemployables -- mostly children and adolescents -- was thus most characteristic of the bigger, the middle-aged, the rural, and the poorly qualified families. There was an increase in the use of such persons by female-only families. And in fact, across the decade, there was an increase in the dependence upon unemployables alone.

4. Work Overload of the Employables Among the Urban Destitute

It will be recalled that among those who are appropriate breadwinners, the "employables," we have considered those urbanites who work over 48 hours per week to be "overworked." Here we wish to learn what changes took place over the decade in the incidence of this type of work overload, and how the patterns of relationship of overload vary with other factors.

The data are presented in Table 42. Regarding the overall shift, destitute urban families with overworked employables were rather younger in 1980 (60.3 percent) than in 1970 (44.8 percent), and they were a bit less likely to gain income from their unemployables (1980, 30.1 percent; 1970, 41.3 percent).

5. Unemployables as Sources of Income, 1970 and 1980

In a few respects, changes occurred in the incidence of the use of those whom families would not normally expect to put out to work.

Two salient points may be made about destitute families who obtained most of their income through the employment of their theoretically unemployable members. (See Table 43). First, the proportion of "young" and "very young" families who were dependent upon them rose from 49 percent to 69, there was of course, a corresponding decrease among older families. Second, there was a decrease of about 14 percent (39.3 minus 25.4) whose heads were wage-workers ("employables"). Both of these changes may be

Table 42. Total Work Overload Among Urban Families in Extreme Poverty:
 Extended Working Hours (Over 48 hours/week) Among
 "Employable" Members Combined with Employment of "Unemployable"
 Members, 1970 and 1980 (percent).

| Family Variables | Family Work Overload | | | | | |
|------------------------------------|--------------------------------------|-------|----------------------------------|-------|-------|-------|
| | Families That Were Not Overworked | | Families That Were Overworked | | Total | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Size of Family</u> | | | | | | |
| Two to Four | 37.8 | 27.9 | 20.5 | 20.6 | 33.3 | 39.3 |
| Five or Six | 29.9 | 35.4 | 28.8 | 32.9 | 29.5 | 29.4 |
| Seven or More | 32.3 | 36.7 | 50.8 | 46.5 | 37.2 | 31.3 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Family Life Cycle</u> | | | | | | |
| Very Young | 14.6 | 18.0 | 8.3 | 14.8 | 12.9 | 22.5 |
| Young | 45.6 | 49.8 | 36.5 | 45.5 | 43.1 | 44.1 |
| Middle Aged | 36.3 | 31.2 | 51.6 | 38.5 | 40.4 | 31.7 |
| Old | 3.5 | 1.0 | 3.7 | 1.4 | 3.6 | 1.7 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Sex Distribution</u> | | | | | | |
| Male Only | 4.6 | 2.4 | 4.1 | 4.5 | 4.5 | 7.3 |
| Mostly Males | 5.6 | 4.9 | 7.7 | 5.6 | 6.2 | 3.8 |
| Evenly Divided | 56.8 | 72.3 | 56.7 | 66.1 | 56.8 | 49.6 |
| Mostly Females | 8.8 | 5.6 | 12.7 | 8.8 | 9.9 | 5.4 |
| Females Only | 24.2 | 14.7 | 18.8 | 15.1 | 22.7 | 33.9 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Economic Sector, Head's Job</u> | | | | | | |
| Primary | 51.9 | 32.3 | 31.5 | 34.5 | 46.4 | 32.8 |
| Secondary | 10.0 | 11.2 | 12.7 | 10.5 | 10.7 | 10.9 |
| Civil Construction | 9.9 | 14.5 | 13.5 | 14.7 | 10.9 | 14.7 |
| Tertiary | 28.2 | 41.9 | 42.3 | 40.3 | 32.0 | 41.6 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Income From "Unemployables"</u> | | | | | | |
| Only From "Unemployables" | 21.3 | 1.7 | 11.8 | 6.1 | 19.3 | 30.2 |
| Mostly From "Unemployables" | 0.6 | 0.4 | 8.0 | 5.9 | 2.6 | 3.4 |
| Mostly From Employables | 0.5 | 1.4 | 21.5 | 18.1 | 6.2 | 6.3 |
| Only From "Employables" | 77.6 | 96.5 | 58.7 | 69.9 | 72.0 | 60.1 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table 43. Major Source of Income of Families in Extreme Poverty by Family Structure Variables, 1970 - 1980 (percent)

| Family Characteristics | Major Source of Income | | | | | |
|--------------------------------|---|-------|------------------------------|-------|--------|-------|
| | "Unemployables" Family Members ^{1/} | | Employable Family Members | | Totals | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| <u>Family Type</u> | | | | | | |
| Nuclear, Intact | 34.8 | 37.9 | 73.7 | 77.8 | 68.4 | 68.9 |
| Nuclear, Extended | 10.2 | 12.4 | 13.5 | 9.1 | 13.1 | 9.8 |
| Broken, Male Head | 2.3 | 2.2 | 1.6 | 1.0 | 1.7 | 1.3 |
| Broken, Female Head | 40.1 | 37.5 | 7.5 | 9.6 | 12.0 | 16.2 |
| Couple Only | 12.5 | 8.0 | 3.6 | 2.5 | 4.8 | 3.8 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Size of Family</u> | | | | | | |
| Two to Four | 58.4 | 61.0 | 29.5 | 29.5 | 33.5 | 36.1 |
| Five or Six | 18.2 | 19.7 | 30.5 | 34.5 | 28.8 | 30.8 |
| Seven or More | 23.4 | 19.3 | 40.0 | 36.0 | 37.8 | 33.1 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Family Life Cycle</u> | | | | | | |
| Very Young | 18.1 | 34.6 | 16.0 | 22.1 | 16.2 | 24.3 |
| Young | 30.9 | 34.2 | 44.8 | 47.4 | 43.5 | 45.0 |
| Middle Aged | 43.4 | 27.8 | 36.3 | 29.2 | 36.9 | 28.9 |
| Old | 7.6 | 3.4 | 3.0 | 1.3 | 3.4 | 1.7 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Sex Distribution</u> | | | | | | |
| Male Only | 13.1 | 15.9 | 3.2 | 3.4 | 4.5 | 6.4 |
| Mostly Males | 1.9 | 1.7 | 10.1 | 7.0 | 9.0 | 5.7 |
| Evenly Divided | 17.7 | 21.7 | 70.9 | 73.4 | 63.8 | 61.3 |
| Mostly Females | 4.9 | 2.9 | 10.4 | 7.6 | 9.7 | 6.5 |
| Females Only | 62.5 | 57.8 | 5.4 | 8.5 | 13.1 | 20.1 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>Quality of Family Labor</u> | | | | | | |
| Very Poor | 71.4 | 62.9 | 65.3 | 57.8 | 66.1 | 59.0 |
| Poor | 20.3 | 23.3 | 29.7 | 35.7 | 28.4 | 32.8 |
| Average | 3.1 | 13.2 | 4.9 | 6.4 | 5.3 | 8.0 |
| Good | 0.2 | 0.6 | 0.1 | 0.1 | 0.1 | 0.2 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table 43. Major Source of Income of Families in Extreme Poverty by Family Structure Variables, 1970 - 1980 (percent), continued

| Family Characteristics | Major Source of Income | | | | | |
|--|---|-------|------------------------------|-------|--------|-------|
| | "Unemployables" Family Members ^{1/} | | Employable Family Members | | Totals | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Structural Position of the Head's Job | | | | | | |
| Employee | 39.3 | 25.4 | 37.2 | 42.9 | 37.3 | 41.6 |
| Self Employed | 41.3 | 49.2 | 48.6 | 47.3 | 48.3 | 47.9 |
| Share-cropper | 12.2 | 15.0 | 13.4 | 8.8 | 13.3 | 9.3 |
| Employer | 0.3 | 0.9 | 0.7 | 0.9 | 0.7 | 0.9 |
| Unpaid Worker | 6.9 | 9.6 | 0.1 | 0.1 | 0.4 | 0.8 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Economic Sector, Head's Job | | | | | | |
| Primary | 93.3 | 82.6 | 74.4 | 74.6 | 77.0 | 75.2 |
| Secondary | 1.1 | 2.1 | 5.6 | 5.1 | 5.0 | 4.9 |
| Civil Construction | 0.9 | 1.7 | 5.1 | 5.5 | 4.6 | 5.2 |
| Tertiary | 4.7 | 13.6 | 14.8 | 14.8 | 13.4 | 14.7 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

^{1/} "Unemployables" are family members who would normally be in school or at home, except for economic necessity.

reflections of the job opportunities in the urban centers and the flow of people off the outlying farms. Even so, the percentage that were headed by persons employed in agriculture remained high, while falling from 93 to 83 percent among those depending mainly on unemployables, a shift that was balanced almost entirely by an increase in families headed by persons in service industries (the tertiary sector: from 4.7 percent in 1970 to 13.6 in 1980).

6. The Regional Distribution of Extreme Poverty

Data describing regional variations in the incidence of destitute families in 1970 and 1980 are presented in Table 44. Several observations may be made.

First, it comes as no surprise to Brazilians that destitute families are concentrated in the Northeast. Less than one-third of the nation's families live there, but two-fifths to one-half of those who were destitute during the growth decade were to be found there. Second, indeed, this tendency toward a Northeastern concentration of extreme poverty increased markedly over the decade, from 41 percent to 50 percent.

Third, this should not mislead one to conclude that the incidence of extreme poverty increased in the Northeast -- or anywhere else for that matter. In fact, the absolute number of destitute families in the Northeast fell from three million to 2.2 million or from about 18 million to perhaps 11 million individuals.

Fourth, the poverty rate fell rather sharply in the Southeast, from 33.1 percent to 26.0 percent. In absolute numbers this

Table 44. The Regional Distribution of Extreme Poverty, 1970 and 1980 (percent)

| Region | Family Poverty Status | | | | | |
|--------------|-----------------------|-----------|----------------|------------|------------|------------|
| | In Poverty | | Not in Poverty | | Totals | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| North | 3.3 | 5.0 | 3.5 | 4.3 | 3.4 | 4.4 |
| Northeast | 40.9 | 50.0 | 19.0 | 22.3 | 28.6 | 27.2 |
| Southeast | 33.1 | 26.0 | 53.6 | 49.8 | 44.6 | 45.6 |
| South | 17.5 | 14.3 | 18.7 | 17.3 | 18.2 | 16.7 |
| Central West | 5.1 | 4.8 | 5.2 | 6.3 | 5.2 | 6.1 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Numbers | 7,322,480 | 4,417,860 | 9,360,376 | 20,587,283 | 16,682,856 | 25,005,143 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

represents a decline from 2.4 million families to 1.1 million. As a result, the proportion of the poverty stricken among the families of the Southeast fell from over two-fifths to about one-tenth. In summary, over all the nation, the incidence of extreme poverty fell. But the rate at which it did so varied from region to region, resulting in a growth in the relative concentration of poverty. Already tending to concentrate in the Northeast in 1970, relatively speaking it was even more so in 1980. While this is worth knowing, the central fact is the absolute decline is experienced everywhere.

7. Foci of Poverty

In previous sections we were able to identify some of the characteristics present in poor families. Their persistent association with poverty led us to identify such characteristics as foci of poverty. Now we can determine how these foci of poverty are distributed through the regions of Brazil. This may be done by comparing data in Table 44 with those in Table 45. In the Northeast the special characteristics of destitute families are these. First, their families are large, 53% of them in 1980. Second, their heads tend to be concentrated in precarious jobs - 59 percent were self-employed, 52 percent tenant farmers (who might also be self-employed), and 55 percent were in farming. It seems clear, then, that Northeastern poverty is related to its lack of manufacturing and its emphasis on farming.

Table 45. Regional and Social Structural Concentrations of Extreme Poverty, 1970 and 1980
(percent)^{1/}

| Concentrations of Poverty by Social Structural Location | Concentrations of Poverty by Region | | | | | | | | | |
|---|-------------------------------------|------|-----------|------|-----------|------|-------|------|-----------------|------|
| | North | | Northeast | | Southeast | | South | | Central West | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Female Headed Families | 3.6 | 5.4 | 45.9 | 47.2 | 34.7 | 30.9 | 11.0 | 11.6 | 4.7 | 4.9 |
| Large Families (seven or more) | 4.3 | 6.4 | 39.7 | 53.3 | 32.7 | 22.8 | 17.5 | 12.2 | 5.8 | 5.4 |
| Families Composed Mostly of Women | 3.0 | 4.0 | 39.1 | 48.1 | 36.3 | 28.3 | 17.7 | 15.9 | 3.9 | 3.7 |
| Families Composed Only of Women | 3.2 | 4.8 | 43.6 | 47.4 | 36.0 | 31.5 | 12.7 | 11.9 | 4.5 | 4.4 |
| Young and Very Young Families | 3.4 | 5.6 | 40.8 | 45.4 | 32.2 | 28.6 | 18.0 | 15.0 | 5.6 | 5.4 |
| Old and Middle Aged Families | 3.7 | 6.3 | 36.3 | 41.0 | 36.2 | 28.2 | 18.6 | 18.6 | 5.3 | 5.9 |
| Families Offering Labor of Poor or Very Poor Quality | 3.3 | 4.8 | 41.9 | 51.7 | 32.6 | 25.1 | 16.9 | 13.7 | 5.2 | 4.7 |
| Families Headed by the Self-Employed | 5.1 | 7.1 | 49.5 | 59.3 | 19.9 | 15.5 | 19.9 | 14.0 | 5.7 | 4.2 |
| Families Headed by Sharecroppers | 0.4 | 1.2 | 35.1 | 52.2 | 37.5 | 19.2 | 19.4 | 21.7 | 7.6 | 5.7 |
| Families Whose Head was Employed in the Primary Sector | 3.4 | 4.7 | 43.4 | 54.9 | 29.6 | 21.0 | 18.3 | 14.9 | 5.3 | 4.5 |
| Families Whose Head was Employed in the Tertiary Sector | 3.4 | 6.1 | 35.6 | 43.5 | 41.9 | 32.7 | 14.3 | 11.7 | 4.8 | 6.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980. Authors' tabulations.

^{1/} The row totals of each social structural location variable sum to 100.0 percent for each of the two years.

The Southeast presents a different picture. Here poverty appears to be linked to the demands of manufacturing on the population residing in the great centers. Twenty-six percent of the nation's destitute lived there in 1980. More specifically, women figure much more distinctively into destitution in the Southeast than elsewhere. No less than 35 percent of the region's destitute families were headed by women. In 28 percent of the region's extremely poor families, there were a preponderance of women. Among 32 percent of them, all of the employable members were women. It would appear then that the Southeast's economic structure strikes women particularly severely. It appears easier, that is, for men to obtain adequate jobs. When the family lacks employable men, the burden thus added to the already onerous domestic responsibilities of women tends to drive the family into destitution.

In general, the two overwhelmingly populous regions of the nation are the Northeast with its labor intensive agricultural base, and the Southeast with its manufacturing and its capital-intensive agriculture. In each, destitution appears to be intimately tied to the region's economic structure. In the Northeast extreme poverty is strikingly tied to farming. In the Southeast it appears to be a consequence of the demands of the industrial system and perhaps of capital-intensive farming. So female-dominated families are most vulnerable to its ravages.

8. The Rural vs. the Urban

Again and again evidence reported herein have suggested that poverty is particularly tied to rural life in Brazil.

In 1970 about 2.6 million destitute families lived in urban areas, 4.7 million in rural areas. For each impoverished family in the urban areas there were almost two in the rural areas. In 1980, urban poverty decreased to 1.6 million poor families and rural poverty to 2.8 million, thus maintaining practically the same proportion. Thus it can be said that the decrease in the incidence of poverty proceeded at about the same pace in both the cities and the rural areas. (Given the rapid flow of people into the cities, it should be noted that rural poverty decreased because the poor moved to the cities, while urban poverty decreased despite the influx of the poor). But the incidence of destitution varied greatly between the two types of regions. In the urban areas in 1980 it represented a little less than 10% of the families (27% in 1970), and in the rural world it reached 36% (67% in 1970). Although urban poverty is more visible it is less dramatic in scope than is rural poverty. (See Table 46)

It is not only in quantitative terms, however, that the two poverties are distinguishable. Urban poor families are different from rural ones in relation to the difficulties of the labor market. We saw in previous chapters that considerable portions of the employable members were less than fully employed. In such circumstances it is not surprising that many sought support by

Table 46. Urban-Rural Residence of Families and the Incidence of Extreme Poverty. 1970-1980
(percent)

| Poverty Status | Urban-Rural Residence | | | | | |
|------------------------|-----------------------|------------|-----------------------|-----------|---------------|------------|
| | <u>Urban Families</u> | | <u>Rural Families</u> | | <u>Totals</u> | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| In Extreme Poverty | 27.0 | 9.4 | 67.4 | 36.2 | 43.9 | 17.7 |
| Not in Extreme Poverty | 73.0 | 90.6 | 32.6 | 63.8 | 56.1 | 82.3 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Numbers | 9,711,118 | 17,261,928 | 6,975,738 | 7,743,215 | 16,682,856 | 25,005,143 |

Source: IBGE. Samples of the 1970 and 1980 demographic censuses of Brazil. Authors' tabulations.

putting their unemployables - children, youths, the aged, etc. - out to work.

Norms defining work responsibilities in terms of time (per day, per week, per month, and per year) are defined by custom and by law. Thus standards of "full time work" exist in both rural and urban Brazil, as they are everywhere else. It is therefore possible to examine rural and urban families in terms of the degree, or "intensity" with which their employable members are employed, marking some families as "fully employed," others as "partially employed," and still others as "over employed." This is also true of those families using only their unemployables.

Table 47 presents such data, with percentages calculated so as to show which employment phenomena are concentrated in urban areas and which in rural areas, together with changes in these concentrations that might have occurred over the decade. Several conclusions emerge.

First, families whose employable members are all unemployed - total familial unemployment - tended to be concentrated in the cities, 62.9 percent of them in 1980.

Second, partial employment, in which one or more of the family's employable members are unemployed, tends to be a rural phenomenon. In 1980, nearly seven out of each ten such families (68.4 percent) were to be found on the farms.

Third, the use of unemployables as active members of the family labor force is mostly concentrated in the rural areas. In both

Table 47. Urban-Rural Variations in Employment Intensity Among Families in Extreme Poverty

| Employment Intensity | Urban-Rural Residence | | | | | |
|---|-----------------------|------|----------------|------|--------|-------|
| | Urban Families | | Rural Families | | Totals | |
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Unemployed | 65.5 | 62.9 | 34.5 | 37.1 | 100.0 | 100.0 |
| Partially Unemployed | 35.9 | 31.6 | 64.1 | 68.4 | 100.0 | 100.0 |
| Over employed ^{1/} | 17.6 | 22.2 | 82.4 | 77.8 | 100.0 | 100.0 |
| Employing Only "Unemployables" ^{2/} | 61.9 | 54.7 | 38.1 | 45.3 | 100.0 | 100.0 |
| Totals | 35.9 | 36.6 | 64.1 | 63.4 | 100.0 | 100.0 |

Source: IBGE. Samples of the Brazilian demographic censuses of 1970 and 1980.
Authors' tabulations.

decades over three-quarters of these families were in the rural areas (1980 - 77.8 percent; 1970 - 87.4 percent). Actually, it is not surprising to learn that farm families put their children, etc. out to work. This is one of the main patterns of rural employment, although it may well be declining. Before the rise of technology-intensive farming, owners preferred to hire the services of whole families of rural workers. Labor contracts, written or unwritten, were held with resident male heads of families, requiring not only the man's own services but also those of his wife and children. Modernized farms tend to replace personnel with machinery whenever possible, and to use personnel only in special seasons such as harvest time. So for them, family labor contracts are seen to be uneconomical. In general, then, overemployment is understandably more characteristic of rural families. As the newer capital-intensive farming displaces the older labor-intensive style, rural and urban areas should become more alike in this regard. But for now the use of theoretically unemployable family members to supplement the earnings of employables is mostly a rural phenomenon.

Fourth, the use of unemployables to the exclusion of employables is, on the other hand, mostly an urban pattern, although this imbalance may be declining. In 1970, 61.9 percent of the families that gained their whole earnings from the earnings of their unemployables were urban, a percentage which had fallen to 54.7 in 1980.

Thus rural and urban contrasts are rather clear. More characteristic of the urban families are total unemployment of the employables and total dependence upon unemployables. Perhaps this is a reflection of an urban concentration of female dominated households. The use of unemployables as supplementary help is a rural pattern, as is partial unemployment among the family's employables. As noted above, the former is a consequence of a long-held work contract pattern. Present information is not sufficient to explain the latter, although it may be that rural families are more likely than urban to be in a position to care for unemployed relatives.

9. Conclusions

This chapter focuses upon Brazil's destitute families - their numbers, their structural variations, their changes over the "growth decade". Three items are worthy of special note.

First, the destitute tend to be concentrated in farming, and the tendency for destitution to be concentrated in the rural areas and in the mostly rural Northeast is increasing. Not only are two-thirds concentrated in rural areas, but also a great many deeply impoverished urban families are involved in agriculture. This is not to suggest that urban poverty is less severe or of inconsequential incidence. It can not be discounted. True, estimates of the incidence of malnutrition suggest that rural people may be slightly better nourished than urban (Knight, et al, Annex

III, p. 46), and it seems plausible that the rural impoverished may be less subject to the ravages of malnutrition and starvation. But the available data say nothing about this among the destitute themselves. Not many years ago, rural families may not have needed money, so that a wage-based definition of poverty might be thought to yield overestimates of the incidence of rural poverty. In our judgement this would be a mistake. Rural poverty is deep, serious, and widespread, and rural people are deeply involved in the money economy.

There are at least two ways urban people may be involved in agriculture, and either way, destitution is not an unlikely consequence. One is through direct involvement in urban-fringe farms, such as truck-gardens. This requires no elaboration. Another is the "boia-fria" or "volante" phenomenon, and it demands explanation. In English, boias frias or volantes would be called "agricultural day laborers." Usually men, they live in cities, small or large, near capital-intensive farms. Typically, they go to a specific location early each morning, making themselves available by pre-arrangement with a truck driver, called a gato, who will have arranged with a farm's management to supply a certain number of workers. Employers pay workers by the day, and the workers pay the gato. The demand for volante labor varies sharply with seasonal work loads. Employers like the system because they have neither long-term obligations to the worker nor the book-work and charges required by the social security legislation. It does not take much

imagination to see how this pattern could contribute to the impoverishment of many residents of cities, especially in areas where there are massive periodic demands for volante labor.

Second, the impoverished tend to lack the minimal skills needed for many types of nonfarm work. Brazil's population is relatively uneducated by Northern Euro-American standards. The working age members of destitute families are poorly educated even by Brazilian standards. Schooling may be irrelevant on Brazil's old-fashioned labor-intensive latifundia and minifundia, or for volante labor, perhaps even for some kinds of household jobs. But it is helpful or even necessary for effective work in the nation's modernizing sections of manufacturing, construction, commerce and technical services. And there can be no reasonable doubt that education pays off handsomely in Brazil. In other research (Haller and Pastore, 1983) it has been demonstrated with nation-wide 1973 data that among employed Brazilians of working age, on the average, each year of education adds seven or eight percent to one's income (net of one's education's ties to one's occupation, the quality of one's labor market, and one's experience). When unemployability and destitution are due to ignorance, and when an evermore complex economy demands a prepared labor force, it would appear that investment in elementary education would pay handsome dividends to the nation and to its poor.

The third major conclusion concerns workers and extreme poverty. As we have seen, the probability that a family will be in

dire poverty is greatly increased when the family is headed by a woman. Similarly, it is increased when the family's working-aged members are mostly women. This is not a matter to be passed off lightly or to be disregarded as "antifeminist." It is a harsh economic reality in the lives of millions of Brazilian women and their children. Vast numbers of these people are in rural Brazil or in the poor Northeast. Vast numbers have few or no marketable skills. Vast numbers are burdened with children. Policies generating paid work that can be done at home by illiterate persons could ameliorate the problem for some such people. Policies which could reduce the domestic responsibilities that the women have, or that increase their marketable skills could help in the long run.

Destitution is the subject of this report. Between 1970 and 1980 the numbers of individuals living in destitute families - those earning less than one-quarter of a minimum wage per person, or less than about \$20 per month per person - dropped precipitously. There were 45 million such people in 1970, and 25 million in 1980. The decline in the percentage incidence of these deeply impoverished people was even greater, because the nation's population grew by one-third over the decade. From 51.5 percent of the nation's population in 1970, the proportion dropped to 21.5 percent in 1980. In comparative terms, this is a notable, even spectacular, achievement.

But this will not blind readers either to the massiveness of the destitution still remaining in the nation or to the fragility of the

nation's accomplishment. Even in 1980, over a fifth of the population were in extreme poverty, and the worldwide recession of the early 1980's may well have reversed the trend. Various organizations in Brazil and abroad wish to relieve the suffering of the poor. In so large a nation, it seems obvious that the situation requires nation-wide economic, educational and social policies targeted toward especially vulnerable subgroups of the population. In this work, inequality is not the issue. It is poverty. Poverty can be alleviated by raising the income of the poor, by providing the population with more marketable skills, and by bringing jobs to those who cannot go to them. Poverty programs of a local nature may give the donors a sense of accomplishment - because the results may be easy to see in the lives of a few people during the short time the donors are around. But they may merely affect a tiny islet in an ocean of poverty. And the effects are not likely to last.

Finally, nationwide programs require nation-wide evaluation schemes. Just as there are experts in Brazil and abroad who are capable of designing nationwide policies, so also there are others trained to devise and execute procedures by which to evaluate and improve the effects of such policies. Those who wish to serve Brazil's destitute will design and implement policies that directly confront the massiveness of the problem. They will be satisfied only when they have appropriate mass data which demonstrate that each such policy does in fact approximate its goals.

METHODOLOGICAL APPENDIX

A. Variables Measuring the Level of Family Activity

1. Family Employment Ratio Index (I_{FER})

The I_{FER} is constructed as follows:

$$I_{FER} = \frac{\text{Number of "Employable" Members who are employed}}{\text{Number of "Employables" - 1}}$$

where "employable" means of an age to work but not in school, as defined in Section D of this Appendix.

The I_{FER} is a ratio of the number of "employable" family members who are actually working to the total number of "employable" family labor force members, minus one. One is subtracted from the total number of employables to allow one family member to be designated to perform domestic tasks, such as child care, housekeeping, shopping, preparing food, etc. An "acceptable" situation is one in which all but one of the "employables" is employed.

The I_{FER} values are defined as follows:

| <u>Score</u> | <u>Meaning</u> |
|-------------------|--|
| $I_{FER} = 0$ | Inactive Family (no employable members employed; includes families having no "employables".) |
| $0 < I_{FER} < 1$ | Partially inactive family (some unemployment among "employable" members.) |
| $I_{FER} = 1$ | Family in acceptable situation (one unemployed "employable".) |
| $I_{FER} > 1$ | Family in better than acceptable situation (no unemployment among "employables".) |

2. Index of Underemployment (IUE)

It is not enough to know how many family members are working. It is also necessary to know how much they work, that is, how much time each family member dedicates to gainful employment. The IUE is the index which measures the intensity of work when underemployment is observed in the family's "employable" members.

In order to construct the IUE, norms had to be established for amount of time dedicated to work. For urban workers, the normal level was established as being from 40 to 48 hours of work per week; for rural workers, the normal level was established as being from nine to twelve months per year. "Employable" family members who did not work or who worked less than the normal amount of time were considered to be "underemployed."

The IUE, then, was simply the number of the employable members of the family who worked less than 40 hours per week (in urban areas), and/or the number who worked less than nine months per year within each family (rural).

The IUE has the following range of scores:

| <u>Score</u> | <u>Meaning</u> |
|--------------|---|
| IUE = 0 | No employable members of the family are underemployed. (Ideal situation). |
| IUE = 1 | One employable member is underemployed. (Acceptable situation). |
| IUE \geq 2 | More than one employable member is underemployed. (The family is considered to be underemployed.) |

3. Indexes of Work Overload (IWO I) and (IWO II)

Work overload is defined as: a) the utilization of unemployable (NELF), and b) an excessive number of hours worked (more than 48 hours per week) by employable family members.

The IWO is the proportion of the number of overworked family workers to the total number of family members. The IWO I takes into account only the first type of work overload, while in the IWO II both types are computed.

$$\text{IWO I} = \frac{\text{number of unemployable family members who are working}}{\text{total number of family members}}$$

$$\text{IWO II} = \frac{\text{number of unemployable family members who are working plus number of employable family members who are working more than 48 hrs/wk}}{\text{total number of family members}}$$

The IWOs have the following value range:

| <u>Score</u> | <u>Meaning</u> |
|--------------|-----------------------------------|
| IWO = 0 | Family work load is not excessive |
| IWO > 0 | Family work load is excessive |

B. Variables that Measure the Economic Situation of the Family

1. The Index of Average Income (IAI)

The IAI is the per capita family income, expressed in terms of the regional minimum wage.

$$IAI = \frac{\text{Total Family Income}}{\text{Number of Family Members with Declared Income}}$$

If IAI = 1, this would indicate that the family "per capita" income is equal to one minimum wage within the family's region of residence.

2. Proportion of Income Earned by Employable Members of the Family (PI Ex)

In principle, only the incomes of the employables would be expected (when added together) to make up the family's income. However, there are many families which utilize the labor of "unemployable" family members in order to increase their domestic budgets. The PI Ex, therefore, is simply the proportion of the family's income earned solely by its employable members. Thus, if PI Ex = 1, the family's income is earned exclusively by its employable members; PI Ex = 0, then the family's income is derived solely from the labor of unemployable family members; and if $0 < PI\ Ex < 1$, the family obtains its income through the work of its unemployable and its employable members.

C. Variables that Characterize the Family

1. Family Size

Family size is simply the count of all family members.

2. Family Type

| Presence of Spouses Presence of Other Categories | Male Head of Household With Spouse | Male Head of Household Without Spouse | Female Head of Household Without Spouse |
|--|--|---|---|
| Only Children | Intact Nuclear Family CN | Broken Nuclear Family MB | Broken Nuclear Family FB |
| Children of Others | Extended Complete Family EC | Extended Broken Family MEB | Extended Broken Family FEB |
| Only Others* | Extended Family Without Children EXC | Group MG | Group FG |
| Neither Children nor Others | Couple MF | Individual M | Individual F |

*"Other members" are persons who maintain some family relationship with the head of household. Agregados (persons taken in and treated as family members) were included, but boarders and guests were excluded.

Families comprised of only one individual (M, F) or of groups (MG, FG) were excluded from this study because, in the former there is no family grouping, and in the latter there either are no family ties or the ties are very weak. These cases would weaken the tests of the basic hypotheses of this research since they are not truly families. The remaining families were merged in five basic types: a) Intact Nuclear Family; b) Extended Family (which includes both Complete and Without Children); c) Broken Family with Male Head (which includes both Nuclear and Extended); d) Broken Family with Female Head (also both Nuclear and Extended), and e) Couple.

3. Life Cycle Index (LCI)

The LCI is the variable which identifies the family's stage in the life cycle (the relative age of the family). It is obtained through the following equation:

$$LCI = \frac{\text{Average Age of Heads of Household}}{\text{Average Age of Children}} \times \frac{\text{Age of Oldest Head}}{\text{Oldest Child's Age}}$$

The first term in the above equation expresses the ratio between the average age of the parents and the average age of the children. Since this ratio could result in the same value for families in quite different stages of the life cycle, this term is then multiplied by the second term which expresses the ratio between the age of the oldest parent and the age of the oldest child. This results in higher scores for younger families, and lower scores for the older families. In addition, this approach tends to create a certain dispersion in the values of the LCI which helps to prevent coincident values for different age groups.

The older the family, the closer the LCI is to one: the younger the family, the farther its score is from one. The value range for the LCI is as follows:

| <u>Score</u> | <u>Meaning</u> |
|---------------------|----------------------|
| $LCI < 6$ | Older Families |
| $6 \leq LCI < 16$ | Middle-Aged Families |
| $16 \leq LCI < 100$ | Young Families |
| $LCI \geq 100$ | Very Young Families |

There are two restrictions observed in the calculation of the LCI: 1) Only families which the age difference between the oldest parent and the youngest child was between 15 and 50 years were considered. Thus, families whose head of household was very young

(perhaps a brother) or very old (perhaps a grandfather) were excluded. To speak of these types of families in terms of the family life cycle would make little sense. 2) Only children living at home, as declared by the mother, were considered. Thus, families whose children were no longer living at home for any reason (in school, married and living elsewhere, etc.) were eliminated. The inclusion of these numbers would bias the life cycle of the unit of analysis. Children living outside the home are probably forming other family units and, therefore, other units of analysis.

4. Index of the Quality of Labor (IQL)

The IQL is intended to measure the quality of labor offered by the family. Two basic variables were considered in its construction: the age and the education of family members.

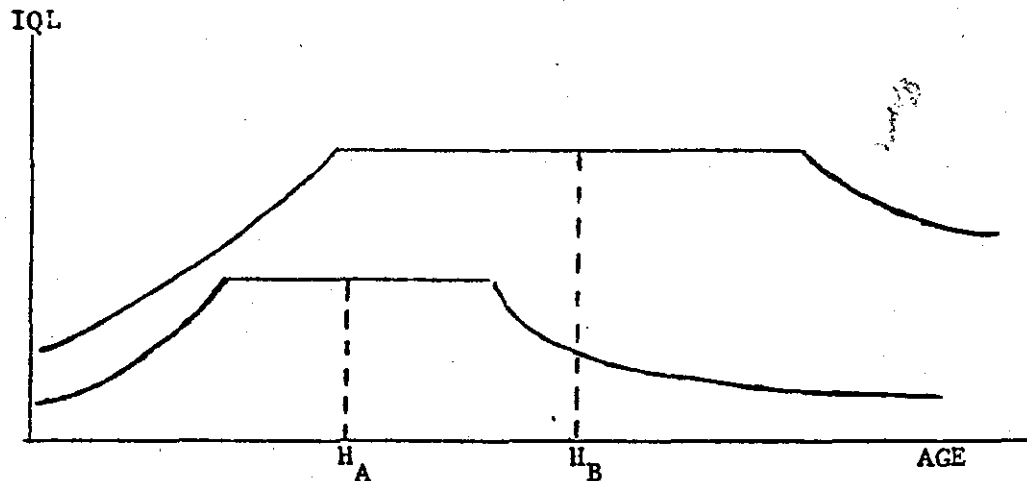
For a given individual, the quality of labor one offers increases with the level of one's education and increases as one approaches the height of productive life.^{1/} The height of productive life is taken to be an age plateau before and often after which the quality of labor of an individual is not at its peak. It is the age at which an individual reaches the maximum quality of work, due to an accumulation of knowledge (which, in essence includes experience). The height of productive life also depends on the level of education attained, since it is greater as higher levels of education are attained. In effect this index assumes, probably realistically, that those who have the best education are also the people whose work can be effective farther into middle and old age.

The following expression reflects this double dependence:

$$IQL = \frac{a E}{H - I}, \text{ where: } \begin{array}{l} E = \text{Education} \\ I = \text{Age} \\ H = \text{Height of Productive Life} \\ a = \text{parameter} \end{array}$$

To avoid discontinuity at the points where $H = T$, it was decided to set the minimum value for $H - I$ at $0.8H$.

The IQL of individuals A and B, will have the following characteristics (with the education of A being greater than that of B):



The following values were arbitrarily established for the terms of IQL:

Coefficients of IQL

| Education (in years) | a | a^E | H | $H - I_{\min}$ |
|----------------------|-----|-------------|----|----------------|
| 0 | - | 10 | 30 | 6 |
| 1 - 3 | 10 | 10 - 30 | 30 | 6 |
| 4 | 20 | 80 | 30 | 6 |
| 5 - 7 | 30 | 150 - 210 | 35 | 7 |
| 8 | 40 | 320 | 35 | 7 |
| 9 - 10 | 50 | 450 - 500 | 40 | 8 |
| 11 | 70 | 770 | 40 | 8 |
| 12 - 14 | 100 | 1200 - 1400 | 45 | 9 |
| 14 - 17 | 150 | 2250 - 2550 | 50 | 10 |

The IQL scores of family members can be added to each other
resulting in the Index of the Quality of Family Labor:

$$IQL = \frac{\sum_{i=1}^n a_i E_i}{\sum_{i=1}^n |H_i - I_i|}, \text{ where } i = \text{number of family members}$$

The families were categorized according to the value of their
IQL as follows:

| <u>Value</u> | <u>Qualification</u> |
|---------------|----------------------------|
| IQL < 2 | Families with Very Low IQL |
| 2 ≤ IQL < 10 | Families with Low IQL |
| 10 ≤ IQL < 60 | Families with Average IQL |
| IQL ≤ 60 | Families with High IQL |

5. Proportion of "Employable" Women in the Labor Force (PW Ex)

The percentage of women among the employable members of each family was calculated. Values for this variable range from 0 (no women employable in the family) to 1 (all employable persons in the family are women).

6. Attributes of the Head of Household

The following attributes of the head of household were considered:

- a) Age
- b) Education
- c) Occupational Position (Civil Servant, Private Employee, Self-Employed, Sharecropper, Employer, and Seeking Work for the First Time)
- d) Occupational Sector (Primary, Secondary, Tertiary and Civil Construction)

D. "Employable" and "Unemployable" Members of the Family

This variance was specified according to criteria combining age and education. The variable is "normative" in that it assumes families would choose to send their school age off-spring, and even their academically motivated youths and adults, to school full time if they could afford to do so.

Criteria for Labor Force Status

| Age | Attending School | Not Attending School | |
|-----------------------|---------------------|------------------------|-------------------------|
| | | 4th Grade Completed | 4th Grade Incomplete |
| 14 or less (children) | Unemployable | Unemployable | Unemployable |
| 15 to 18 (youths) | Unemployable | Employable | Unemployable |
| 19 to 70 (adults) | Unemployable | Employable | Employable |

Those considered "Employable" are: a) those over fourteen who have completed the fourth grade and are no longer attending school; and b) those over 18 who are not attending school, whether or not they completed the fourth grade. All persons who are attending school, all retirees, the sick, invalids, prisoners, and those over 70 are considered to be unemployable.

E. Data Commentary

1. Source of Data: The 1% Sample of the 1970 Demographic Census of Brazil

The data source for this research was the 1% Sample of the Demographic Census of Brazil prepared by the Fundacao Instituto Brasileiro de Geografia e Estatistica (FIBGE). These data were taken from the detailed and 25 percent sample of the census. The 1% Sample is stored on two magnetic tapes and contains approximately 910,000 registers of resident individuals from approximately 176,000 private households. All information referring to private households, families, and resident individuals (whether in private

or collective households) found in the registers of, the original sample was included in the 1% Sample.¹

The detailed description of the procedures used by the FIBGE for the selection of the 1% Sample can be found in the publication "Amostra de 1% dos registros do Censo Demografico de 1970 - Manual do Usuario" (FIBGE, 1979, Rio de Janeiro: FIBGE). The following are among the most relevant aspects of the manual.

To facilitate the overall study of the characteristics of resident individuals, families, and households, the registers of the original sample of 25% were classified into three classes of selection units:

1. Private households, including all resident individuals;
2. Families residing in collective households;
3. Members of groups living together in collective households.

The three classes of registers were distributed in 74 strata according to the location of the household (urban or rural), the number of individuals resident in the household, and the sex and age of the head of the household. Then, from the tape of the original sample, the registers of each stratum were randomly selected.

After this selection, the 1% Sample was then weighted, thus giving each selected register a whole weight approximately equal to the ratio between the total number of registers of the weighted 25% sample and the number of registers of the 1% sample in each stratum. In order to accomplish this, the original sample was divided into 100 geographic areas. When the number of registers of a determined stratum in a determined geographic area was very small, it was aggregated with another or others.

The 1% Sample was finally divided into 100 subsamples, with each selected unit receiving, consecutively and cyclically, a whole number between 0 and 99 (the subsample number). From the 1% Sample, one can thus extract 0.01%, or 0.1%, and so on.

In summary, the 1% Sample was constructed in such a way that:

- a) the registers reproduce exactly the registers of the original sample;
- b) each register is assigned its respective weight or expansion factor; and
- c) it is possible to extract from this sample smaller subsamples (up to 0.01%) that are equally representative.

2. Source of Data: The 0.75% Sample of the 1980 Demographic Census of Brazil

This sample is stored on two magnetic tapes and contains approximately 890,000 registers of resident individuals and 197,000 registers of private households. As in the 1% Sample of the 1970 Census, all original information was maintained. The publication which contains a detailed description of the sampling procedures used by the FIBGE is the "Censo Demografico de 1980 - Amostra das Tabulacoes Avancadas - Manual do Usuario" (FIBGE, 1982, Rio de Janeiro).

Unlike that which was done with the sample of the 1970 Census, the FIBGE set the same size sample for each unit of the federation (approximately 40,000 persons). This resulted in different sample fractions in each of them.

FOOTNOTES

1/ The FIBGE used the following concepts in the Demographic Census of 1970:

Private Household: that which serves as living quarters for 1, 2, or 3 families, even if located in an industrial or commercial establishment, etc. Boarding houses, tenements, apartment buildings, ranches, etc., are comprised of private households.

Collective Household: that which is occupied by groups or families in which the relationship between the residents is restricted to subordination or administrative order and to the compliance of group-living norms. Hotels, boarding houses, convents, barracks, and schools are examples of collective households.

Family: a) a set of persons bound by family ties or domestic interdependence, who live in the same household; b) a person who lives alone in a private household; and c) a set of at least five persons who live in a private household, although they are not related or have no domestic interdependence.

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