The Dynamics of Poverty and its Determinants:
The Case of the Northeast of Brazil and its States

Norbert M. Fiess   **Dorte Verner**

The World Bank

nfiess@worldbank.org
dverner@worldbank.org

1. Introduction

In 1998, 174 millions of the population in Latin America lived in poverty[1]. About 20.4 million people or 15 percent of Latin America's poor were concentrated in the Northeast of Brazil. The Northeast Region of Brazil includes nine of the country's 23 states: Alagoas, Bahia, Ceará, Maranhão, Pernambuco, Paraíba, Piauí, Rio Grande do Norte and Sergipe. It covers about 1.5 million square kilometers, over 18 percent of Brazil's total area. In 1998, the population of the Northeast was 46 million or about 29 percent of Brazil's total population. Northeast GDP accounted for about 13 percent of Brazil's GDP and per-capita GDP in Northeast was only 46 percent of GDP in all Brazil. In 1999, the poverty rate, measured by per-capita income and the indigent poverty line, in the Northeast was about 44 percent compared to 22 percent elsewhere and still disproportionately rural[2]. In contrast, the four states in the Southeast which occupy only 11 percent of land area, accounted for 43 percent of total population and around 60 percent of Brazilian GDP. Finally, the poverty rate in São Paulo is 9 percent, hence less than a fifth of the northeastean poverty rate.

The disparity between the Northeast and the Center-South of Brazil goes back centuries. Several factors, including recurrent droughts, contributed to a rapidly growing socioeconomic gap between the two regions. The relative decline of the Northeast ceased only in the 1960s when the federal Government initiated broad-based measures to support development of the region. These measures helped stabilize the Northeast economy and modernize the industrial sector.

The Northeast of Brazil over the last ten years has on a per-capita basis been growing faster than Brazil as a whole. Estimating geometric growth rate from recently released GDP data from Contas Regionais, 1985-97, Carrizosa, Fiess and Verner (2001) find that during 1985 and 1997 per-capita GDP in the Northeast region increased by 3.7 percent while per-capita GDP in Brazil increased by 3.0 percent.

Poverty remains one of the biggest and most difficult problems in the Northeast region despite efforts to fight it by the local and federal governments and civil society. In

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[1] Wodon (2000).

[2] In Brazil there does not exist an official poverty line. Different authors use different poverty lines. This paper uses a caloric intake poverty line (see section 2).

the Northeast region, the simple income picture is as follows. In 1999, Rio Grande do Norte, for example, has an average monthly household per-capita income of R$173, slightly above the northeastern average of R$155 but far below the national average of R$320 or the respective figure for São Paulo (R$437)[3]. In 1999, the headcount poverty ratio and the indigence poverty line, which is a low and "food only" poverty line, indicate that 39.7 percent of Rio Grande do Norte's population is poor. This is below the average for the Northeast (44.3 percent), and the lowest in the region but nearly double the headcount ratio for Brazil (22.4 percent) and about 5 times the headcount ratio of São Paulo (8.6 percent). Maranhão is the poorest state and the poverty headcount counts 52 percent of the population.

The poverty line, which includes more than food, is a little more charitable but the figures reveal that 69.1 percent of the population in Rio Grande do Norte is below this poverty line. These figures are the basic motivation behind this paper, where we analyze poverty and determine factors that may contribute to it.

The aim of this paper is to enhance for the Northeast region the understanding of: (1) the evolution of poverty over the 1970s, 1980s, and 1990s; (2) the incidence, severity and profile of poverty; (3) the main contributing factors to poverty and the volatility of these factors in the 1980s and 1990s; and (4) the public policies and instruments that can be designed to assist the poor population.

Over the past decades, three major factors affected poverty in the Northeast and Brazil as a whole, namely: (1) changes in economic activity and macroeconomic stability; (2) reduction in the fertility rate; and (3) increased urbanization rate.

Macroeconomic instability has played a key role. Since 1985, six stabilization plans have been introduced. When the fifth stabilization plan, the Collor Plan of March 1990, failed, the Brazilian economy entered one of its worst recessions in history. Only after the most recent plan was introduced, the Real Plan in July 1994, did macroeconomic stability return and inflation dropped to a record one-digit low. A year after that, in May 1995, the minimum wage was raised about 40 percent, which had a marked effect on poverty. On the one hand, the progress in reducing poverty in the Northeast has been

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[3] Author's calculations all through this section are based on PNAD 1999 data set. All income figures are in 1997 prices.

slower than in other regions in Brazil, but on the other hand, the Northeast region suffered less in terms of increased poverty during the crises in 1998.

In the Northeast, as well as in the rest of Brazil, inflation is an important actor in the drama of income and poverty as the poor generally lose - more than the nonpoor during inflationary periods. One reason is that the poor cannot protect themselves against inflation as they lack access to the financial and banking systems. Hence, the macroeconomic stabilization plans that attack inflation and successfully drive it down commonly have a positive impact on the incomes of the poor. This is also the case for the poor in the Northeast of Brazil, Rio Grande do Norte as a whole, as well as the poor in its municipalities. Hence, spatial differences in the inflation rate among regions, because they are minuscule, cannot be the sole determinant of regional differences in poverty. But, inflation does impact the overall poverty trend. Amadeo and Neri (1997) study the relation between poverty, inflation, unemployment and the minimum wage. They find that inflation affects the headcount ratio by two percent and the result is not very different across Brazil. The authors also consider the minimum wage and find that it impacts negatively on poverty. That is, when the minimum wage is increased the number of people below the poverty line decreases, hence a reduction occurs in poverty. The impact varies across metropolitan areas, for example, in Recife it is –0.18, Salvador -0.65, and Brazil as a whole –0.43.

Demographic changes are linked with poverty. Barros *et al.* (1999) analyzes the impact of demographic changes on poverty in Brazil and conclude that these are important factors in reducing poverty disparities. The main findings by the authors are that the demographic transition benefited the least developed more than the more developed regions. And if the Northeast had the *national* demographic composition, poverty would be three percent points lower (Barros *et al.,* 1999).

Also, there has been a substantial increase in the coverage of social security in Brazil in the last decade, which had a substantial impact mainly on rural poverty. The 1988 Federal Constitution established the universal right to social security and instituted special eligibility conditions for rural workers under the *Regime Geral da Previdência Social* (RGPS), Brazil's public pension system for workers in the private sector. Recent analysis based on the 1996-97 *Pesquisa sobre Padrões de Vida* (PPV) survey found that

the proportion of rural households receiving pensions from public institutions averages 30 percent in Brazil's poorer Northeast, and 24 percent in the Southeast. Delgado (1999), Beltrao *et al*. (1999) and others find that the implementation of the 1988 eligibility and benefit criteria has been effective in lowering the incidence of poverty among rural households[4].

Various other factors, apart from the demographic changes and the stabilization of inflation since 1994, may explain part of the poverty reduction that has occurred in Brazil. The increased globalization with the opening of the Brazilian economy together with an overvalued exchange rate in most of the 1994-99 period affected the nontradable goods sectors. After the devaluation of the Real in 1998, traded goods became more expensive and hence a relative price change occurred favoring demand of nontradables. Moreover, informal-sector employment increased, particularly in services (which are primarily nontradables). This also hints at relative price changes that favored the poor. The aggregate demand channels were also important and affected the incomes of the poor. For example, the reduction in inflation uncertainty may have caused a decline in precautionary savings and an increase in consumer credits.

Furthermore, it is generally agreed that there is a strong association between growth and poverty reduction (Dollar and Kraay, 2000). Whether growth translates into significant poverty reduction depends on various factors. The degree of inequality in the country or state matters. Poverty is more responsive to growth when income, asset, gender and education inequality is lower. Hence, more equal societies will generally grow faster.

This paper is organized in five sections. Section 2 briefly explains the data and methodology. Section 3 provides a short overview of the recent picture and evolution of poverty in the Northeast region, before focusing on more disaggregated poverty profiles. The emphasis is firmly on the characteristics of the poor, rather than on exact measures of poverty. Section 4 presents findings from probit poverty analyses and compares these over the past two decades. Furthermore, this section shows clear indications of groups that are particularly vulnerable to shocks, policy and macroeconomic changes. Finally, section 5 concludes and brings policy recommendations. Additionally, the paper includes four

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[4] Paes de Barros, Mendonça and Santos (2000) provide detailed analysis of old age poverty in Brazil and find a substantially lower incidence of poverty for this age group. Camarano (2000) provides a detailed social profile of old age in Brazil.

appendices with information for all states in the Northeast region[5]: Appendix A contains a variable list, deflators and codings; Appendix B presents poverty indexes and general measures of inequality from DHB Tables as well as PNAD data; Appendix C contains poverty profiles; Appendix D contains an analysis of poverty probits in Brazil, the Northeast and individual states in the northeastern States.

2. Data and Methodology

This section explains and discusses the data sets applied in the analysis. Then follows a description of the poverty measures and poverty lines applied in the study.

2.1.   Data

The vehicle for the analysis in this paper is both money-metric and non-money-metric welfare indicators constructed from available data. The data applied are from two sources: (1) the *Desenvolvimento Humano no Brasil* – DHB (1998), a co-production of IPEA, IBGE, FJP, and PNUD constructed from the census figures for 1970, 1980 and 1991; and (2) *Pesquisa Nacional por Amostra de Domicílios* - PNAD (The Brazilian annual National Household Survey) for the years 1981, 1985, 1988, 1990, 1993, 1995, 1997, 1998 and 1999. The PNAD data is an annual national household survey conducted and performed by IBGE, the Brazilian Census Bureau, in the third quarter of each year and it is derived from interviews of approximately 100,000 households. The survey began at national level in 1971 and underwent major revision between 1990 and 1992. This revision has made it difficult to obtain full compatibility of data between the PNAD concept before and after 1992; and since we do compare data across decades, this is important to keep in mind. The survey contains extensive information on personal characteristics, including information on income, labor force participation, and educational attainment and attendance. Ferreira, Lanjouw and Neri (1999) discuss shortfalls of the PNAD data and find that the PNAD underestimates incomes, and most seriously so in rural areas. Appendix A presents the data series, deflators and codings for the PNAD data and indicates differences over the 1981-98 period in the survey instrument.

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[5] There is far more information in the appendices for other northeastern States than actually included in the text.

Elbers *et al.* (2001) demonstrate a methodology to impute a measure of consumption, as defined in the PPV household survey, into the much large PNAD household survey. The purpose of this exercise was to estimate measures of welfare, such as poverty and inequality, defined in terms of consumption. Furthermore, the paper shed light on the question of whether the analysis of poverty and inequality based on the PNAD income indicator yields different conclusions than an analysis based on consumption. The findings show that poverty and inequality, estimated on the basis of consumption in the PNAD, tend to be much lower than estimates based on the income concept, which is not necessarily an indictment of income based analysis, however, as the two concepts of welfare are different and should not be expected to yield the same quantitative estimates. The authors demonstrates however, that differences in estimates of poverty and inequality between the PNAD and the PPV are not attributable to non-comparability of these two surveys and the PNAD consumption-based estimates are very close to those which obtain with the PPV. The paper pursued the comparability of income and consumption-based results further by examining whether there are important qualitative differences in the geographic profile of welfare across the two approaches. The paper indicate that the two reach broadly similar findings.

2.2. Poverty measures and lines

Poverty measures are designed to count the poor and to diagnose the extent and distribution of poverty, while social welfare functions are guides to policy[6]. Hence, it is worth keeping in mind that poverty measures are not necessarily an adequate guide to policy. Three commonly used measures of absolute poverty are discussed and they are applied in the following sub-sections.

The poverty measures proposed by Foster, Greer, and Thorbecke (1984) are the headcount ratio (P^0), poverty gap (P^1), and the squared poverty gap (P^2). The former is a measure of the magnitude of poverty and the latter two poverty measures assess both magnitude and intensity.

The headcount ratio is defined as the proportion of people below the poverty line. One concern applying the P^0 measure is that each individual below the poverty line is

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[6] Poverty measures are not Pareto-consistent since they do not consider the welfare of the non-poor.

weighted equally and, therefore, the principle of transfers is violated. Hence, it is possible to increase social welfare by transferring money from the very poor to lift some richer poor out of poverty. P^0 takes no account of the degree of poverty and it is unaltered by policies that lead to the poor becoming even poorer.

One measure of poverty that takes this latter point into account (at least in weak form) is the poverty gap measures. P^1 is the product of incidence and the average distance between the incomes of the poor and the poverty line. It can be interpreted as a per-capita measure of the total economic shortfall relative to the population. P^1 distinguishes the poor from the not-so-poor and corresponds to the average distance to the poverty line of the poor. One problem with the poverty gap measure is that it will increase by transfers of money from poor to less poor (who become nonpoor), and from poor to nonpoor. Furthermore, transfers among the poor have no effect on the poverty gap measure.

The P^2 measure of poverty is sensitive to the distribution among the poor as more weight is given to the poorest below the poverty line. P^2 corresponds to the squared average distance of income of the poor to the poverty line. Hence, moving from P^0 towards P^2, more weight is given to the poorest in the population.

The poverty line, used to evaluate poverty, is the indigence poverty line, which is based on the monetary value of food items only. This measure is based on the cost of a "minimum food-basket" equal to the FAO minimum caloric intake of 2,288 per day[7]. The poverty line is expressed in the same currency unit as the income vector[8] and corresponds monthly to around R$65 per-capita for the metropolitan area of São Paulo in 1996 prices[9]. The value for other metropolitan areas is adjusted by the local cost of living in accordance with the estimations of Ferreira, Lanjouw and Neri (1999)[10]. The *high poverty* line, which includes expenses on food and nonfood items such as transportation, public services, housing, etc., equaled R$132 in 1996 (R$148.98 in June, 1999) which corresponds to twice

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[7] The "lower" poverty line scales up the cost of the minimum food basket to account for non-food expenditures and is worth R$131.97 per month.

[8] That is the 1998 prices ruling in São Paulo.

[9] The food-only poverty line is given by the local value of a food basket that yields an internationally accepted caloric intake.

[10] The indexes for urban Northeast and the rural Northeast are 1.032056 and 0.953879, respectively.

the lowest poverty line for each region. The DHB applies half a minimum salary as the poverty line[11].

3. Evolution of Poverty and Income Inequality

What happened to poverty in the last decades? This section shows that there has been tremendous diversity in outcomes in the Northeast region as well as in Brazil as a whole, across dimensions such as states, municipalities, households, and individuals. Both income poverty and nonincome poverty are considered in the analysis. Investment in human capital, such as education and health, and in infrastructure services for the poor are posited to reduce poverty. Investment in human capital reduces poverty by raising productivity, employability and wages; investment in infrastructure services for the poor, for example, water, sanitation and transportation reduce poverty by raising the time available for income generating activities and, hence, increase total income, monetary and non-monetary, of the poor. This section is organized in subsections that consider: (1) income and poverty before and after 1990; (2) education and child labor; and (3) other welfare indicators. Next, we provide a brief overview of the recent picture and evolution of poverty before focusing on a more disaggregated poverty profile.

3.1.   Income, inequality and poverty in the 1970-91 period

In this section we apply the DHB data for the period from 1970 to 1991. The data reveal that the average income measured in units of 1991 minimum wages has more than doubled in Brazil and the Northeast region in the 1970 to 1991 period (Table B1). However, in 1991 in the latter region the average income is barely 65 percent of the listed minimum wage (mw) while in the Southeast region and Brazil as a whole it is 177 percent and 131 percent, respectively. These figures illustrate the huge income dispersion between the Northeast and the Southeast regions. Moreover, the average citizen in Rio Grande do Norte has an income of 0.72 mw, which ties Rio Grande do Norte and Sergipe (0.73mw) as the states with the second highest average income in the Northeast after Pernambuco (0.81mw). Maranhão is the poorest state of the Northeast and has an average income of

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[11] The different poverty lines used in sections 3.1 and 3.2 explain the differences between the levels and the similarity of the trends of the poverty indices between this section and the later ones.

0.46 mw (Table B3 shows figures for the states in the Northeast). Even though average income in Rio Grande do Norte increased in terms of minimum wages in the 1970-91 period, it is still around 45 percent below the Brazilian average[12]. Furthermore, in Rio Grande do Norte as elsewhere, large differences exist among municipalities. The poorest municipality in Rio Grande do Norte is Ruy Barbosa (0.17 mw) and the richest is Natal (1.45 mw), (Table B6) both located in the eastern part of the state.

The income inequality in Brazil is one of the largest in the world and has unambiguously increased in the 1970-91 period. This is the case for Brazil as a whole as well as for the Northeast region (Tables B1 and B3). The Theil L index measure of income inequality indicates that inequality has increased over the 1970s, 1980s, and the beginning of the 1990s in all states, and as much as 37 percent in the Northeast region, to a 0.78 level[13]. Rio Grande do Norte has an Theil L index of 0.74. The neighboring states Bahia, Ceará and Pernambuco have the most unequal distribution of income of all 27 states (the index reached 0.80, 0.81, and 0.80, respectively). The municipalities in Rio Grande do Norte also show a huge dispersion in income inequality. Viçosa tops the list by a Theil L index of 0.99, followed by Antônio Martins (0.84). The least income inequality is found in Ipanguaçu and Severiano Melo (0.26).

Figure 1 reveals that the poverty ranking of the states in the Northeast has not been constant over the past three decades. In 1970, Piauí was the poorest state in the Northeast but in 1990 Maranhão had the highest headcount poverty index. Headcount poverty from the seventies to the eighties declined 45 percent mainly due to the relatively high growth rates Brazil experienced during the 1970s. This development contrasts that of the 1980s, where the lack of economic growth combined with both high inflation and various failed stabilization plans increased poverty. The high inflation and failed stabilization plans were

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[12] The income in Bahia and Ceará are lower than in Pernambuco (around the Northeast average) and increased 89 percent and 150 percent, respectively, over the past decades.

[13] The Theil L index is a measure of inequality that is based on information/probability theory. The Theil L index varies between 0 (absolute equality) and 1 (absolute inequality). Like the Gini coefficient, the higher is the Theil index the more unequal is the distribution of expenditures (or incomes). The Theil L index is calculated as follows:

$$L = \sum_{i=1}^{N} \ln\left(\frac{Y}{y_i N}\right)$$

where y_i is the welfare measure for individual i, N is number of people in the population, and Y is the total of all individuals' welfare measures (i.e., total expenditure or income).

mainly due to an unresolved fiscal deficit, leading to an economic recession in 1990 to 1991, and, hence, are important factors behind the reverse in the positive development of the headcount ratio.

Figure 1: Headcount poverty index (P⁰) for the NE States, NE and Brazil (1970-91)
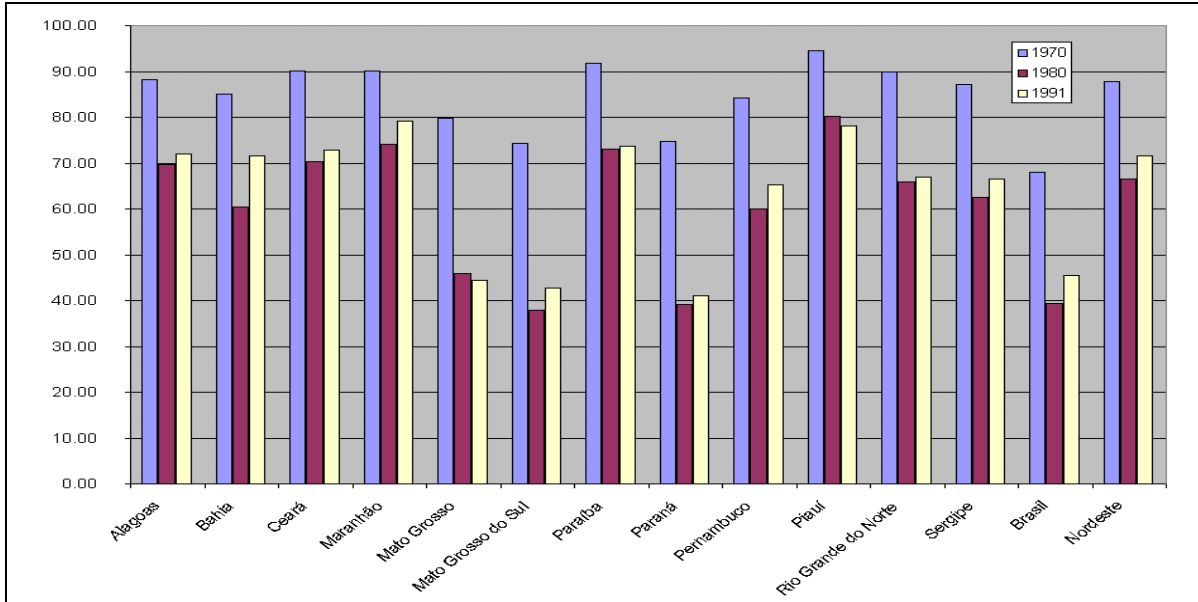
Data Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

Figure 2: Headcount poverty (P⁰) for micro-regions in Rio Grande do Norte (1991)
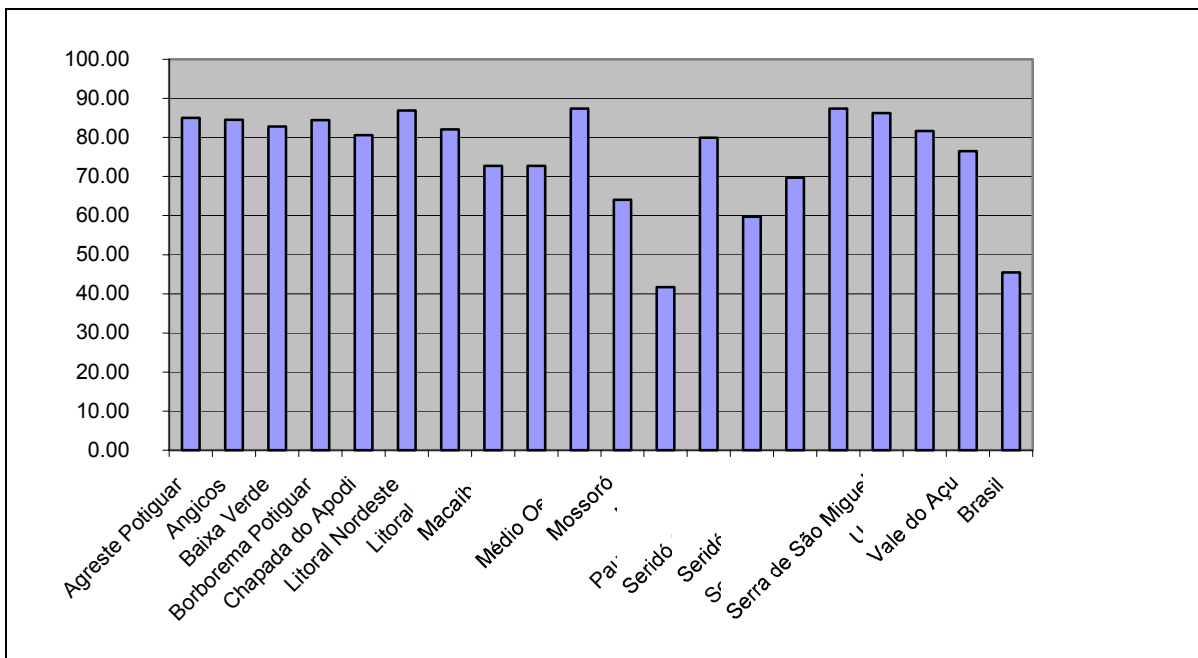
Data Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

For Rio Grande do Norte, the P^0 measure shows that 67 percent of the population are poor, which is below the Northeast average (72 percent), but still 2.3 times greater than the poverty incidence in the Southeast of Brazil in 1991 (Table B2). The difference between microregions within Rio Grande do Norte is even larger than among the macroregions and states (Figure 2). The headcount ratio shows that 87 percent of the population in Litoral Nordeste, Médio Oeste and Serra de Santana are poor, which sharply contrasts to the Natal region where 42 percent experience poverty. Not only is poverty more prevalent outside Natal but it is also deeper, as measured by P^1 and P^2.

Weighting larger distances from the poverty line more heavily, through the P^2 measure, poverty fell in Brazil from 1970 to 1991 (Figure 3). The differences between microregions are pronounced when we give more weight to the poorest. The P^2 measure indicates that poverty is 3.8 times greater in Serra de Santana than in Natal, where P^2 is 0.46 and 0.12, respectively (Figure 4).

Figure 3: Squared poverty gap (P^2) for the NE States, NE and Brazil (1970-91)
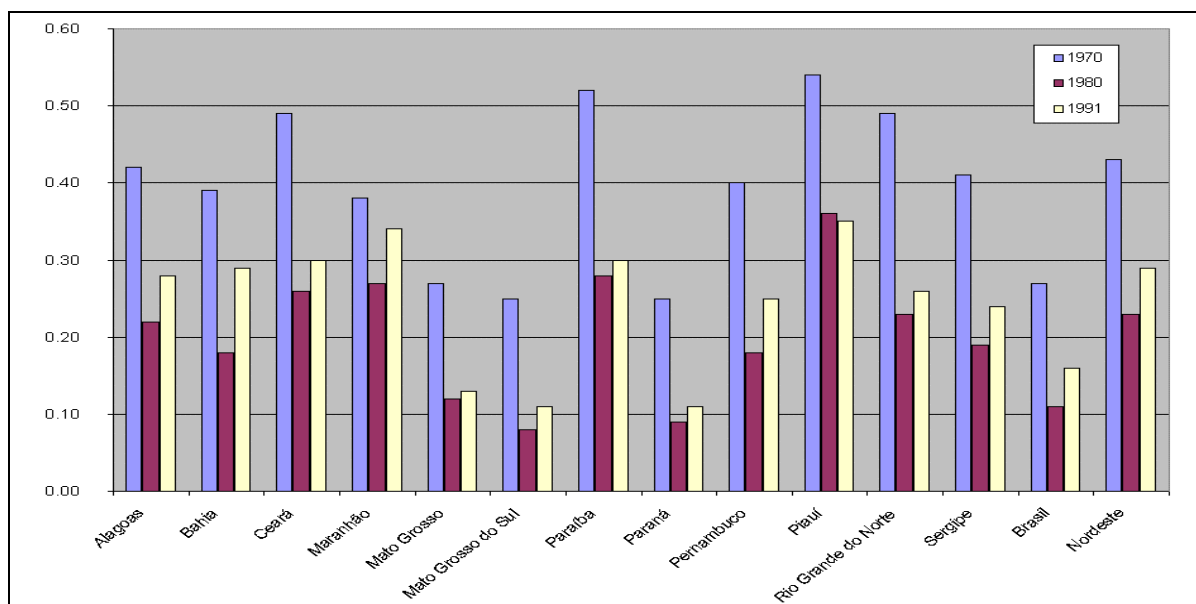
Data Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

Figure 4: Poverty Gap (P^1) and Squared (P^2), regions in Rio Grande do Norte (1991)
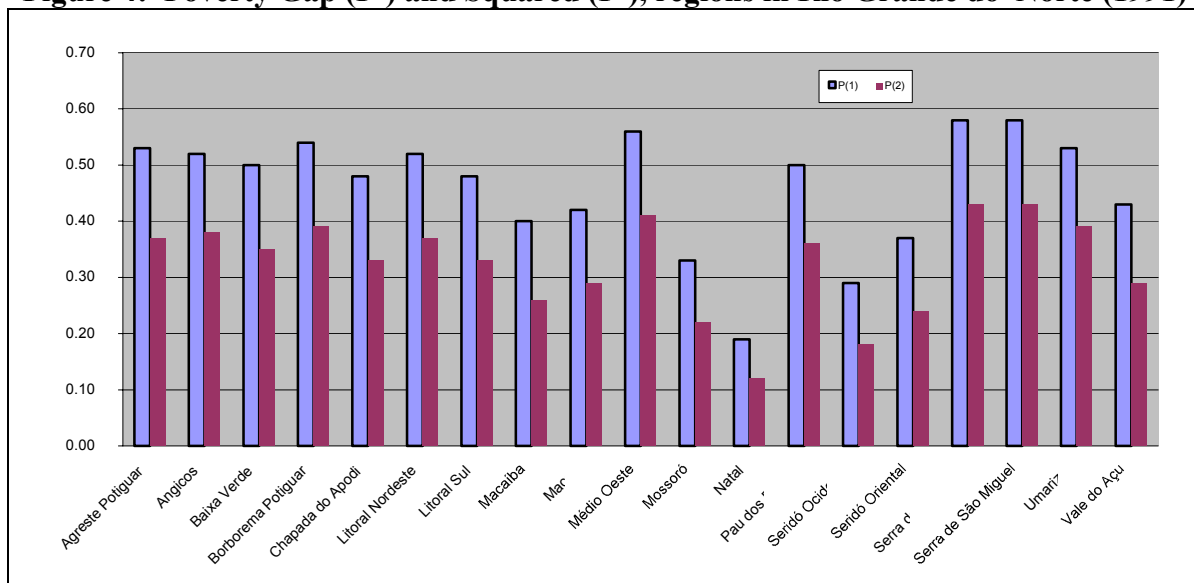
Data Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

3.2. Income, inequality and poverty in the 1990s.

In this section we use the PNAD data to sketch income poverty in the 1980s and 1990s. We mainly use the indigence poverty line in the analysis. The findings are presented in Appendices B and C[14].

The period from 1994 and forward can be roughly characterized as a period of disinflation, which affected mean incomes and poverty in the Northeast region as well as in Brazil as a whole. The disinflation is associated with a reduction in poverty. Furthermore, in general, the poverty indexes are more affected by high inflation than are mean incomes. Hence, the poor accounted larger losses than the nonpoor during the high inflation period prior to the Real Plan launched in 1994. However, in the stabilization period that followed, the poor also experienced higher gains than the nonpoor.

As can be seen from Figure 5, at the beginning of the 1990s, poverty was at a record high in Brazil, the Northeast region, Pernambuco (the richest state of the Northeast), Maranhão (the poorest state of the Northeast) and the other northeastern states[15]. The major

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[14] The coverage of Rio Grande do Norte (1,000 observations) is not as good as, for example, for Pernambuco (ca. 6,000 observations) or the Northeast as a whole (ca. 20,000 observations).

[15] Though, in Pernambuco and Maranhão this peak in poverty seemed to have developed a little bit later, in 1993.

decline in poverty occurred in 1995, just after the Real Plan was introduced and the minimum wage was increased[16]. For Brazil, the Real Plan and the increased minimum wage caused a decline in poverty to a level lower than at any point during the 1980s, and the poverty index reveals a two percentage points reduction in the headcount in the 1981 to 1999 period (Figure 5). The Asian crisis had a small negative effect on the headcount ratios via the pressure on the currency and the higher interest rates (Figure 5 and Tables B5 to B7). For Brazil and the Northeast region, the headcount poverty ratio of household heads dropped by around 7.3 percent and 12.3 percent, respectively, in the 1993-99 period. In 1999, the incidence of poverty was 22.4 percent and 44.3 percent in Brazil and the Northeast region, respectively.

Figure 5: Headcount Index: Indigence Line
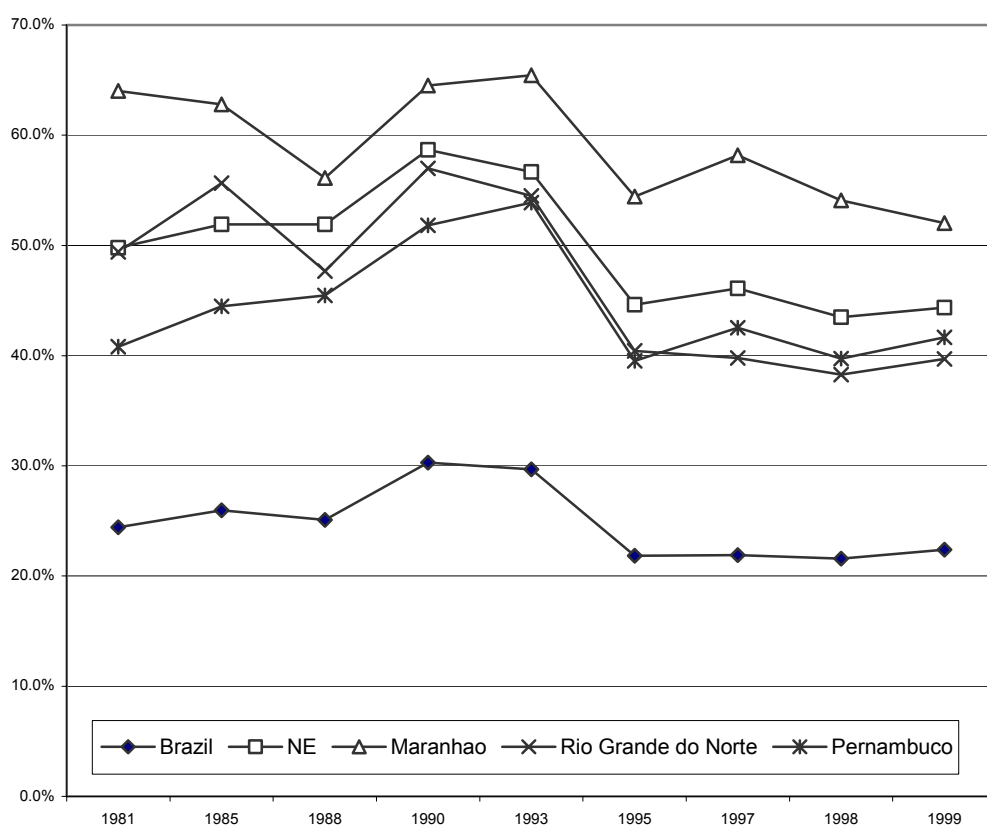
Source: Authors' calculations based on PNADs 1981 to 1999.

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[16] In May 1995, the minimum wages were increase by 43 percent while monthly inflation was around 2 percent.

The Northeast also experienced a fall in the headcount poverty ratio of household heads after 1994. In 1999, in Pernambuco, the state with the highest per-capita GDP in the Northeast, 41.6 percent of the people were poor. The respective figure is slightly lower for Rio Grande do Norte, namely, 39.7 percent, but substantially higher for Maranhão (52 percent). In the 1993-99 period, the incidence of poverty in Pernambuco, Maranhão and Rio Grande do Norte fell by 12.2 percent, 13.4 percent and 14.7 percent, respectively. Rio Grande do Norte and Paraíba experienced thus the highest reduction in poverty in the Northeast namely 14.8 percent and 17.5 percent, respectively, which is more than twice the national rate (7.3 percent).

Considering the past two decades, the headcount ratio fell in the Northeast, Maranhão, and Rio Grande do Norte by 5.4, 12.0 and 9.7-percentage points, respectively since 1981. In Pernambuco, poverty is actually slightly higher (by 0.8 percent) in 1999 than in 1981.

Figure 6: Squared Poverty Gap: Indigence Line
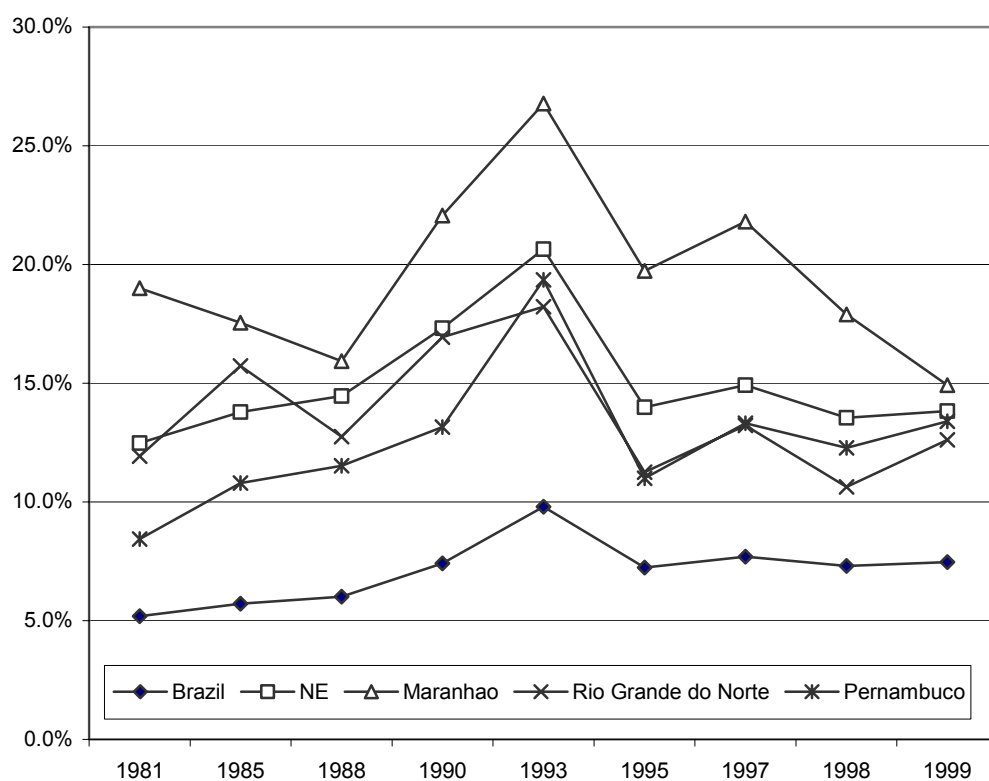
Source: Authors' calculations based on PNADs 1981 to 1999.

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Weighting larger distances from the poverty line more heavily, through the P^2 measure, poverty increased from 1981 to 1999 everywhere in the Northeast, except Rio Grande do Norte and Maranhão (Figure 6). The impact of the Real Plan on poverty was largest in the Northeast, translating into a 6.7-percentage points reduction in poverty during the 1993 to 1995 period (from 0.21 to 0.14). In Rio Grande do Norte, P^2 fell from 0.18 in 1993 to 0.11 in 1995, but reached nearly 0.13 in 1999 – after an all time low of 0.10 in 1998.

What happened to *income inequality*[17]? One interesting observation is, that the data show that the Real Plan brought a slight increase in inequality followed by a fall. This finding contrasts with findings of Barros and Mendonza (1999) and Amadeo and Neri (1999) that show a slight decrease in inequality.

Figure 7: Inequality in Brazil: Theil's L Index
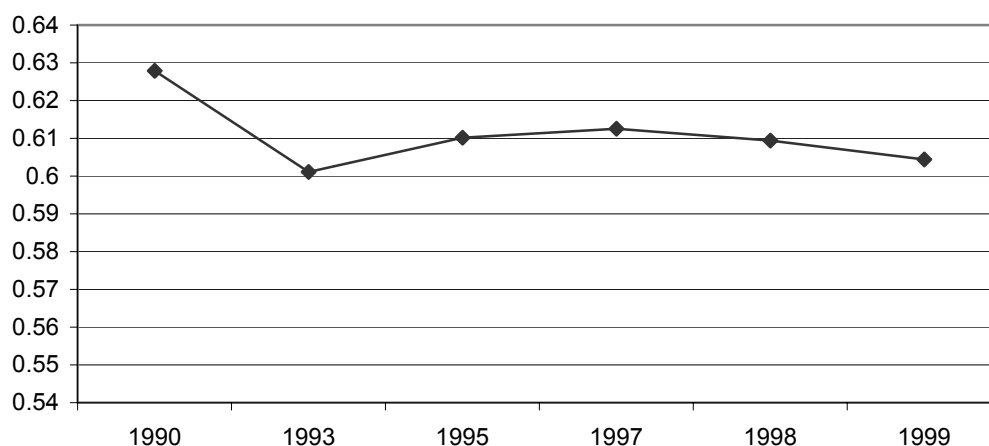
Source: Authors' calculations based on PNADs 1990 to 1999.

The reason for this is that we focus on per-capita household income, while Barros and Mendonza (1999) and Amadeo and Neri (1999) analyze individual income. This indicates slightly different developments in inequality at individual and household income level. However, taking methodological differences into account, by and large, inequality has widely remained at the same level since 1995.

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[17] Tables B8 and B9 display different inequality measures for Brazil and the Northeastern states.

The Gini coefficients for the states reveal that incomes are more inequally distributed than two decades ago (Tables B8 and B9). In 1981, Ceará and Bahia topped the list of most unequal states in the Northeast with a Gini of 0.61 which did not change in the two decades. In 1999, the most unequal state in the region was Paraíba (Gini of 0.64). and the least unequal was Maranhão (Gini of 0.58) (Table B8).

3.3.   Poverty profile

In the following, we partition the population based on characteristics of the household head and provide a more disaggregated poverty profile (Appendix C for all the NE States (Tables C3-C12), NE (Table C2), Brazil (Table C1) and for references São Paulo (Table C3)). In the following text we give an example of one state, namely, Rio Grande do Norte (Table C7), where the figures reveal a large difference in the levels of well-being among different groups, particularly between mulatto- and white head of households. The headcount poverty ratio reveals that 15-percentage points more mulatto-headed households are poor than white-headed households, or 45 percent and 30 percent, respectively. Hence, the white population is, on average, at considerable smaller risk of poverty than their black or mulatto cohabitants. It is feasible that some of it works through skills and educational attainment or demographic choices. Verner (2000) finds that large wage differentials are at play between white and non-white wage earners in the labor markets in Rio Grande's neighboring state Pernambuco. Below, we elaborate this finding by including and, therefore, controlling for other attributes in the poverty analyses, to understand the mechanisms through which ethnic origin affects household poverty outcomes.

The age of the household head displays a vindicated and perceptible link with poverty incidences. The older the household head the lower the incidence of poverty. In 1999, 60 percent of the households headed by a person younger than 25 years of age are poor. This compares to the age group above 65 years of age where only 17 percent are poor and the reduction in the headcount ratio has been substantial since 1993 (22 percent). Furthermore, the latter group has the highest average income of any age group.

Usually, the level of education is the most important determinant of poverty. The headcount for household heads who are literate is 34 percent, the headcount for illiterate household heads is with 52 percent significantly higher. Typically, a negative relationship

exists; hence, when the level of education attainment increases the headcount poverty ratio falls. This pattern is evident in Brazil as a whole and also in most northeastern states, however, this is less evident in Rio Grande do Norte. There appears to be little difference in poverty headcount indices between household heads with no education and household heads with completed primary education. This picture might be clouded by a relatively small sample size in these groupings. Nevertheless, we can observe that household heads with completed secondary education (22 percent are poor) are much better off than their counterparts with only primary education (47 percent are poor).

As regards labor status, informal workers (*sem carteira assinada*) have one of the largest incidence of poverty in Rio Grande do Norte and the Northeast. The headcounts are 56 percent and 33 percent for informal and formal workers, respectively. The labor category contributing the largest share to overall poverty are employees, which seems unusual, since for the Northeast as a whole the self-employed are the poorest.

The figures of sector of occupation reveal, not surprisingly, a high incidence of poverty among household heads engaged in agricultural activities (58 percent). Furthermore, service sector workers (29 percent) are less likely to see their households in poverty than industrial workers (46 percent). The least likely to be poor are public sector workers (18 percent). These figures indicate that the poverty incidence and severity profile for labor occupation, mainly agricultural sector occupation, is a cause for concern with respect to poverty and welfare. But, a conditional analysis such as probit poverty regressions, is needed before further conclusions can be made.

In Rio Grande do Norte the majority of the poor live in the rural areas, where nearly 54 percent live on less than the poverty line measure for food necessary to obtain sufficient calories. The figure for the urban area is 34 percent. Since 1993, poverty in rural areas has been reduced by impressive 12-percentage points and in urban areas by 15-percentage points. This seems to suggest that the Real Plan and state policies have benefited urban areas slightly more than rural areas.

We find that male- and female-headed households only differ marginally in the extent to which they are likely to be poor (39 percent and 41 percent, respectively). The male headed households experienced a lower reduction in poverty (13 percent) as compared to female-headed households (18 percent) since 1993, a findings that is not

confirmed for the Northeast as a whole. These income poverty figures are, however, only part of the story of factors that impact a poor woman's well being. Furthermore, the data do not reveal anything about domestic violence and other types of discriminations that women often face.

3.4.   Education

The Northeast is educationally disadvantaged as compared to the rest of Brazil. Disparities within the region and states as well as amongst poor and non-poor are dramatic. Based on PNAD data from 1981 to 1998 for the total active population (15 to 65 year old), we find that average years of completed education (effective education) of the total active population increased by 1.7 years from 4.5 years in 1981 to 6.2 years in 1998. Average effective education of the active population in Brazil with a per-capita family income below the indigence line increased by a slightly lower rate (by 1.5 years) from 2.2 years in 1981 to 3.7 years in 1998. In 1998, average effective education was highest in Distrito Federal (8.1 years) followed by São Paulo (7.3 years) and lowest in Piaui (4.1 years). In 1998, Rio Grande do Norte and Pernambuco had the highest average effective education in the Northeast. Average effective education of the total active population in Rio Grande do Norte increased by 1.7 years from 3.5 in 1981 to 5.2 years in 1998. Average effective education of the active population in Rio Grande do Norte with a per-capita family income below the indigence line increased the same rate (by 1.7 years) from 2.0 in 1981 to 3.6 years in 1998.

Nevertheless, compared to the situation in the 1970s and 1980s, the disparity between education levels in the Northeast and Brazil have narrowed only a little. The literacy rate of adults increased by 25-percentage points from 46 percent in 1970 to 71 percent in 1996, the literacy rate in the Southeast increased over the same time span from 77 percent to 91 percent (the nationwide figures for 1970 and 1998 are 67 percent and 85 percent respectively). Even though adult literacy occurred at a faster rate in the Northeast, it is striking, that in 1996, the literacy rate in the Northeast had not even reached the level of literacy of the Southeast of 1970. Further, our analysis of PNAD shows that average effective education of the poor in São Paulo (5.1 years) nearly equals the average effective education of the non-poor in Rio Grande do Norte (5.2 years).

The increased investment in schooling by federal and state governments in the Northeast in the beginning of the 1980s seemed to have been successful. The lack of school attendance in Rio Grande do Norte (and the Northeast) are due to low school attainment by parents more than poor quality of schools in the region (Barros, Firpo and Mendoça, 1999). Furthermore, findings by Barros and Mendoça (1998) show that teachers in Rio Grande do Norte have completed 10.4 series while the average for the entire country is 10.9 series (the respective figure for São Paulo is 13.0). The difference of salaries of teachers in Rio Grande do Norte and São Paulo is substantial. Average earnings of teachers in Rio Grande do Norte and São Paulo are 3.1 and 9.4 (1990) minimum salaries, respectively. The national average is 4.8 (1990) minimum salaries. The large difference in teacher incomes however also reflects the fact that 71 percent of teachers in São Paulo have some degree of higher education, the respective figure for Rio Grande do Norte is 23 percent.

School attendance has improved substantially over the last decades in Brazil. In 1998 (IBGE Social Indicators, 1999) only 5 percent of the 7 to 14-year-olds did not go to school. The respective figure for the Northeast and Rio Grande do Norte is 8 percent. School enrollment for secondary age children (15 to 17-year-olds) is much lower, 23 percent (27 percent, 31 percent) of this age group do not attend school in Brazil (Northeast, Rio Grande do Norte). While there appears to be only a slight urban-rural difference for 7 to 14-year-olds, this gap widens for 15 to 17-year-olds. Twenty percent (23 percent, 23 percent) of secondary school-age children do not go to school in urban areas of Brazil (Northeast, Rio Grande do Norte), while the respective figures for the rural areas are 35 percent, 35 percent and 39 percent. However, we have to keep in mind that these figures represent school attendance rates (total enrollments by age group independent of being adequate or not).

Figure 8:

Percentage of Children (7 to 14) not in School (1991)
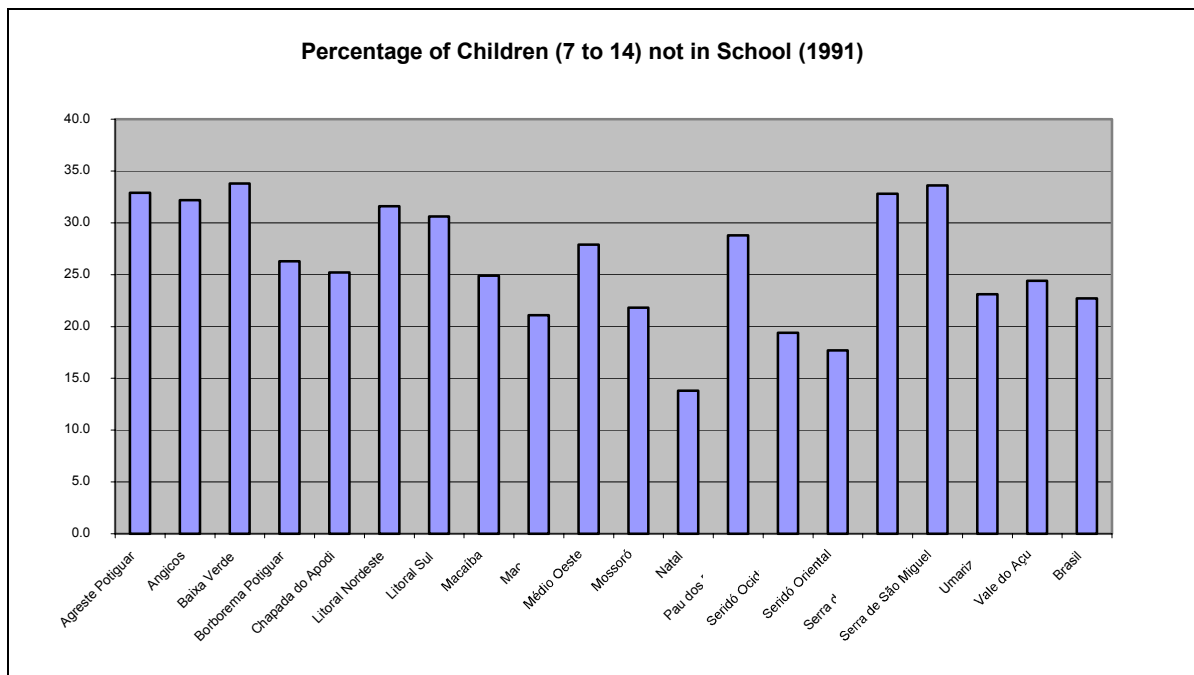
Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

3.5. Health indicators

In the following, we consider two health indicators namely the infant mortality rate and life expectancy at birth[18]. The infant mortality rate has been heavily reduced over the past decades throughout Brazil; but as figures for 1998 show, it is still very high in the Northeast —58 deaths per 1000 live births[19] compared to the country's average of 36. Again, regional differences are striking: Alagoas is the state with the highest incidence of infant mortality, namely 72 deaths per 1,000 live births, Rio Grande do Sul has the best record, with 19 deaths per 1,000 live births. In Rio Grande do Norte 55 out of 1,000 die at birth. DHB data for 1991 indicate that theses disparities persists at microregions. Within Rio Grande do Norte, Macao tips the scale at 169 deaths before the age of one out of 1,000 live births. This sharply contrasts to Natal's 59 deaths.

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[18] The analysis in this section is based on Sinteses de Indicadores Sociais from IBGE, 1999.

[19] "Síntese de Indicadores Sociais" (Table 2.1 IBGE, 1999).

Figure 9: Life Expectancy at Birth – 1996
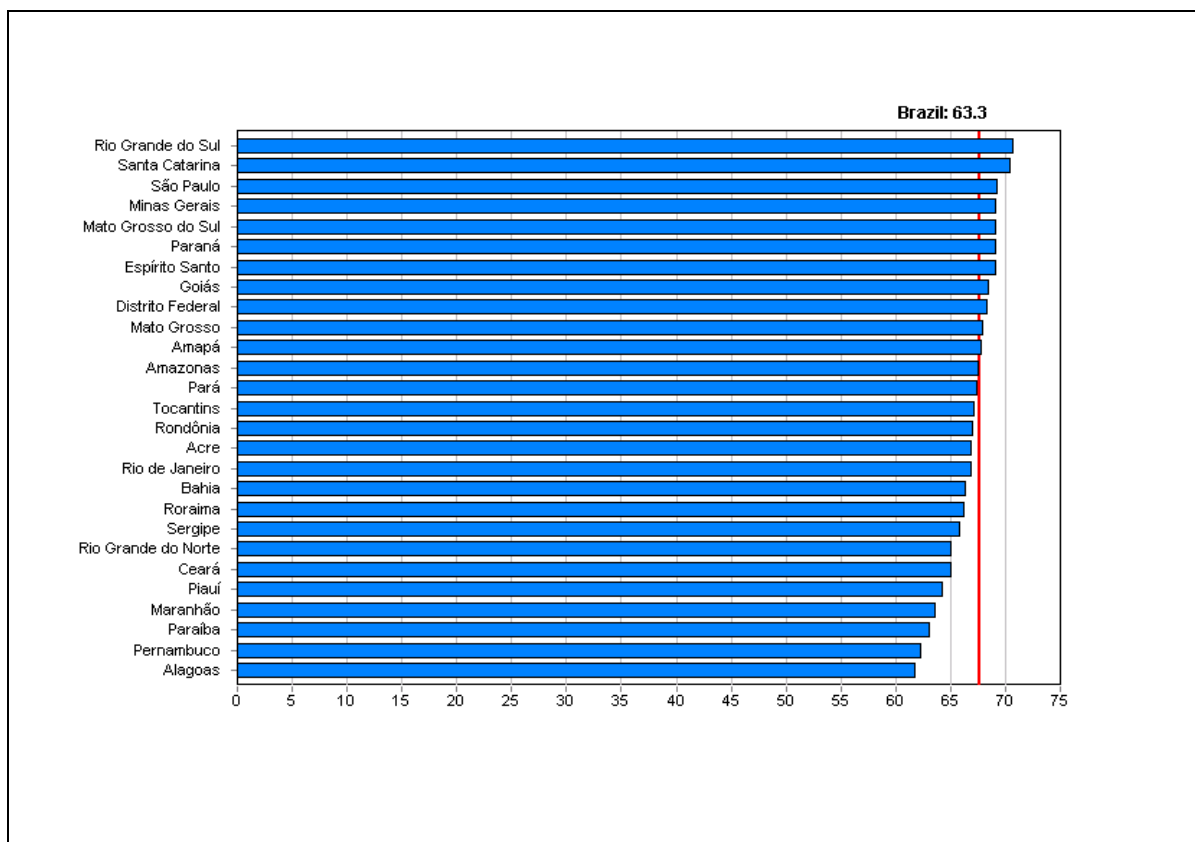
Source: Atlas do Desenvolvimento Humano no Brasil (1998) – IBGE.

Also, the life expectancy at birth, that is the number of years a person can expect to live when born, has markedly improved since 1970, but the differences between states are substantial (see Figure 9). In Rio Grande do Norte a newborn can expect to live to the age of 65 as compared to 70 years in the South.

3.6.   Housing characteristics and access to services

The patterns underlying home ownership in Brazil seem to be different from most developed countries where rich households own their homes and pay mortgages and poorer ones rent their homes (Tables C1-C13). On average, the rate of home ownership appears to be larger amongst the poor than the rich. In Brazil in 1998, home ownership in urban areas amongst the extreme poor (per-capita income of less than half a minimum salary) was 78 percent, while 70 percent of the rich (per-capita income of more than 5 minimum salaries) owned their houses and renting accommodation was nearly twice as common amongst the

rich (21 percent) than the poor (12 percent). The fact that the richest people also rent is not a new finding, as Ferreira, Lanjouw and Neri (1999) find the same for Brazil as a whole using the PPV data.

The access to services related to homes is very unequally distributed as the poorer households receive fewer services than the richer ones. Access to services such as piped water and sewerage system as well as organized waste disposal are other indicators revealing standards of living. Figures for 1998 show that in the Northeast region only 31 percent of privately owned houses in urban areas had piped water, adequate sewage systems and organized waste collection. The respective figure for Brazil is 62 percent and for the Southeast 85 percent. The distribution of these services amongst poor and non-poor is even more unequal across regions. Comparing access to services for the extremely poor (per-capita household income of less than half a minimum salary) across regions, we find that households with a per-capita income of less than half a minimum salary face substantially worse living conditions in the Northeast than in the Southeast. Only 18 percent of extremely poor households have adequate access to water, sewage and waste services, compared to 64 percent in the Southeast. Across the Northeast, the best living conditions are found in Bahia, where 41 percent of the total population and 25 percent of the extremely poor households have acceptable access to water, sewage and waste services[20]. The living conditions for households in Rio Grande do Norte are slightly below the average of the Northeast, 29 percent of all privately owned houses have access to adequate water, waste and sewage services, the respective figure for the extreme poor is 21 percent.

The majority of households in Rio Grande do Norte (51 percent) have access to piped water, but only 40 percent of the poor have access (Table C7). Furthermore, only 39 percent of the poor households have access to electricity, as compared to 65 percent of the total population. Additionally, 76 percent have no access to disposal of sewage through the main sewage system. They use alternative means, for example, drains (28 percent) and direct dumping into lakes and rivers (45 percent).

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[20] The best living conditions in the Northeast can be found in the metropolitan area of Salvador, where 66 percent of privately owned houses have access to adequate water, waste and sewage services. Synthesis of PNAD, IBGE, 1999.

22

3. Determinants of Poverty[21]

Many individual characteristics such as education, experience and labor market association are important correlates of poverty and the dynamics thereof. In this section, We investigate the marginal impact of each individual attribute on the likelihood that a household fall below the poverty line of absolute poverty. The analysis is undertaken applying probit regression techniques. Ferreira, Lanjouw and Neri (1999) use PPV data in a similar study, and these authors perform the study for Brazil as a whole and for one year, which gives a good but static picture of the situation in Brazil. Here the analysis is more dynamic in nature as it is based on nine PNAD data sets from the years 1981, 1985, 1988, 1990, 1993, 1995, 1997, 1998 and 1999. Hence, nine poverty analyses are performed for the individual states in the Northeast region and also for the all Northeast. This allows for an evaluation of the evolution of poverty over time and the most important variables determining poverty. This analysis reveals: (i) conditional correlation between poverty and characteristics of household heads; (ii) information about the volatility of the impact of the attributes on the likelihood that a household experiences poverty during the 1980s and 1990s; and (iii) information about groups that are particularly vulnerable and changes thereof over the past decades. The findings are presented in appendix D.

We regress the status of the household—poor or nonpoor—on relevant individual and household characteristics. The income concept used for the dependent variable is average per-capita income and the poverty line applied is the indigence. The dependent binary variable takes the value of one when income is below the indigence line and zero otherwise. The vector of independent variables includes: (1) attributes of household head: gender; ethnic origin; education; experience and labor market connection (whether the household head works, the type of relation with the labor market, sector of employment, and tenure in the job); (2) family variables: size and age of its members; (3) housing

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[21] Appendix D contains a significance analysis for poverty probits for Brazil, the Northeast and individual states in the Northeast based on PNAD 1999 data.

As the results of the individual state-probit regressions are similar to the results of appendix D, they are only reported in graphical form in Figures 10 to 15 for the Northeast and Rio Grande do Norte in order to preserve space.

characteristics: durability of walls and roof; (4) access to services, such as piped water, electricity, waste disposal and sanitation; (5) wealth variables such as owning or renting the home and ownership of refrigerator; and (6) rural versus urban location. The marginal effect of a change in each independent variable on the probability of being poor is measured by the parameter estimate of this variable.

We interpret these poverty profile probit regressions as descriptive and do not infer anything in terms of causation. This is important to keep in mind particularly when considering the wealth indicators, but less so with education as household heads obtained their education level prior to the interview period. In the following two subsections we discuss broadly the differences between: first the NE and the rest of Brazil, and second the NE and its states in 1999. In the third section we go more into detail on the determinants of poverty in a state and the NE region in the past two decades.

4.1. Regional Differences in Poverty – a nested approach

Regional differences in probabilities of experiencing poverty, require policy makers to address these differences. In this section we try to assess regional differences in the likelihood of being poor between (1) the Northeast of Brazil and other areas in Brazil; and (2) individual states in the NE. For this purpose we estimate two probit regressions[22,23]. For the Northeast versus Brazil probit specification, we interact all the independent variables with a 0-1 dummy for the NE. For the Northeast versus its states we limit our sample to the NE and interact all the independent variables with a dummy for each individual state in the NE. This probit specification is run separately for all nine states in the NE.

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[22] Probit coefficients are not easy to interpret, since they do not represent the standard marginal effects represented by linear regression coefficients. We therefore chose to present marginal effects rather than Probit coefficients. The marginal effects for a household head i in the Probit model are simply given by:

$$m_i = \frac{d \Pr(y_i = 1)}{dx_i} = \phi(x_i \beta)\beta$$

This represents the marginal changes in probability that a household head i is poor due to changes in the underlying regressors. In order to summarize representative marginal effects, the changes are evaluated at the mean of the data. Since similar conditions apply for marginal effects as for Probit coefficients, the same tests for the positivity, negativity or significance can be applied.

[23] OLS regressions confirm the results of the probit analyses.

The coefficients of the probits are interpreted as follows. In the case of the NE versus Brazil specification, the coefficient for, for example, rural measures the probability of being poor for a household head residing in a rural area in Brazil. Then for a household residing in the NE the probability of being poor when residing in the rural area can be calculated by adding the coefficients of rural, NE and NErural, (i.e. rural interacted with a dummy for NE). If the NE-interacted dummies are not significant, we can conclude that there is no statistical difference in the likelihood of being poor for a person residing in the NE compared to other parts of Brazil for that particular variable. As such, the NE-interacted coefficients measure a NE-specific premium or discount on the probability of being poor associated with different individual characteristics. Insignificant differences in the probability of experiencing poverty across regions, indicate that a homogenous, cross-regional strategy for fighting poverty is adequate. The data used in this section are the PNAD household survey from 1999.

Northeast versus Brazil

From Table D1 we observe that the likelihood of being poor differs in many respect in the NE from the rest of Brazil. The findings reveal that in 1999 a Nordestino is 24-percentage points more likely to be poor than other Brazilians. Furthermore, most NE-specific coefficients are significantly different from zero which indicates that the NE is different from the rest of Brazil. Given the fact, that poverty in the Northeast is nearly double the Brazil-average, this finding is not surprising.

The main difference in poverty between the Northeast and the rest of Brazil is explained by the NE dummy and not by individual characteristics. This indicate that these are regional as well as individual characteristics that are different across regions in Brazil, apart form the ones included in the analysis that are important. For example, poverty among women, for example, is higher in the Northeast than in the rest of Brazil, however, as the NE interacted dummy for female is not significant, this difference in poverty cannot be attributed to differences between women in the Northeast and women in the rest of Brazil. The difference is due to that the NE in general is more disadvantaged, which is measured by the NE dummy.

The same way of reasoning leads to the conclusion that more skills or employment in any sector do not directly contribute neither more or less to poverty in the Northeast. But compared to the rest of Brazil, more skilled workers are poorer in the NE because of other regional specific characteristics.

Some regional differences are however noteworthy and in particular so are the NE specific coefficients on human capital. While household heads with completed tertiary education in Brazil (excluding the Northeast) are 12-percentage point less likely to fall into poverty than household heads with no education, tertiary education in the Northeast pays off more in relative terms. Household heads with tertiary education in the Northeast, though 4-percentage points more likely to be poor when compared to uneducated household heads in Brazil as a whole, are 20-percentage points less likely to fall into poverty when compared to the uneducated population in the Northeast. These findings may indicate that higher education is still a relative scare asset in the NE of Brazil.

Blacks and mulattos are 22-percentage-points more likely to be poor in the NE than black and mulattos in the rest of Brazil, 3-percentage-points more likely to be poor than whites in the NE and 27-percentage-points more likely to be poor than whites in the rest of Brazil.

Household heads in rural areas in the NE are 22-percentage- points more likely to be poor than rural household heads in the rest of Brazil and it appears again to be the NE dummy that mostly accounts for this difference. Furthermore, the rural household heads in the NE are 27-percentage points more likely to be below the indigent poverty line than urban households in the rest of Brazil.

Formal sector workers, i.e., with *carteira assinada* are slightly more likely to be poor in the NE than formal sector workers in other parts of Brazil, controlling for other characteristics. Finally, family characteristics are important for the likelihood of being poor. Larger households in the NE are more likely to fall into poverty than smaller households in the NE and the rest of Brazil. However, the presence of young children below the age of five and older children between five and fifteen years of age are less likely to be poor in the NE than households with no children in these age groups living in the NE Brazil. However, compared to the rest of Brazil households with children are more likely to be poor.

4.2 Individual States in the Northeast versus all Northeast

This section focuses on the NE and investigates northeastern state-specific discounts and premia on the likelihood of being poor (Tables in appendix D). As a general observation, the likelihood of being poor in an individual state in the NE does not differ much from the NE in general. In the following we will discuss statistically significant differences. The state dummies (dummies not interacted with specific characteristics) are statistically significant but different from zero only for Piauí and Bahia, indicating underlying differences in institutions, macro variables such as capital as well as other individual characteristics and culture are important but not controlled for. For Piauí, the state dummy is strongly significant and positive, while the state dummy for Bahia is strongly significant and negative, implying that household heads in Piauí are more likely to become poor than household heads elsewhere in the Northeast region. Household heads in Bahia are less likely to be poor than in the rest of the NE. Rio Grande do Norte and the other states in the region are not statistically significantly different from the NE as a whole.

Rural household heads in Maranhão and Ceará are 5- and 20-percentage points, respectively, more likely to be poor than other rural household heads in the NE.

Regarding educational variables, we find that household heads in Alagoas with completed secondary education are 24-percentage points less likely to be poor than household heads with a similar educational profile in other northeastern states, while household heads in Ceará with some primary, completed primary and completed secondary education are 15-, 18- and 17-percentage points more likely to experience poverty than household heads with equivalent educational levels in other states of the NE which may indicate that education is of lower quality in this state compared to other states in the NE. We observe no state-specific differences in the impact of education on poverty for the other states in the NE.

4.3 Rio Grande do Norte and the Northeast (1981-99)

In this subsection we focus on one state, Rio Grande do Norte, and compare it to the Northeast as a whole while going more into detail then in the previous two sections, as we discuss the development over the past two decades.

4.3.1 Education

In the Northeast region and its states, the most important factor contributing to the likelihood of a household being poor is completed level of education by the household head. That is, the more education a household head has completed the lower the probability of earning an income, that takes the household below the absolute poverty line. Education variables are strongly, statistically significant and negatively correlated with the probability of being poor at all levels of education starting with the first part of primary education. Furthermore, this is the case for all eight years for both Rio Grande do Norte and the whole Northeast region. Controlling for other variables, the impact of educational attainment is quantitatively the largest of all included explanatory variables. Moreover, the negative effect of education on poverty is increasing with the level of completed education of the household head. Put differently, the more completed education the less likely it is that the household experience poverty.[24]

Figures 10a and 10b plot the education parameter estimates for the 1981-99 period for Rio Grande do Norte and the Northeast.[25] Findings reveal that the impact of having completed primary education on the likelihood of being poor has been rather constant over the 1980s and 1990s. For completed high school education, the magnitude of estimated impacts is larger than of primary education. Furthermore, for Rio Grande do Norte and the other individual states, the impact is closely linked to developments in the Brazilian economy. The effect on poverty of completed education was larger during economic up-turns such as after the implementation of the Real Plan and low during recessions such as during the Collor Plan years and the Asian crisis. Furthermore, Figure 10a shows that the impact on poverty of tertiary education is significantly and numerically larger, hence more poverty reducing than that of secondary education. Furthermore, the pattern of development is rather different for higher education, as it is less procyclical than is primary and secondary education. The largest effect of tertiary education on the probability of experiencing poverty was during the stabilization and post devaluation in 1985. The

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[24] Ferreira, Lanjouw and Neri (1999) using PVV data in their analysis of Brazil as a whole also find that education is the central personal attribute determining the likelihood that a household experience poverty using PVV data in their analysis of Brazil as a whole.

[25] The probit parameter estimates and standard deviations for each of the nine years are available from the authors upon request.

findings for the Northeast are presented in Figure 10b and indicate that in this region the likelihood of experiencing poverty is less procyclical for secondary education than in Rio Grande do Norte, albeit the impact on poverty being about the same in magnitude, and furthermore, hardly any difference exists between tertiary education between Rio Grande do Norte and the Northeast region.

Figure 10a: Impact of Education for Rio Grande do Norte[26]
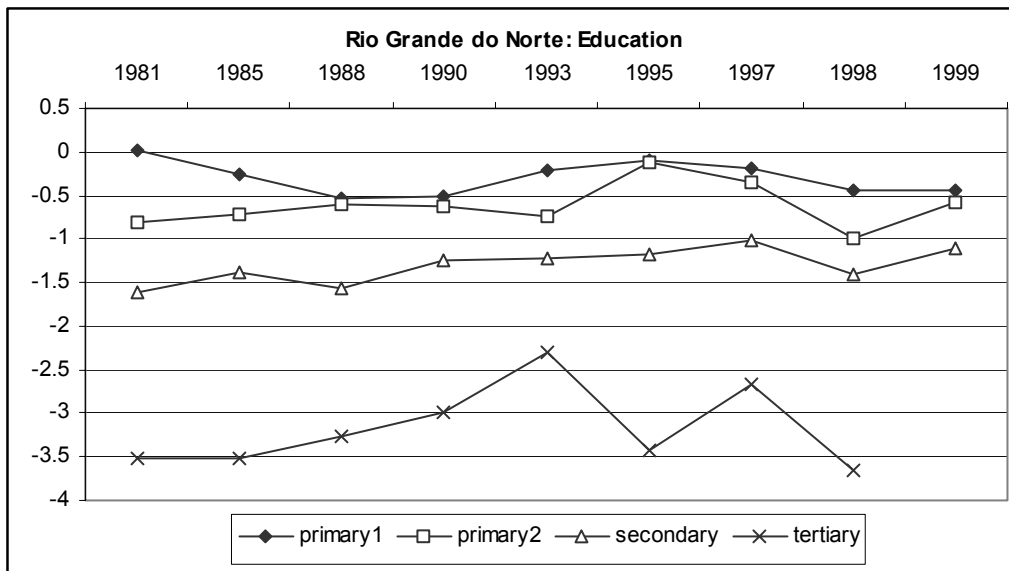
Source: Authors' calculations based on PNADs 1981 to 1999.
Note: Figures are based on probit coefficient estimates for the education variables.

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[26] No observation available for tertiary education in 1999.

Figure 10b: Impact of Education for Northeast
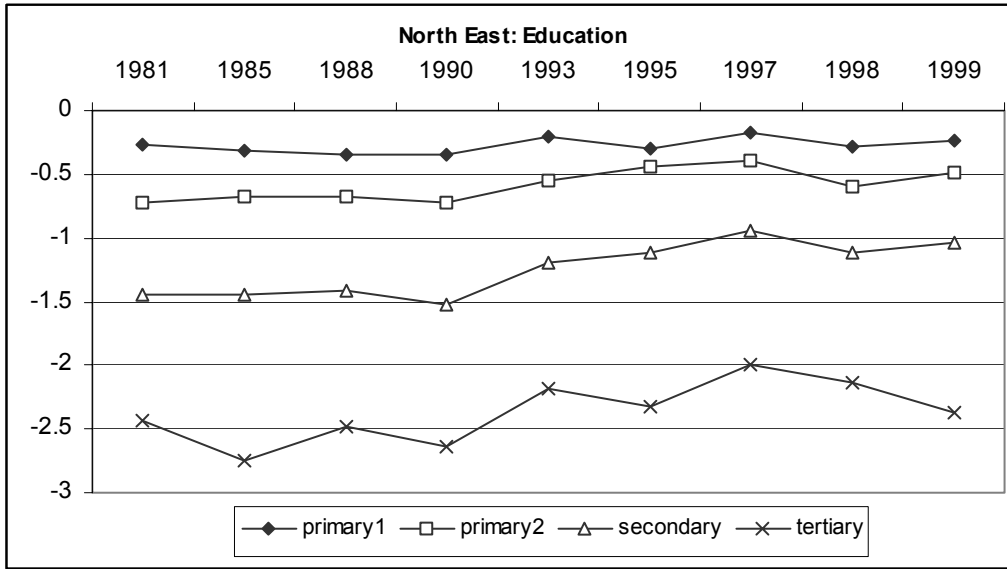
North East: Education

Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are based on probit coefficients estimates for the education variables.

4.3.2 Gender

The gender of the household head makes a statistically significant difference for poverty. Female-headed households have a much larger likelihood of being poor than male-headed households even, when we include other covariates in the analysis, such as labor market connection, education, etc. This finding shows that one should be careful in putting too much emphasis on unconditional poverty profiles alone. That is, comparing unconditional means (as done in section 3). The parameter estimates and standard deviations for each of the eight years are shown in Figures 11a and 11b.

Since 1990, Rio Grande do Norte and the Northeast show a slightly decreasing trend in the likelihood of a female household head experiencing.

Figure 11a: Impact of gender for Rio Grande do Norte
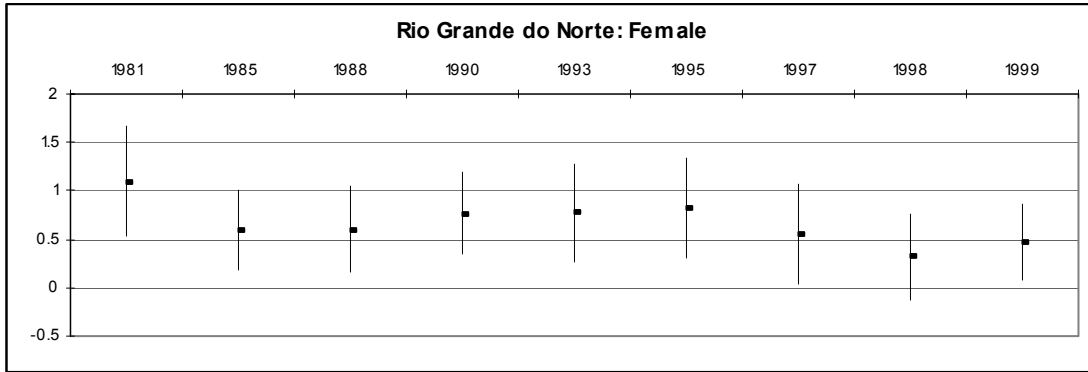
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for female dummy.

Figure 11b: Impact of gender for Northeast
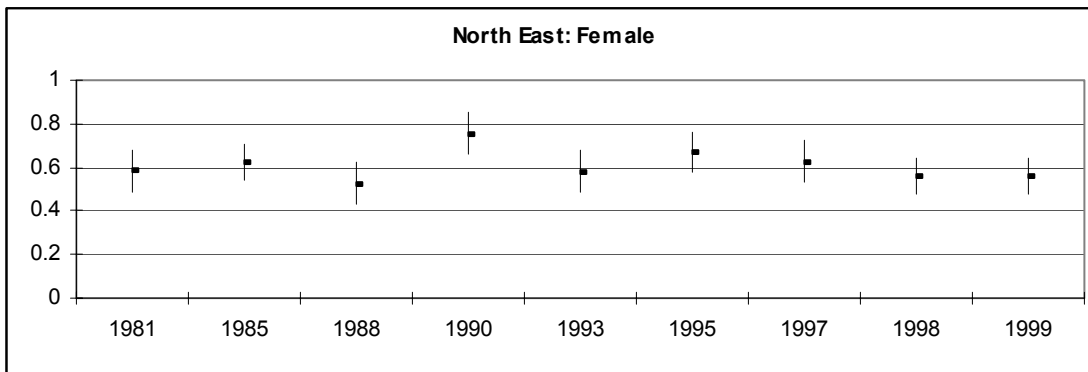
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for female dummy.

4.3.3   Experience and family characteristics

In the labor market literature, skills and experience are often proxied by the age of a worker. When we include the age and age squared, the latter to capture nonlinearities in the data, both turn out statistically significant correlates of poverty for some years while for other years age is only marginally significant. This indicates that the older the household head the lower probability the household will be poor, albeit at a decreasing rate for the old age. These findings reveal that the household combination is more important than age of the household head, since other included family characteristics are strongly

statistically significant in explaining the likelihood of experiencing poverty for all years and for both Rio Grande do Norte and the Northeast.

The household size is statistically significant and positively correlated with the incidence of poverty. Moreover, larger households are poorer and the effect is concave, indicating that the scaling factor matters for poverty (Figures 12a and 12b). This finding holds for both the Northeast region and for Rio Grande do Norte. However, the adverse impact of a large family on the likelihood of escaping poverty has increased in the 1990s for the region as a whole. In Rio Grande do Norte the impact seems to have been constant.

Figure 12a: Impact of household size for Rio Grande do Norte
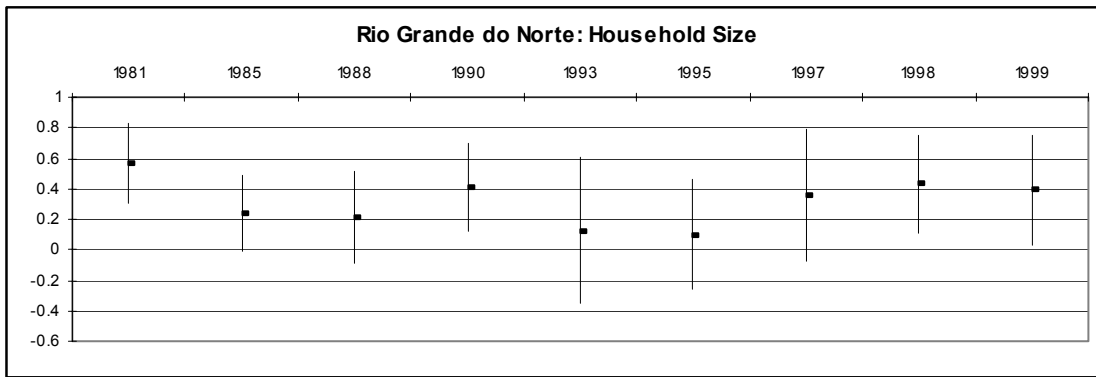
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for household size.

Figure 12b: Impact of household size for Northeast
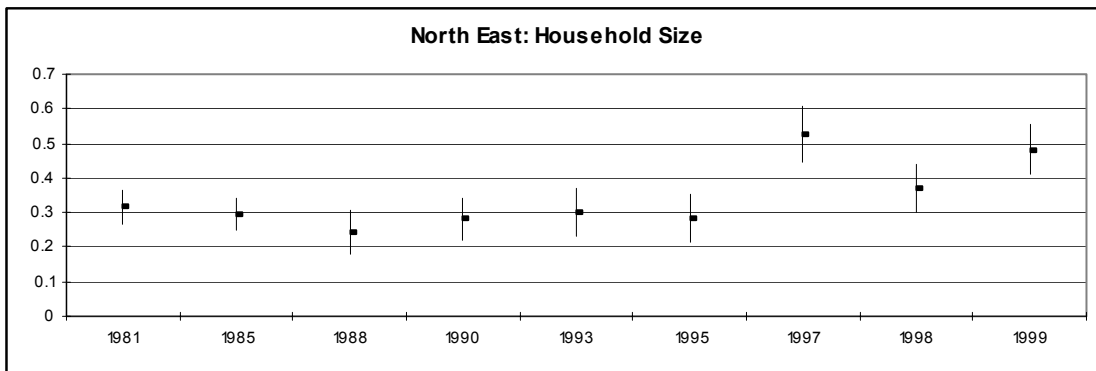
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for household size.

Figure 13a: Impact of having children below the age of 5 for Rio Grande do Norte
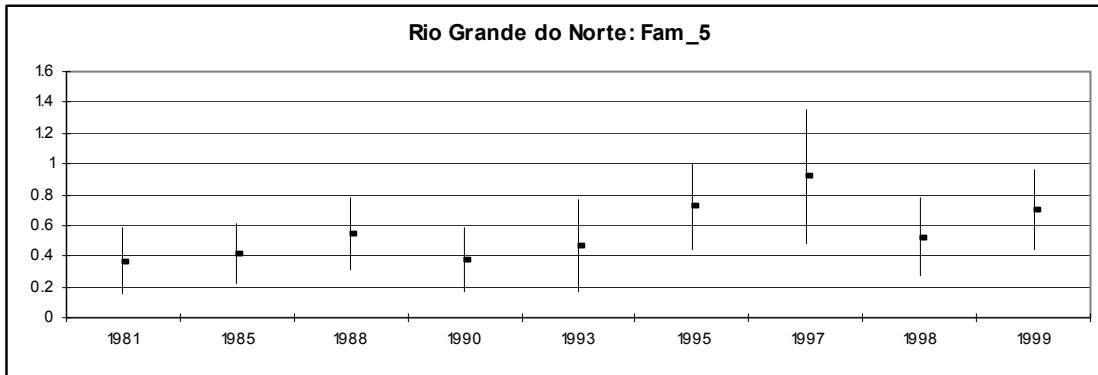
Rio Grande do Norte: Fam_5

Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam_5 dummy.

Figure 13b: Impact of having children below the age of 5 for Northeast
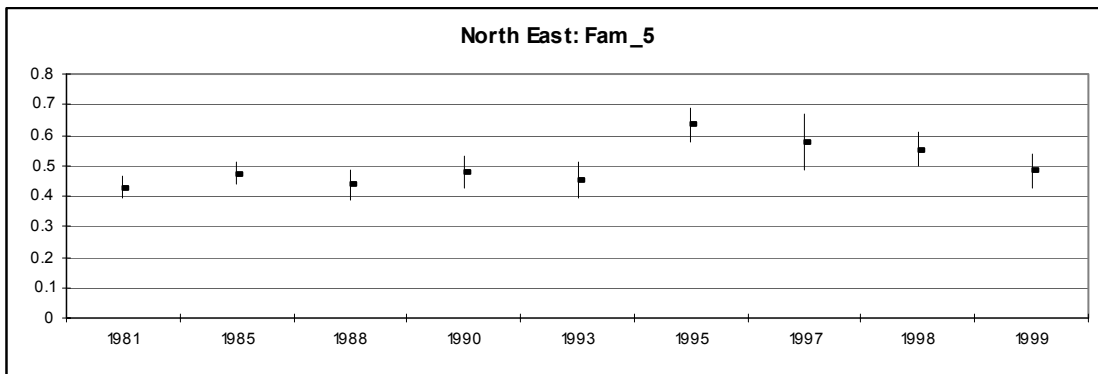
North East: Fam_5

Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam_5 dummy.

In Rio Grande do Norte and the Northeast, families with members under the age of 5 appear more likely to be poor than families with no children below 5 (Figures 13a and 13b). This finding indicates that households with young children are more vulnerable than households with no children below the age of five. Furthermore, the probability of experiencing poverty for families with small children has been constant over the past decade. One direct policy intervention would be to facilitate access to childcare. In particular, the poor find the shortage of affordable childcare a large obstacle to their daily chores, see "Voices of the Poor" (1999). The gender finding paired with this small

children finding indicates that single mothers with small children are far more likely to experience poverty than, for example, male-headed households with no children.

Figure 14a: Impact of having children between the age of 5 and 15 for Rio Grande do Norte
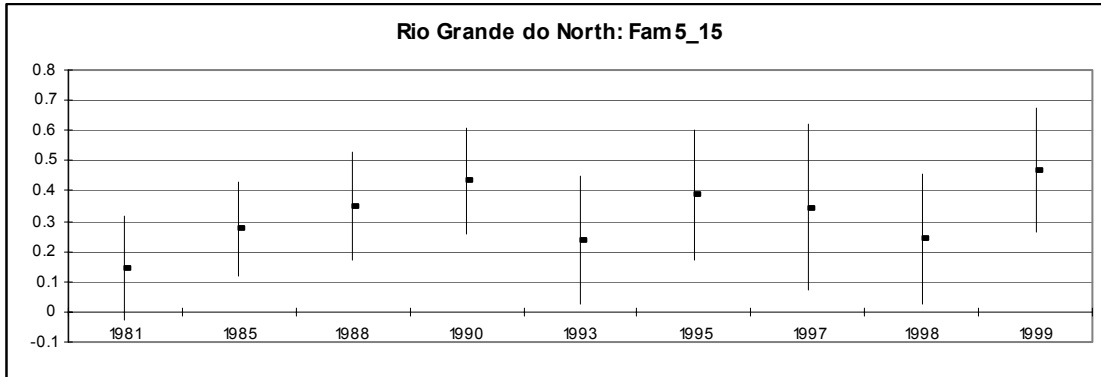
Rio Grande do North: Fam5_15

Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam5_15 dummy.

Figure 14b: Impact of having children between the age of 5 and 15 for Northeast
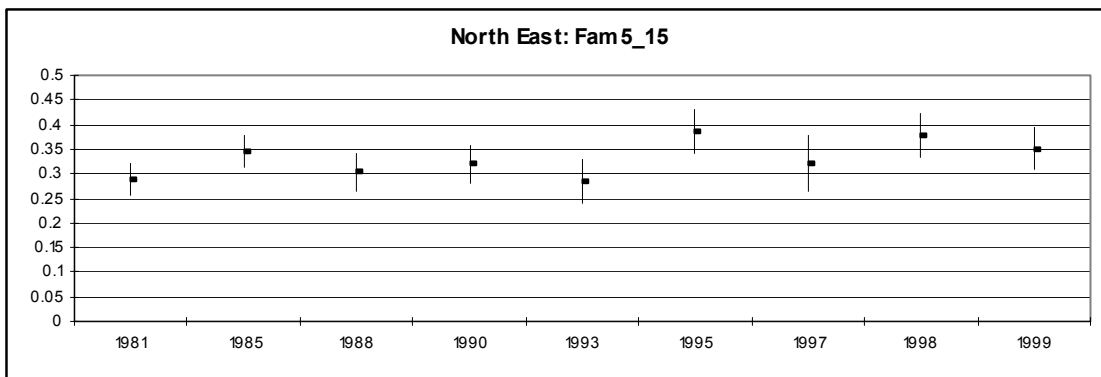
North East: Fam5_15

Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam5_15 dummy.

Also, households with members between the age of 5 and 15 have a large probability of being poor compared to the average, albeit their likelihood is lower than for families with small children. For Rio Grande do Norte and the Northeast, the impact seems rather constant across the 1980s and 1990s, but with a tendency to increase in recent years (Figures 14a and 14b).

For Rio Grande do Norte and the Northeast, the presence of an elder household member (above 65 years of age) is significantly and negatively correlated with poverty. That is, having an old-aged in the household implies a lower chance of falling below the poverty line. This finding may at first seem surprising, but since elder people rarely retire completely in developing countries, it is not so unexpected. Furthermore, in Brazil many old-aged receive some form of a pension that contributes positively to the household income and, therefore, reduce the likelihood of experiencing poverty.

Figure 15a: Impact of having old-aged in the household for Rio Grande do Norte
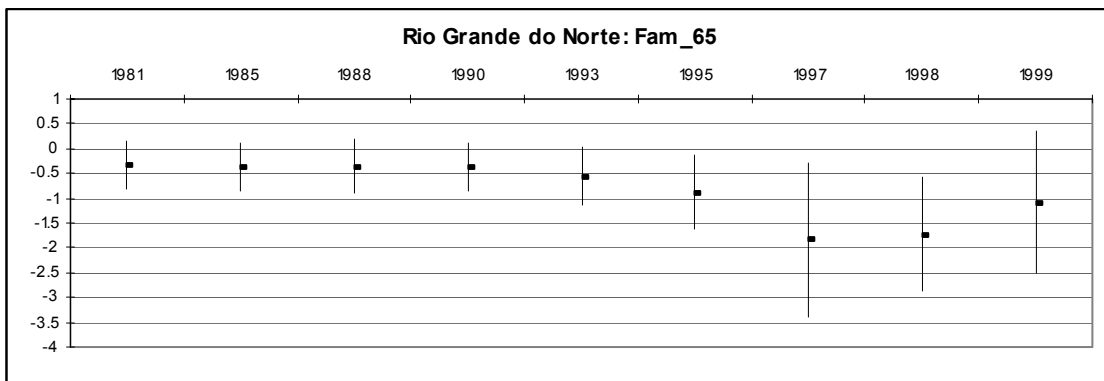
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam65 dummy.

Figure 15b: Impact of having old-aged in the household for Northeast
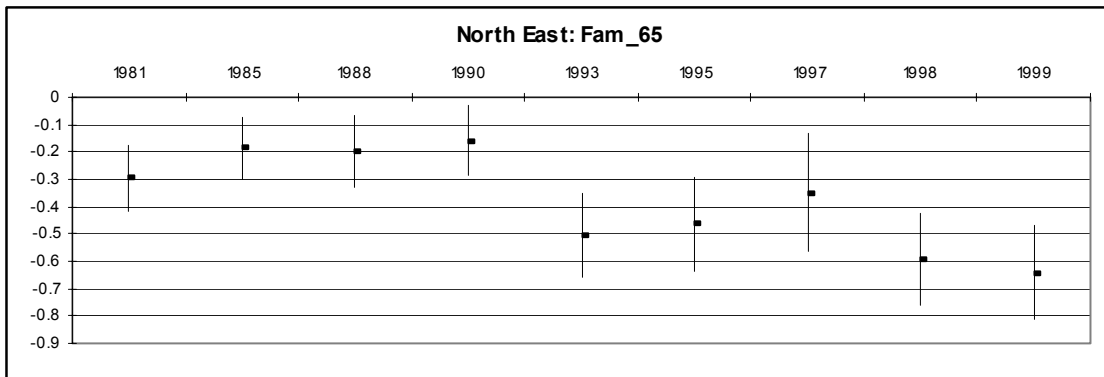
Source: Authors' calculations based on PNADs 1981 to 1999.

Note: Figures are probit coefficients and confidence intervals for fam65 dummy.

The coefficient estimate for the 1980s is rather constant (Figures 15a and 15b). In the Northeast, the impact has marginally decreased in the 1990s, indicating that in recent years households with old-aged members are even less likely to be poor than in the early

1980's. This finding might be indicative of a positive impact of the recent pension reform on poverty, which brought a substantial increase in the coverage of social security in Brazil and had a substantial impact mainly on rural poverty. The 1988 Federal Constitution established the universal right to social security and instituted special eligibility conditions for rural workers under the *Regime Geral da Previdência Social* (RGPS), Brazil's public pension system for workers in the private sector. Recent analysis based on the 1996-1997 *Pesquisa sobre Padrões de Vida* (PPV) survey, found that the proportion of rural households receiving pensions from public institutions averages 30 percent in Brazil's poorer Northeast, and 24 percent in the Southeast. Also Delgado (1999) and Beltrao *et. al.* (1999) find that the implementation of the 1988 eligibility and benefit criteria has been effective in lowering the incidence of poverty among rural households. Furthermore, there has been a substantial increase in the coverage of social security in Brazil in the last decade, which had a substantial impact mainly on rural poverty, through the *Lei Orgânica de Assistência Social* ((LOAS), which became effective in 1993. The rural pension takes the form of a monthly payment of one minimum salary paid to claimants above 67 years of age or disabled and with per-capita household income less than one-quarter of a minimum salary. The findings from the probit analyses may indicate that the rural pension scheme has been well targeted.

4.3.4. Ethnic Background

For Rio Grande do Norte and the Northeast region, we find that ethnic background (white, black, mulatto) is an import factor contributing to poverty, controlling for other household head characteristics. Data on ethnic origin is only available since 1988. *Mulattos* and black *Nordestinos* have a higher incidence of poverty than their white peers. This is in line with what we had observed from the simple statistics presented previously. That indicates that on average black and mulatto-headed households are poorer than whites. The probit regression findings underline the importance of the ethnic background. There are measurable differences between whites and non-whites, controlling for other characteristics. Family and education variables capture part of the difference found in the simple unconditional mean incomes, but still a large part is due to discrimination or other unexplained individual characteristics of the non-white population group in the NE.

4.3.5. Urban *versus* rural living

For the Northeast and also for Rio Grande do Norte, the urban *versus* rural living is a significant correlate to poverty in both the 1980s and 1990s, with rural households being more likely to experience poverty than urban ones. This is in line with what we observed earlier in the simple statistics. Hence it is a fact that the rural population is more poverty prone the population in urban areas.

4.3.6. Formal employment and sector of employment

We find that households where the household head works in the formal sector ("com carteira assinada") are statistically significantly less likely to be poor. This finding holds for both the 1980s and 1990s and all states in the Northeast region.

For Rio Grande do Norte, the sector—agriculture, services, industry and public — of employment is an insignificant correlate of poverty. Hence, when the head of household is engaged in service and industrial sectors, the household is not necessarily poorer than their counterparts employed in the agricultural sector. This does not seem to be the case for the Northeast as a whole, where a household head working in agriculture is significantly poorer than household heads engaged in the service and industrial sectors. Also, for the Northeast at least during the 1980s, public sector employment was a central personal attribute of the household head determining the likelihood that a household experiences poverty. The public sector dummy variable is statistically significantly different from zero and negative for the 1980s and also negative but no longer significant in the 1990s. The coefficient estimates reveal that the public sector cushioned this group of workers at least during the 1980s. But in the 1990s they are not enumerated neither more or less than what their human capital calls for.

4.3.7. Further remarks

By no means is this analysis fully complete, as important information identified by the poor themselves in the Northeast is not directly included in the analysis, for example, safety, peace of mind, good health, sustainable environment, belonging to a community,

and freedom of choice and action. In particular, crime, violence and safety are flagged as important problems and obstacles to well-being in the poor communities.

5. Conclusion and Policy Recommendations

In the Northeast region of Brazil, the poverty picture of the past two decades reveals large fluctuations in the headcount poverty index and squared poverty gap poverty measures. Hence, in the medium term, one fairly clear conclusion is that economic expansion can only do so much in alleviating poverty. Even during the upturns that created pro-poor economic growth, many people were still left in severe poverty. Therefore, poverty reduction can be achieved not only from economic expansion but targeted social policies including safety nets and redirection of current social expenditures are also needed. Targeted interventions can protect the elderly, children, households with small children, and other vulnerable groups in the Northeast. Covariant shocks, for example, economic recessions, may create a role for other programs, such as, workfare, as long as wages are low in order not to crowd out productive private activities.

Findings reveal that individual characteristics such as education, experience and labor market association of the household head are important correlates of poverty. Taking these into account they reveal that in 1999 a *Nordestino* is 24-percentage-points more likely to fall below the indigent poverty line than other Brazilians. Within the NE, only Piauí and Bahia are statistically different from the NE average. Household heads in Piauí are more likely to become poor than elsewhere in the NE region, while head of households from Bahia are less likely to be poor than the rest of the NE. Rio Grande do Norte and other states in the NE region are not more nor less likely to be poor. Data reveal that there are very large differences in poverty levels by education in the Northeast and all-Brazil. Moreover, these differences have increased over time, for example, since 1995, the headcount poverty index for people with some primary education appears to have increased, while the headcount index for people with some university education has fallen from its already very low level. There is a great deal of debate about the causes for these changes such as skill-biased technological change, changes in the relative supply of and demand for workers with different characteristics, and trade liberalization have all been mentioned as possible explanations (Blom and Velez 2001; Blom, Pavcnik and Schady

2001). Lack of education is clearly the one and most important contributing factor to the likelihood of a household being poor for the Northeast and its states. Furthermore, we observe that the probability of being poor is decreasing with increasing education attainment. These findings hold for every state in the Northeast as well as Brazil as a whole. Two implications for the design of poverty alleviation policies are the following. First, it reinforces the need to ensure that more children from poor households stay in school longer, and receive high-quality education. This is particularly important in Brazil, where there is considerable evidence of very high rates of intergenerational transmission of human capital. Second, the results show that education levels are highly—and increasingly—correlated with poverty, and may therefore be a good proxy for any policy designed to target poor households[27].

The gender of the household head alone does not matter for poverty according to the poverty profile, as around 40 percent of both male and female heads are poor. But, once when we control for education (women are more educated than men) and other individual characteristics, female-headed households have a much larger likelihood of being poor than male-headed households. As lack of education appears to be more important than gender in explaining poverty, transfer program which target transfers to households headed by people with low education would have a larger impact on poverty than a comparable program which targets female-headed households[28].

The household size is positively correlated with the incidence of poverty. Larger households are poorer than smaller ones and the effect is concave. Furthermore, larger households are more likely to fall into poverty in the 1990s than in the 1980s. Moreover, households with members under the age of 5 appear are more likely to fall below the poverty line than families with no children below 5 years old. Also, households with members between the ages of 5 and 15 have a large probability of being poor, albeit the likelihood is lower than for families with small children. The numerical predominance of families with small children placed below the poverty line should serve as a reminder that they should not be neglected in the design of safety nets and other remedial policies. Our analysis suggests that interventions, which benefit very young children should receive the

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[27] Thanks to Norbert Schady for this comment.

[28] Thanks to Norbert Schady for this comment.

highest priority in Northeast Brazil. These findings indicate that policies targeting this group would contribute to a reduction of poverty. One such initiative could be increased access to childcare and other social services.

The presence of old-aged people (above 65 years of age) in the household is an important factor contributing to poverty reduction in the Northeast and elsewhere in Brazil. The poverty rate for households with children under the age of six is four-and-a-half times the poverty rate of households with members aged 66 or older. Furthermore, we find that old-age poverty experienced a fall since the middle of the 1990s. Moreover, we find that there is no regional differences in the probability of falling below the poverty line for the elderly in Brazil.

The poverty profiles indicate that blacks and *mulattos* are significantly poorer than their white counterparts. This finding is confirmed by the probit regressions for the 1980s and the beginning of the 1990s, even when controlling for other household head characteristics.

Informal sector workers are much more likely to experience poverty than formal sector worker. Current labor market programs such as unemployment insurance, training, and severance payments have little poverty impact as they are highly directed towards formal-sector employees. The informal-sector workers are therefore left out. The importance of extending the social safety nets to the informal-sector may create a positive welfare impact. One route to increase well-being of informal-sector workers is to supply programs that increase skill levels and hence productivity.

Providing better access (full property rights) to cheaper capital to informal producers could also help the progression of poverty, as productivity in the informal sector is often limited by credit constraints.

Finally, though poverty reduction over the last decades appeared to be mainly driven by federal policies, it appears that some states were more successful in reducing poverty than others. In particular, the relatively good performance of Maranhão, Piauí, Ceará, Paraíba, and Rio Grande do Norte that reduced the headcount poverty ratio by 9 or more percentage points in the 1981-99 period indicates scope for regional coordinated poverty reduction strategies.

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Coding of the Variables from the PNAD dataset (1981-98)

Table A1: Variable Names

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	1985	1988	1990	1993	1995	1997	1998	
Gender		**v0303**	**v0303**	**v0303**	**v0303**	**v0302**	**v0302**	**v0302**	**v0302**	
	male	1	1	1	1	2	2	2	2	male
	female	3	3	3	3	4	4	4	4	female
Age		**v0805**	**v0805**	**v0805**	**v0805**	**v03034**	**v03034**	**v8005**	**v8005**	
Race				**v0304**	**v0304**	**v0404**	**v0404**	**v0404**	**v0404**	
	white			2	2	2	2	2	2	white
	black			4	4	4	4	4	4	black
	Asian			6	6	6	6	6	6	asian
	mulatto			8	8	8	8	8	8	mulatto
	indigenous					0	0	0	0	indigenous
	ignored			9	9	9	9	9	9	
Urban/Rural		**v03**	**v03**	**v03**	**v03**	**v4728**	**v4728**	**v4728**	**v4728**	
	urban	1,3	1,3	1,3	1,3	1,2,3	1,2,3	1,2,3	1,2,3	urban
	rural	5,7	5,7	5,7	5,7	4,5,6,7,8	4,5,6,7,8	4,5,6,7,8	4,5,6,7,8	rural
Typ of Region (Metropolitan)		**v05**	**v05**	**v05**	**v05**	**v4727**	**v4727**	**v4727**	**v4727**	
	metropolitan	1	1	1	1	1	1	1	1	metropol
	self-representative	2	2	2	2	2	2	2	2	selfrep
	not self-representative	3	3	3	3	3	3	3	3	notselfrep
Read and Write?		**v0311**	**v0311**	**v0311**	**v0311**	**v0601**	**v0601**	**v0601**	**v0601**	
	yes	1	1	1	1	1	1	1	1	read
	no	3	3	3	3	3	3	3	3	
	NA	9	9	9	9	0,9	0,9	0,9	0,9	

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	1985	1988	1990	1993	1995	1997	1998	
Years of schooling		v0318	v0318	v0318	v0318	v06073	v06073	v4703	v4703	
	no or less than 1	1	1	1	1	1	1	1	1	school1
	1 to 4	2,3,4,5	2,3,4,5	2,3,4,5	2,3,4,5	2,3,4,5	2,3,4,5	2,3,4,5	2,3,4,5	(school2) primary I
	5 to 8	6,7,8,9	6,7,8,9	6,7,8,9	6,7,8,9	6,7,8,9	6,7,8,9	6,7,8,9	6,7,8,9	(school3) primary II
	9 to 12	10	10	10	10	10,11,12	10,11,12	10,11,12	10,11,12	(school4) secondary
	> 12	11	11	11	11	13,14,15,16	13,14,15,16	13,14,15,16	13,14,15,16	(school5) tertiary
	NA	12,13	12,13	12,13	12,13	17	17	17	17	school6
Housing Characteristics										
Type of House		v0202	v0202	v0202	v0202	v0202	v0202	v0202	v0202	
Walls		v0203	v0203	v0203	v0203	v0203	v0203	v0203	v0203	
	durable	0,2	0,2	0,2	0,2	1,2	1,2	1,2	1,2	dur_w
	not durable	4,6,8	4,6,8	4,6,8	4,6,8	3,4,5,6	3,4,5,6	3,4,5,6	3,4,5,6	
Roof		v0205	v0205	v0205	v0205	v0204	v0204	v0204	v0204	
	durable	0,2,4,6	0,2,4,6	0,2,4,6	0,2,4,6	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	dur_r
	not durable	7,8	7,8	7,8	7,8	5,6,7	5,6,7	5,6,7	5,6,7	
Ownership of House		v0212	v0212	v0212	v0212	v0207	v0207	v0207	v0207	
	own, paid	0	0	0	0	0	0	0	1	house1
	own house still paying	2	2	2	2	2	2	2	2	house2
	rent	4	4	4	4	4	4	4	3	house3
	ceded	6	6	6	6	6	6	6	4,5	house4
	other	8	8	8	8	8	8	8	6	house5
	NA	9	9	9	9	9	9	9	9	house6
Radio				v0217	v0217	v0225	v0225	v0225	v0225	
	yes			2	1	1	1	1	1	radio
	no			4	3	3	3	3	3	
	NA			9	9	9	9	9	9	

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	1985	1988	1990	1993	1995	1997	1998	
TV colour				**v0218**	**v0218**	**v0226**	**v0226**	**v0226**	**v0226**	
	yes			1	1				1	tv
	no			3	3				3	(if v0226 or v0227 = 1)
	NA			9	9				9	
TV b&w						**v0227**	**v0227**	**v0227**	**v0227**	
	yes			1	1				1	
	no			3	3				3	
	NA			9	9				9	
Cooker		**v0215**	**v0215**	**v0215**	**v0215**	**v0221/v0222**	**v0221/v0222**	**v0221/v0222**	**v0221/v0222**	
	yes	2	2	2	2	1 & 2	1 & 2	1 & 2	1 & 2	cooker
	no	4	4	4	4	3 & 4	3 & 4	3 & 4	3 & 4	(if v0221 = 1 or v0222 = 2)
	NA	9	9	9	9	9	9	9	9	
Fridge		**v0216**	**v0216**	**v0216**	**v0216**	**v0228**	**v0228**	**v0228**	**v0228**	
	yes	1	1	1	1	1	1	1	1	Fridge
	no	3	3	3	3	3	3	3	3	
	NA	9	9	9	9	9	9	9	9	
Freezer						**v0229**	**v0229**	**v0229**	**v0229**	Freezer
Washing Machine						**v0230**	**v0230**	**v0230**	**v0230**	Washer
Electricity?		**v0210**	**v0210**	**v0210**	**v0210**	**v0219**	**v0219**	**v0219**	**v0219**	
	Yes	1	1	1	1	1	1	1	1	Elec
	No	3	3	3	3					
	Other					3,5	3,5	3,5	3,5	
	NA	9	9	9	9	9	9	9	9	
Water		**v0206**	**v0206**	**v0206**	**v0206**	**v0212**	**v0212**	**v0212**	**v0212**	
	Piped	1,4	1,4	1,4	1,4	2	2	2	2	Water1
	Not piped	2,5	2,5	2,5	2,5	4	4	4	4	Water2
	Other/NA	3,6,9	3,6,9	3,6,9	3,6,9	6, 9	6, 9	6, 9	6, 9	Water3

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	1985	1988	1990	1993	1995	1997	1998	
Sanitation		**v0207**	**v0207**	**v0207**	**v0207**	**v0217**	**v0217**	**v0217**	**v0217**	
	Sewerage system and septic tank1	0	0	0	0	1,2	1,2	1,2	1,2	San1
	Septic tank 2	2	2	2	2	3	3	3	3	san2
	Rudimental cesspit	4	4	4	4	4	4	4	4	san3
	Drain					5	5	5	5	san4
	River or lake					6	6	6	6	san5
	Other	6	6	6	6	7	7	7	7	san6
	None	8	8	8	8					san7
	Not specified	9	9	9	9	9	9	9	9	san7
Waste Disposal		**v0209**	**v0209**	**v0209**	**v0209**	**v0218**	**v0218**	**v0218**	**v0218**	
	Collected directly/indirectly	0	0	0	0	1,2	1,2	1,2	1,2	waste1
	Burnt	2	2	2	2	3	3	3	3	waste2
	Burried	4	4	4	4					waste2
	Dumped on unused land, river, sea	6	6	6	6	4,5	4,5	4,5	4,5	waste3
	Other	8	8	8	8	7	7	7	7	waste4
	NA	9	9	9	9	9	9	9	9	waste5
Worked in reference week?		**v0501**	**v0501**	**v0501**	**v0501**	**v09001**	**v09001**	**v9001**	**v9001**	
	Worked (trabalhou)	1	1	1	1	1	1	1	1	worked
	Had work (tinha trabalho)	2	2	2	2					
	Looking for work	3	3	3	3					
	student	4	4	4	4					
	domestic worker (afazeres dom.)	5	5	5	5					
	retired	6	6	6	6					
	other	7	7	7	7					
	no					3	3	3	3	
	NA	9	9	9	9	0	0	0	0	

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	1985	1988	1990	1993	1995	1997	1998	
Economically Active			**v5011**	**v5011**	**v5011**	**v090011**	**v090011**	**v4704**	**v4704**	
	yes		1	1	1	1	1	1	1	active
	no		2	2	2	2	2	2	2	
	NA		3	3	3	3	3	3	3	
Sector		**v5040**	**v5040**	**v5040**	**v5040**	**v090072**	**v090072**	**v4709**	**v4709**	
	Agriculture	1	1	1	1	1	1	1	1	agri
	Industry	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	industry
	Services	5,6,7,8	5,6,7,8	5,6,7,8	5,6,7,8	5,6,7,8	5,6,7,8	5,6,7,8	5,6,7,8	service
	Social	9	9	9	9	9	9	9	9	social
	Public	10	10	10	10	10	10	10	10	public
	other	11	11	11	11	11	11	11	11	
Work Position		**v5050**	**v5050**	**v5050**	**v5050**	**v090061**	**v090061**	**v4706**	**v4706**	
	Employee	1	1	1	1	1,4,5	1,4,5	1,4,5	1,4,5	employee
	Domestic Worker					6,7,8,	6,7,8,	6,7,8,	6,7,8,	employee
	Militar					2	2	2	2	
	Public Servant					3	3	3	3	
	Employer	3	3	3	3	10	10	10	10	employer
	Self-employed	2	2	2	2	9	9	9	9	self
	Self-sufficient worker					11,12	11,12	11,12	11,12	
	unpaid	4	4	4	4	13	13	13	13	unpaid
	other/NA	5	5	5	5	14	14	14	14	

Category	Specification	Series and Coding								0-1 dummies (1:yes)
		1981	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	
Assigned workbook (Carteira)		**v0506**	**v0506**	**v0506**	**v0506**	**v09042**	**v09042**	**v9042**	**v9042**	
	yes	2	2	2	2	2	2	2	2	cart
	no	4	4	4	4	4	4	4	4	
	NA	9	9	9	9	9	9	9	9	
Tenure										
	Less than 1 year				**v3011**	**v090612**	**v090612**	**v9612**	**v9612**	ten_0
	More than 1 year				**v3001**	**v090611**	**v090611**	**v9611**	**v9611**	ten_1
	1 to 3 years				v3001	v090611	v090611	v9611	v9611	ten1_3
	3 to 5 years				v3001	v090611	v090611	v9611	v9611	ten3_5
	more than 5 years				v3001	v090611	v090611	v9611	v9611	ten_5
Income Variables										
Valor de todas as fontes		**v0601**	**v0601**	**v0601**	**v0601**	**v0905313**	**v0905313**	**v4720**	**v4720**	
Valor do rendimento mensal domicilar						**v0905314**	**v0905314**	**v4721**	**v4721**	
Valor do rendimento mensal familiar		**v5010**	**v5010**	**v5010**	**v5010**	**v0905316**	**v0905316**	**v4726**	**v4726**	

A2: Spatial and temporal deflation of PNAD data sets

Ferreira, Lanjouw and Neri (1999) specify a procedure to calculate spatial deflators for Brazil. Their regional price indices are based on the consumption patterns and implicit prices from the *Pesquisa sobre Padrões de Vida* (PPV) 1996/7 surveys. Since the PPV covers only the Northeast and the Southeast, Ferreira, Lanjouw and Neri (1999) obtain spatial price deflators for the rest of Brazil by means of extrapolation. The spatial price deflators are as follows:

A Brazilian Spatial Price Index (RM Sao Paulo = 1.0)	
PNAD Region	Spatial Price Deflator
RM Fortaleza	1.014087
RM Recife	1.072469
RM Salvador	1.179934
Northeast (other urban areas)	1.032056
Northeast (rural)	0.953879
RM Belo Horizonte	0.958839
RM Rio de Janerio	1.002163
RM São Paulo	1.000000
Southeast (other urban areas)	0.904720
Southeast (rural)	0.889700
RM Porto alegre	0.987001
RM Curitiba	0.987001
South (other urban areas)	0.904720
South (rural)	0.889700
RM Belém	1.088830
North (other rural areas)	1.037915
RM Brasília	1.037915
Center West (other urban areas)	0.968388

We assume that the structure of average regional cost-of-living described above remained constant over the period. This assumption is largely due to the lack of earlier comparable regional price information and in line with other research in this field (see Ferreira and Paes de Barros (1999)).

To deflated the different PNAD incomes over time, we use the monthly Brazilian consumer price indices, IPCA. In order to center the indices on the first day of the month, which is the reference date for PNAD incomes, we follow Ferreira and Paes de Barros

(1999) and calculate the geometric average of the index for a month and for the preceding month as that month's deflator. After adjusting for the five currency conversion from the Cruzado to the Real, the final values to convert current incomes into 1997 Reais were as follows:[1]

Brazilian Temporal Price Deflators (1997 = 1.0)	
Year	Temporal Deflator
1981	47.766
1983	2192.602
1985	129.913
1988	63.626
1990	67.570
1993	0.833
1995	0.947
1997	1.000
1998	1.024
1999	1.084

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[1]

Currency Conversion Dates and Rates:		
28 February 1986	1 Cruzado	1000 Cruzeiros
15 January 1989	1 Novo Cruzado	1000 Cruzados
16 March 1990	1 Cruzeiro	1 Novo Cruzado
1 August1993	1 Cruzeiro Real	1000 Cruzeiros
1 July1994	1 Real	2750 Cruzeiros Reais

A3: A note on price deflation prior to 1990s

In a hyper inflationary environment such as in Brazil prior to 1994, anyone interested in evaluating poverty dynamics in Brazil faces the difficulty of selecting an appropriate deflator. It is therefore not surprising, that different studies come up with very different results. By and large studies on the development in Brazil seems to agree that the Real Plan of 1994 had a substantial effect on reducing poverty in Brazil, while since 1995 no significant progress in poverty reduction has been made. (Figure 1).

Figure 1 produces a poverty profile based on the headcount index and the methodology described in the paper. The three poverty profiles only differ by the underlying time deflators. *P0_Def2* is based on the historic series of INPC, *P0_Def1* also uses the historic series of INPC, however calculates the PNAD deflators as the geometric average of the month and the previous month, *P0_Def3* uses deflators derived from the real minimum wage series from IBGE – which are also INPC based, but subject to IBGE modifications.
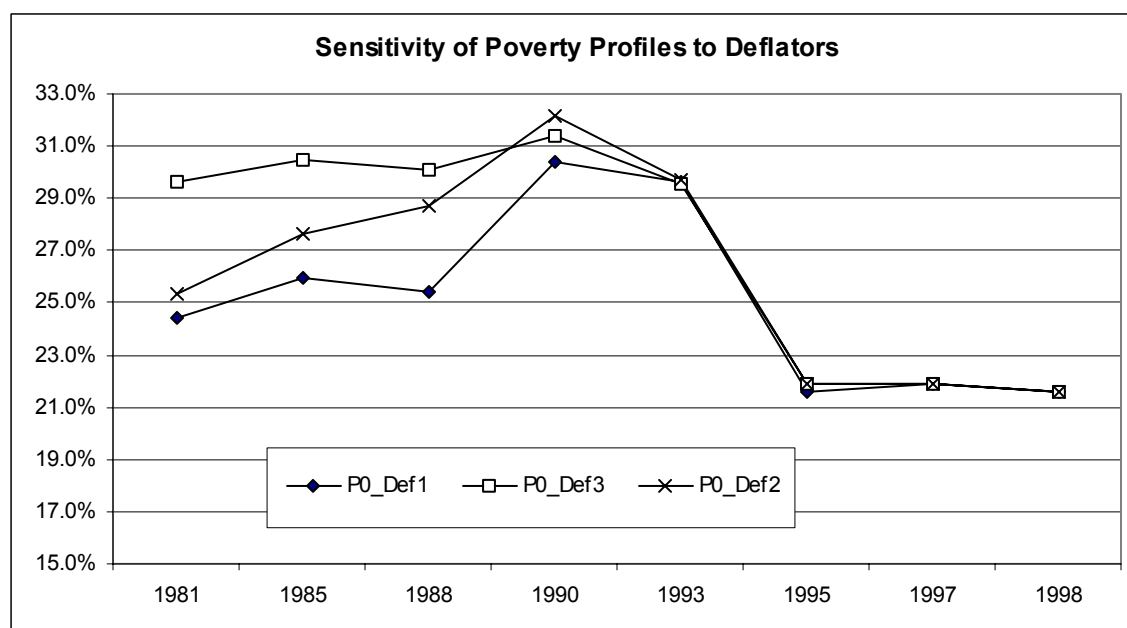
Even though the time deflators are very similar, the different dynamics in poverty are quite astonishing:

	Def1	Def2	Def3
1981	48.989	47.750	56.514
1985	2308.064	2192.602	2517.196
1988	145.592	129.913	151.435
1990	67.902	63.626	65.548
1993	77.813	77.813	77.350
1995	0.849	0.833	0.848
1997	1.000	1.000	1.000
1998	1.023	1.024	1.032
1998	1.023	1.024	1.032

DHB Tables

Table B1: per capita household income and inequality – DHB tables

		PER CAPITA MÉDIA (Sal. Min. de set / 91)			(THEIL - L)		
		1970	*1980*	*1991*	*1970*	*1980*	*1991*
Centro-Oeste	CO	0.54	1.45	1.45	0.55	0.66	0.70
Nordeste	NE	0.31	0.69	0.65	0.57	0.65	0.78
Norte	NO	0.41	0.92	0.89	0.44	0.56	0.72
Sudeste	SE	0.93	1.98	1.77	0.61	0.60	0.66
Sul	SU	0.58	1.47	1.38	0.53	0.58	0.63
Brasil	**BR**	**0.63**	**1.43**	**1.31**	**0.68**	**0.70**	**0.78**

Table B2:Poverty Measures and Inequality based on DHB tables

		PORCENTAGEM DE PESSOAS COM RENDA INSUFICIENTE (P0)			INSUFICIÊNCIA MÉDIA DE RENDA (P1)			GRAU DE DESIGUALDADE NA POPULAÇÃO COM RENDA INSUFICIENTE (P2)		
		1970	*1980*	*1991*	*1970*	*1980*	*1991*	*1970*	*1980*	*1991*
Centro-Oeste	CO	73.71	37.48	39.31	0.40	0.15	0.17	0.26	0.09	0.10
Nordeste	NE	87.85	66.53	71.68	0.58	0.35	0.42	0.43	0.23	0.29
Norte	NO	80.10	51.29	58.63	0.45	0.23	0.31	0.29	0.14	0.21
Sudeste	SE	50.60	22.65	29.66	0.26	0.09	0.13	0.17	0.05	0.08
Sul	SU	69.89	31.92	36.88	0.37	0.13	0.17	0.23	0.07	0.10
Brasil	**BR**	**67.90**	**39.47**	**45.46**	**0.39**	**0.18**	**0.24**	**0.27**	**0.11**	**0.16**

Table B3: per capita household income and inequality – DHB tables

ESTADO	RENDA FAMILIAR PER CAPITA MÉDIA (Sal. Min. de set / 91)			GRAU DE DESIGUALDADE (THEIL - L)		
	1970	*1980*	*1991*	*1970*	*1980*	*1991*
Alagoas	0.30	0.62	0.62	0.52	0.58	0.71
Bahia	0.36	0.84	0.68	0.58	0.65	0.80
Ceará	0.26	0.64	0.65	0.60	0.69	0.81
Maranhão	0.27	0.49	0.46	0.33	0.51	0.64
Paraíba	0.23	0.56	0.59	0.58	0.65	0.73
Pernambuco	0.38	0.83	0.81	0.63	0.65	0.80
Piauí	0.19	0.43	0.50	0.46	0.61	0.76
Rio Grande do Norte	**0.26**	**0.68**	**0.72**	**0.57**	**0.62**	**0.74**
Sergipe	0.31	0.76	0.73	0.53	0.61	0.71
Brasil	**0.63**	**1.43**	**1.31**	**0.68**	**0.70**	**0.78**
Nordeste	0.31	0.69	0.65	0.57	0.65	0.78

Table B4: Poverty Measures and Inequality based on DHB tables

ESTADO	PORCENTAGEM DE PESSOAS COM RENDA INSUFICIENTE (P0)			INSUFICIÊNCIA MÉDIA DE RENDA (P1)			GRAU DE DESIGUALDADE NA POPULAÇÃO COM RENDA INSUFICIENTE (P2)		
	1970	*1980*	*1991*	*1970*	*1980*	*1991*	*1970*	*1980*	*1991*
Alagoas	88.14	69.59	72.02	0.57	0.36	0.41	0.42	0.22	0.28
Bahia	84.95	60.34	71.55	0.54	0.29	0.42	0.39	0.18	0.29
Ceará	90.04	70.23	72.78	0.64	0.39	0.43	0.49	0.26	0.30
Maranhão	90.06	74.17	79.10	0.55	0.40	0.48	0.38	0.27	0.34
Paraíba	91.79	73.10	73.67	0.66	0.41	0.43	0.52	0.28	0.30
Pernambuco	84.19	60.02	65.17	0.54	0.30	0.37	0.40	0.18	0.25
Piauí	94.50	80.17	78.14	0.69	0.49	0.49	0.54	0.36	0.35
Rio Grande do Norte	**89.98**	**65.97**	**66.87**	**0.63**	**0.35**	**0.38**	**0.49**	**0.23**	**0.26**
Sergipe	87.13	62.54	66.52	0.57	0.31	0.36	0.41	0.19	0.24
Brasil	**67.90**	**39.47**	**45.46**	**0.39**	**0.18**	**0.24**	**0.27**	**0.11**	**0.16**
Nordeste	87.85	66.53	71.68	0.58	0.35	0.42	0.43	0.23	0.29

Appendix B: Poverty Indices and Inequality Measures based on PNAD 1981 - 1999

Table B5

P0	1981	1985	1988	1990	1993	1995	1997	1998	1999
Brazil	24.4	26.0	25.1	30.3	29.7	21.8	21.9	21.6	22.4
NE	49.8	51.9	51.9	58.7	56.7	44.6	46.1	43.5	44.3
São Paulo	6.6	8.3	6.5	8.8	12.5	7.1	7.4	7.8	8.6
Maranhão	64.0	62.8	56.1	64.5	65.4	54.4	58.2	54.1	52.0
Piauí	69.3	69.8	68.1	71.5	62.1	51.6	57.6	50.2	51.8
Ceará	59.1	58.6	58.0	65.8	57.5	47.2	47.6	45.2	46.7
Rio Grande do Norte	49.4	55.7	47.7	57.0	54.5	40.4	39.8	38.3	39.7
Paraíba	58.3	57.0	57.4	60.7	56.9	40.8	42.9	40.5	39.4
Pernambuco	40.8	44.5	45.4	51.8	53.9	39.5	42.5	39.7	41.6
Alagoas	42.8	45.7	49.5	59.7	58.5	46.2	45.9	44.1	47.2
Sergipe	46.2	46.3	48.9	50.3	47.5	41.5	40.7	38.0	41.4
Bahia	40.7	44.7	47.7	54.9	54.6	43.0	43.5	41.5	42.2

Table B6

P1	1981	1985	1988	1990	1993	1995	1997	1998	1999
Brazil	9.7	10.5	10.5	13.0	14.5	10.6	11.0	10.6	10.8
NE	22.0	23.8	24.1	28.5	30.0	21.4	22.4	20.7	21.2
São Paulo	2.0	2.6	2.1	2.7	5.8	4.4	4.8	4.6	4.8
Maranhão	31.1	29.7	26.4	34.2	37.5	28.9	31.5	27.2	24.2
Piauí	37.1	40.7	40.0	42.2	35.4	27.4	29.8	26.4	26.4
Ceará	27.9	27.9	28.1	33.1	30.2	23.0	23.1	21.9	22.7
Rio Grande do Norte	21.7	26.5	21.7	28.1	27.5	17.9	19.2	16.9	19.0
Paraíba	27.1	27.3	28.2	30.6	30.9	19.0	21.1	18.2	19.4
Pernambuco	16.1	19.2	19.9	23.0	28.0	17.4	20.0	18.5	20.0
Alagoas	16.8	17.8	20.9	25.4	31.0	20.9	21.7	20.6	21.8
Sergipe	18.3	18.8	20.9	20.8	23.6	19.8	20.5	18.0	20.0
Bahia	16.2	18.7	20.5	25.7	27.9	20.4	19.9	19.5	19.8

Table B7

P2	1981	1985	1988	1990	1993	1995	1997	1998	1999
Brazil	5.2	5.7	6.0	7.4	9.8	7.2	7.7	7.3	7.5
NE	12.5	13.8	14.5	17.3	20.6	14.0	14.9	13.5	13.8
São Paulo	0.9	1.3	1.0	1.3	4.1	3.7	4.1	3.9	4.0
Maranhão	19.0	17.6	15.9	22.1	26.8	19.7	21.8	17.9	14.9
Piauí	24.2	28.3	28.3	29.7	25.6	19.1	20.5	17.7	17.7
Ceará	16.4	16.4	17.1	20.5	21.0	15.2	15.4	14.3	15.2
Rio Grande do Norte	11.9	15.7	12.7	16.9	18.2	11.2	13.2	10.6	12.6
Paraíba	15.7	16.2	17.5	19.2	21.6	12.3	14.1	11.4	12.7
Pernambuco	8.4	10.8	11.5	13.1	19.3	11.0	13.3	12.3	13.4
Alagoas	8.8	9.0	11.9	13.8	20.9	13.1	14.9	13.3	13.5
Sergipe	9.5	10.0	11.6	11.1	15.3	13.1	14.1	12.1	13.5
Bahia	8.4	10.1	11.6	15.0	18.7	13.2	12.7	12.7	12.8

Table B8: Gini Coefficient

	1981	1983	1985	1990	1993	1995	1997	1998	1999
Brazil	0.59	0.55	0.63	0.63	0.60	0.61	0.61	0.61	0.60
NE	0.61	0.57	0.65	0.65	0.63	0.61	0.63	0.62	0.62
São Paulo	0.52	0.48	0.55	0.55	0.54	0.55	0.55	0.55	0.55
Maranhão	0.57	0.51	0.57	0.55	0.61	0.58	0.61	0.61	0.58
Piauí	0.57	0.58	0.65	0.65	0.61	0.60	0.61	0.59	0.60
Ceará	0.61	0.56	0.67	0.65	0.62	0.62	0.64	0.61	0.62
Rio Grande do Norte	0.58	0.60	0.63	0.61	0.58	0.61	0.60	0.59	0.60
Paraíba	0.57	0.57	0.61	0.64	0.63	0.60	0.62	0.63	0.64
Pernambuco	0.58	0.54	0.63	0.62	0.61	0.59	0.60	0.62	0.62
Alagoas	0.57	0.50	0.55	0.60	0.62	0.65	0.62	0.61	0.59
Sergipe	0.55	0.54	0.62	0.59	0.60	0.56	0.58	0.58	0.61
Bahia	0.61	0.57	0.67	0.67	0.66	0.63	0.64	0.62	0.61

Table B9: General Measures of Inequality

Brazil	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.45	0.41	0.48	0.47	0.45	0.46	0.46	0.46	0.46
coef. of var.	1.77	1.38	2.13	2.14	1.82	1.96	2.03	2.04	1.90
Sd. of logs	1.11	1.06	1.20	1.18	1.15	1.12	1.14	1.12	1.11
Gini	0.59	0.55	0.63	0.63	0.60	0.61	0.61	0.61	0.60
Mehran	0.72	0.69	0.76	0.76	0.73	0.74	0.74	0.74	0.73
Piesch	0.53	0.48	0.57	0.56	0.54	0.55	0.55	0.55	0.54
Kakwani	0.29	0.25	0.33	0.32	0.30	0.30	0.31	0.30	0.30
Theil entropy	0.71	0.56	0.84	0.82	0.74	0.77	0.78	0.77	0.75
Theil mean log dev.	0.66	0.57	0.78	0.76	0.69	0.70	0.71	0.70	0.68

NE	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.46	0.43	0.50	0.50	0.48	0.46	0.48	0.47	0.47
coef. of var.	2.16	1.58	2.62	2.43	2.23	2.29	2.19	2.08	2.11
sd of logs	1.08	1.03	1.16	1.14	1.16	1.07	1.11	1.07	1.07
Gini	0.61	0.57	0.65	0.65	0.63	0.61	0.63	0.62	0.62
Mehran	0.72	0.69	0.76	0.76	0.75	0.73	0.74	0.73	0.73
Piesch	0.55	0.50	0.60	0.59	0.57	0.56	0.57	0.56	0.56
Kakwani	0.30	0.27	0.35	0.34	0.33	0.31	0.32	0.31	0.31
Theil entropy	0.80	0.64	0.98	0.94	0.88	0.84	0.85	0.82	0.83
Theil mean log dev.	0.68	0.58	0.81	0.79	0.77	0.69	0.73	0.70	0.70

São Paulo	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.39	0.35	0.41	0.41	0.40	0.41	0.41	0.41	0.41
coef. of var.	1.41	1.13	1.64	2.00	1.48	1.65	1.59	1.55	1.54
sd of logs	0.97	0.93	1.00	1.00	0.98	0.98	0.98	0.98	0.97
Gini	0.52	0.48	0.55	0.55	0.54	0.55	0.55	0.55	0.55
Mehran	0.65	0.61	0.68	0.68	0.67	0.67	0.67	0.67	0.67
Piesch	0.46	0.41	0.49	0.49	0.48	0.49	0.48	0.48	0.48
Kakwani	0.23	0.19	0.25	0.25	0.24	0.25	0.25	0.25	0.25
Theil entropy	0.52	0.42	0.61	0.64	0.57	0.61	0.60	0.59	0.59
Theil mean log dev.	0.49	0.42	0.55	0.55	0.52	0.54	0.54	0.53	0.53

Maranhão	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.41	0.37	0.43	0.41	0.45	0.42	0.46	0.45	0.43
coef. of var.	3.14	1.62	1.82	1.52	2.43	1.79	1.82	2.10	2.15
sd of logs	1.05	0.89	1.02	1.02	1.15	1.07	1.17	1.06	0.97
Gini	0.57	0.51	0.57	0.55	0.61	0.58	0.61	0.61	0.58
Mehran	0.68	0.63	0.69	0.68	0.74	0.70	0.74	0.73	0.70
Piesch	0.51	0.45	0.52	0.49	0.54	0.51	0.55	0.55	0.53
Kakwani	0.27	0.22	0.27	0.25	0.30	0.27	0.31	0.31	0.28
Theil entropy	0.83	0.56	0.70	0.60	0.83	0.70	0.77	0.83	0.78
Theil mean log dev.	0.60	0.46	0.60	0.56	0.72	0.62	0.73	0.69	0.60

Piauí	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.41	0.42	0.49	0.49	0.45	0.44	0.45	0.43	0.44
coef. of var.	2.27	1.74	2.50	2.35	2.59	2.91	1.95	2.19	2.25
sd of logs	1.45	1.14	1.23	1.22	1.17	1.15	1.14	1.06	1.10
Gini	0.57	0.58	0.65	0.65	0.61	0.60	0.61	0.59	0.60
Mehran	0.69	0.71	0.77	0.77	0.74	0.72	0.73	0.72	0.72
Piesch	0.51	0.51	0.59	0.59	0.55	0.54	0.54	0.53	0.54
Kakwani	0.27	0.27	0.34	0.35	0.30	0.30	0.30	0.29	0.29
Theil entropy	0.75	0.67	0.95	0.95	0.87	0.88	0.78	0.80	0.80
Theil mean log dev.	0.69	0.65	0.84	0.84	0.74	0.71	0.70	0.66	0.68

Ceará	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.47	0.43	0.52	0.51	0.46	0.47	0.49	0.47	0.47
coef. of var.	1.99	1.48	3.26	2.24	2.04	2.06	2.07	1.97	2.10
sd of logs	1.06	1.01	1.17	1.14	1.15	1.09	1.14	1.08	1.08
Gini	0.61	0.56	0.67	0.65	0.62	0.62	0.64	0.61	0.62
Mehran	0.73	0.69	0.78	0.77	0.74	0.74	0.75	0.73	0.73
Piesch	0.55	0.50	0.62	0.60	0.56	0.56	0.58	0.56	0.56
Kakwani	0.31	0.26	0.37	0.35	0.31	0.31	0.33	0.31	0.31
Theil entropy	0.80	0.61	1.12	0.94	0.83	0.83	0.86	0.80	0.84
Theil mean log dev.	0.69	0.57	0.87	0.81	0.74	0.71	0.76	0.70	0.70

Rio Grande do Norte	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.43	0.45	0.48	0.46	0.43	0.46	0.46	0.45	0.45
coef. of var.	1.93	1.91	2.08	1.87	1.75	2.31	1.76	1.91	1.92
sd of logs	0.97	1.06	1.10	1.09	1.05	1.04	1.04	1.01	1.06
Gini	0.58	0.60	0.63	0.61	0.58	0.61	0.60	0.59	0.60
Mehran	0.69	0.71	0.74	0.73	0.70	0.73	0.72	0.71	0.71
Piesch	0.52	0.54	0.57	0.55	0.52	0.56	0.54	0.54	0.54
Kakwani	0.28	0.29	0.32	0.30	0.28	0.31	0.30	0.29	0.29
Theil entropy	0.72	0.75	0.86	0.77	0.69	0.86	0.75	0.75	0.76
Theil mean log dev.	0.59	0.65	0.73	0.68	0.62	0.69	0.65	0.63	0.65

Paraíba	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.42	0.43	0.46	0.49	0.47	0.45	0.47	0.48	0.49
coef. of var.	2.15	1.66	2.03	2.91	2.18	2.08	2.03	2.12	1.99
sd of logs	0.94	1.02	1.13	1.12	1.18	1.06	1.12	1.07	1.15
Gini	0.57	0.57	0.61	0.64	0.63	0.60	0.62	0.63	0.64
Mehran	0.68	0.69	0.73	0.76	0.76	0.72	0.74	0.74	0.76
Piesch	0.51	0.51	0.56	0.59	0.57	0.55	0.56	0.58	0.58
Kakwani	0.27	0.27	0.31	0.34	0.33	0.30	0.31	0.33	0.34
Theil entropy	0.74	0.67	0.82	0.98	0.88	0.80	0.82	0.88	0.86
Theil mean log dev.	0.57	0.59	0.71	0.78	0.78	0.68	0.71	0.73	0.78

Pernambuco	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.44	0.40	0.48	0.48	0.46	0.45	0.46	0.47	0.47
coef. of var.	2.00	1.51	2.32	2.02	1.89	2.04	1.90	2.18	2.09
sd of logs	1.02	0.98	1.12	1.08	1.15	1.00	1.05	1.05	1.07
Gini	0.58	0.54	0.63	0.62	0.61	0.59	0.60	0.62	0.62
Mehran	0.70	0.67	0.75	0.74	0.73	0.70	0.72	0.73	0.73
Piesch	0.53	0.48	0.57	0.56	0.55	0.53	0.54	0.56	0.56
Kakwani	0.28	0.25	0.33	0.32	0.31	0.29	0.30	0.31	0.31
Theil entropy	0.74	0.58	0.88	0.81	0.78	0.75	0.76	0.84	0.83
Theil mean log dev.	0.62	0.53	0.75	0.71	0.71	0.62	0.66	0.69	0.70

Alagoas	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.43	0.37	0.41	0.46	0.47	0.50	0.48	0.47	0.44
coef. of var.	2.32	1.42	1.73	2.35	2.09	2.33	2.06	2.00	1.91
sd of logs	0.93	0.85	0.95	0.96	1.10	1.08	1.08	1.04	1.00
Gini	0.57	0.50	0.55	0.60	0.62	0.65	0.62	0.61	0.59
Mehran	0.68	0.62	0.67	0.71	0.74	0.76	0.74	0.73	0.70
Piesch	0.52	0.44	0.49	0.55	0.56	0.60	0.57	0.55	0.53
Kakwani	0.27	0.21	0.25	0.30	0.32	0.35	0.32	0.31	0.28
Theil entropy	0.78	0.51	0.65	0.85	0.84	0.96	0.84	0.80	0.73
Theil mean log dev.	0.58	0.43	0.54	0.64	0.72	0.78	0.71	0.68	0.61

Sergipe	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.41	0.41	0.47	0.45	0.44	0.42	0.44	0.44	0.46
coef. of var.	1.58	1.43	2.00	1.97	2.24	1.49	1.65	1.88	2.24
sd of logs	0.92	0.95	1.07	0.98	1.06	1.01	1.07	1.02	1.07
Gini	0.55	0.54	0.62	0.59	0.60	0.56	0.58	0.58	0.61
Mehran	0.66	0.66	0.73	0.70	0.72	0.69	0.71	0.70	0.73
Piesch	0.49	0.48	0.56	0.53	0.54	0.50	0.52	0.52	0.55
Kakwani	0.25	0.25	0.31	0.29	0.29	0.26	0.28	0.28	0.31
Theil entropy	0.62	0.57	0.82	0.76	0.82	0.61	0.68	0.72	0.83
Theil mean log dev.	0.52	0.51	0.69	0.62	0.67	0.57	0.63	0.62	0.69

Bahia	1981	1983	1985	1990	1993	1995	1997	1998	1999
rel. mean dev.	0.46	0.43	0.52	0.52	0.50	0.48	0.49	0.47	0.46
coef. of var.	2.10	1.53	2.45	2.58	2.38	2.57	2.45	2.03	2.10
sd of logs	1.05	1.02	1.18	1.18	1.19	1.07	1.11	1.07	1.06
Gini	0.61	0.57	0.67	0.67	0.66	0.63	0.64	0.62	0.61
Mehran	0.73	0.70	0.78	0.79	0.77	0.74	0.76	0.73	0.73
Piesch	0.55	0.51	0.61	0.62	0.60	0.57	0.58	0.56	0.55
Kakwani	0.30	0.27	0.37	0.37	0.35	0.32	0.34	0.31	0.31
Theil entropy	0.79	0.63	1.00	1.02	0.96	0.90	0.92	0.82	0.81
Theil mean log dev.	0.67	0.58	0.85	0.87	0.83	0.72	0.77	0.70	0.68

Table C1: Poverty Profile for Brazil

Brazil		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		24.4	26.0	25.1	30.3	29.7	21.8	21.9	21.6	22.4
Gender										
	male	24.3	25.7	24.9	29.4	28.9	20.9	20.7	20.6	21.4
	female	25.1	27.0	26.1	34.1	32.5	24.9	25.5	24.3	25.2
Race										
	white			15.8	20.4	18.9	12.9	13.2	13.1	13.8
	black			34.1	42.3	36.7	27.0	27.3	26.5	28.5
	mulatto			39.3	44.4	44.9	34.7	34.8	33.8	34.4
	indig					56.7	54.0	34.3	29.0	38.3
	asian			5.9	5.1	10.3	4.8	7.5	5.0	7.0
Age:										
	<25	21.5	28.5	28.2	35.5	46.4	39.2	41.4	41.5	42.3
	25 to 45	26.4	27.7	26.5	30.0	33.2	25.0	24.4	24.8	26.2
	45 to 65	22.4	23.8	22.5	27.0	25.4	17.9	18.0	17.4	17.8
	>65	23.7	22.8	24.7	36.8	15.3	9.5	11.4	8.9	9.1
Household Characteristics										
	No. of <5	27.7	31.5	31.2	36.7	42.1	33.4	39.2	33.9	35.6
	No .of 5_15	23.7	26.1	25.5	29.6	31.7	22.4	25.3	22.7	24.6
	No.of >65	22.4	22.5	24.5	33.8	18.1	11.5	12.5	10.7	11.5
Location:										
	urban	15.9	18.0	17.3	22.0	24.4	16.7	17.2	17.1	18.1
	rural	48.7	50.0	50.3	56.9	52.2	43.8	43.7	41.1	41.7
Working Class:										
	carteira									
	yes	11.0	13.3	12.4	18.7	18.4	11.3	10.2	10.3	10.7
	no	41.7	41.4	40.9	43.6	51.5	34.8	33.6	33.8	34.7
	active									
	yes					29.2	30.3	22.1	21.7	21.9	22.9
	no					35.1	26.8	20.8	22.5	20.4	20.7
	worked									
	yes	24.3	26.2	24.7	28.8	28.8	20.2	19.6	19.8	20.6
	no	25.0	24.9	26.6	35.8	32.4	26.7	28.1	26.3	27.1
Work Sector:										
	Agri.	47.6	51.8	54.1	59.0	51.1	45.1	44.8	43.4	43.7
	Ind.	17.7	16.8	15.5	20.4	24.2	13.3	13.9	15.4	16.3
	Service	14.3	17.5	16.3	20.4	22.3	13.6	13.3	13.6	14.4
	Social	9.7	10.9	11.8	16.0	14.2	10.0	9.0	8.3	8.2
	Public	10.5	13.6	13.1	16.9	19.3	10.4	8.7	8.8	7.8
	Other	5.7	9.2	7.8	9.7	11.5	8.2	10.4	12.2	13.0
Work Position:										
	employee	21.4	22.9	21.9	27.2	27.6	18.0	17.1	17.5	18.2
	self-employed	33.0	36.1	34.1	37.1	34.5	26.7	26.2	26.1	26.8
	employer	4.7	5.1	4.3	8.2	6.7	3.6	3.6	3.1	3.8

Brazil (continued)	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1					28.7	28.8	20.4	19.8	19.9	20.6
>1					28.4	26.6	19.1	18.7	18.6	19.3
1 to 3					26.7	28.5	19.2	18.3	18.1	20.0
3 to 5					23.9	26.6	17.8	17.1	17.1	17.3
>5					29.1	25.7	19.3	19.1	19.0	19.3
Education									
Read and Write									
yes	15.9	17.8	17.2	21.6	24.3	17.1	17.3	17.3	18.4
no	47.7	50.3	52.2	60.5	51.8	41.6	43.7	41.6	41.8
Years of Schooling:									
no education or <1	45.5	48.1	48.9	58.4	48.5	38.8	39.9	38.5	38.6
1 to 4	29.9	33.0	32.6	38.7	33.1	23.9	25.0	24.6	25.9
4 to 8	13.2	16.5	17.4	22.9	28.3	20.3	22.4	21.5	23.5
8 to 12	3.8	5.3	6.7	9.5	14.2	9.4	10.1	10.8	11.7
more than 12	0.4	0.7	0.6	1.1	2.8	1.5	2.4	2.0	1.9
NA	12.1	15.2	12.5	41.9	26.7	14.4	18.4	16.1	24.6
Waste Disposal									
collected	8.4	11.3	11.0	15.9	19.8	13.2	14.7	14.9	16.4
burnt	29.1	33.6	36.7	46.2	45.4	37.1	40.1	39.6	40.9
dumped on unused land, river, sea	44.6	46.8	49.1	62.2	62.4	52.3	56.0	54.6	55.7
other	9.1	12.2	7.3	11.4	40.4	36.9	35.2	37.1	41.6
Water Supply									
piped	11.6	14.9	14.7	19.9	19.7	13.2	14.4	20.8	21.7
not piped	34.9	41.7	42.1	50.8	27.0	20.5	20.4	14.7	15.9
NA	57.9	63.8	64.1	74.4	62.6	53.4	57.7	55.3	56.8
Sanitation									
Sew.Sys. & Sep. Tank 1	4.6	7.3	7.0	10.9	13.7	8.6	9.4	9.8	10.7
Septic Tank 2	9.5	11.8	12.9	18.1	25.5	17.3	19.6	19.4	19.0
Rudimental Cespit	28.0	32.6	35.7	43.8	40.6	31.4	33.6	32.2	34.7
Drain					43.7	33.8	37.1	38.5	36.3
River or Lake					33.7	21.9	24.9	26.5	26.6
Other	22.2	28.0	27.5	34.6	64.9	49.8	40.4	42.4	44.1
NA	85.1	0.0		53.3	33.4	18.1	0.0	29.2	19.9
none	60.5	65.7	67.0	76.4					
Electricity									
yes	14.0	17.4	18.5	24.1	25.7	18.5	19.3	19.3	20.4
no	56.2	62.6	66.4	75.1	67.3	60.1	61.8	59.9	60.1
Fridge:									
yes	8.1	10.3	11.4	16.0	17.9	12.2	14.2	14.6	15.6
no	46.4	52.3	55.4	65.2	60.1	50.4	55.4	53.5	55.6
Cooker:									
yes	21.7	24.0	24.1	28.8	29.1	21.3	21.5	21.3	22.2
no	60.0	63.1	61.3	73.2	61.6	54.3	52.3	48.3	49.7
Radio:									
yes					20.4	25.1	25.4	19.1	19.7	19.5	20.3
no					47.5	58.6	54.6	43.4	43.3	41.5	41.4
TV:									
yes					13.5	18.2	21.0	15.6	17.8	17.9	18.9
no					54.9	64.2	57.5	48.9	49.9	48.1	48.3

Brazil (continued)		**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:										
	own, paid	28.2	29.3	28.2	33.1	31.0	23.1	23.4	23.0	23.4
	own, still paying	5.9	7.3	7.5	9.6	14.9	9.3	9.7	8.9	10.4
	rented	12.5	15.0	14.0	17.2	20.2	12.8	12.7	12.5	13.6
	ceded	37.2	39.8	38.5	44.5	41.4	31.5	30.3	30.4	32.4
	other	16.9	16.7	16.3	23.5	35.5	25.3	23.0	25.4	26.4
Durable House										
	yes	20.3	22.5	22.2	27.7	27.3	19.6	20.0	19.6	20.6
	no	67.7	72.5	69.1	78.7	75.3	68.0	73.3	68.7	69.7

Table C2: Poverty Profile for Northeast

Northeast	1981	1985	1988	1990	1993	1995	1997	1998	1999
Total	49.8	51.9	51.9	58.7	56.7	44.6	46.1	43.5	44.3
Gender									
male	50.3	52.7	52.2	58.1	57.1	44.5	45.7	43.8	44.5
female	47.3	48.6	50.7	60.6	55.4	45.0	47.0	42.5	43.8
Race									
white			42.8	49.3	44.8	34.7	36.7	33.4	34.7
black			57.8	67.1	61.4	47.5	48.2	47.6	48.7
mulatto			55.5	62.2	61.5	48.7	50.4	47.9	48.7
indig					74.8	67.8	41.4	45.0	37.9
asian			24.5	12.8	51.6	33.3	38.0	30.4	32.9
Age:									
<25	43.8	53.9	53.5	61.5	75.6	64.3	66.5	63.2	66.1
25 to 45	53.8	56.2	54.7	58.8	63.0	51.6	51.5	50.4	51.4
45 to 65	48.5	50.8	50.5	56.5	54.0	41.0	41.9	39.6	40.2
>65	42.8	40.1	45.1	61.2	31.6	19.4	26.2	18.2	18.9
Household Characteristics									
No. of <5	55.1	60.8	58.9	65.5	71.3	61.6	67.9	60.0	61.7
No .of 5_15	51.0	53.9	53.3	59.1	60.3	46.2	52.3	45.7	48.8
No.of >65	42.4	42.5	46.6	58.4	37.3	24.3	28.9	23.1	23.9
Location:									
urban	38.7	40.3	41.4	48.5	49.5	37.1	38.9	36.7	38.1
rural	63.3	67.2	66.6	73.9	70.4	59.1	60.6	56.9	56.9
Working Class:									
carteira									
yes	28.0	32.1	32.4	45.1	45.0	33.9	31.0	30.5	30.4
no	67.3	64.9	67.1	70.2	78.9	60.1	60.1	58.3	60.8
active									
yes				57.5	59.0	46.6	47.2	45.2	46.5
no				63.5	47.3	36.7	41.9	37.1	36.4
worked									
yes	50.2	53.3	52.1	57.4	58.0	45.3	45.6	43.8	44.9
no	48.3	46.4	51.1	63.1	52.7	42.5	47.4	42.7	42.9
Work Sector:									
Agri.	63.3	71.5	72.1	77.1	73.1	64.4	66.2	62.6	63.1
Ind.	50.8	43.9	44.7	53.7	59.4	39.4	39.5	42.4	44.0
Service	34.8	36.0	36.4	42.6	46.8	33.0	33.9	31.8	33.3
Social	26.9	27.5	30.7	36.2	32.8	24.3	24.1	21.1	19.9
Public	24.2	29.4	30.1	39.0	40.9	25.6	22.1	21.4	18.4
Other	18.5	29.9	23.3	19.2	32.2	24.2	30.8	28.7	34.0
Work Position:									
employee	48.7	49.3	50.3	57.8	58.5	43.4	42.2	41.3	42.8
self-employed	54.3	60.8	57.3	61.4	60.6	50.1	51.9	49.5	49.5
employer	17.7	18.1	14.9	23.8	21.0	9.9	11.5	9.7	11.1

Northeast	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				57.2	57.9	45.3	45.8	43.7	44.8
>1				56.3	54.8	43.2	44.4	41.8	43.3
1 to 3				54.8	59.8	45.1	45.7	41.7	45.3
3 to 5				51.7	55.1	43.9	43.9	41.4	41.9
>5				56.8	53.1	42.5	44.2	42.1	42.6
Education									
Read and Write									
yes	36.9	39.4	38.9	44.4	49.4	37.9	38.4	36.9	38.5
no	63.1	65.1	68.1	76.4	68.3	55.5	59.6	55.5	55.2
Years of Schooling:									
no education or <1	62.5	65.0	66.9	75.5	66.8	54.2	57.6	54.2	53.7
1 to 4	53.9	57.5	57.9	64.8	64.2	50.0	52.6	50.0	52.1
4 to 8	32.3	35.9	38.8	47.4	54.2	43.1	46.4	42.8	45.0
8 to 12	10.5	13.5	17.4	22.3	29.7	20.2	22.5	21.6	23.0
more than 12	1.4	1.6	2.0	3.4	7.3	3.8	3.5	3.3	2.9
NA	25.5	27.2	31.4	57.9	56.2	37.8	49.2	46.2	53.0
Waste Disposal									
collected	25.8	29.2	30.3	38.6	42.9	31.2	34.0	32.4	34.7
burnt	53.5	55.3	58.1	65.6	69.2	56.7	60.8	57.6	57.9
dumped on unused land, river, sea	57.6	57.5	62.0	74.2	71.4	59.7	63.4	60.4	60.2
other	13.3	26.0	13.7	34.8	60.4	51.2	52.8	54.5	62.4
Water Supply									
piped	30.7	34.0	35.5	43.6	42.0	30.9	33.3	35.9	37.8
not piped	51.8	62.1	62.1	70.8	43.5	37.4	35.9	32.1	33.7
NA	65.3	69.1	70.5	79.5	72.5	60.7	65.2	61.7	62.3
Sanitation									
Sew.Sys. & Sep. Tank 1	13.6	14.7	17.9	26.5	30.7	23.2	24.3	23.0	24.8
Septic Tank 2	19.1	23.1	27.9	34.9	40.7	30.8	31.5	31.2	31.0
Rudimental Cespit	43.2	45.6	48.1	58.2	57.9	43.8	47.8	44.6	47.1
Drain					68.4	50.7	56.8	55.7	54.4
River or Lake					60.1	39.1	44.3	39.3	46.8
Other	37.2	40.7	38.5	53.8	77.1	55.0	47.9	68.2	57.2
NA	100.0			52.0	47.2	0.0	0.0	0.0	36.7
none	66.2	71.1	73.4	80.5					
Electricity									
yes	34.3	37.9	41.5	49.4	51.4	39.6	42.0	39.8	41.3
no	66.3	72.1	73.5	81.5	74.6	64.8	67.5	65.0	63.7
Fridge:									
yes	21.1	23.4	26.5	33.2	37.1	27.4	31.9	30.7	32.1
no	61.9	66.3	68.5	77.2	72.9	60.9	66.1	62.3	63.8
Cooker:									
yes	45.4	48.6	50.3	56.0	56.0	43.8	45.5	43.0	43.9
no	66.2	69.9	69.9	80.5	71.5	63.6	65.1	59.6	61.8
Radio:									
yes				46.3	52.1	51.5	41.2	43.4	41.1	42.2
no				64.0	74.1	70.7	58.4	59.9	55.8	55.6
TV:									
yes				31.7	38.5	44.0	35.0	40.2	38.1	39.3
no				68.5	77.5	71.9	61.0	63.0	60.2	60.5

Northeast	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	54.2	55.7	55.5	61.7	58.3	45.9	48.2	45.1	45.3
own, still paying	13.3	17.0	15.8	21.4	27.4	17.2	18.5	14.9	17.0
rented	31.5	35.0	36.7	44.1	44.8	31.1	30.6	29.3	31.4
ceded	58.5	63.1	64.2	71.6	69.9	58.4	57.7	56.8	59.4
other	27.6	31.3	32.3	46.8	64.8	44.8	41.5	40.2	43.3
Durable House									
yes	43.7	46.5	47.5	54.5	53.3	41.1	43.0	40.1	41.5
no	75.0	79.0	71.9	85.7	80.5	71.3	77.6	74.5	71.8

Table C3: Poverty Profile for São Paulo

São Paulo		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		6.6	8.3	6.5	8.8	12.5	7.1	7.4	7.8	8.6
Gender										
	male	6.2	7.5	5.6	8.0	11.4	5.9	6.0	6.2	7.1
	female	9.4	12.5	10.3	12.4	16.7	11.4	12.0	12.3	12.6
Race										
	white			5.1	7.7	10.3	5.8	6.0	6.4	6.8
	black			13.0	14.9	16.6	11.4	11.0	11.9	15.8
	mulatto			11.4	12.3	20.2	11.7	12.3	12.3	13.3
	indig					0.0	65.9	0.0	10.6	0.0
	asian			3.9	3.8	6.3	3.0	3.5	2.7	2.7
Age:										
	<25	5.2	10.6	7.4	12.5	24.2	18.4	24.5	25.0	22.6
	25 to 45	7.8	9.6	7.3	8.9	15.1	8.4	8.4	8.9	10.8
	45 to 65	4.9	5.9	4.6	6.3	8.5	4.8	4.5	4.8	4.9
	>65	7.2	7.9	7.5	13.4	4.8	2.7	3.3	3.1	2.6
Household Characteristics										
	No. of <5	7.9	10.9	8.3	11.1	20.7	13.5	16.0	14.8	16.4
	No .of 5_15	5.7	8.2	6.6	7.7	13.3	7.6	9.0	8.2	8.8
	No.of >65	6.3	6.1	7.0	10.5	5.4	3.3	3.2	3.1	3.6
Location:										
	urban	5.4	7.2	5.4	7.4	11.7	6.5	6.9	7.4	8.1
	rural	21.1	21.0	18.3	22.8	24.0	15.9	16.1	13.9	15.6
Working Class:										
	carteira									
	yes	3.5	4.9	3.5	6.1	8.6	2.8	2.7	2.6	3.3
	no	14.8	15.4	13.2	12.8	23.0	8.9	6.8	8.3	10.6
	active									
	yes				7.6	12.1	6.2	6.4	6.9	7.9
	no				13.8	14.3	11.0	10.8	10.8	10.8
	worked									
	yes	5.5	7.1	5.3	6.8	9.9	3.6	3.2	3.8	4.8
	no	10.6	12.5	10.5	15.6	20.5	17.4	17.8	17.1	17.3
Work Sector:										
	Agri.	20.5	21.4	21.6	26.4	26.7	18.3	14.3	12.6	15.2
	Ind.	3.8	5.1	3.4	4.7	7.6	1.9	2.5	3.0	4.3
	Service	4.5	7.7	5.3	6.7	9.3	2.9	2.7	3.7	4.3
	Social	2.1	2.7	2.1	3.9	4.2	1.4	1.1	1.6	2.4
	Public	3.7	4.0	3.1	3.0	8.4	2.7	0.9	0.5	2.8
	Other	1.1	0.0	0.0	1.3	2.6	0.4	0.7	0.5	1.3
Work Position:										
	employee	5.9	7.2	5.5	7.5	10.9	4.0	3.4	3.8	4.9
	self-employed	6.1	8.7	6.8	6.9	9.1	3.1	3.3	4.1	5.1
	employer	0.4	1.1	0.0	0.2	0.2	0.6	0.4	0.2	1.5

São Paulo	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				6.9	9.9	3.7	3.3	3.8	4.9
>1				8.0	8.6	3.1	2.7	3.3	4.0
1 to 3				7.2	12.0	4.1	4.0	4.8	5.7
3 to 5				5.8	10.2	3.7	2.3	3.8	3.8
>5				8.3	6.3	2.5	2.0	2.3	3.0
Education									
Read and Write									
yes	5.0	6.8	5.3	7.4	11.8	6.6	7.1	7.3	8.2
no	16.6	18.8	16.2	20.3	19.8	12.1	11.3	13.0	13.5
Years of Schooling:									
no education or <1	15.3	16.9	13.9	19.7	17.1	11.8	10.7	11.4	11.3
1 to 4	9.2	12.3	11.0	14.7	15.2	8.0	8.4	8.4	9.8
4 to 8	4.5	7.2	5.7	7.6	18.1	9.4	11.3	12.1	12.8
8 to 12	1.4	2.2	2.1	3.3	7.7	4.9	5.4	6.2	6.8
more than 12	0.3	0.4	0.0	0.5	1.5	0.9	2.5	2.0	2.1
NA	3.2	0.0	0.0		21.6	16.7	0.0	12.0	22.7
Waste Disposal									
collected	4.2	6.3	4.5	6.9	11.2	6.2	6.8	7.3	8.1
burnt	18.8	24.5	25.5	28.6	29.2	19.6	18.3	16.4	18.7
dumped on unused land, river, sea	18.7	24.4	24.7	30.3	29.7	28.5	27.5	25.3	22.6
other	4.1	7.6	0.0	4.4	15.6	5.3	5.8	23.5	12.5
Water Supply									
piped	4.8	6.9	5.0	7.2	10.9	6.0	6.6	11.9	15.6
not piped	19.2	23.4	23.0	29.1	23.6	16.2	14.4	7.2	7.9
NA	15.9	16.5	18.7	9.0	34.5	24.7	25.0	27.2	24.0
Sanitation									
Sew.Sys. & Sep. Tank 1	2.9	4.8	3.9	5.9	9.7	5.6	6.2	6.8	7.4
Septic Tank 2	7.8	8.0	6.2	11.6	17.7	8.9	12.0	9.6	11.5
Rudimental Cespit	13.9	19.6	17.6	23.2	25.5	15.8	15.7	14.5	18.7
Drain					27.0	22.4	23.3	17.6	15.6
River or Lake					26.3	12.7	17.2	19.1	16.7
Other	9.9	17.3	14.6	20.0	14.2	0.0	16.4	0.0	50.0
NA						0.0	0.0	33.3	
none	28.4	27.1	29.0	34.7					
Electricity									
yes	5.8	7.8	6.1	8.5	12.3	7.0	7.3	7.7	8.5
no	32.8	39.9	36.2	44.7	48.7	31.7	38.8	21.4	21.4
Fridge:									
yes	3.7	5.2	4.4	6.7	10.4	6.1	6.6	7.1	8.0
no	19.3	25.2	23.0	29.3	33.7	20.9	27.1	25.2	24.2
Cooker:									
yes	6.6	8.3	6.4	8.8	12.5	7.1	7.4	7.7	8.6
no	16.0	11.0	16.7	9.4	26.6	19.3	23.1	18.0	8.3
Radio:									
yes			5.7	7.9	11.6	6.6	6.9	7.3	8.2
no			15.5	20.9	24.7	16.3	19.2	16.0	16.0
TV:									
yes			5.0	7.3	11.1	6.4	6.9	7.4	8.4
no			20.9	25.2	28.4	18.9	19.8	17.3	13.2

São Paulo	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	6.0	7.9	5.5	7.3	11.3	6.2	7.0	7.2	7.7
own, still paying	3.0	3.1	3.2	3.4	10.2	7.4	6.7	7.6	7.9
rented	5.1	6.9	4.5	6.0	11.1	5.8	5.3	5.9	7.0
ceded	15.9	17.3	16.6	21.2	21.3	13.0	12.9	13.1	14.8
other	6.9	9.9	7.6	14.7	14.3	5.3	12.7	18.2	20.5
Durable House									
yes	6.3	7.8	6.1	8.4	12.1	6.9	7.2	7.6	8.2
no	25.4	36.9	14.3	13.5	42.1	18.0	41.6	12.6	72.7

Table C4: Poverty Profile for Maranhão

Maranhão		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		64.0	62.8	56.1	64.5	65.4	54.4	58.2	54.1	52.0
Gender										
	male	64.0	62.9	55.6	63.7	65.0	53.0	57.5	55.7	52.7
	female	64.2	62.2	58.2	67.9	66.9	59.2	60.2	49.9	49.7
Race										
	white			49.2	56.7	52.1	38.8	45.7	42.1	43.7
	black			59.3	68.0	80.7	56.0	59.3	51.1	65.8
	mulatto			57.8	67.0	68.1	59.4	61.7	58.5	53.3
	indig					75.0	50.0	0.0	50.0	
	asian						80.0	100.0	25.0	50.0
Age:										
	<25	58.8	62.7	52.4	64.4	79.2	80.0	74.2	78.8	75.8
	25 to 45	66.2	66.5	59.9	63.1	69.9	61.9	61.0	60.3	58.3
	45 to 65	63.5	62.2	52.3	64.1	64.4	50.2	58.8	49.2	48.0
	>65	60.3	50.7	51.2	70.9	41.1	20.5	35.1	26.4	23.0
Household Characteristics										
	No. of <5	71.1	70.9	62.8	68.6	76.9	72.7	77.0	69.8	66.5
	No .of 5_15	66.6	64.4	58.5	63.5	66.4	52.8	59.5	51.3	54.8
	No.of >65	58.3	52.1	51.8	64.8	47.5	25.3	37.0	35.8	32.6
Location:										
	urban	55.2	49.4	51.2	53.7	62.0	49.9	53.5	47.8	46.9
	rural	68.7	69.8	58.9	71.0	68.4	58.2	62.2	59.3	56.4
Working Class:										
	carteira									
	yes	23.5	37.8	31.4	39.6	40.8	25.9	29.5	21.1	30.1
	no	63.2	64.0	53.5	62.4	73.7	62.6	65.5	60.6	62.1
	active									
	yes				63.6	67.0	56.6	58.6	56.0	54.2
	no				70.1	55.7	42.0	55.5	41.6	39.6
	worked									
	yes	63.7	63.0	56.1	63.1	66.3	56.8	58.4	55.9	54.3
	no	65.4	61.6	56.1	71.3	61.8	44.9	57.4	47.0	42.7
Work Sector:										
	Agri.	77.0	77.3	71.5	81.0	78.6	70.6	76.0	72.1	69.3
	Ind.	41.3	46.2	41.4	45.0	57.8	40.2	41.1	41.3	44.9
	Service	43.3	38.8	38.6	44.9	57.5	41.5	38.3	38.8	39.6
	Social	36.7	46.5	44.0	42.1	44.1	26.1	32.6	24.7	20.7
	Public	26.7	35.6	30.9	35.9	16.2	21.2	19.4	19.2	17.0
	Other	44.2	26.8	9.1	18.2	30.8	18.2	33.3	11.1	33.3
Work Position:										
	employee	43.2	53.0	43.9	54.3	55.7	44.0	44.7	41.7	43.9
	self-employed	71.9	69.2	63.6	70.6	73.8	63.7	67.1	64.8	60.0
	employer	39.1	19.7	14.3	33.9	38.1	12.9	12.1	7.5	19.1

Maranhão	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Tenure									
<1				63.5	66.2	56.1	57.9	55.3	53.8
>1				64.0	64.9	52.0	57.6	55.3	53.0
1 to 3				54.2	67.8	44.7	47.2	45.9	52.4
3 to 5				52.9	68.7	55.1	56.3	49.7	45.7
>5				66.1	64.3	53.2	60.1	58.0	53.5
Education									
Read and Write									
yes	52.8	52.6	45.2	50.7	56.8	50.6	48.7	48.9	46.6
no	74.1	72.3	66.6	79.5	76.3	60.2	70.9	62.5	60.9
Years of Schooling:									
no educat4ion or <1	73.2	72.2	66.9	78.3	73.8	58.8	70.0	61.7	59.3
1 to 4	68.1	66.3	60.5	68.0	73.7	62.4	63.9	61.5	60.2
4 to 8	47.6	48.6	40.8	55.5	52.0	58.0	61.8	58.2	50.7
8 to 12	18.8	23.0	30.1	18.1	37.5	32.0	27.0	27.2	26.4
more than 12	0.0	2.6	0.0	4.4	19.4	2.8	5.6	11.3	7.5
NA	0.0								50.0
Waste Disposal									
collected	16.5	17.5	27.8	25.3	41.8	29.3	29.4	27.7	29.8
burnt	62.7	57.2	49.5	62.6	72.8	58.0	69.2	63.6	61.9
dumped on unused land, river, sea	67.0	65.2	61.2	72.8	72.2	64.0	68.3	66.0	61.1
other	28.5	23.0	0.0	0.0	57.9	71.4	50.0	76.3	100.0
Water Supply									
piped	38.6	36.4	40.7	46.1	37.8	34.7	36.4	26.8	30.0
not piped	66.6	66.0	58.2	69.4	43.8	26.1	22.9	36.1	33.0
NA	73.1	74.1	66.6	80.9	75.6	64.2	73.6	67.2	66.1
Sanitation									
Sew.Sys. & Sep. Tank 1	7.2	12.0	18.2	12.6	26.1	25.0	18.2	19.6	17.7
Septic Tank 2	20.4	19.4	30.0	30.1	38.6	35.5	35.0	28.3	27.3
Rudimental Cespit	53.9	55.5	46.1	62.7	69.2	51.9	65.9	60.6	58.7
Drain					70.0	42.1	75.0	50.0	40.0
River or Lake					75.0	66.7	33.3	50.0	33.3
Other	56.8	71.5	47.8	35.0	77.0	56.8	50.0	100.0	54.5
NA					50.0				
none	75.1	75.4	72.2	80.4					
Electricity									
yes	41.4	42.5	48.1	50.7	58.9	46.7	51.0	48.7	47.0
no	74.2	75.6	65.2	82.4	77.4	71.0	78.9	72.4	71.6
Fridge:									
yes	33.7	31.2	35.8	34.4	43.4	34.7	38.0	35.6	34.6
no	71.9	72.8	65.2	80.1	76.6	66.8	75.2	70.0	68.6
Cooker:									
yes	45.2	52.4	52.1	55.7	64.6	51.2	55.7	51.2	49.8
no	75.7	75.2	67.2	82.2	71.2	74.1	84.9	72.0	75.0
Radio:									
yes				49.8	54.1	57.4	47.5	52.7	49.3	48.1
no				63.2	77.2	75.1	66.1	67.7	64.0	61.2
TV:									
yes				37.6	37.6	49.2	39.6	46.1	42.8	41.6
no				64.3	79.1	75.6	67.7	75.4	70.9	69.0

Maranhão	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	67.7	65.1	57.8	67.5	69.6	57.2	63.5	57.1	54.1
own, still paying	10.3	16.7	16.0	7.3	14.1	16.4	17.9	6.7	13.4
rented	38.9	37.7	40.2	47.3	52.8	31.1	31.6	36.1	35.4
ceded	67.6	70.4	67.9	71.9	67.9	63.2	61.5	62.9	64.7
other	40.1	31.2	0.0	0.0	33.3	33.3	25.0	100.0	50.0
Durable House									
yes	42.7	39.7	38.7	43.8	52.5	39.7	43.4	39.2	37.5
no	75.2	78.3	68.0	85.5	79.5	71.8	78.8	75.7	73.0

Table C5: Poverty Profile for Piauí

Piauí		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		69.3	69.8	68.1	71.5	62.1	51.6	57.6	50.2	51.8
Gender										
	male	70.5	71.7	68.4	71.6	63.5	51.7	59.3	52.7	54.6
	female	63.3	61.3	66.8	71.1	57.4	51.1	53.1	43.9	44.5
Race										
	white			56.6	53.7	46.0	37.0	44.2	34.7	34.9
	black			78.8	80.3	63.6	60.0	70.0	65.6	58.6
	mulatto			69.8	75.7	66.2	55.0	60.4	53.7	56.3
	indig					0.0				
	asian					100.0		100.0		
Age:										
	<25	54.2	71.6	71.3	64.3	83.3	68.9	73.8	71.7	80.0
	25 to 45	74.4	74.7	69.9	71.7	69.0	60.8	63.2	61.6	59.8
	45 to 65	71.5	71.2	68.0	70.9	60.1	49.5	56.1	45.0	47.4
	>65	53.5	48.8	59.1	76.7	29.1	15.0	31.4	17.3	17.2
Household Characteristics										
	No. of <5	77.6	78.9	72.8	77.2	76.5	68.4	78.9	69.1	69.9
	No .of 5_15	69.5	75.1	67.2	73.6	64.7	53.7	64.2	53.5	54.3
	No.of >65	57.0	55.8	63.0	75.7	38.5	23.8	33.7	22.9	23.0
Location:										
	urban	46.9	52.4	49.9	54.8	53.5	40.4	46.9	41.4	43.8
	rural	84.8	84.7	85.6	88.1	74.4	67.2	74.4	63.7	63.8
Working Class:										
	carteira									
	yes	28.8	42.8	31.8	42.6	44.4	37.7	32.9	33.6	32.0
	no	83.6	73.1	75.6	75.7	81.1	63.6	74.0	65.4	68.9
	active									
	yes				71.1	63.9	54.2	59.5	53.6	54.8
	no				73.5	53.0	37.3	48.7	36.4	36.2
	worked									
	yes	71.4	73.4	68.6	71.5	64.2	54.3	58.1	53.1	54.4
	no	59.8	52.9	65.4	71.5	54.6	40.9	56.2	41.8	42.0
Work Sector:										
	Agri.	85.5	88.9	87.6	88.2	77.1	71.5	78.3	68.8	66.8
	Ind.	77.9	66.7	59.6	67.3	65.3	46.8	57.3	52.4	57.1
	Service	41.2	49.2	44.2	52.9	49.1	39.2	42.8	38.6	41.7
	Social	42.3	37.0	47.8	35.2	32.8	23.5	32.1	19.7	27.3
	Public	31.6	24.1	39.2	52.3	41.4	33.3	28.6	21.8	25.0
	Other	7.6	42.6	18.8	22.2	27.3	12.5	12.5	63.6	40.0
Work Position:										
	employee	67.2	61.8	58.5	63.3	55.3	44.5	50.7	44.9	48.8
	self-employed	76.7	83.0	77.0	81.1	73.4	63.7	65.2	60.2	60.0
	employer	44.0	35.2	35.0	55.4	30.9	25.0	37.1	11.1	24.5

Piauí	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				70.9	63.4	54.1	58.7	52.8	54.4
>1				69.5	61.5	53.3	55.1	49.8	52.1
1 to 3				65.1	68.1	53.8	63.9	47.0	57.0
3 to 5				64.3	60.0	45.8	59.4	59.3	59.9
>5				70.7	59.5	53.7	53.4	49.0	50.3
Education									
Read and Write									
yes	50.8	52.3	51.4	54.1	54.2	45.5	47.8	42.5	46.7
no	81.7	80.7	82.7	87.7	72.8	59.8	71.4	60.2	59.3
Years of Schooling:									
no education or <1	80.2	79.9	81.2	86.3	70.9	56.7	68.5	59.7	58.8
1 to 4	70.9	76.4	73.0	76.8	69.4	61.9	67.4	55.1	61.0
4 to 8	40.2	49.5	55.2	50.8	64.9	52.3	47.2	58.0	52.6
8 to 12	18.8	18.7	27.5	34.3	27.5	21.5	29.6	20.5	24.3
more than 12	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	2.2
NA	0.0	66.7	100.0	0.0	100.0	100.0	0.0		100.0
Waste Disposal									
collected	17.5	27.6	31.4	32.0	34.3	27.0	33.1	29.1	34.7
burnt	50.4	71.8	63.4	74.9	72.5	60.0	71.4	58.4	62.1
dumped on unused land, river, sea	77.6	67.5	65.8	83.7	74.9	62.2	74.1	65.0	63.9
other	0.0	39.8		100.0		0.0			0.0
Water Supply									
piped	38.7	45.1	44.3	50.7	38.3	28.4	33.7	48.5	48.3
not piped	74.3	83.1	80.0	83.5	53.8	44.4	56.5	26.7	36.3
NA	82.4	83.4	87.1	89.3	77.3	67.2	79.3	69.2	67.9
Sanitation									
Sew.Sys. & Sep. Tank 1			0.0	15.4	0.0	0.0	25.0	7.2	8.1
Septic Tank 2	25.7	26.3	27.3	29.1	37.5	26.1	31.6	31.1	35.2
Rudimental Cespit	53.9	63.8	56.6	62.7	70.3	52.3	65.1	56.6	54.5
Drain					0.0	40.0		100.0	63.6
River or Lake								0.0	
Other	37.4	49.9	75.0	100.0	66.6				50.0
NA						0.0			
none	83.0	84.0	85.3	88.5					
Electricity									
yes	40.0	47.2	46.4	52.3	52.5	41.4	51.0	43.5	45.9
no	84.2	84.7	87.1	89.7	78.9	71.5	78.2	69.1	70.6
Fridge:									
yes	31.3	31.9	35.5	41.4	37.3	32.5	38.9	33.2	37.7
no	80.0	81.8	83.5	86.8	77.9	66.5	79.4	71.8	69.8
Cooker:									
yes	54.5	58.9	62.7	63.9	60.9	51.5	56.4	49.8	51.9
no	81.4	84.9	85.8	90.4	78.5	56.7	81.8	67.9	50.0
Radio:									
yes				62.0	67.2	56.5	48.0	54.1	46.8	50.0
no				79.6	80.3	73.5	63.0	72.5	62.8	59.1
TV:									
yes				35.7	45.3	44.6	38.0	47.8	40.6	43.4
no				82.9	85.8	76.8	66.5	76.8	67.6	67.2

Piauí	1981	1985	1988	1990	1993	1995	1997	1998	1999
Housing Status:									
own, paid	73.6	74.1	72.9	75.9	66.7	53.8	62.5	53.3	53.8
own, still paying	25.8	32.3	30.1	41.3	20.4	16.5	20.0	15.9	24.3
rented	40.7	48.6	47.7	43.6	36.9	31.1	12.2	23.4	24.7
ceded	73.7	80.6	75.0	78.7	77.9	67.1	71.2	64.6	63.4
other	0.0	39.8		75.0		0.0		80.0	52.9
Durable House									
yes	59.3	61.5	60.2	64.9	54.7	45.4	52.4	44.1	48.2
no	84.4	87.1	86.8	88.5	88.4	72.4	85.7	76.0	64.3

Table C6: Poverty Profile for Ceará

Ceará		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		59.1	58.6	58.0	65.8	57.5	47.2	47.6	45.2	46.7
Gender										
	male	60.7	59.9	59.0	66.5	58.7	47.1	47.7	45.2	46.8
	female	50.7	52.0	53.5	62.8	53.5	47.4	47.4	45.1	46.4
Race										
	white			47.9	56.5	45.6	36.3	39.5	34.6	37.7
	black			77.1	83.8	69.6	62.6	49.7	49.8	47.1
	mulatto			61.1	69.6	62.7	52.0	51.1	49.8	51.2
	indig							68.1	100.0	100.0
	asian			0.0		41.4	22.1	41.6	0.0	15.3
Age:										
	<25	53.4	60.8	61.7	69.7	74.6	64.8	69.7	61.6	67.6
	25 to 45	63.9	64.3	61.4	66.5	64.7	55.0	53.8	52.8	55.0
	45 to 65	58.5	58.0	57.4	63.9	55.1	42.2	42.4	42.9	42.2
	>65	48.6	40.1	48.0	65.9	31.4	22.7	24.9	17.4	18.3
Household Characteristics										
	No. of <5	65.4	67.1	65.9	71.1	73.4	63.9	68.8	63.1	61.8
	No .of 5_15	58.4	59.7	57.9	65.3	61.3	46.5	50.9	45.4	50.7
	No.of >65	49.8	47.1	48.2	60.7	37.9	27.2	29.5	22.7	26.1
Location:										
	urban	44.2	43.9	46.2	55.3	49.5	37.8	38.5	37.5	39.7
	rural	77.4	77.8	75.6	83.3	75.0	67.5	69.5	63.5	62.4
Working Class:										
	carteira									
	yes	34.4	37.1	35.9	49.2	46.7	31.8	28.5	26.6	28.3
	no	81.1	72.9	76.6	77.5	80.9	62.4	61.6	59.2	58.7
	active									
	yes				64.6	60.5	48.6	48.8	46.6	48.7
	no				70.5	45.0	41.3	43.3	39.3	38.7
	worked									
	yes	60.2	61.0	58.4	64.5	59.8	47.3	47.3	45.3	48.0
	no	54.8	47.0	56.3	70.4	50.2	46.8	48.5	44.9	42.7
Work Sector:										
	Agri.	73.6	79.5	78.5	83.7	72.7	69.5	67.5	65.7	66.5
	Ind.	70.2	55.1	52.7	66.2	68.5	43.3	47.4	49.6	44.2
	Service	38.3	40.3	38.7	49.2	45.1	33.6	35.8	29.4	36.0
	Social	33.4	27.9	38.9	36.9	40.9	21.8	24.0	21.9	24.0
	Public	13.8	29.0	26.6	36.3	42.2	21.3	19.3	18.1	15.9
	Other	19.8	39.2	35.4	29.2	34.5	19.6	34.0	18.3	36.0
Work Position:										
	employee	65.7	59.0	62.7	65.8	64.2	45.5	44.3	42.7	42.9
	self-employed	52.6	66.3	55.5	67.5	56.9	52.1	53.0	51.3	54.7
	employer	30.9	31.2	12.2	27.9	25.6	14.0	22.1	20.0	16.0

Ceará	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				64.4	59.8	47.5	47.6	45.1	47.8
>1				61.4	55.9	46.1	45.9	42.7	46.4
1 to 3				60.5	60.7	46.1	49.4	39.1	42.0
3 to 5				58.0	55.0	47.5	45.6	39.9	43.8
>5				61.7	54.1	46.1	44.5	44.6	47.9
Education									
Read and Write									
yes	43.9	43.9	43.6	49.2	49.2	38.3	38.3	36.4	40.1
no	73.1	72.0	73.0	83.2	69.5	60.3	62.4	59.0	57.9
Years of Schooling:									
no education or <1	73.2	71.6	72.1	82.4	68.8	59.4	59.9	57.3	56.6
1 to 4	62.9	62.2	63.1	69.8	63.2	53.3	55.6	52.9	53.9
4 to 8	37.4	39.6	40.7	50.3	50.5	39.3	40.4	41.7	45.7
8 to 12	10.8	14.4	17.0	26.5	28.9	19.8	23.7	18.0	23.4
more than 12	2.0	0.4	0.5	3.0	5.2	2.0	3.3	2.0	2.6
NA	19.2	60.6	34.2	0.0	63.6	22.1	59.6	46.3	46.1
Waste Disposal									
collected	27.4	27.7	30.6	42.5	43.3	31.8	32.8	33.4	35.5
burnt	56.8	55.0	67.6	66.9	71.2	62.3	65.3	61.2	62.8
dumped on unused land, river, sea	70.3	59.7	65.2	82.1	71.8	64.3	68.1	63.1	64.4
other	25.2	33.8	20.4	50.0	80.0	54.0	88.8	0.0	51.4
Water Supply									
piped	30.4	33.1	32.1	45.6	42.1	30.4	32.7	26.3	37.2
not piped	53.3	67.8	64.0	71.6	28.0	26.7	28.1	33.0	34.1
NA	71.9	72.3	74.5	83.4	72.9	63.4	66.6	63.6	65.1
Sanitation									
Sew.Sys. & Sep. Tank 1	10.0	17.6	18.9	31.8	30.9	18.1	21.1	22.1	24.2
Septic Tank 2	25.0	23.7	32.7	43.0	41.5	31.5	28.7	30.9	27.9
Rudimental Cespit	51.2	52.5	57.2	73.5	58.9	44.4	45.1	43.6	47.6
Drain					72.0	52.7	68.3	70.8	63.1
River or Lake					100.0	50.1	60.7	42.5	57.1
Other	70.3	70.2	54.0	66.7	90.5	31.8	50.0	83.2	56.8
NA					41.7	0.0		0.0	
none	76.1	77.2	78.6	86.1					
Electricity									
yes	39.1	40.3	42.9	53.8	49.7	39.2	41.0	39.6	42.9
no	76.8	78.9	80.0	87.4	77.1	70.0	73.7	70.0	66.6
Fridge:									
yes	23.6	25.1	27.6	35.4	34.1	24.2	29.4	29.2	32.5
no	72.9	72.4	73.3	84.0	74.1	65.0	70.0	65.5	66.0
Cooker:									
yes	57.7	56.8	57.1	64.1	56.8	46.5	46.9	45.2	46.4
no	69.7	73.5	77.7	87.7	71.4	64.8	71.9	47.2	59.5
Radio:									
yes				52.0	60.8	52.4	44.0	45.1	43.0	44.7
no				71.6	79.9	74.3	61.8	62.5	58.7	57.2
TV:									
yes				35.6	43.6	44.0	35.1	39.3	39.6	41.6
no				74.2	84.0	73.3	66.9	70.3	62.9	62.7

Ceará	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	61.8	60.7	60.8	66.7	57.3	48.6	48.0	46.3	47.2
own, still paying	16.5	22.4	20.1	32.1	38.2	20.1	22.5	19.8	17.0
rented	37.1	38.1	41.6	53.6	43.9	29.1	30.2	25.3	30.5
ceded	76.0	76.9	73.7	81.6	74.7	62.7	67.7	63.6	63.7
other	30.9	55.0	52.7	37.4	64.2	39.0	44.2	50.9	43.0
Durable House									
yes	53.5	53.1	53.4	62.1	54.1	43.3	44.6	42.4	44.1
no	84.0	86.2	94.3	80.0	62.5	86.6	100.0	67.5	71.4

Table C7: Poverty Profile for Rio Grande do Norte

Rio Grande do Norte	1981	1985	1988	1990	1993	1995	1997	1998	1999
Total	49.4	55.7	47.7	57.0	54.5	40.4	39.8	38.3	39.7
Gender									
male	50.2	57.3	48.6	56.4	53.6	41.0	38.3	38.6	39.2
female	45.7	48.8	43.6	59.7	57.5	38.4	44.1	37.3	41.2
Race									
white			39.8	47.6	46.2	35.6	29.7	27.1	30.5
black			30.0	68.4	62.2	26.7	57.2	40.5	30.4
mulatto			52.6	62.0	59.2	43.5	46.7	45.1	45.0
indig									
asian									
Age:									
<25	48.6	65.9	56.3	62.5	84.5	62.1	67.0	52.6	59.8
25 to 45	54.5	58.6	47.7	55.7	62.5	48.9	46.1	47.3	46.6
45 to 65	46.3	56.2	48.3	52.5	43.9	35.0	30.7	32.0	32.6
>65	40.6	40.3	39.4	65.4	32.0	11.6	21.1	11.8	16.7
Household Characteristics									
No. of <5	50.8	65.0	55.2	58.2	72.9	58.0	65.5	53.8	56.7
No .of 5_15	49.6	56.8	50.6	55.1	56.5	44.1	42.0	40.4	45.4
No.of >65	44.2	44.7	39.7	59.8	40.1	18.2	24.0	13.8	18.4
Location:									
urban	40.6	47.5	39.5	48.4	49.3	33.5	33.5	33.2	33.5
rural	66.3	73.1	65.4	76.2	65.8	55.0	56.3	49.4	53.5
Working Class:									
carteira									
yes	26.3	37.5	31.0	41.8	50.4	36.3	33.2	40.5	33.3
no	71.6	73.5	67.2	68.2	79.6	63.7	48.6	56.6	56.4
active									
yes				54.3	57.5	44.0	39.8	40.3	41.2
no				67.3	44.9	27.8	39.8	32.6	34.9
worked									
yes	49.9	57.8	47.3	54.0	56.9	42.0	37.3	39.4	38.1
no	47.9	48.9	49.1	66.3	48.0	36.3	45.1	35.8	43.4
Work Sector:									
Agri.	72.2	79.9	70.4	77.3	75.6	63.9	56.6	53.1	58.0
Ind.	55.1	53.3	49.1	56.3	62.1	35.3	34.5	46.5	46.0
Service	30.2	42.8	31.0	40.6	47.2	36.3	32.6	34.7	28.7
Social	24.5	27.8	20.9	45.5	33.8	24.0	27.4	11.6	20.9
Public	22.8	43.6	21.8	35.6	42.0	30.2	22.2	24.6	18.1
Other	11.1	34.6	25.0	5.9	23.1	37.5	8.3	23.1	29.4
Work Position:									
employee	53.1	56.7	48.1	54.6	61.1	44.5	39.1	43.4	40.8
self-employed	45.7	65.2	52.0	59.6	52.1	43.1	34.0	35.7	36.3
employer	20.9	20.8	1.9	15.8	6.9	6.1	0.0	4.9	9.3

Rio Grande do Norte	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Tenure									
<1				53.8	56.9	42.2	36.8	39.1	38.2
>1				53.9	51.8	39.4	36.1	34.1	34.2
1 to 3				53.9	63.1	45.6	39.3	38.5	42.0
3 to 5				50.3	55.8	44.1	41.4	40.7	33.0
>5				54.0	47.5	37.9	34.4	31.5	30.3
Education									
Read and Write									
yes	31.5	41.4	32.8	40.7	49.1	34.3	33.9	32.3	33.8
no	65.6	69.5	65.4	76.8	63.1	50.7	50.8	49.3	51.6
Years of Schooling:									
no education or <1	65.9	70.8	63.4	76.4	61.0	46.6	48.0	49.1	49.8
1 to 4	56.9	64.2	53.5	61.5	64.3	46.5	44.6	43.6	46.1
4 to 8	28.9	43.6	41.5	47.2	57.1	52.3	49.2	39.4	47.0
8 to 12	6.8	17.2	16.6	26.8	30.3	17.6	23.2	21.5	22.0
more than 12	5.1	2.1	0.0	6.9	8.5	5.4	4.8	2.6	0.0
NA	33.1	0.0	0.0	25.0	71.4	50.0			100.0
Waste Disposal									
collected	33.2	41.8	30.6	44.3	47.3	31.1	33.9	32.0	33.7
burnt	57.3	64.4	67.4	57.5	69.1	61.1	60.4	56.0	65.3
dumped on unused land, river, sea	65.5	67.6	63.7	80.6	72.4	62.0	57.8	59.3	56.8
other	33.5	0.0	0.0	0.0	100.0	0.0	33.3	50.0	50.0
Water Supply									
piped	33.8	44.0	35.6	45.0	38.8	26.5	28.9	39.5	50.0
not piped	59.6	55.6	41.7	62.8	58.3	53.3	33.3	30.1	31.4
NA	66.2	73.8	69.2	77.1	71.7	59.2	64.5	59.5	63.8
Sanitation									
Sew.Sys. & Sep. Tank 1	10.2	8.0	10.7	17.3	38.7	24.5	23.2	23.5	25.1
Septic Tank 2	19.0	21.7	11.9	28.7	26.7	14.2	25.9	28.1	23.5
Rudimental Cespit	50.4	56.8	49.1	61.3	61.5	47.1	49.9	45.0	48.7
Drain					50.0	88.9	80.0	73.4	83.3
River or Lake								100.0	42.9
Other	45.0	49.5	12.5	60.0		100.0			100.0
NA									
none	71.7	76.7	74.6	82.4					
Electricity									
yes	38.9	46.4	39.9	52.0	52.4	38.2	38.2	37.6	38.7
no	68.8	77.9	74.3	83.7	73.5	67.3	71.1	50.8	60.3
Fridge:									
yes	21.1	26.7	18.8	32.7	38.1	25.2	29.8	29.4	31.0
no	63.8	73.0	69.6	77.4	71.3	59.1	64.4	57.7	62.8
Cooker:									
yes	45.8	53.0	45.4	54.5	53.5	40.0	39.7	38.0	39.4
no	65.0	70.3	75.8	78.7	68.8	51.9	43.5	46.5	52.6
Radio:									
yes				42.3	50.3	49.5	37.6	38.3	36.6	37.1
no				59.8	72.1	68.2	56.9	48.5	46.8	54.8
TV:									
yes				24.6	37.5	44.7	33.8	37.0	37.3	36.2
no				69.0	79.0	70.1	57.8	57.5	43.4	62.8

Rio Grande do Norte	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	55.8	59.6	52.4	63.6	57.2	41.5	43.7	40.5	40.5
own, still paying	15.4	19.9	12.7	19.5	30.3	23.6	14.7	15.3	18.7
rented	29.5	44.1	32.1	40.6	41.0	24.8	27.4	27.9	32.9
ceded	63.4	73.0	67.0	72.3	69.8	61.6	45.7	49.0	55.6
other	40.1	16.7	25.0	40.0	50.0	33.4	49.9	11.1	100.0
Durable House									
yes	43.5	53.2	44.6	54.2	52.7	39.0	38.3	36.8	38.3
no	58.8	71.3	87.5	100.0	66.7	100.0			100.0

Table C8: Poverty Profile for Paraíba

Paraíba	1981	1985	1988	1990	1993	1995	1997	1998	1999
Total	58.3	57.0	57.4	60.7	56.9	40.8	42.9	40.5	39.4
Gender									
male	59.1	58.2	58.4	59.7	57.0	39.9	42.5	41.6	39.3
female	54.1	51.4	53.4	63.6	56.4	43.4	43.9	37.2	39.7
Race									
white				51.0	53.4	44.5	32.3	35.1	32.0	30.9
black				61.9	73.6	58.5	56.4	56.2	54.2	45.2
mulatto				63.2	64.9	63.9	44.4	48.1	46.0	47.3
indig									
asian				100.0		0.0			0.0
Age:									
<25	49.1	59.0	54.8	68.6	81.2	64.5	65.3	60.5	63.2
25 to 45	60.9	60.5	60.3	60.6	64.7	49.5	49.1	47.1	45.5
45 to 65	60.7	59.6	59.8	58.8	57.0	37.1	37.7	39.7	37.3
>65	50.5	43.2	48.1	60.9	25.5	18.2	25.7	15.2	19.9
Household Characteristics									
No. of <5	59.6	61.2	67.7	65.6	69.5	60.5	69.6	53.3	55.0
No .of 5_15	58.8	57.5	61.0	61.9	60.3	42.9	47.4	42.8	44.6
No.of >65	45.5	49.1	50.9	61.8	36.9	25.4	29.0	19.2	27.0
Location:									
urban	44.0	44.9	45.7	50.3	48.1	30.9	34.7	31.8	29.8
rural	82.8	79.4	80.3	83.5	75.4	61.9	63.0	59.8	62.0
Working Class:									
carteira									
yes	34.6	34.8	38.1	47.7	44.3	34.5	29.2	25.6	26.8
no	79.5	75.6	73.7	75.5	84.2	64.3	60.5	60.8	63.1
active									
yes				59.9	58.9	43.0	44.0	42.6	41.2
no				63.0	49.7	33.5	38.9	33.6	33.6
worked									
yes	59.4	59.3	58.9	59.8	57.6	42.1	41.9	41.7	40.0
no	55.3	50.0	52.7	62.9	55.1	37.2	45.5	37.2	38.0
Work Sector:									
Agri.	75.6	81.8	81.9	82.7	73.5	62.7	64.6	64.6	59.6
Ind.	69.2	56.8	59.0	62.2	60.4	40.1	34.5	43.5	52.9
Service	39.5	37.1	42.1	43.6	46.3	26.8	30.4	25.4	26.8
Social	28.7	28.4	31.4	43.5	29.3	25.8	17.9	24.2	14.0
Public	32.9	33.6	31.2	39.6	51.4	19.0	20.0	21.5	12.6
Other	15.0	11.8	42.8	21.7	7.1	0.0	10.0	0.0	4.5
Work Position:									
employee	61.3	61.1	59.5	63.8	61.1	45.7	41.4	40.2	41.0
self-employed	56.6	59.5	60.7	59.1	57.7	42.0	47.0	46.5	42.7
employer	20.0	26.1	41.2	27.0	19.1	10.5	10.2	3.8	0.0

Paraíba	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				59.5	57.9	42.5	42.2	41.6	39.8
>1				57.6	53.6	40.8	41.5	40.1	38.7
1 to 3				61.2	50.3	44.8	47.6	42.0	47.8
3 to 5				58.5	55.6	43.2	48.4	38.8	39.1
>5				56.7	53.8	39.3	39.6	39.5	35.4
Education									
Read and Write									
yes	41.1	40.2	44.5	44.9	48.5	32.4	33.6	31.3	31.2
no	72.4	73.8	72.2	79.0	69.3	52.6	58.8	56.3	53.8
Years of Schooling:									
no education or <1	71.4	73.9	71.4	78.9	67.2	51.0	54.6	55.2	51.3
1 to 4	66.4	61.9	65.6	66.9	63.0	44.7	51.2	45.7	49.5
4 to 8	38.5	38.2	47.4	49.7	65.0	36.4	36.1	35.7	39.9
8 to 12	14.1	15.4	25.1	29.4	36.7	19.3	24.3	19.8	19.5
more than 12	4.6	4.1	5.4	4.2	10.7	2.1	4.0	3.4	2.7
NA	100.0	16.5	0.0		25.0	0.0		100.0	75.0
Waste Disposal									
collected	38.9	38.6	38.7	45.4	44.1	27.3	32.9	30.3	30.0
burnt	72.6	78.9	63.6	68.1	75.6	48.7	61.5	56.6	55.4
dumped on unused land, river, sea	67.7	72.3	75.3	79.7	75.6	61.2	63.8	62.7	64.5
other	33.0	33.3	0.0	50.1	54.5	70.0	54.3	0.0	69.4
Water Supply									
piped	40.2	40.9	44.5	49.6	45.7	28.5	32.7	31.6	34.0
not piped	65.5	82.1	79.6	85.1	50.0	50.0	55.5	30.1	28.7
NA	79.0	78.5	77.6	83.4	76.5	63.1	63.7	64.1	64.2
Sanitation									
Sew.Sys. & Sep. Tank 1	17.4	18.0	22.0	30.0	31.6	24.4	26.4	20.4	20.5
Septic Tank 2	27.0	27.5	37.8	32.9	45.1	24.1	22.5	21.0	22.4
Rudimental Cespit	53.6	58.9	56.5	68.5	59.5	42.9	49.5	44.3	46.5
Drain					70.8	59.0	50.0	59.3	67.9
River or Lake					47.4	29.4	40.0	62.5	42.9
Other	50.0	36.4	44.4	62.3	0.0		0.0	0.0	100.0
NA									
none	82.8	83.1	81.2	85.8					
Electricity									
yes	41.8	44.1	48.8	52.8	52.5	37.5	42.1	39.2	38.5
no	80.0	81.4	80.6	89.7	77.3	67.3	58.3	68.7	66.2
Fridge:									
yes	22.5	23.1	30.3	32.2	37.2	22.7	29.3	28.7	27.2
no	72.5	72.5	73.3	80.7	74.0	58.7	65.5	63.4	66.4
Cooker:									
yes	58.0	56.7	57.5	59.0	56.6	40.8	42.8	40.2	39.3
no	60.9	65.4	57.8	85.5	75.0	32.3	47.6	62.5	57.1
Radio:									
yes				54.6	56.2	53.7	38.7	41.3	39.1	38.6
no				65.3	73.8	69.7	53.2	55.9	51.8	45.9
TV:									
yes				41.1	41.8	46.4	33.7	41.0	37.9	36.9
no				73.4	83.4	72.5	58.5	54.1	56.7	57.8

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Paraíba	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	62.4	61.3	62.9	63.1	58.0	41.4	42.8	41.7	39.0
own, still paying	11.5	15.7	21.9	23.6	30.6	12.3	21.1	14.5	18.8
rented	38.2	41.1	40.2	52.6	48.1	25.2	32.5	26.9	23.6
ceded	81.2	79.2	74.7	75.5	69.2	56.8	58.7	55.8	66.1
other	66.6	14.2	33.3	50.1	77.8	60.0	25.0	20.0	44.4
Durable House									
yes	55.9	54.0	55.7	59.0	55.4	39.4	41.8	39.7	38.7
no	85.8	90.9	71.4	100.0	100.0		100.0		

Table C9: Poverty Profile for Pernambuco

Pernambuco	1981	1985	1988	1990	1993	1995	1997	1998	1999
Total	40.8	44.5	45.4	51.8	53.9	39.5	42.5	39.7	41.6
Gender									
male	40.3	43.8	45.3	50.3	54.0	39.1	41.1	39.2	41.2
female	42.7	46.9	46.1	56.8	53.5	40.9	46.2	41.0	42.7
Race									
white			35.9	44.8	45.0	32.9	36.8	30.5	33.2
black			54.1	60.9	65.8	49.2	45.2	47.3	45.6
mulatto			52.3	55.5	58.6	43.0	46.3	46.0	46.6
indig						75.0	100.0	100.0	15.2	0.0
asian			40.0	0.0	0.0	0.0	0.0	54.3	26.4
Age:									
<25	37.2	47.2	50.2	52.4	71.7	58.5	60.5	61.1	64.1
25 to 45	45.0	48.4	48.1	53.5	59.7	45.3	48.0	45.6	48.4
45 to 65	38.6	41.8	42.3	47.3	50.5	36.3	35.6	34.2	34.7
>65	34.2	37.0	41.2	56.3	30.6	17.2	26.5	19.2	20.2
Household Characteristics									
No. of <5	46.8	52.4	51.9	59.7	68.2	56.6	62.3	56.9	60.8
No .of 5_15	40.5	45.8	47.6	51.1	62.4	42.1	50.4	42.6	48.1
No.of >65	33.2	36.7	41.6	51.8	33.7	21.7	28.3	22.2	24.8
Location:									
urban	34.3	38.3	39.5	46.1	49.5	34.6	37.7	35.5	38.2
rural	54.3	58.2	60.5	67.3	70.3	57.3	60.9	55.8	55.7
Working Class:									
carteira									
yes	27.9	29.6	32.0	46.6	45.9	33.5	32.6	31.4	30.6
no	54.5	57.6	59.7	61.2	76.4	53.4	56.0	55.0	55.8
active									
yes				49.3	55.9	40.5	42.9	40.0	42.7
no				60.1	46.9	36.2	41.2	39.0	38.3
worked									
yes	40.1	44.4	44.7	49.1	54.1	39.0	40.5	37.8	40.1
no	43.1	44.5	48.0	59.8	53.3	41.0	47.3	43.9	45.0
Work Sector:									
Agri.	53.9	63.9	67.5	73.5	71.8	57.6	64.7	57.9	58.7
Ind.	37.1	34.7	39.0	48.3	58.0	34.8	37.9	42.8	43.9
Service	32.6	35.4	36.6	40.3	47.4	31.3	32.3	29.6	33.7
Social	29.5	25.3	19.4	27.4	31.7	24.4	16.5	17.8	16.1
Public	20.5	25.3	29.6	33.4	33.7	22.9	16.3	18.6	17.8
Other	17.3	41.3	30.0	20.3	37.4	36.2	34.4	36.5	47.1
Work Position:									
employee	39.0	42.0	43.3	52.9	55.2	39.0	39.1	38.0	39.4
self-employed	46.7	52.5	50.5	48.2	55.8	41.3	44.6	41.4	44.7
employer	6.4	15.5	13.7	12.5	14.5	8.1	10.5	9.6	8.7

Pernambuco	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				49.2	54.1	38.9	40.8	38.0	40.2
>1				49.8	50.1	37.1	39.6	35.2	38.3
1 to 3				49.7	57.1	41.3	41.7	37.7	45.0
3 to 5				45.4	49.6	35.3	39.6	32.5	38.8
>5				50.3	47.2	35.3	38.8	34.8	35.7
Education									
Read and Write									
yes	30.4	33.1	33.2	40.0	47.1	32.0	35.5	34.2	36.5
no	52.6	58.2	64.2	68.7	66.7	52.0	57.5	52.3	53.0
Years of Schooling:									
no education or <1	52.2	58.4	63.1	68.9	64.5	49.7	55.4	49.9	50.2
1 to 4	47.0	49.2	51.1	59.7	61.9	44.4	46.6	46.1	51.0
4 to 8	29.8	33.8	36.9	45.6	53.9	40.4	48.3	42.8	45.8
8 to 12	10.4	13.8	11.6	21.1	30.8	16.8	22.4	22.4	22.5
more than 12	0.4	0.7	2.4	2.1	4.0	4.3	4.0	2.7	2.3
NA	20.7	58.8	45.8		53.2	55.4	57.7	25.0	29.6
Waste Disposal									
collected	23.4	28.2	29.2	36.7	43.7	29.9	34.4	32.7	35.8
burnt	43.0	49.3	62.7	63.1	67.3	54.8	56.6	54.3	55.6
dumped on unused land, river, sea	47.5	49.9	58.9	69.6	70.0	55.3	62.4	57.9	57.9
other	20.8	9.1	0.0	35.9	53.6	38.0	64.9	46.9	58.7
Water Supply									
piped	26.9	31.6	33.4	41.2	44.3	29.7	33.9	40.9	38.0
not piped	43.0	49.6	57.5	66.5	33.0	34.3	32.5	32.4	34.5
NA	57.6	63.8	68.3	76.3	71.3	57.5	62.4	57.8	59.0
Sanitation									
Sew.Sys. & Sep. Tank 1	9.0	11.9	12.8	25.5	32.6	20.6	24.1	24.5	26.5
Septic Tank 2	11.6	23.0	17.0	10.0	42.7	21.1	30.8	29.9	29.3
Rudimental Cespit	37.6	41.8	44.8	54.7	56.5	42.3	48.0	42.4	44.2
Drain					69.1	59.8	62.5	53.0	51.9
River or Lake					60.1	39.6	41.1	38.3	49.5
Other	36.0	38.7	35.1	47.6	86.1	33.3	55.0	67.8	53.1
NA					27.0				
none	58.5	66.1	72.1	79.4					
Electricity									
yes	31.1	35.6	38.7	46.5	50.7	37.2	40.8	38.2	40.5
no	59.0	66.5	71.7	77.7	75.2	60.0	63.9	66.9	64.2
Fridge:									
yes	17.9	22.6	23.3	29.3	36.6	25.3	31.6	30.8	32.3
no	53.4	59.0	64.5	72.6	72.0	56.7	64.0	58.8	62.5
Cooker:									
yes	39.9	43.6	44.9	51.3	53.4	39.5	42.6	39.8	41.6
no	51.3	59.3	62.0	65.5	71.7	37.8	35.2	37.2	43.3
Radio:									
yes				40.9	45.9	49.6	37.7	40.8	38.5
no				57.6	70.4	69.3	50.3	58.0	50.1
TV:									
yes				30.7	35.9	43.9	32.8	39.4	37.1
no				63.9	73.4	70.3	55.8	57.1	54.1

Note: The Radio and TV rows contain a trailing value (39.9 / 56.7 for Radio yes/no; 39.0 / 56.6 for TV yes/no) aligning with the 1999 column.

Radio yes 1999: 39.9   Radio no 1999: 56.7
TV yes 1999: 39.0   TV no 1999: 56.6

Pernambuco	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	44.9	48.5	48.6	53.6	54.4	40.6	43.6	41.5	42.6
own, still paying	18.2	14.9	13.3	20.7	34.1	19.8	19.2	18.7	13.6
rented	30.9	34.1	37.4	43.1	48.8	29.9	34.7	27.2	32.7
ceded	46.5	53.2	56.9	67.1	65.7	52.4	54.8	53.5	55.2
other	36.2	32.0	28.9	59.5	69.8	42.3	49.0	28.9	25.0
Durable House									
yes	38.2	42.3	43.1	49.4	52.2	38.3	41.5	38.5	40.7
no	53.4	55.7	85.1	66.7	81.5	50.0	66.2	69.3	54.7

Table C10: Poverty Profile for Alagoas

Alagoas		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		42.8	45.7	49.5	59.7	58.5	46.2	45.9	44.1	47.2
Gender										
	male	43.8	46.9	50.7	59.0	59.6	46.0	44.9	42.9	47.4
	female	38.1	40.3	44.4	62.4	54.8	46.9	48.4	47.6	46.8
Race										
	white			39.2	50.0	45.9	37.2	39.8	35.2	37.7
	black			66.7	61.3	58.7	49.3	52.5	51.2	53.9
	mulatto			53.1	64.4	66.8	51.8	49.5	49.3	53.8
	indig									
	asian					100.0		0.0		0.0
Age:										
	<25	29.6	45.9	46.2	65.7	76.1	67.8	64.2	62.0	72.7
	25 to 45	45.0	51.1	54.7	59.4	64.3	52.2	46.6	48.9	52.9
	45 to 65	44.1	43.8	46.8	58.2	56.6	40.9	45.4	42.4	44.1
	>65	40.1	32.5	41.5	60.8	31.4	23.7	28.9	21.4	20.2
Household Characteristics										
	No. of <5	49.3	53.5	59.0	67.9	70.5	59.1	63.2	52.8	61.7
	No .of 5_15	46.5	44.3	51.9	59.8	60.6	46.3	53.2	50.0	47.9
	No.of >65	41.6	35.6	44.4	63.9	36.8	28.6	32.3	26.2	26.7
Location:										
	urban	36.0	42.4	44.7	50.6	50.3	40.3	39.1	39.3	41.5
	rural	50.3	50.1	56.7	73.4	73.8	58.2	60.0	54.3	59.3
Working Class:										
	carteira									
	yes	24.1	32.0	41.2	51.1	54.9	40.6	36.5	39.8	42.9
	no	53.1	57.7	68.5	76.0	82.9	64.4	61.2	60.3	70.1
	active									
	yes				59.1	60.9	48.0	44.2	44.9	50.1
	no				62.2	50.0	41.0	50.4	41.5	38.7
	worked									
	yes	42.3	46.6	50.1	59.2	59.7	46.2	41.9	42.7	46.6
	no	44.3	42.0	47.2	61.5	55.4	46.4	54.7	47.2	48.6
Work Sector:										
	Agri.	53.2	58.6	65.3	77.0	77.2	65.9	65.3	62.2	69.6
	Ind.	35.9	33.2	45.4	56.9	56.5	47.3	40.0	37.9	45.0
	Service	28.4	35.7	38.6	40.1	51.1	29.0	29.8	32.6	34.9
	Social	13.0	19.6	30.0	35.0	18.8	36.6	24.1	21.3	19.6
	Public	26.2	35.3	30.4	40.8	46.8	30.3	25.4	26.0	23.6
	Other	0.0	23.8	16.6	8.3	30.0	0.0	0.0	0.0	0.0
Work Position:										
	employee	39.4	46.1	52.9	62.8	62.0	47.3	42.3	45.4	51.4
	self-employed	48.7	49.4	49.3	56.0	58.3	48.4	42.4	41.5	40.5
	employer	12.5	7.1	6.7	12.8	23.1	0.0	0.0	6.1	16.0

Alagoas	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				58.7	59.4	46.4	42.0	42.8	46.6
>1				58.9	57.8	44.3	42.2	41.7	45.4
1 to 3				55.9	71.6	55.4	43.2	43.1	48.8
3 to 5				52.8	60.6	45.2	39.6	46.6	50.4
>5				59.6	52.2	40.1	41.5	40.2	43.3
Education									
Read and Write									
yes	31.6	35.0	36.2	44.8	49.4	37.1	35.4	35.5	38.0
no	51.9	53.3	61.7	74.5	73.0	60.0	60.1	56.6	60.8
Years of Schooling:									
no education or <1	52.2	53.8	60.6	74.2	71.7	60.2	57.7	57.1	60.9
1 to 4	40.1	49.6	57.1	60.8	61.7	48.1	52.9	49.5	51.5
4 to 8	33.1	30.9	35.9	50.7	69.4	52.3	55.8	46.4	56.6
8 to 12	5.1	12.2	12.5	29.0	30.8	18.2	22.1	21.2	18.5
more than 12	2.4	3.1	0.0	2.0	4.6	6.3	6.2	4.2	8.1
NA	50.0	0.0				0.0		0.0	100.0
Waste Disposal									
collected	27.3	35.6	38.9	44.5	46.2	37.2	39.1	37.6	41.7
burnt	29.4	50.0	56.3	73.3	78.4	61.3	65.6	55.4	56.5
dumped on unused land, river, sea	51.5	52.2	57.7	72.9	76.2	62.3	60.2	62.0	66.1
other	10.6	0.0	50.0	28.6	100.0	0.0		66.6	100.0
Water Supply									
piped	28.2	35.0	37.5	43.9	45.3	36.8	36.6	28.6	26.9
not piped	48.4	59.5	53.6	73.2	48.4	34.6	37.0	35.8	40.3
NA	51.4	46.7	63.0	77.8	78.5	61.6	64.2	63.4	67.3
Sanitation									
Sew.Sys. & Sep. Tank 1	8.4	16.0	33.3	29.8	25.7	29.7	34.0	22.1	26.0
Septic Tank 2	0.0	11.6	37.8	8.6	15.6	31.7	25.8	27.9	31.8
Rudimental Cespit	36.1	40.7	41.0	52.9	56.0	40.9	43.6	43.0	49.2
Drain					66.7	100.0	56.3	75.0	54.6
River or Lake					63.6	38.9	33.3	57.9	55.0
Other	47.7	66.6	54.2	69.0			50.0	33.4	40.0
NA	100.0				100.0				
none	52.4	57.2	65.8	79.8					
Electricity									
yes	32.1	40.4	44.3	53.5	56.0	44.0	44.0	42.3	45.5
no	56.3	55.9	63.5	79.5	74.5	61.7	60.6	62.7	64.6
Fridge:									
yes	19.4	24.6	32.6	40.6	40.8	31.5	35.1	32.7	36.1
no	52.1	56.7	62.4	75.2	78.5	64.6	63.1	63.7	69.5
Cooker:									
yes	39.0	42.2	48.0	57.1	57.7	46.0	45.8	44.0	46.9
no	54.5	59.8	71.6	78.5	76.0	60.9	53.9	50.0	65.0
Radio:									
yes				44.0	51.7	51.6	41.7	42.8	42.3	44.1
no				57.6	74.5	75.0	64.6	61.3	52.0	61.4
TV:									
yes				33.5	43.5	46.1	39.2	42.1	40.2	44.0
no				63.6	75.4	78.1	60.7	59.3	60.6	61.6

Alagoas	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	47.9	49.1	54.3	60.0	56.8	45.6	46.6	44.1	46.6
own, still paying	17.7	20.6	4.6	25.5	31.1	10.6	24.2	11.4	11.3
rented	33.3	34.1	35.5	46.8	52.5	42.5	31.3	38.9	43.5
ceded	41.1	47.2	53.4	72.7	74.0	58.8	60.3	58.9	63.5
other	21.5	18.2	40.0	25.0	100.0	57.2		33.3	50.0
Durable House									
yes	38.9	42.0	46.6	56.6	55.8	43.0	44.6	41.9	46.0
no	48.5	70.0	44.5	100.0	86.4	64.3	60.0	66.7	66.7

Table C11: Poverty Profile for Sergipe

Sergipe	1981	1985	1988	1990	1993	1995	1997	1998	1999
Total	42.8	45.7	49.5	59.7	58.5	46.2	45.9	44.1	47.2
Gender									
male	48.1	45.8	48.9	48.7	47.8	42.7	39.0	37.6	41.3
female	39.1	47.9	48.6	56.3	46.7	38.1	44.8	38.9	41.6
Race									
white			40.1	35.5	33.8	30.0	28.6	28.0	26.8
black			67.6	52.7	45.5	52.2	40.8	38.2	45.3
mulatto			51.0	54.3	52.3	43.6	43.9	40.9	45.2
indig						0.0		50.1	
asian			50.1			0.0	0.0	0.0	0.0
Age:									
<25	50.0	45.2	50.6	59.0	69.6	62.9	67.1	57.9	63.8
25 to 45	48.2	52.6	50.9	51.3	56.5	47.0	45.1	45.7	47.3
45 to 65	46.4	42.9	50.3	46.1	43.8	36.4	36.7	28.7	37.0
>65	38.3	34.0	39.1	51.0	17.5	19.0	17.4	14.8	17.0
Household Characteristics									
No. of <5	49.4	55.1	52.4	57.3	64.1	55.3	66.5	54.2	62.9
No .of 5_15	47.0	42.6	48.5	47.2	47.7	42.1	46.0	42.2	46.6
No.of >65	40.8	36.7	39.0	50.6	21.7	22.0	20.0	19.5	22.6
Location:									
urban	33.5	40.2	38.3	42.3	42.5	36.6	35.8	33.6	35.4
rural	61.8	57.2	60.9	60.2	60.8	54.3	53.5	50.6	58.1
Working Class:									
carteira									
yes	28.3	31.3	34.0	44.1	41.4	34.8	29.1	33.5	32.1
no	66.3	65.6	65.5	59.0	81.0	58.3	63.7	58.2	61.2
active									
yes				49.9	52.0	44.3	41.2	40.1	43.3
no				52.1	31.4	30.9	38.8	29.3	34.6
worked									
yes	47.4	47.1	50.3	49.8	50.3	42.2	38.6	38.0	41.0
no	42.5	43.2	43.7	52.1	40.3	39.8	46.1	38.1	42.4
Work Sector:									
Agri.	65.7	66.2	66.9	60.4	63.8	56.9	53.6	54.8	62.7
Ind.	42.4	43.3	45.0	51.5	50.6	36.5	33.6	33.6	36.3
Service	35.3	33.3	39.6	43.2	43.2	34.6	35.2	33.7	34.0
Social	9.1	30.2	38.3	35.7	25.5	36.0	19.6	26.9	19.3
Public	33.3	27.7	26.6	32.3	40.0	33.3	25.8	17.6	15.3
Other	12.5	19.1	6.2	11.1	50.0	36.4	50.0	0.0	18.8
Work Position:									
employee	45.8	45.9	48.1	51.7	56.8	43.5	40.6	40.9	41.6
self-employed	50.8	52.3	54.9	49.9	44.8	42.1	40.5	34.9	41.3
employer	0.0	8.6	17.8	19.5	17.2	0.0	10.6	4.9	9.3

Sergipe	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1				49.6	50.1	42.4	38.9	38.0	41.2
>1				47.5	47.2	40.8	37.0	35.9	40.4
1 to 3				54.6	51.8	41.7	39.2	39.9	44.9
3 to 5				53.2	52.1	44.5	30.8	42.6	37.9
>5				45.9	44.9	39.5	36.2	34.2	38.5
Education									
Read and Write									
yes	31.6	33.8	33.7	38.0	42.2	38.0	35.6	34.1	35.4
no	61.3	59.9	64.3	64.5	56.9	48.2	51.9	46.8	54.4
Years of Schooling:									
no education or <1	61.6	61.0	64.8	63.6	55.5	49.7	50.3	45.2	52.3
1 to 4	50.5	45.3	53.5	60.5	53.5	43.2	45.4	41.8	50.2
4 to 8	22.1	35.1	32.4	40.2	47.3	44.4	55.6	45.0	39.6
8 to 12	4.5	12.6	13.4	19.1	26.0	24.4	20.5	26.4	23.2
more than 12	0.0	0.0	2.5	2.8	10.2	12.2	3.4	6.7	1.2
NA	0.0	0.0	100.0	0.0	33.3	50.0	42.9	66.7	50.0
Waste Disposal									
collected	23.5	29.5	29.7	36.6	39.6	33.8	32.2	32.6	34.2
burnt	59.1	47.7	50.8	55.8	60.8	58.1	60.7	52.5	55.3
dumped on unused land, river, sea	59.6	60.8	66.8	64.4	60.2	49.6	57.2	53.8	64.8
other	0.0	66.6		0.0	20.0	66.7	50.0	25.0	0.0
Water Supply									
piped	28.1	36.0	39.2	42.9	39.5	33.8	32.3	34.6	38.5
not piped	55.3	60.1	68.6	65.4	40.0	42.9	38.5	31.7	34.3
NA	63.6	60.4	58.6	60.3	62.2	55.6	59.6	56.3	65.3
Sanitation									
Sew.Sys. & Sep. Tank 1	8.0	11.6	15.0	20.8	26.6	25.1	24.5	22.6	24.3
Septic Tank 2	7.9	19.2	22.5	25.4	43.1	41.6	35.7	38.2	35.0
Rudimental Cespit	43.5	39.2	47.9	52.0	51.4	38.6	45.5	39.1	49.1
Drain					47.6	66.7	37.5	66.7	31.2
River or Lake					66.7	100.0	33.4	50.0	25.0
Other	28.4	100.0	90.9	62.5	100.0		0.0	50.0	100.0
NA				0.0					100.0
none	67.9	66.8	68.4	67.5					
Electricity									
yes	32.1	37.1	39.5	43.5	45.1	39.1	38.9	37.7	40.6
no	66.9	66.2	74.0	72.6	64.7	62.2	66.7	43.9	61.8
Fridge:									
yes	18.0	24.5	27.6	33.2	34.9	31.7	31.3	32.6	34.4
no	59.5	62.0	68.0	67.6	64.7	56.9	62.5	54.3	61.0
Cooker:									
yes	43.4	43.2	47.9	49.4	47.5	41.1	40.4	38.1	41.2
no	70.5	65.7	61.8	67.8	48.3	54.5	63.6	25.0	77.8
Radio:									
yes				41.0	43.9	43.0	38.4	38.7	35.6	39.4
no				65.3	67.1	61.2	57.1	52.7	52.1	56.2
TV:									
yes				31.7	35.0	39.8	35.6	37.5	36.4	39.2
no				67.2	69.5	62.1	57.0	54.0	46.2	54.9

Sergipe	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	50.5	50.2	54.1	54.0	47.8	42.9	43.2	40.0	42.4
own, still paying	12.3	16.1	11.1	24.2	29.1	27.0	12.3	17.0	26.0
rented	34.7	39.6	40.0	44.6	48.2	36.4	38.2	34.1	31.6
ceded	67.2	55.1	59.1	60.2	61.5	56.7	46.5	47.7	57.5
other	0.0	71.5	50.0	0.0	90.0	40.0	60.0	33.3	55.6
Durable House									
yes	40.4	40.8	43.4	47.3	46.5	40.6	39.0	36.8	40.1
no	100.0		100.0	33.3	57.1	77.8	40.0	44.5	25.0

Table C12: Poverty Profile for Bahia

Bahia		1981	1985	1988	1990	1993	1995	1997	1998	1999
Total		40.7	44.7	47.7	54.9	54.6	43.0	43.5	41.5	42.2
Gender										
	male	40.6	45.4	47.5	54.3	54.8	43.3	43.6	41.8	42.2
	female	41.1	41.5	48.3	57.1	53.9	42.3	43.2	40.8	42.3
Race										
	white			40.4	44.6	42.0	33.6	33.9	34.4	33.0
	black			51.7	63.7	55.7	42.1	44.8	45.2	43.7
	mulatto			49.5	57.3	58.8	46.3	47.2	43.4	45.5
	indig					77.6	70.8	38.5	47.8	38.9
	asian			11.2	0.0	48.0	0.0	20.5	36.8	47.6
Age:										
	<25	33.9	45.6	47.3	59.0	72.0	58.5	64.2	60.9	60.2
	25 to 45	45.1	48.0	50.2	54.7	60.4	49.6	50.0	48.2	49.5
	45 to 65	38.0	42.9	46.5	53.4	52.3	40.4	39.5	38.1	39.6
	>65	35.7	37.6	42.6	56.7	33.3	20.8	24.5	17.1	17.4
	No. of <5	45.2	55.2	52.9	64.1	69.7	59.3	65.6	59.3	61.0
	No .of 5_15	41.9	48.1	48.1	57.8	57.4	46.4	52.7	45.1	46.6
	No.of >65	34.2	37.5	44.9	55.0	37.3	24.7	27.1	21.6	18.9
Location:										
	urban	32.7	31.4	34.8	43.7	46.7	36.5	37.3	35.3	36.6
	rural	49.7	60.4	64.4	70.0	68.3	54.9	54.3	53.0	52.4
Working Class:										
	carteira										
	yes	25.4	28.2	28.2	42.4	41.7	33.5	29.7	28.9	27.8
	no	55.3	58.4	63.7	71.8	77.5	58.1	59.0	56.8	61.2
	active										
	yes					53.9	56.4	44.9	45.3	43.0	44.4
	no					59.5	46.8	35.6	37.3	35.7	33.9
	worked										
	yes	41.0	45.6	47.6	53.9	55.4	42.9	44.0	41.3	42.5
	no	39.4	40.7	48.0	58.6	52.0	43.4	42.3	42.2	41.5
Work Sector:										
	Agri.	51.6	62.6	66.3	71.3	69.5	60.0	60.8	56.3	58.3
	Ind.	32.1	35.0	37.7	47.2	52.8	37.9	35.5	36.9	39.3
	Service	31.4	29.5	31.6	38.6	43.3	31.3	32.9	31.7	29.9
	Social	21.0	18.8	23.9	32.9	30.3	20.7	25.9	22.0	20.1
	Public	23.7	26.3	31.7	43.8	44.0	26.9	25.1	23.8	20.1
	Other	10.7	17.5	11.2	17.6	33.2	23.2	36.0	38.7	34.4
Work Position:										
	employee	39.0	42.6	45.7	55.9	56.9	42.8	42.0	40.8	42.6
	self-employed	45.1	52.3	53.1	56.5	57.0	45.3	48.7	44.8	44.9
	employer	5.4	6.1	12.4	16.0	15.0	7.6	3.5	6.7	8.1

Bahia	1981	1985	1988	1990	1993	1995	1997	1998	1999
Tenure									
<1					53.5	55.2	43.0	44.0	41.2	42.3
>1					52.8	52.2	40.9	42.4	39.5	40.6
1 to 3					52.2	55.9	43.7	44.4	43.3	42.3
3 to 5					48.2	50.4	42.3	40.4	40.2	39.3
>5					53.0	51.1	39.8	41.9	38.2	40.0
Education									
Read and Write									
yes	31.9	35.5	37.0	42.5	48.8	37.4	38.1	36.4	38.0
no	52.6	56.9	65.1	73.7	65.0	53.5	54.0	52.2	50.9
Years of Schooling:									
no education or <1	51.3	56.4	63.2	71.9	64.1	52.4	53.1	50.6	49.7
1 to 4	45.8	53.8	54.8	62.9	63.7	48.2	50.9	48.5	49.1
4 to 8	26.3	27.9	34.6	44.0	51.4	39.5	42.7	37.9	41.0
8 to 12	8.2	8.3	14.1	17.1	25.3	18.6	18.9	20.9	23.8
more than 12	0.2	1.0	2.4	4.0	7.0	2.7	1.8	1.2	2.2
NA	25.6	21.2	26.6	67.7	66.7	42.5	0.0	64.3	42.0
Waste Disposal									
collected	19.7	22.2	25.9	35.3	41.2	31.9	34.4	32.5	34.5
burnt	45.2	47.4	57.2	66.6	64.1	52.5	50.8	51.4	50.7
dumped on unused land, river, sea	47.2	53.0	58.7	68.6	69.4	55.8	57.4	55.8	56.0
other	7.1	32.3	14.0	45.3	59.1	54.5	39.1	38.2	33.3
Water Supply									
piped	27.2	28.3	31.6	40.7	40.5	31.6	33.0	45.0	43.0
not piped	47.3	55.8	61.4	68.9	54.4	44.5	38.8	31.7	33.2
NA	51.9	62.8	66.7	76.0	69.2	56.8	58.6	56.5	56.7
Sanitation									
Sew.Sys. & Sep. Tank 1	20.0	16.5	19.5	28.3	30.4	24.0	25.1	23.8	26.1
Septic Tank 2	15.7	22.7	24.3	31.7	47.3	41.5	39.7	38.0	38.7
Rudimental Cespit	37.1	34.8	47.7	53.9	55.9	43.5	44.9	42.8	43.5
Drain					69.7	46.1	52.0	49.6	51.1
River or Lake					58.9	36.9	47.1	33.7	39.4
Other	25.8	33.0	31.5	54.7	67.3	38.2	43.4	73.4	62.0
NA					53.8	39.9			
none	53.1	63.4	67.5	75.4					
Electricity									
yes	29.5	31.8	38.0	46.6	49.1	38.8	39.2	37.2	38.6
no	52.3	64.3	69.5	74.9	70.4	57.4	59.3	58.9	57.5
Fridge:									
yes	17.8	18.8	23.4	32.0	36.2	27.4	30.9	29.3	30.3
no	51.0	59.3	65.2	72.7	69.6	57.3	59.4	57.1	58.5
Cooker:									
yes	38.9	43.5	47.0	53.5	54.1	42.5	43.4	41.5	42.2
no	50.4	55.0	62.0	72.8	70.4	59.8	49.4	40.5	48.1
Radio:									
yes				41.8	48.2	50.6	40.6	42.0	39.8	40.7
no				62.2	71.2	66.7	53.4	52.6	51.6	50.0
TV:									
yes				26.6	35.8	41.8	34.2	38.4	36.0	37.3
no				65.4	72.5	68.7	56.7	55.5	55.9	54.8

Bahia	**1981**	**1985**	**1988**	**1990**	**1993**	**1995**	**1997**	**1998**	**1999**
Housing Status:									
own, paid	44.2	48.7	51.4	59.0	56.5	43.8	45.6	42.5	43.3
own, still paying	5.3	10.0	12.2	11.6	19.0	9.4	15.6	12.8	15.6
rented	22.6	25.1	29.2	35.3	38.1	32.8	27.5	30.5	29.5
ceded	47.5	51.6	57.6	63.7	67.2	54.3	49.2	51.6	52.5
other	24.3	30.2	27.6	46.0	55.6	46.4	32.7	41.3	45.1
Durable House									
yes	38.0	42.8	46.0	53.4	53.4	41.8	42.8	40.1	41.0
no	61.5	60.3	69.6	82.9	65.0	56.1	56.8	51.6	71.9

Table D1: Differences in the Probability of being poor in the NE versus rest of Brazil

Probit estimates					Number of obs = 38727		
					LR chi2(41) =15851.81		
					Prob > chi2 = 0.0000		
Log likelihood = -11952.00					Pseudo R2 = 0.3987		
P0	dF/dx	Std.Error	Z	P>|z|	x-bar	[95%	C.I.]
age	-0.0105	0.0012	-8.54	0.00		-0.0129	-0.0081
age_2	0.0001	0.0000	7.10	0.00		0.0001	0.0001
fema*	0.1011	0.0080	14.63	0.00		0.0855	0.1166
black*	0.0508	0.0101	5.68	0.00		0.0311	0.0706
mula*	0.0572	0.0047	12.67	0.00		0.0480	0.0663
rural*	0.0471	0.0073	7.09	0.00		0.0328	0.0614
fam	0.0510	0.0056	9.04	0.00		0.0401	0.0619
fsize_2	-0.0047	0.0005	-8.92	0.00		-0.0058	-0.0037
fa_5	0.1145	0.0041	29.36	0.00		0.1065	0.1225
fa5_15	0.0796	0.0033	25.19	0.00		0.0732	0.0860
fa_65	-0.0800	0.0138	-5.78	0.00		-0.1071	-0.0530
schol2*	-0.0399	0.0056	-6.68	0.00		-0.0510	-0.0289
schol3*	-0.0726	0.0050	-11.94	0.00		-0.0824	-0.0628
schol4*	-0.1233	0.0053	-19.68	0.00		-0.1338	-0.1129
schol5*	-0.1262	0.0030	-13.07	0.00		-0.1321	-0.1203
cart*	-0.1153	0.0052	-24.22	0.00		-0.1255	-0.1052
agri*	0.1009	0.0159	7.55	0.00		0.0698	0.1320
serv*	-0.0009	0.0095	-0.10	0.92		-0.0196	0.0177
ind*	-0.0079	0.0099	-0.79	0.43		-0.0273	0.0114
public*	-0.0086	0.0152	-0.55	0.58		-0.0385	0.0212
NE*	0.2439	0.0681	4.40	0.00		0.1105	0.3774
NEage	-0.0028	0.0020	-1.43	0.15		-0.0066	0.0010
NEage_2	0.0000	0.0000	0.79	0.43		0.0000	0.0001
NEfema*	0.0128	0.0102	1.31	0.19		-0.0072	0.0328
NEblack*	-0.0207	0.0117	-1.63	0.10		-0.0435	0.0022
NEmula*	-0.0190	0.0069	-2.61	0.01		-0.0326	-0.0054
NErural*	-0.0183	0.0087	-1.98	0.05		-0.0353	-0.0013
NEfam	0.0345	0.0087	3.99	0.00		0.0174	0.0516
NEfsiz~2	-0.0023	0.0008	-2.80	0.01		-0.0039	-0.0007
NEfa_5	-0.0289	0.0064	-4.47	0.00		-0.0415	-0.0163
NEfa5_15	-0.0169	0.0050	-3.35	0.00		-0.0268	-0.0071
NEfa_65	-0.0319	0.0210	-1.52	0.13		-0.0731	0.0092
NEschol2*	0.0017	0.0100	0.17	0.87		-0.0180	0.0213
NEschol3*	0.0038	0.0119	0.33	0.74		-0.0195	0.0272
NEschol4*	-0.0306	0.0095	-2.88	0.00		-0.0493	-0.0119
NEschol5*	-0.0814	0.0122	-3.56	0.00		-0.1053	-0.0574
NEcart*	0.0125	0.0076	1.68	0.09		-0.0025	0.0275
NEagri*	-0.0050	0.0168	-0.29	0.77		-0.0379	0.0280
NEserv*	-0.0025	0.0141	-0.18	0.86		-0.0302	0.0251
NEind*	0.0161	0.0167	1.01	0.31		-0.0166	0.0489
NEpublic*	-0.0119	0.0221	-0.51	0.61		-0.0552	0.0314

Note: obs. P.: 2094921, pred. P.:1023421 (at x-bar)

(*) dF/dx is for discrete change of dummy variable from 0 to 1

   z and P>\|z\| are the test of the underlying coefficient being 0

Table D2: Differences in Rio Grande do Norte versus rest of NE

Probit estimates					Number of obs =	10245	
					LR chi2(40)	=4711.67	
					Prob > chi2	= 0.0000	
Log likelihood = -4610.54					Pseudo R2	= 0.3382	

P0	dF/dx	Std.Error	Z	P>|z|	x-bar	[95%	C.I.]
age	-0.0285	0.0033	-8.62	0.00		-0.0350	-0.0221
age_2	0.0003	0.0000	6.65	0.00		0.0002	0.0003
fema*	0.2137	0.0165	12.94	0.00		0.1813	0.2461
black*	0.0538	0.0248	2.20	0.03		0.0053	0.1024
mula*	0.0798	0.0134	5.87	0.00		0.0535	0.1061
rural*	0.0423	0.0178	2.39	0.02		0.0073	0.0772
fam	0.1826	0.0141	12.86	0.00		0.1550	0.2103
fsize_2	-0.0148	0.0013	-10.95	0.00		-0.0174	-0.0122
fa_5	0.1773	0.0113	15.79	0.00		0.1551	0.1994
fa5_15	0.1311	0.0086	15.35	0.00		0.1143	0.1479
fa_65	-0.2360	0.0337	-7.01	0.00		-0.3020	-0.1701
schol2*	-0.0795	0.0160	-4.87	0.00		-0.1108	-0.0481
schol3*	-0.1651	0.0167	-9.08	0.00		-0.1978	-0.1325
schol4*	-0.3397	0.0140	-19.89	0.00		-0.3672	-0.3122
schol5*	-0.4221	0.0068	-14.09	0.00		-0.4355	-0.4088
cart*	-0.1990	0.0122	-16.03	0.00		-0.2229	-0.1752
agri*	0.1772	0.0308	5.82	0.00		0.1169	0.2375
serv*	-0.0032	0.0233	-0.14	0.89		-0.0488	0.0424
ind*	0.0178	0.0251	0.71	0.48		-0.0314	0.0671
public*	-0.0327	0.0382	-0.84	0.40		-0.1076	0.0421
RN*	0.0712	0.3441	0.21	0.83		-0.6032	0.7455
RNage	0.0037	0.0151	0.24	0.81		-0.0259	0.0333
RNage_2	0.0000	0.0002	0.05	0.96		-0.0004	0.0004
RNfema*	-0.0288	0.0742	-0.38	0.70		-0.1742	0.1166
RNblack*	-0.2095	0.1529	-1.06	0.29		-0.5092	0.0903
RNmula*	-0.0910	0.0510	-1.68	0.09		-0.1910	0.0091
RNrural*	0.0787	0.0608	1.32	0.19		-0.0405	0.1978
RNfam	-0.0349	0.0712	-0.49	0.62		-0.1745	0.1046
RNfsiz~2	-0.0024	0.0067	-0.36	0.72		-0.0155	0.0107
RNfa_5	0.0851	0.0509	1.67	0.10		-0.0147	0.1850
RNfa5_15	0.0505	0.0409	1.24	0.22		-0.0295	0.1306
RNfa_65	-0.1813	0.2783	-0.65	0.52		-0.7268	0.3642
RNschol2*	-0.0762	0.0642	-1.13	0.26		-0.2020	0.0495
RNschol3*	-0.0337	0.0842	-0.39	0.69		-0.1986	0.1313
RNschol4*	-0.0213	0.0836	-0.25	0.80		-0.1852	0.1426
RNcart*	0.0349	0.0578	0.61	0.54		-0.0784	0.1481
RNagri*	-0.0867	0.1092	-0.75	0.45		-0.3007	0.1274
RNserv*	-0.0690	0.0972	-0.68	0.50		-0.2596	0.1216
RNind*	-0.0294	0.1045	-0.28	0.78		-0.2342	0.1754
RNpublic*	-0.1582	0.1212	-1.12	0.26		-0.3958	0.0794

Note: obs. P.: .4190337, pred. P.:.3723097 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
    z and P>|z| are the test of the underlying coefficient being 0

Table D3: Differences in Pernambuco versus rest of NE

Probit estimates					Number of obs = 10271	
					LR chi2(41) =4743.82	
					Prob > chi2 = 0.0000	
Log likelihood = -4608.5631					Pseudo R2 = 0.3398	
P0	dF/dx	Std.Error	Z	P>|z|	[95%	C.I.]
age	-0.0304	0.0037	-8.29	0.00	-0.0376	-0.0232
age_2	0.0003	0.0000	6.59	0.00	0.0002	0.0004
fema*	0.2312	0.0187	12.34	0.00	0.1946	0.2679
black*	0.0594	0.0274	2.20	0.03	0.0057	0.1131
mula*	0.0800	0.0153	5.17	0.00	0.0501	0.1099
rural*	0.0517	0.0188	2.77	0.01	0.0148	0.0886
fam	0.1907	0.0159	11.90	0.00	0.1594	0.2219
fsize_2	-0.0154	0.0015	-10.12	0.00	-0.0184	-0.0125
fa_5	0.1801	0.0125	14.47	0.00	0.1555	0.2046
fa5_15	0.1347	0.0096	14.12	0.00	0.1160	0.1535
fa_65	-0.2567	0.0386	-6.64	0.00	-0.3324	-0.1811
schol2*	-0.0850	0.0175	-4.75	0.00	-0.1193	-0.0508
schol3*	-0.1612	0.0188	-7.88	0.00	-0.1980	-0.1244
schol4*	-0.3449	0.0154	-18.23	0.00	-0.3751	-0.3147
schol5*	-0.4201	0.0080	-12.84	0.00	-0.4357	-0.4044
cart*	-0.2087	0.0137	-14.91	0.00	-0.2356	-0.1819
agri*	0.1703	0.0334	5.16	0.00	0.1048	0.2359
serv*	-0.0062	0.0258	-0.24	0.81	-0.0567	0.0444
ind*	0.0146	0.0277	0.53	0.60	-0.0398	0.0690
public*	-0.0532	0.0405	-1.28	0.20	-0.1326	0.0262
PE*	-0.0154	0.1597	-0.10	0.92	-0.3284	0.2976
PEage	0.0087	0.0076	1.14	0.25	-0.0062	0.0236
PEage_2	-0.0001	0.0001	-1.17	0.24	-0.0003	0.0001
PEfema*	-0.0654	0.0336	-1.88	0.06	-0.1311	0.0004
PEblack*	-0.0364	0.0597	-0.60	0.55	-0.1533	0.0805
PEmula*	-0.0167	0.0294	-0.57	0.57	-0.0743	0.0409
PErural*	-0.0057	0.0419	-0.14	0.89	-0.0879	0.0765
PEfam	-0.0421	0.0322	-1.31	0.19	-0.1052	0.0210
PEfsiz~2	0.0021	0.0030	0.69	0.49	-0.0039	0.0081
PEfa_5	0.0058	0.0260	0.22	0.82	-0.0451	0.0567
PEfa5_15	-0.0058	0.0196	-0.30	0.77	-0.0443	0.0327
PEfa_65	0.0710	0.0769	0.92	0.36	-0.0797	0.2217
PEschol2*	0.0079	0.0394	0.20	0.84	-0.0692	0.0851
PEschol3*	-0.0218	0.0430	-0.50	0.62	-0.1062	0.0625
PEschol4*	0.0312	0.0455	0.69	0.49	-0.0579	0.1203
PEschol5*	-0.1291	0.1439	-0.81	0.42	-0.4112	0.1529
PEcart*	0.0546	0.0288	1.92	0.06	-0.0018	0.1111
PEagri*	-0.0008	0.0718	-0.01	0.99	-0.1415	0.1399
PEserv*	-0.0093	0.0534	-0.17	0.86	-0.1140	0.0954
PEind*	0.0015	0.0576	0.03	0.98	-0.1114	0.1145
PEpublic*	0.0527	0.0965	0.55	0.58	-0.1366	0.2419

Note: obs. P.: .4179, pred. P.:.3892 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1

Table D4: Differences in Ceará versus rest of NE

Probit estimates					Number of obs = 10271	
					LR chi2(41) =4741.92	
					Prob > chi2 = 0.0000	
Log likelihood = -4609.5102					Pseudo R2 = 0.3397	
P0	dF/dx	Std.Err.	Z	P>|z|	[95%	C.I.]
age	-0.0265	0.0036	-7.40	0.00	-0.0335	-0.0195
age_2	0.0002	0.0000	5.76	0.00	0.0002	0.0003
fema*	0.2099	0.0182	11.56	0.00	0.1743	0.2456
black*	0.0366	0.0255	1.45	0.15	-0.0133	0.0865
mula*	0.0670	0.0146	4.53	0.00	0.0384	0.0957
rural*	0.0335	0.0180	1.88	0.06	-0.0017	0.0688
fam	0.1849	0.0151	12.18	0.00	0.1553	0.2145
fsize_2	-0.0155	0.0014	-10.77	0.00	-0.0183	-0.0127
fa_5	0.1845	0.0123	15.17	0.00	0.1604	0.2085
fa5_15	0.1296	0.0092	14.12	0.00	0.1115	0.1477
fa_65	-0.2486	0.0374	-6.64	0.00	-0.3219	-0.1753
schol2*	-0.0981	0.0171	-5.57	0.00	-0.1316	-0.0645
schol3*	-0.1836	0.0179	-9.25	0.00	-0.2187	-0.1486
schol4*	-0.3515	0.0150	-19.02	0.00	-0.3808	-0.3222
schol5*	-0.4261	0.0072	-13.17	0.00	-0.4402	-0.4121
cart*	-0.1990	0.0133	-14.70	0.00	-0.2251	-0.1730
agri*	0.1670	0.0328	5.15	0.00	0.1026	0.2313
serv*	-0.0074	0.0253	-0.29	0.77	-0.0571	0.0422
ind*	0.0169	0.0275	0.62	0.54	-0.0370	0.0709
public*	-0.0395	0.0394	-0.98	0.33	-0.1167	0.0377
CE*	0.0892	0.1748	0.52	0.61	-0.2534	0.4318
CEage	-0.0082	0.0082	-1.00	0.32	-0.0242	0.0079
CEage_2	0.0001	0.0001	0.75	0.45	-0.0001	0.0003
CEfema*	0.0140	0.0393	0.36	0.72	-0.0630	0.0909
CEblack*	0.0848	0.0999	0.87	0.39	-0.1109	0.2805
CEmula*	0.0350	0.0335	1.05	0.29	-0.0307	0.1007
CErural*	0.1125	0.0559	2.05	0.04	0.0030	0.2221
CEfam	-0.0207	0.0379	-0.55	0.59	-0.0949	0.0536
CEfsiz~2	0.0032	0.0037	0.86	0.39	-0.0041	0.0104
CEfa_5	-0.0135	0.0277	-0.49	0.63	-0.0679	0.0409
CEfa5_15	0.0178	0.0219	0.81	0.42	-0.0251	0.0607
CEfa_65	0.0471	0.0828	0.57	0.57	-0.1151	0.2093
CEschol2*	0.0611	0.0421	1.47	0.14	-0.0215	0.1437
CEschol3*	0.0894	0.0476	1.92	0.06	-0.0039	0.1828
CEschol4*	0.0791	0.0487	1.65	0.10	-0.0164	0.1745
CEschol5*	0.1219	0.1596	0.78	0.44	-0.1909	0.4347
CEcart*	0.0105	0.0307	0.34	0.73	-0.0497	0.0707
CEagri*	-0.0120	0.0768	-0.15	0.88	-0.1625	0.1386
CEserv*	0.0033	0.0562	0.06	0.95	-0.1070	0.1135
CEind*	-0.0015	0.0591	-0.03	0.98	-0.1174	0.1144
CEpublic*	-0.0721	0.1079	-0.64	0.52	-0.2836	0.1394

Note: obs. P.: .4179, pred. P.::3697 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
 z and P>\|z\| are the test of the underlying coefficient being 0

Table D5: Differences in Maranhão versus rest of NE

Probit estimates							
					Number of obs = 10271		
					LR chi2(41) =4747.58		
					Prob > chi2 = 0.0000		
Log likelihood = -4606.681					Pseudo R2 = 0.3401		

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
age	-.0277	.0032	-8.50	0.00	36.655	-.0340	-.0213
age_2	.0002	.0000	6.63	0.00	1469.9	.0001	.0003
fema*	.2081	.0164	12.73	0.00	.2191	.1760	.2403
black*	.0451	.0247	1.85	0.06	.0753	-.0032	.0935
mula*	.0766	.0131	5.74	0.00	.6428	.0508	.1024
rural*	.0592	.0175	3.42	0.00	.2138	.0248	.0935
fam	.1788	.0140	12.68	0.00	3.6958	.1513	.2062
fsize_2	-.0147	.0013	-10.96	0.00	16.563	-.0173	-.0121
fa_5	.1843	.0112	|16.58	0.00	.4849	.1623	.2063
fa5_15	.1342	.0085	15.83	0.00	.9062	.1175	.1510
fa_65	-.2336	.0338	-6.90	0.00	.0384	-.2999	-.1673
schol2*	-.0861	.0156	.5.37	0.00	.2708	-.1168	-.0554
schol3*	-.1668	.0163	-9.33	0.00	.1697	-.1988	-.1348
schol4*	-.3384	.0137	-20.15	0.00	.2626	-.3654	-.3113
schol5*	-.4255	.0066	-13.91	0.00	-.0642	-4385	-.4124
cart*	-.1952	.0120	-15.95	0.00	.5145	-.2188	-.1717
agri*	.1550	.0305	5.15	0.00	.1696	.0952	.2148
serv*	-.0135	.0230	-0.59	0.55	.4192	-.0586	.0316
ind*	.0122	.0247	0.49	0.61	.2743	-.0363	.0608
public*	-.0473	.0368	-1.25	0.21	.0359	-.1196	.0248
MA*	.2036	.4184	0.49	0.62	.0318	-.6165	1.023
MAage	-.0111	.0202	.0.55	0.58	1.1378	-.0508	.0286
MAage_2	.0000	.0002	0.24	0.80	44.922	-.0041	.0005
MAfema*	.1267	.0999	1.29	0.19	.0074	-.0691	.3225
MAblack*	.1355	.1665	0.83	0.40	.0023	-.1907	.4619
MAmula*	-.0660	.0723	-0.88	0.38	0213	-.2078	.0757
MArural*	-.1460	.0595	-2.16	0.03	.0141	-.2627	-.029
Mafam	.0513	.0785	0.65	0.51	.1254	-.1026	.2053
MAfsiz~2	-.0024	.0070	-0.34	0.73	.5976	-.0163	.0114
MAfa_5	-.0670	.0606	-1.11	0.26	.0181	-.1859	.0517
MAfa5_15	-.0393	.0445	-0.88	0.37	.0339	-.1266	.0480
MAfa_65*	-.0997	.1688	.0.55	0.58	.0012	-.4306	.2311
MAschol2*	.0482	.1005	0.49	0.62	.0098	-.1488	.2453
MAschol3*	-.0234	.1173	-0.20	0.84	.0042	-.2534	-.2064
MAschol4*	-.0090	.1123	-0.08	0.93	.0075	-.2293	.2111
MAschol5*	.3637	.1949	1.62	0.10	.0019	6.018	.7458
MAcart*	.0332	.0833	0.40	0.68	.0100	-.1301	.1965
MAagri*	.2127	.1510	1.40	0.16	.0082	-.0833	.5089
MAserv*	.1296	.1222	1.08	0.28	.0125	-.1099	.3692
MAind*	-.0284	.1322	-0.21	0.83	.0059	-.2876	.2307
MApublic*	-.0286	.2113	-.013	0.89	.0010	-.4428	.3855

Note: obs. P | .4179729 pred. P | .3693274 (at x-bar)
 (*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

Table D6: Differences in Piauí versus the rest of NE

Probit estimates					Number of obs = 10258		
					LR chi2(40) =4751.56		
					Prob > chi2 = 0.0000		
Log likelihood = -4597.6485					Pseudo R2 = 0.3407		

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
age	-.0271	.0032	-8.31	0.000	36.65	-.0335	-.0207
age_2	.0002	.0000	6.47	0.000	1470.27	.0001	.0003
fema*	.2183	.0163	13.33	0.000	.2190	.1862	.2504
Black*	.0392	.0246	1.61	0.107	.0754	-.0090	.0874
mula*	.0695	.0131	5.22	0.000	.6433	.0437	.0954
rural*	.0489	.0172	2.87	0.004	.2140	.0151	.0826
fam	.1828	.0139	12.98	0.000	3.696	.1553	.2102
fsize_2	-.0151	.0013	-11.33	0.000	16.57	-.0177	-.0125
fa_5	.1850	|.0112	16.62	0.000	.4849	.1630	.2070
fa5_15	.1346	.0085	15.87	0.000	.9063	.1179	.1513
fa_65	-.2320	.0335	-6.91	0.000	.0385	-.2977	-.1663
schol2*	-.0806	.0157	-5.00	0.000	.2712	-.1116	-.0497
schol3*	-.1608	.0165	8.95	-0.000	1700	-.1932	-.1284
schol4*	-.3346	.0139	19.80	0.000	-.2630	3619	-.3073
schol5*	-.4228	0067	-14.29	0.000	.0630	-.4361	-.4096
cart*	-.1921	0120	-15.65	0.000	.514233	-.2157	-.1684
agri*	.1803	.0303	6.01	0.000	.1698	.12091	.2397
Serv*	-.0071	.0229	-0.31	0.755	.4195	-.0522	.0378
ind*|	.0158	.0247	0.64	0.522	.2747	-.0327	.0643
public*	-.0556	.0371	-1.45	0.146	.0357	-.1285	.0171
PI*	.6635	.0227	2.80	0.005	.0312	.6189	.7082
PIage	-.0303	.0200	1.51	0.131	1.1130	-.0695	.0089
PIage_2	0002	.0002	1.07	0.283	43.2279	-.0002	.0007
PIfema*	-.1358	.0785	-1.54	0.123	.0069	-.2897	0180
PIblack*	.3216	1572	1.86	0.063	.0019	.0133	.6298
PImula*	.1676	.0979	1.73	0.084	.0238	-.0243	.3596
PIrural*	-.0098	.0914	-0.11	0.914	.0080	-.1890	.1693
Pifam	-.0862	.0989	0.87	0.383	.1201	-.2801	.1075
Pifsiz~2.0	.0096	.0107	0.90	0.369	.5518	-.0114	.0307
PIfa_5	-.0697	.0641	-1.09	0.277	.0160	-.1954	.0560
PIfa5_15	-.0229	.0488	-0.47	0.639	.0324	-.1186	.0728
PIfa_65*	-.1897	.2256	-0.68	0.497	.0004	-.6320	.2524
PIschol2*	-.1517	.0761	-1.74	0.082	.0110	-.3010	-.0024
PIschol3*	-.2345	.0732	-2.31	0.021	.0042	-.3780	-.0910
PIschol4*	-.2541	.0634	-2.71	0.007	.0078	-.3785	-.1297
Picart*	-.1017	.0677	-1.40	0.162	.0112	-.2344	.0309
PIagri*	-.2612	.0804	-2.13	0.033	.0070	-0418	-.1035
Piserv*	-.0590	.1302	-044	0.661	.0126	-.3144	.1962
Piind*	-.0318	.1456	-0.22	0.829	.0070	-.3173	.2536
PIpublic*	.0424	.1844	0.23	0.816	.0018	-.3190	.4039

Note: obs. P \| .4185026   pred. P \| .3713593 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
   z and P>\|z\| are the test of the underlying coefficient being 0

Table D7: **Differences in Paraíba versus the rest of NE**

Probit estimates						Number of obs = 10271	
						LR chi2(41) =4759.70	
						Prob > chi2 = 0.0000	
Log likelihood = -4600.6214						Pseudo R2 = 0.3409	

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
Age	-.0281	.0033	-8.47	0.000	36.65	-.0346	-.0216
age_2	.0002	.0000	6.59	0.000	1469.92	.0001	.0003
fema*	.2153	.0164	13.08	0.000	.2191	.1830	.2476
black*	.0446	.0249	1.81	0.070	.0753	-.0042	.0935
mula*	.0713	.0134	5.24	0.000	.6428	.0449	.0976
rural*	.0364	.0173	2.12	0.034	.2138	.00242	.0704
Fam	.1734	.0141	12.22	0.000	3.695	.1457	.2010
Fsize_2	-.0142	.0013	-10.53	0.000	16.56	-.0168	-.0116
fa_5	.1833	.0113	16.33	0.000	.4849	.1611	.2055
fa5_15	.1348	.0085	15.77	0.000	.9062	.1179	.1516
fa_65	-.2393	.0347	6.88	0.000	.0384	-.3075	-.1712
schol2*	-.0809	.0158	-4.98	0.000	.2708	-.1120	-.0497
schol3*	-.1615	.0166	-8.91	0.000	.1697	-.1941	-.1288
schol4*	-.3363	.0139	-19.85	0.000	.2626	-.3636	-.3090
schol5*	-.4240	.0069	-13.67	0.000	.0642	-.4377	-.4103
cart*	-.1910	.0121	-15.46	0.000	-.5145	-.2148	-.1672
agri*	.1761	.0304	5.85	0.000	.1696	.1164	.2359
Serv*	-.0049	.0231	-0.21	0.831	.4192	-.0502	.0403
ind*	.0087	.0249	0.35	0.726	.2743	-.0401	.0575
public*	-.0310	.0378	-0.81	0.419	.0359	-.1052	.0431
PA*	-.1511	.2671	-0.50	0.615	.0555	-.6747	.3724
Paage	.0018	.0146	0.13	0.897	2.141	-.0267	.0304
Paage_2	-.0000	.0001	-0.36	0.721	90.83	-.0003	.0002
PAfema*	-.0928	.0702	-1.24	0.215	.0092	-.2304	.0448
PAblack*	.0781	.1242	0.64	0.521	.0030	-.1653	.3216
PAmula*	.0698	.0621	1.14	0.252	.0285	-.0519	.1916
PArural*	.1455	.0793	1.86	0.063	.0179	-.0100	.3011
PAfam	.1504	.0680	2.21	0.027	.2164	.0171	.2838
PAfsiz~2	-.0139	.0060	-2.29	0.022	.9963	-.0258	-.0019
PAfa_5	-.0322	.0501	-0.64	0.521	.0297	-.1305	.0661
PAfa5_15	-.0263	.0392	-0.67	0.502	.0552	-.1032	.0505
PAfa_65	.0243	.1327	0.18	0.854	.0027	-.2358	.2845
PAschol2*	-.0649	.0740	-0.84	0.399	.0134	-.2099	.0801
PAschol3*	-.1170	.0782	-1.37	0.172	.0080	-.2704	.0363
PAschol4*	-.1134	.0836	-1.24	0.213	.0101	-.2772	.0504
PAschol5*	-.0841	.1953	-0.41	0.684	.0060	-.4670	.2988
PAcart*	-.0549	.0603	-0.88	0.378	.0228	-.1731	.0633
PAagri*	-.0925	.1222	-0.71	0.478	.0115	-.3321	.1470
PAserv*	-.0889	.0992	-0.84	0.398	.0173	-.2833	.1055
PAind*	.0584	.1181	0.50	0.615	.0184	-.1731	.2900
PApublic*	-.2158	.1128	-1.45	0.147	.0021	-.4369	.0052

Note: obs. P | .4179729   pred. P | .3703122 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
    z and P>|z| are the test of the underlying coefficient being 0

Table D8: Differences in Pernambuco versus the rest of NE

Probit estimates					Number of obs = 10271		
					LR chi2(41) =4743.82		
					Prob > chi2 = 0.0000		
Log likelihood = -4608.5631					Pseudo R2 = 0.3398		

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
age	-.0304	.0036	-8.29	0.000	36.6554	-.0376	-.0232
age_2	.0002	.0000	6.59	0.000	1469.92	.0002	.0003
fema*	.2312	.0187	12.34	0.000	.2191	.1945	.2678
Black*	.0593	.0274	2.20	0.028	.0753	.0056	.1131
mula*	.0800	.0152	5.17	0.000	.6428	.0501	.1099
rural*	.0517	.0188	2.77	0.006	.2138	.0148	.0886
Fam	.1906	.0159	11.90	0.000	3.695	.1594	.2218
fsize_2	-.0154	.0015	-10.12	0.000	16.5631	-.0184	-.0124
fa_5	.1800	.0125	14.47	0.000	.4849	.1554	.2046
fa5_15	.1347	.0095	14.12	0.000	.9062	.1159	.1535
fa_65	-.2567	.0386	-6.64	0.000	.0384	-.3324	-.1810
schol2*	-.0850	.0174	-4.75	0.000	.2708	-.1192	-.0507
schol3*	-.1612	.0187	-7.88	0.000	.1697	-.1980	-.1244
schol4*	-.3449	.0154	-18.23	0.000	.2626	-.3751	-.3147
schol5*	-.4200	.007	12.84	0.000	.0642	-.4356	-.4042
cart*	-.2087	.0137	-14.91	0.000	.5145	-.2355	-.1818
agri*	.1703	.0334	5.16	0.000	.1696	.1048	.2358
serv*	-.0061	.0257	-0.24	0.811	.4192	-.0567	.0444
ind*	.0146	.0277	0.53	0.598	.2743	-.0397	.0689
public*	-.0532	.0404	-1.28	0.202	.0359	-.1325	.0261
PE*	-.0154	.1596	-0.10	0.923	.2343	-.3283	.2975
PEage	.0086	.0076	1.14	0.253	8.588	-.0062	.0235
PEage_2	-.0001	.0000	-1.17	0.241	0.241	343.632	-.0002
PEfema*	-.0653	.0335	-1.88	0.060	.0520	-.1311	.0003
PEblack*	-.0363	.0596	-0.60	0.550	.0122	-.1533	.0805
PEmula*	-.0167	.0293	-0.57	0.572	.1412	-.0743	.0408
PErural*	-.0057	.0419	-0.14	0.892	.0318	-.0879	.0764
PEfam	-.0420	.0321	-1.31	0.191	.8382	-.1051	.0210
PEfsiz~2	.0021	.0030	0.69	0.490	3.585	-.0038	.0080
PEfa_5	.0057	.0259	0.22	0.824	.1076	-.0450	.0566
PEfa5_15	-.0058	.0196	-0.30	0.767	.1955	-.0442	.0326
PEfa_65	.0710	.0768	0.92	0.356	.0095	-.0796	.2216
PEschol2*	.0079	.0393	0.20	0.840	.0600	-.0692	.0850
PEschol3	-.0218	.0430	-0.50	0.615	.0481	-.1061	.0624
PEschol4*	.0312	.0454	0.69	0.488	.0657	-.0578	.1203
PEschol5*	-.1291	.1439	-0.81	0.420	.0164	-.4111	.1529
PEcart*	.0546	.0288	1.92	0.055	.1356	-.0018	.1111
PEagri*	-.0008	.0717	-0.01	0.991	.0222	-.1414	.1398
PEserv*	-.0092	.0533	-0.17	0.862	.1161	-.1139	.0953
PEind*	.0015	.0576	0.03	0.979	.0656	-.1114	.1144
PEpublic.	.0526	.0965	0.55	0.579	.0073	-.1365	.2418

Note: obs. P | .4179729   pred. P | .3691868 (at x-bar)

z and P>\|z\| are the test of the underlying coefficient being 0

Table D9: Differences in Alagoas versus the rest of NE

Probit estimates					Number of obs = 10271		
					LR chi2(41) =4755.78		
					Prob > chi2 = 0.0000		
Log likelihood = -4602.5812					Pseudo R2 = 0.3406		
P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
age	-.0282	.0032	-8.63	0.000	36.6554	-.0346	-.0218
age_2	.0002	.0000	6.67	0.000	1469.92	.0001	.0003
fema*	.2147	.0164	13.11	0.000	.2191	.1826	.2469
black*	.0499	.0251	2.01	0.044	.0753	.0006	.0992
mula*	.0746	.0133	5.52	0.000	.6428	.0485	.1008
Rural*	.0568	.0175	3.28	0.001	.2138	.0224	.0911
fam	.1817	.0141	12.80	0.000	3.6958	.1540	.2093
fsize_2	-.0152	.0013	-11.21	0.000	16.5631	-.0178	-.0125
fa_5	.1791	.0112	16.04	0.000	.4849	.1570	.2012
fa5_15	.1351	.0085	15.82	0.000	.9062	.1183	.1519
fa_65	-.2310	.0338	-6.83	0.000	.0384	-.2973	-.1647
schol2*	-.0776	.0159	-4.78	0.000	.2708	-.1088	-.0464
schol3*	-.1629	.0165	-9.02	0.000	.1697	-.1954	-.1304
schol4*	-.3311	.0140	-19.49	0.000	.2626	-.3586	-.3035
schol5*	-.4249	.0067	-13.78	0.000	.0642	-.4380	-.4118
cart*	-.1965	.0121	-15.90	0.000	.5145	-.2203	-.1727
agri*	.1583	.0305	5.26	0.000	.1696	.0984	.2182
serv*	-.0087	.0229	-0.38	0.703	.4192	-.0538	.0362
ind*	.0138	.0247	0.56	0.574	.2743	-.0347	.0624
public*	-.0426	.0378	-1.10	0.271	.0359	-.1167	.0315
AL*	-.0285	.3702	-0.08	0.939	.0442	-.7542	.6971
ALage	.0046	.0169	0.28	0.781	1.6351	-.0284	.0378
ALage_2	-9.39e-06	.0002	-.05	0.963	66.413	-.0004	.0003
ALfema*	-.1051	.0782	-1.24	0.214	.0073	-.2585	.0482
ALblack*	-.0518	.0993	-0.51	0.612	.0042	-.2466	.1428
ALmula*	.0304	.0656	0.47	0.639	.0225	-.0982	.1591
ALrural*	-.1319	.0575	-2.06	0.040	.0168	-.2447	-.0190
ALfam	-.0031	.0701	-0.04	0.964	.1870	-.1405	.1342
ALfsiz~2	.0020	.0062	0.32	0.749	.9493	-.0102	.0143
ALfa_5	.0626	.0571	1.10	0.273	.0293	-.0494	.1747
ALfa5_15	-.0220	.0401	-0.55	0.583	.0483	-.1007	.0566
ALfa_65	-.0840	.1858	-0.45	0.651	.0019	-.4484	.2802
ALschol2*	-.1185	.0653	-165	0.098	.0117	-.2467	.0095
ALschol3*	-.0111	.1006	-0.11	0.912	.0043	-.2085	.1861
ALschol4*	-.2163	.0643	-2.56	0.010	.0091	-.3424	-.0902
ALschol5*	.2156	.2154	0.99	0.321	.0021	-.2066	.6378
ALcart*	-.0231	.0607	-0.38	0.706	.0233	-.1422	.0958
ALagri*	.1188	.1468	0.83	0.409	.0146	-.1688	.4066
ALserv*	.0453	.1297	0.35	0.723	.0126	-.2089	.2996
ALind*	.0634	.1348	0.48	0.632	.0094	-.2007	.3277
ALpublic*	-.0375	.1552	-0.24	0.813	.0031	-.3418	.2667

Note: obs. P | .4179729   pred. P | .3693448 (at x-bar)
 (*) dF/dx is for discrete change of dummy variable from 0 to 1
    z and P>|z| are the test of the underlying coefficient being 0

Table D10: Differences in Sergipe versus rest of NE

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
Probit estimates					Number of obs = 10236		
					LR chi2(40) =4701.41		
					Prob > chi2 = 0.0000		
Log likelihood = -4610.78					Pseudo R2 = 0.3377		
age	-.0278	|.0032	-8.47	0.000	36.64	-.0343	-.0214
age_2	.0002	.0000	6.53	0.000	1468.94	.0001	.0003
fema*	.2126	.0165	12.88	0.000	.2181	.1802	.2450
black*	.0482	.0248	1.97	0.049	.0755	-.0004	.0969
mula*	.0758	.0132	5.64	0.000	.6432	.0498	.1019
rural*	.0525	.0173	3.07	0.002	.2145	.0186	.0865
fam.	.1839	.014	12.86	0.000	3.6971	.1561	.2118
fsize_2	-.0152	.0013	-11.29	0.000	16.57	-.0179	-.0126
fa_5	.1813	.0113	|16.14	0.000	.4858	.1591	.2035
fa5_15	.1336	.0085	15.62	0.000	.9068	.1168	.1505
fa_65	-.2269	.0338	-6.69	0.000	.0381	-.2934	-.1605
schol2*	-.0885	.0158	-5.45	0.000	.2717	-.1196	-.0574
schol3*	-.1700	.0165	-9.39	0.000	.1703	-.2025	-.1376
schol4*	-.3401	.0139	-20.03	0.000	-.2635	-.3675	-.3127
schol5*	-.4229	.0067	-14.15	0.000	-.0610	-.4362	-.4096
cart*	-.2013	.0121	-16.28	0.000	.51358	-.2250	-.1775
agri*	.1724	.0305	5.70	0.000	.1701	.1124	.2323
serv*	-.0051	0233	-0.22	0.825	.4199	-.0509	.0406
ind*	.0226	.0252	0.90	0.367	.2745	-.0267	.0720
public*	-.0448	.0377	-1.16	0.245	.0354	-.1188	.0290
SER*	.2241	.3493	0.64	0.525	.0481	-.4604	.9087
SERage	-.0079	.0163	-0.49	0.626	1.7219	-.0399	.0240
SERage_2	.0001	.0002	0.60	0.546	67.4916	-.0002	.0005
SERfema*	.0221	.0774	0.29	0.773	.0097	-.1296	.1739
SERblack*	-.0381	.1327	-0.28	0.778	.0024	-.2983	.2220
SERmula*	-.0437	.0676	-0.63	0.527	.0375	-.1763	.0888
SERrural*	-.047	.0779	-0.59	0.553	.0143	-.2002	.1052
SERfam	-.0645	.0680	0.95	0.343	.1816	-.1979	.0688
SERfsi~2	.0094	.0075	1.26	0.209	.8389	-.0053	.0242
SERfa_5	.0069	.0511	0.14	0.892	.0260	-.09336	.1073
SERfa~15	-.0135	.0402	-0.34	0.736	.0472	-.0924	.0652
SERfa_65	-.3071	.1941	-1.58	0.114	.0013	-.6876	.0733
SERsch~2*	.0690	.0792	0.89	0.375	.0155	-.0862	.2244
SERsch~3*	.0651	.0941	0.70	0.481	.008	-.1192	.2496
SERsch~4*	-.0374	.0930	-0.39	0.693	.0108	-.2198	.1449
SERcart*	.1069	.0653	1.67	0.095	.0234	1.0210	.2349
SERagri*	.0164	.1353	0.12	0.903	.0131	-.2487	.2816
SERserv*	-.0006	.0998	-0.01	0.995	.0169	-.1962	.1950
SERind*	-.1059	.0934	-1.05	0.293	.0118	-.2891	.0772
SERpub~c*	-.0209	.1589	-0.13	0.896	.0017	-.3324	.2905

Note: obs. P | .4194021 pred. P | .373369 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

Table D11: Differences in Bahia versus rest of NE

Probit estimates					Number of obs =	10271	
					LR chi2(41)	=4769.42	
					Prob > chi2	= 0.0000	
Log likelihood = -4595.7645					Pseudo R2	= 0.3416	

P0	dF/dx	Std.Err.	Z	P>|z|		[95%	C.I.]
age	-.0286	.0038	-7.51	0.000	36.6554	-.0360	-.0211
age_2	.0002	.0000	5.68	0.000	1469.92	.0001	.0003
fema*	.1873	.0191	9.87	0.000	.2191	.1498	.2248
black*	.0782	.0359	2.22	0.027	.0753	.0078	.1487
mula*	.0725	.0146	4.88	0.000	.6428	.0437	.1014
rural*	.0648	.0199	3.29	0.001	.2138	.0257	.1038
fam	.1669	.0168	9.89	0.000	3.695	.1339	.1999
fsize_2	-.0136	.0016	-8.45	0.000	16.5631	-.0167	-.0104
fa_5	.1744	.0129	13.52	0.000	.4849	.1489	.1999
fa5_15	.1253	.0099	12.59	0.000	.9062	.1057	.1449
fa_65	-.2335	.0403	-5.79	0.000	.0384	-.3126	-.1545
schol2*	-.0854	.0183	-4.55	0.000	.2708	-.1213	-.0494
schol3*	-.1758	.0184	-8.64	0.000	.1697	-.2120	-.1397
schol4*	-.3475	.0156	-18.00	0.000	.2626	-.3783	-.3167
schol5*	-.4224	.0078	-12.94	0.000	-.0642	-.4378	-.4070
cart*	-.1769	.0139	-12.46	0.000	.5145	-.2044	-.1495
agri*	.1685	.0355	4.81	0.000	.1696	.0989	.2381
serv*	-.0110	.0265	-0.42	0.677	.4192	-.0630	.0409
ind*	.0171	.0283	0.61	0.543	.2743	-.0383	.07271
public*	-.0543	.0422	-1.25	0.212	.0359	-.1372	.0284
BA*	-.2626	.1245	-1.88	0.060	.2972	-.5068	-.0184
BAage	.0026	.0071	0.38	0.706	10.911	-.0112	.0166
BAage_2	-5.93e-06	.0000	-0.07	0.946	436.388	-.0001	.0001
BAfema*	.0849	.0367	2.36	0.018	.0685	.0129	.1569
Bablack*	-.0062	.0511	-0.12	0.904	.0443	-.1063	.0939
BAmula*	.0230	.0330	0.70	0.483	.1915	-.0417	.0878
BArural*	-.0480	.0355	-1.32	0.187	.0675	-.1176	.0215
BAfam	.0383	.0298	1.29	0.199	1.0860	-.0201	.0967
BAfsiz~2	-.0036	.0028	-1.30	0.192	4.9302	-.0092	.0018
BAfa_5	.0239	.0243	0.98	0.326	.1336	-.0237	.0715
BAfa5_15	.0268	.0182	1.48	0.140	.2654	-.0088	.0625
BAfa_65	-.0001	.0720	-0.00	0.998	.0111	-.1414	.1416
BAschol2*	.0154	.0360	0.43	0.667	.0841	-.0559	.0861
BAschol3*	.0425	.0447	0.96	0.336	.0454	-.0452	.1303
BAschol4*	.0491	.0441	1.13	0.259	.0831	-.0373	.1356
BAschol5*	-.0074	.1567	-0.05	0.962	.0185	-.3147	.2997
BAcart*	-.0627	.0261	-2.34	0.019	.1598	-.1139	-.0115
BAagri*	.0315	.0646	0.49	0.622	.0622	-.0952	.1582
BAserv*	.0134	.0507	0.27	0.790	.1227	-.0860	.1128
BAind*	-.0123	.0544	-0.23	0.821	0.7311	-.1190	.0942
BApublic*	.0547	.0878	0.63	0.526	.0105	-.1174	.2268

Note: obs. P | .4179729   pred. P | .3686694 (at x-bar)
(*) dF/dx is for discrete change of dummy variable from 0 to 1
   z and P>|z| are the test of the underlying coefficient being 0

Table D12

Poverty Probit for Brazil (1999):
Probit estimates Number of obs = 38231
LR chi2(20) = 13673.56
Prob > chi2 = 0.0000
Log likelihood = -12830.156 Pseudo R2 = 0.3476

	Coef.	Std.Err.	P>z	[95%Conf.	Interval]
age	-0.0657	0.0052	0.00	-0.0759	-0.0556
age^2	0.0006	0.0001	0.00	0.0005	0.0007
feme	0.4586	0.0248	0.00	0.4100	0.5073
black	0.3093	0.0348	0.00	0.2411	0.3774
mulato	0.4717	0.0189	0.00	0.4348	0.5087
rural	0.2563	0.0257	0.00	0.2059	0.3067
fsize	0.3326	0.0232	0.00	0.2872	0.3780
fsize^2	-0.0280	0.0022	0.00	-0.0323	-0.0237
fa5	0.5379	0.0167	0.00	0.5052	0.5706
fa5_15	0.3814	0.0133	0.00	0.3554	0.4073
fa65	-0.4939	0.0569	0.00	-0.6053	-0.3825
schol2	-0.3763	0.0259	0.00	-0.4270	-0.3256
schol3	-0.6193	0.0305	0.00	-0.6791	-0.5595
schol4	-1.0188	0.0314	0.00	-1.0803	-0.9573
schol5	-1.9956	0.1002	0.00	-2.1920	-1.7991
cart	-0.5905	0.0187	0.00	-0.6272	-0.5538
agri	0.2658	0.0454	0.00	0.1767	0.3548
serv	-0.0824	0.0384	0.03	-0.1577	-0.0072
ind	-0.0865	0.0408	0.03	-0.1665	-0.0064
public	-0.1050	0.0652	0.11	-0.2328	0.0228
Const.	-0.2351	0.1112	0.04	-0.4532	-0.0171

Table D13
Poverty Probit for Northeast (1999):

Probit estimates Number of obs = 10166

LR chi2(20) = 4671.26
Prob > chi2 = 0.0000
Log likelihood = -4579.6642 Pseudo R2 = 0.3377

	Coef.	Std.Err.	P>z	[95%Conf.Interval]	
age	-0.0746	0.0086	0.00	-0.0914	-0.0578
age^2	0.0007	0.0001	0.00	0.0005	0.0009
feme	0.5559	0.0418	0.00	0.4741	0.6377
black	0.1392	0.0633	0.03	0.0152	0.2632
mulato	0.2070	0.0353	0.00	0.1378	0.2763
rural	0.1217	0.0439	0.01	0.0357	0.2078
fsize	0.4817	0.0368	0.00	0.4095	0.5539
fsize^2	-0.0399	0.0035	0.00	-0.0468	-0.0331
fa5	0.4836	0.0290	0.00	0.4268	0.5405
fa5_15	0.3508	0.0221	0.00	0.3075	0.3942
fa65	-0.6421	0.0886	0.00	-0.8157	-0.4685
schol2	-0.2362	0.0429	0.00	-0.3203	-0.1520
schol3	-0.4791	0.0504	0.00	-0.5778	-0.3804
schol4	-1.0394	0.0506	0.00	-1.1385	-0.9403
schol5	-2.3779	0.1640	0.00	-2.6993	-2.0564
cart	-0.5201	0.0323	0.00	-0.5835	-0.4568
agri	0.4276	0.0758	0.00	0.2790	0.5761
serv	-0.0275	0.0600	0.65	-0.1452	0.0901
ind	0.0329	0.0643	0.61	-0.0931	0.1590
public	-0.1191	0.1013	0.24	-0.3176	0.0794
Const.	0.1967	0.1815	0.28	-0.1590	0.5524

Table D14
Poverty Probit for Rio Grande do Norte (1999):

Probit estimates Number of obs = 505
LR chi2(19) = 212.66
Prob > chi2 = 0.0000
Log likelihood = -243.42262 Pseudo R2 = 0.3040

	Coef.	Std.Err.	P>z	[95%Conf.	Interval]
age	-0.0625	0.0390	0.11	-0.1389	0.0140
age^2	0.0007	0.0005	0.15	-0.0003	0.0016
fem	0.4669	0.1982	0.02	0.0784	0.8554
black	-0.5008	0.6125	0.41	-1.7014	0.6997
mula	-0.0240	0.1459	0.87	-0.3100	0.2619
rural	0.3013	0.1468	0.04	0.0135	0.5891
fsize	0.3941	0.1843	0.03	0.0329	0.7553
fsize^2	-0.0456	0.0172	0.01	-0.0794	-0.0118
fa5	0.7019	0.1317	0.00	0.4439	0.9600
fa5_15	0.4701	0.1057	0.00	0.2629	0.6772
fa65	-1.0891	0.7296	0.14	-2.5190	0.3408
schol2	-0.4494	0.1809	0.01	-0.8040	-0.0948
schol3	-0.5815	0.2250	0.01	-1.0225	-0.1405
schol4	-1.1143	0.2211	0.00	-1.5476	-0.6809
cart	-0.4525	0.1457	0.00	-0.7381	-0.1669
agri	0.1394	0.3169	0.66	-0.4817	0.7604
serv	-0.2672	0.2751	0.33	-0.8064	0.2720
ind	-0.1032	0.2817	0.71	-0.6553	0.4489
public	-0.5754	0.4110	0.16	-1.3810	0.2302
Const.	0.4117	0.8559	0.63	-1.2658	2.0892