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Making Poor Haitians Count

Poverty in Rural and Urban Haiti Based on the First Household Survey for Haiti

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Abstract

This paper analyzes poverty in Haiti based on the first Living Conditions Survey of 7,186 households covering the whole country and representative at the regional level. Using a US$1 a day extreme poverty line, the analysis reveals that 49 percent of Haitian households live in absolute poverty. Twenty, 56, and 58 percent of households in metropolitan, urban, and rural areas, respectively, are poor. At the regional level, poverty is especially extensive in the northeastern and northwestern regions. Access to assets such as education and infrastructure services is highly unequal and strongly correlated with poverty. Moreover, children in indigent households attain less education than children in nonpoor households. Controlling for individual and household characteristics, location, and region, living in a rural area does not by itself affect the probability of being poor. But in rural areas female headed households are more likely to experience poverty than male headed households. Domestic migration and education are both key factors that reduce the likelihood of falling into poverty. Employment is essential to improve livelihoods and both the farm and nonfarm sector play a key role.

This paper—a product of the Sustainable Development Division, Social Development—is part of a larger effort in the department to reduce poverty and increase social inclusion. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at dverner@worldbank.org.

Making Poor Haitians Count

Poverty in Rural and Urban Haiti
Based on the First Household Survey for Haiti

By

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1. Introduction

Haiti, with some 8 million people, is the poorest country in the Western Hemisphere and has been so for quite some time. It is also one of the Caribbean Community's most densely populated countries, with 306 people per sq. km in 2003. Haiti has experienced a tortuous development notable for political instability and structural and institutional weakness. This, paired with the country's historical, socio-economic, and agricultural development have caused adverse long-term effects in several areas such as food security, nutrition, education, and income poverty.

In 2001, 49 percent of the Haitian households lived in absolute poverty with 20, 56, and 58 percent of the households in metropolitan, urban, and rural areas, respectively, being poor based on a US$1 a day extreme poverty line. Most of the approximately 4.3 million indigents live in rural areas (3.06 million) and others live in the metropolitan and other urban areas (1.27 million). Poverty is especially extensive in the northeastern and northwestern regions of Haiti. The analyses in this paper are based on a recent national household survey (which is still not released) and available data (see Section 3).

Social indicators such as literacy, life expectancy, infant mortality, and child malnutrition also show that poverty is broad in Haiti. Around 4 out of 10 people cannot read or write; around 20 percent of children suffer malnutrition, nearly half the population has no health care and more than four-fifths have no clean drinking water. Although still very high, these indicators show that poverty in non-income terms decreased in the last decades. However, most of the social indicators do show that poverty has increased since the mid-late 1990s. Moreover, the gap between rich and poor people and between regions is still large, such as between the Northeast and West region.

This paper analyzes metropolitan, rural, and other urban (henceforth called urban) poverty in a broad manner taking into account regional differences. The paper is organized in 9 sections and the majority of analyses are of metropolitan, rural, and urban areas and the nine regions. Section 2 presents demographics and economic growth trends. Section 3 presents the data and methodology used throughout the paper. Section 4 presents the sources of incomes for metropolitan, rural, and urban areas and Section 5 analyzes poverty and its depth in metropolitan, rural, and urban areas. Section 6 shows the poverty profile and Section 7 presents access to assets such as education and infrastructure services for the poor and nonpoor population. Section 8 presents analyses of rural and urban poverty correlates and compares rural living and characteristics to those of urban areas in order to reveal important factors to escape poverty. Finally, Section 9 concludes and gives policy recommendations. Before initiating the analyses, this section ends with a short background presentation of the current situation in Haiti.

Haiti's 200-year history has been marked by political instability and weak institutional capacity, resulting in a debilitated economy and an impoverished population. The current complex emergency is rooted in a four-year political impasse. In 2000, Aristide's party, Lavalas Family, claimed an overall victory in disputed legislative and municipal elections, then later that year, the opposition boycotted the presidential election

that Aristide won unopposed with low voter turnout. As a result, in 2002 growing lawlessness, instability, and politically motivated violence began to overwhelm the country. On February 29, 2004 Aristide resigned from the presidency and on March 9, 2004 Haiti's seven-person advisory council selected Latortue, a former United Nations official and foreign minister, as Haiti's Prime Minister. Having determined that the situation in Haiti continued to constitute a threat to international peace and security in the region the Security Council decided to establish the United Nations Stabilization Mission in Haiti (MINUSTAH) and requested that authority be transferred from the Multinational Interim Force, authorized by the Security Council in February 2004, to MINUSTAH on June 1, 2004.

2. Economic and Demographic Trends

This section outlines what can serve as a base for a poverty reduction strategy in Haiti. It covers demographics and a brief section on economic growth. Individual and household assets, in particular human capital, are other important poverty reducing factors (addressed in Section 7).

DEMOGRAPHIC TRENDS

Demographic factors have direct and indirect effects on prices, poverty, and conflict risks in Haiti. As the size and age composition of the population changes, so too do the relative size of the labor force and the number of dependents. This affects the dependency ratio of families and therefore their level of poverty. High population growth can also increase conflict risk by reducing per capita economic opportunities and creating a large pool of potential recruits (typically, young men below 25 years of age) for criminal and political violence. Some studies, moreover, find that population growth, density, and turnover contribute to increased crime rates and conflict risks by limiting economic opportunities and increasing the supply of potential victims who do not know the perpetrator (Kelly 2000; Collier 2000). Family instability and break-up have been identified as additional demographic risk factors for violence and crime because of the emotional disturbance suffered by children,[2] the subsequent lack of role models, and other effects such as worsened socioeconomic outcomes (Kelly 2000).

Demographic changes affect quantities: number of children, size of the labor force, and number of elderly people. These changes in quantities will generally influence prices in the economy. In particular, changes in the population’s growth rate and age structure may have significant effects on the labor supply, savings, household production decisions, and migration. Consequently, demographic changes may have a substantial impact on wage levels and interest rates. Since these prices are important determinants of family income, they are bound to have a profound influence on the level of poverty. Hence demographic changes indirectly impact poverty through their effects on savings, wages, production decisions, and interest rates.

[2] Including exposure to violence at a young age, which is a prime risk factor for violent behavior later in life (Buvinic and Morrison n.d.).

Changing demographics can also have significant effects on the demand for public sector investments and public services, incentives for private sector investments, social and political conflict, and labor markets. Thus it is important to look at recent changes in demographic patterns in Haiti's rural and urban areas. The following overview describes demographic changes between rural and urban areas that have taken place from 1982 to 2003.

Overview of Demographic Changes

Haiti is slightly smaller than Wales and its population is growing rapidly (2.2 percent a year). In 1950, the population was estimated at just over 3 million. By 2001, the number had grown to nearly 8 million. With a surface area of just 27,797 square kilometers (km^2), Haiti is second only to Barbados as the most densely populated country (306 people per km^2) in the Americas. Considering the fact that parts of the vast mountain ranges that traverse the country remain completely uninhabitable, the actual population density is greater still.

After expanding at an annual rate of about 1.5 percent between 1950 and 1982, Haiti's population increased by 2.2 percent annually in the period 1982-2003 and reached 7.9 million in 2003 (Table 2.1). The current population growth rate of more than 2 percent a year suggests that the country's inhabitants could total some 12.3 million by 2030.[3] The indications, however, are that the population growth rate is slowing. Overall, the proportion of the population aged below 15 years is gradually declining. This reflects the twin effects of urbanization (fertility rates are lower in urban areas than in the countryside) and gradually declining fertility rates overall (partly the result of increased educational attainment). The median age increased slightly from 18.5 to 18.9 years between 1994-95 and 2000, revealing the incremental pace of this demographic change (DHS 2000).

During 1982-2003, data reveal that the poorest region, the Northeast, together with the West region where the capital, Port-au-Prince, is located, experienced a higher population growth rate than the country's average of 2.2 percent. The Northeast region reached an annual population growth rate of 2.3 percent and in the West region the population increased at 3.4 percent. This compares to the Southeast and Gran-Anse regions where the population only expanded by around 1.0 percent annually during 1982-2003 (Table 2.1 and Figure 2.1).

[3] World Bank: http://genderstats.worldbank.org/hnpstats/HNPDemographic/total.pdf.

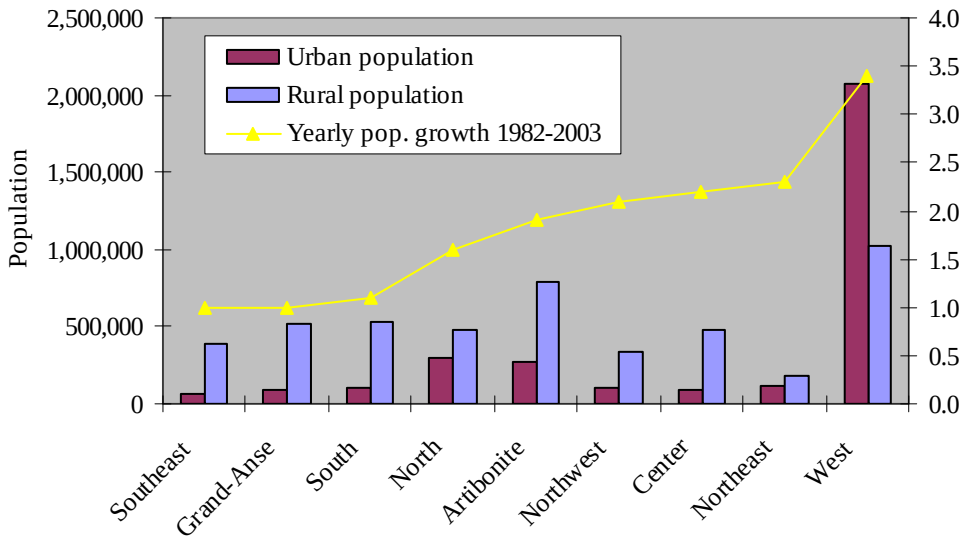
Table 2.1: Population Size and Growth and Household Size in Urban and Rural Haiti, 1982-2003

	Urban			Rural			Total			
Region	Population	Avg. House-hold Size	Male to Female Ratio (%)	Population	Avg. House -hold Size	Male to Female Ratio (%)	Population	Avg. House-hold Size	Annual Population Growth 1982-2003 (%)	Pop. Density 2003 (pop/km^2)
Artibonite	278,290	4.58	85.6	792,107	4.21	96.0	1,070,397	4.30	1.9	215
Center	90,843	4.65	90.7	474,200	4.51	100.8	565,043	4.53	2.2	154
Grand-Anse	90,095	4.47	93.2	513,799	4.45	105.7	603,894	4.46	1.0	182
North	295,624	5.20	85.1	477,922	5.07	96.9	773,546	5.12	1.6	367
Northeast	112,782	4.76	88.5	187,711	5.13	99.6	300,493	4.99	2.3	166
Northwest	102,338	5.30	84.9	342,742	5.00	96.0	445,080	5.07	2.1	205
West	2,070,799	4.72	86.5	1,022,900	4.39	95.9	3,093,699	4.61	3.4	641
South	98,506	4.96	89.3	528,805	4.80	105.3	627,311	4.82	1.1	225
Southeast	65,688	4.51	88.3	383,897	4.40	93.9	449,585	4.42	1.0	222
Haiti	3,204,965	4.76	86.7	4,724,083	4.55	98.5	7,929,048	4.63	2.2	286

Source: IHSI 2003.

The West and Artibonite regions have the largest population shares of Haiti's 9 regions: 39.0 and 13.5 percent, respectively. In the West region, the people mainly reside in Port-au-Prince. The other regions have each between 3.8 (Northeast) and 9.8 (North) percent of the total population. The West also has the largest share of total urban and total rural populations, 65 and 22 percent respectively (Figure 2.1).

Figure 2.1: Rural and Urban Population and Total Population Growth Rates
Haiti and its Regions, 2001



Source: IHSI 2003

Haiti has become far more urbanized in the last two decades because the highest population growth has been in urban areas. In 2003, 40.4 percent of Haitians lived in urban areas, up from 24.5 percent in 1982. Rural Haiti is now home to some 4.7 million people (59.6 percent of the population). The urban population increased from 1.2 million to 3.2 million between 1982 and 2003. In other words, 115,000 people have been added to Haiti's cities every year for the past 21 years. Among the 1.97 million people added to urban areas between 1982 and 2003, 1.3 million (or two-thirds) went to the West region. The metropolitan area has received an average of 75,000 migrants a year in the past 20 years, in addition to a natural growth of nearly 40,000 people a year, bringing its total annual population growth to 115,000 people.

The rural population represented 59.6 percent of the total population in 2003; down from 75.5 percent in 1982. Hence, rural Haiti is currently home to around 4.7 million dwellers (Figure 2.1 and Table 2.1). The regions that have the largest share of rural population – all have close to 85 percent – are Center, Grand-Anse, South and Southeast. The regions with the lowest share of rural-dwellers are the North, West, and Northeast with 61.8, 33.1, and 62.5 percent respectively. Moreover, demographic developments in rural areas have not been homogeneous in the last decade.

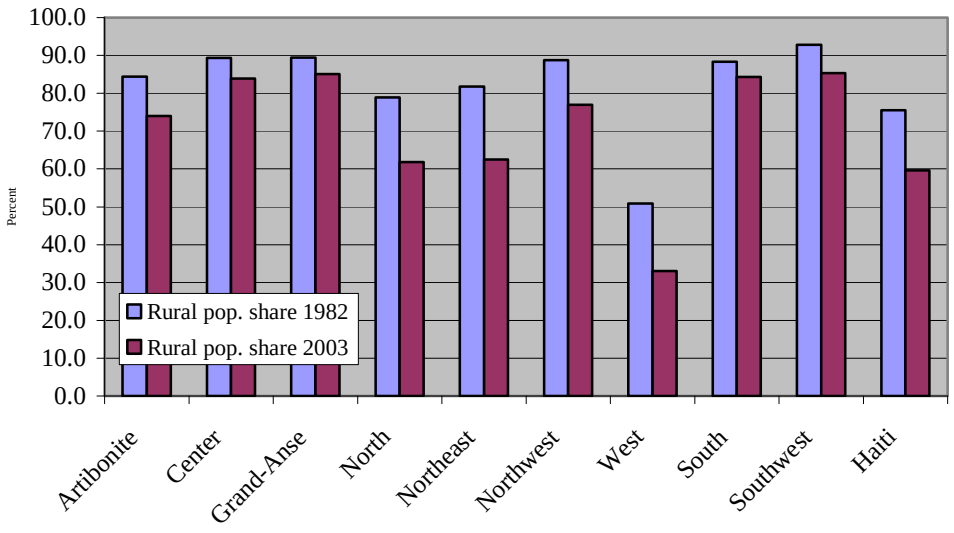
Table 2.2: Degree of urbanization in Haiti and its regions, 1982 and 2003 (percent)

Region	1982	2003
Artibonite	15.6	26.0
Center	10.7	16.1
Grand-Anse	10.6	14.9
North	21.1	38.2
Northeast	18.2	37.5
Northwest	11.3	23.0
West	49.1	66.9
South	11.7	15.7
Southeast	7.2	14.6
Haiti (whole country)	24.5	40.4

Source: IHSI 2003.

During 1982-2003 the rural population increased by 910,000, but it lost ground to urban Haiti. The rural population share fell from 75 to 60 percent in this period. Not only did the country as a whole experience relative population loss to urban areas and emigration, but all the nine regions followed the national trend (Figure 2.2). The West region that was already the region with the lowest share of rural-dwellers (51 percent) in 1982 experienced the largest relative reduction of rural population during 1982-2003, reaching 33 percent in 2003. However, in 2003, the West was still the region with the largest rural population in absolute terms of around 1.0 million people, more than the second most populous region, Artibonite, which had 792,107 people in rural areas in 2003. The South, Center, and Grand-Anse regions lost the least population. The easier access to Port-au-Prince and the imports and other goods and markets it provides the country may explain this.

Figure 2.2 : Rural Population Share of Total Population in Haiti, 1982 and 2003



Source: WDI, World Bank 2004.

What is driving the population growth pattern Haiti is experiencing? There are various reasons for the demographically changing pattern and many relate to economic opportunities. It is clear, for example, that living conditions in rural Northeast are inferior to West Haiti. Rural areas in the West region are close to Port-au-Prince and the rural population therefore has easy access to goods and services that are produced, imported, or provided by the capital. Moreover, rural farmers in the West have easier access to a large market for their produce than do other regions such as the Northeast, as roads and other infrastructure is limited in the poor regions (see Section 7).

Table 2.3: Degree of Urbanization (percent), 1982-2003

	Urban			Rural	
Region	1982	2003	Growth	1982	2003
Artibonite	15.6	26.0	66.7	84.4	74.0
Center	10.7	16.1	50.5	89.3	83.9
Grand-Anse	10.6	14.9	40.6	89.4	85.1
North	21.1	38.2	81.0	78.9	61.8
Northeast	18.2	37.5	106.0	81.8	62.5
Northwest	11.3	23.0	103.5	88.7	77.0
West	49.1	66.9	36.3	50.9	33.1
South	11.7	15.7	34.2	88.3	84.3
Southeast	7.2	14.6	102.8	92.8	85.4
Haiti	24.5	40.4	64.9	75.5	59.6

Source: IHSI 2003.

The proportion of children and youth is slightly larger in the countryside than in urban areas. A higher share of the working age population live in urban areas, so urban households should be better able to feed their children than those in rural areas. Hence the overall dependency ratio is larger in rural and non-metropolitan urban areas than in Port-au-Prince. The average household is slightly larger in the former areas (4.6 and 4.7, respectively) than in the capital (4.5).

Table 2.4: Age distribution, 2003

Age	Urban (%)	Rural (%)	Total (%)
0-4	10.21	12.86	11.79
5-17	33.31	35.45	34.59
18+	56.47	51.69	53.62
Haiti	100	100	100

Source: IHSI 2003.

Demographic trends have so far not lowered the dependency ratio, and it has therefore contributed negatively to poverty reduction in Haiti. This trend is likely to deepen further in the future if Haiti does not actively implement reproductive health programs.

Table 2.5: Average Household Size by Income Group and Place of Residence, 2001

Region									Location		
Artibonite	Center	Grand-Anse	North	North-east	North-west	West	South	South-east	Metro-politan	Urban	Rural	Total Haiti
Indigent												
5.0	5.2	5.2	5.4	5.2	4.9	4.9	5.1	5.2	4.8	5.3	5.2	5.1
(2.4)	(2.4)	(2.5)	(2.6)	(2.7)	(2.3)	(2.4)	(2.6)	(2.6)	(2.1)	(2.6)	(2.5)	(2.5)
Poor												
4.8	4.9	5.0	5.2	5.1	4.8	4.7	4.9	4.9	4.9	5.1	4.9	4.9
(2.4)	(2.4)	(2.5)	(2.6)	(2.7)	(2.3)	(2.3)	(2.5)	(2.6)	(2.2)	(2.6)	(2.5)	(2.5)
Nonpoor												
2.6	3.5	3.4	4.2	3.8	3.1	3.9	3.8	3.2	4.2	3.6	3.3	3.6
(2.0)	(2.2)	(2.1)	(2.7)	(2.1)	(1.8)	(2.8)	(2.3)	(2.0)	(2.5)	(2.4)	(2.1)	(2.3)
Total												
4.4	4.7	4.7	5.0	5.0	4.6	4.4	4.7	4.5	4.5	4.7	4.6	4.6
(2.5)	(2.4)	(2.5)	(2.7)	(2.7)	(2.3)	(2.4)	(2.5)	(2.6)	(2.4)	(2.6)	(2.5)	(2.5)

Note: Standard deviations in parentheses.

Source: Own calculations based on HLCS 2001.

The typical extremely poor or poor household has more young members than does a nonpoor household. In Haiti, extremely poor households in rural and metropolitan areas have on average 2.2 and 1.7 household members below 15 years of age, respectively (see Section 3 for a definition of indigent, poor, and nonpoor). This compares to the average nonpoor household, in which only 0.9 and 1.2 members are below the age of 15. (Table 2.6) Extremely poor households therefore have about twice as many children as do

nonpoor households. Most Haitians lack pensions, social security and savings, and thus children are often the only security for old age. An older Haitian woman expressed the matter this way: "It costs a lot to educate a child in Haiti; you have to work very hard. When I helped them with their education, I considered it like putting money into a savings account. My children are my bank account."[4]

The fertility rate has fallen rapidly in recent decades. During the three decades leading to the 1990s the fertility rate fell from 6.3 children per woman in 1960 to 5.4 in 1990, and then to 4.7 in 2000. (Table 2.7). Women's increased participation in the labor market is an important factor in the decline in the fertility rate. Moreover, as education attainment increases, the fertility rate drops. Total desired fertility rate is lower than the actual fertility rate. This would indicate that there is still a substantial unmet demand for high quality and reliable family planning services, information, and resources.[5]

Table 2.6: Average Number of Household Members Aged Less than 15 Years, 2001

Region									Area		
Artibonite	Center	Grand-Anse	North	North-east	North-west	West	South	South-east	Metro-politan	Urban	Rural	Total Haiti
Indigent												
2.1	2.5	2.3	2.3	2.4	2.1	1.9	2.2	2.6	1.7	2.3	2.2	2.2
(1.8)	(1.9)	(1.9)	(1.9)	(1.9)	(1.8)	(1.7)	(1.9)	(1.9)	(1.5)	(1.9)	(1.9)	(1.9)
Poor												
2.0	2.3	2.2	2.1	2.3	2.0	1.7	2.1	2.3	1.9	2.1	2.1	2.0
(1.7)	(1.9)	(1.9)	(1.9)	(1.9)	(1.8)	(1.6)	(1.8)	(1.9)	(1.8)	(1.8)	(1.8)	(1.8)
Nonpoor												
0.6	1.1	1.1	1.3	1.5	0.9	1.0	1.4	1.0	1.2	1.1	0.9	1.0
(1.1)	(1.4)	(1.4)	(1.6)	(1.6)	(1.2)	(1.4)	(1.6)	(1.3)	(1.4)	(1.4)	(1.3)	(1.4)
Total												
1.7	2.1	2.0	2.0	2.3	1.8	1.4	1.9	2.0	1.4	1.9	1.9	1.8
(1.7)	(1.9)	(1.9)	(1.9)	(1.9)	(1.7)	(1.6)	(1.8)	(1.8)	(1.5)	(1.8)	(1.8)	(1.8)

Note: Standard deviations in parentheses.

Source: Own calculations based on HLCS, 2001

Net migration has been larger than population growth rate since at least 1985 (Table 2.8). Large numbers of Haitians continue to flow over the 275 km border with the Dominican Republic to find work as sugar cane cutters, coffee pickers, and construction laborers. Many Haitians have settled in the Dominican Republic, and today there are an estimated 500,000 Haitians and Dominicans of Haitian descent living in the Dominican Republic.[6] There are also significant Haitian populations in the French Caribbean. Moreover, around one million Haitians live legally in North America.

[4] Source: http://www.philly.com/mld/inquirer/9102135.htm.

[5] Unfortunately, fertility rate micro-data are not available, therefore the analysis cannot be taken further

[6] The Center and Southeast regions are by far the largest suppliers of labor to the Dominican Republic (and seasonal migration is negligible). The other regions appear to be far less affected by this labor pull.

Table 2.7: Fertility Rate in Haiti, 1960-2002						
	1960	1980	1990	1995	2000	2002
Fertility rate, (births per woman)	6.30	5.88	5.42	4.93	4.39	4.20

Source: WDI, World Bank, 2004.

Members of the Haitian diaspora send cash transfers and other resources back to Haiti, which has been identified as the world's most remittance-dependent country. It is hard to estimate the exact amount of remittances to Haiti because of poor statistical information and informal channels of exchange, but the estimates currently available suggest that expatriates send home about US$700-900 million per year—about a quarter of the country's GDP and about three times the foreign aid Haiti receives annually.[7] Hence remittances provide essential support to thousands of families living in Haiti (in Port-au-Prince, nearly every block contains an office of a money-transfer agent, underscoring the central role remittances play in the economy – see Section 4).

Many Haitians living abroad return regularly, for example for carnival and vacations. Although Haiti is still predominantly a society of peasant farmers, it is changing. The very slow improvements in telecommunications and urbanization are creating a population that is more closely linked to the global system. Moreover, Haitian expatriates conduct a large variety of micro-level and charitable activities in their towns and villages of origin. These activities span small public work projects, school canteens, school programs, health clinics, and library construction. Although these activities contribute greatly to social development, they do not make a significant contribution to the economic growth of the localities they serve. The challenges facing Haiti today are multiple and multidimensional, and meeting them requires a critical mass of educated people. Haitian expatriates, therefore, are not only important because they have projects in towns and villages, and send back remittances, but because Haiti's future development is dependent on their human capital.

Table 2.8: Migration from Haiti during 1985-2005				
	1985-1990	1990-1995	1995-2000	2000-2005
Net migration (per 1000)	2.80	3.40	2.60	2.30

Source: IHSI, 2003

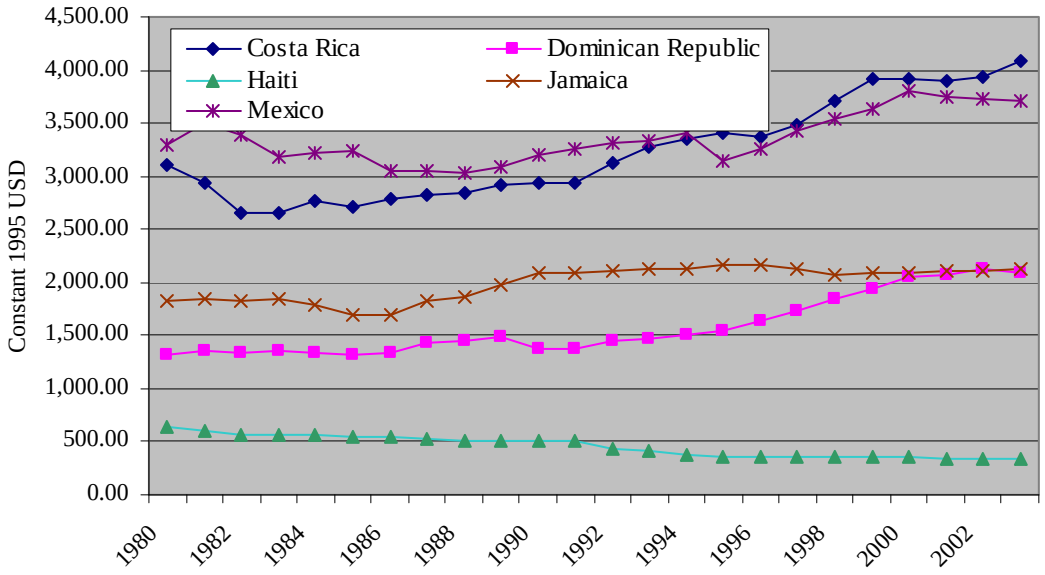
ECONOMIC GROWTH

Haiti is one of the world's poorest countries and in the last decades the country's real income or GDP has decreased. Between 1980 and 2003, the Haitian economy declined at a real average annual rate of -0.82 percent (GDP in constant 1995 USD based on WDI 2004). In 2003, the GDP of Haiti amounted to around US$2.8 billion. Poor economic performance is mainly due to political instability and lack of investments across all sectors.

[7] The value is in 1995 dollars.

Haiti's per capita GDP performed very poorly in the period 1980-2003, relative to both the country's own historical experience and to other countries in the Latin American and Caribbean region. In 1980 Haiti's per capita GDP stood at $632, and by 2003 it had fallen by about half to $332 (Figure 2.3). In the same period, Jamaica's per capita income increased by around 17 percent, and the Dominican Republic's by 57 percent.

Figure 2.3 : GDP Per Capita in Selected Countries and Haiti, 1980-2003



Source: WBI 2003.

Fundamental to lack of growth in Haiti is the country's long history of political instability, lack of governance, distortions at the macroeconomic level, and inadequate levels of private investment (see Sections 3 and 4). Macroeconomic stability and a lessening of distortions, so as to encourage private sector investment are essential to increased productivity.

Sectorial GDP

In recent years Haiti's agricultural sector has done less well than services and manufacturing sectors. During 1996-2002, the share of agriculture in total GDP fell while the share of services and industry increased (Table 2.7). In 2002, Haiti remained very much a dual economy where, on one hand, agriculture contributes 27.1 percent of GDP, accounting for around 50 percent of employment, and industry on the other hand, contributes 16.3 percent of GDP, but only around 10 percent of jobs.

Agricultural output has suffered from a growing population farming a finite area of land. The result has been the division of cultivated land into smaller and smaller plots, so that by the 1990s, 78 percent of Haiti's farms had an average size of less than two

hectares.[8] On these tiny farms, the soil has become progressively exhausted and less productive. This problem has been compounded by the extensive deforestation of the country which, in turn, has led to severe erosion of the fertile topsoil. As yields have declined, Haitian peasants have found themselves locked into a self-destructive cycle in which the cutting of trees for charcoal production, and the farming of land higher up the mountainsides, can stave off short term financial disaster, but only create greater problems for the sector as a whole in the long term. Moreover, the agricultural sector is characterized by scarcity of physical capital including tools, machines, fertilizers, transportation, and infrastructure (Egset 2004). Especially, poor households with low incomes pose a key obstacle to innovations and technological changes in agriculture.

Table 2.9: GDP by Sector (percent), 1996-2002

	1996	1998	2000	2002
Agriculture	32.9	30.9	28.5	27.1
Industry	15.4	16	16.6	16.3
Services	51.7	53.1	54.9	56.5

Source: WDI, World Bank 2004

Agricultural production for export has undergone a significant decline, partly because farmers have been obliged to shift to growing food crops to avoid starvation and partly because of changes in international markets. At the same time, food production has failed to keep pace with population growth. Today, the country must import more than half of the food that is consumed, creating a further pressure on the balance of payments.

Potential Growth Areas

Three potential areas of growth in the medium term are crafts, selected agricultural products, and tourism. Below each will be addressed in turn. It would be important to have involvement from Haitian expatriates as well as other foreign investors in order to give the economy a push forward.

In the beginning of the 1990s around 400,000 people were working in craft production such as basketry, embroidery and needlework, leather goods, and pottery. Most worked in family enterprises or small workshops, but some were employed in urban factories. The bulk of sales were to the tourist market in the Caribbean, but even so, craft accounted for more than 10 percent of exports in 1990. The recent economic and social collapse has brought the craft sector to its knees. Haiti's artisans need access to credit, and support for marketing and distribution of their products. More attention has to be given to tourism.

Like the decline in crafts, the political turmoil that followed the 1991 military coup and lack of infrastructure made most tourists stay away. If tourism is to bring real benefits to the poor, more needs to be done to promote eco-tourism and other sustainable development initiatives. In 1979, a peak year for Haiti’s tourism sector, over 173,000

[8] See Verner (2007), Labor Markets in Rural and Urban Haiti.

travelers were put ashore by cruise liners, but in the early 1980s, this achievement was wiped out by media coverage of political violence. Albeit not in the short term, the potential for expanding tourism is large given the beauty, culture, and beaches of the country and not to forget Haiti's proximity to the United States. Further research is needed in order to have a growth strategy.

Coffee is the primary peasant export and is well integrated in traditional agriculture. If production of Haitian Bleu (high quality coffee) can be extended to all parts impact could be substantial (Lundahl 2004). Coffee production has received some attention from European NGOs, which have promoted fair trade arrangements that bypass monopolies to the benefit of cooperative producers. Newer export crops like avocados and mangoes have been produced in recent years, and there is potential for crops such as spices. With investment, more efforts could be undertaken taking advantage of Haiti's climate and its close geographical location to the U.S. market.

Mangoes have advanced to become the most traditional agricultural product next to coffee. As many farmers all over the country produce mangoes there is a potential for increased exports. Export firms are investing in different kinds of facilities that will allow them to develop new varieties of mango products (Lundahl 2004).

This section on demographic trends and economic growth showed that the population growth rate increased in the last two decades although the fertility rate fell. In the last two decades the rural population has flocked to urban Haiti, especially to the metropolitan area. In 2003, 40 percent of the Haitians lived in urban areas up from 25 percent in 1982. The rural areas experienced a fall in the total population share. Rural indigent households have a smaller household size than metropolitan indigent households. In nonpoor households the average number of children under age 15 is 50 percent lower than those of extremely poor households. Economic growth has been poor in the last decade, and GDP per capita was reduced by roughly 50 percent, with agriculture being the hardest hit.

3. Data and Methodology

This section presents data sources and the methodologies used in the paper to analyze poverty and labor markets in Haiti.

Data

Haiti is completing the first comprehensive household survey that covers both rural and urban areas. National household data are critical for making informed decisions on alleviating urban and rural poverty in Haiti. The analyses in this paper are based on the national households survey (*l'Enqueête sur les Conditions de Vie Haïti*— the Haiti Living Conditions Survey (HLCS)) from 2001 (still unreleased). Population data are from publications produced by the statistical office (*Institut Haitien de Statistique et d'Informatique*—IHSI). The survey was undertaken in all nine regions (*department)* and is

representative at the regional level in Haiti. The dataset includes 7,186 households. It is the first time in Haiti's history that a survey of this magnitude has been conducted.[9]

The household survey consists of 15 SPSS files (these files are dated 10.06.2004 and named Base de Données Mar). The Bank obtained them directly from the Haitian statistical agency via FAFO the Norwegian institution that has worked with the statistical office. We have discovered a number of serious flaws. The most important flaw relates to the variable describing the metropolitan-urban-rural status of a household/individual, which is different in the different files. After discussions with the IHSI the only reliable data for metropolitan, urban, and rural levels are those based on the file with household information, therefore this data is used throughout the paper.

To calculate poverty, income including self-consumption has been used. Income is for the past 12 months based on a number of individual income sources and self-consumption is estimated value of consumption (and barter) of household production of crops, meat, and fish during the last week. First, respondents answered questions on consumption of own production, and the market value of it. Second, an average unit price of each type of good was calculated for the whole sample and multiplied by the quantity consumed last week and multiplied by 52 weeks.

Methodology

The income-poverty measures are designed to count the poor and to diagnose the extent and distribution of poverty. The income-poverty measures proposed by Foster, Geer, and Thorbecke (1984) are used throughout the paper. These are the headcount rate (P0), poverty gap (P1), and squared poverty gap (P2) measures. The former measures the magnitude of poverty and the latter two poverty measures assess both poverty magnitude and intensity.

The headcount rate is defined as the proportion of household heads (not the whole population) below the poverty line. One concern applying the P0 measure is that each individual below the poverty line is weighted equally and, therefore, the principle of transfers is violated. A limitation of the measure is illustrated by the fact that it would be possible to reduce the P0 measure of poverty by transferring money from the very poor to lift some *richer* poor out of poverty, hence increasing social welfare according to the measure. P0 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 measure (P1). P1 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 population. P1 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, as an indicator of welfare is that, poverty

[9] See FAFO for more information. www.fafo.no.

will increase by transfers of money from extreme poor to less poor (who become non-poor), and from poor to non-poor. Furthermore, transfers among the poor have no effect on the poverty gap measure.

The P2 measure of poverty is sensitive to the distribution among the poor as more weight is given to the poorest below the poverty line. P2 corresponds to the squared distance of income of the poor to the poverty line. Hence, moving from P0 towards P2 gives more weight to the poorest in the population.

This paper sets its poverty bar very low. To define "extreme poverty" or indigence it uses a US$1 a day poverty line, which is annually 2,681 gourdes.[10] Those that earn a per-capita income above US$1 are above the indigence line and therefore not extremely poor. The poverty lines used for rural, urban, and metropolitan areas are identical, as consumer price index data do not exist for different regions or locations in Haiti. This may overestimate poverty in rural areas slightly.

Quantile Regressions

Model

The underlying economic model used in the analysis will simply follow Mincer's (1974) human capital earnings function extended to control for a number of other variables that relate to location. In particular, we apply a semi-logarithmic framework that has the form:

$$\ln y_i = \varphi(x_i, z_i) + u_i \qquad (1)$$

where $\ln y_i$ is the log of earnings or wages for an individual, i; x_i is a measure of a number of personal characteristics including human capital variables, etc.; and z_i represents location specific variables. The functional form is left unspecified in equation (1). The empirical work makes extensive use of dummy variables in order to catch nonlinearities in returns to years of schooling, tenure, and other quantitative variables. The last component, u_i, is a random disturbance term that captures unobserved characteristics.

Quantile regressions

Labor market studies usually make use of conditional mean regression estimators, such as OLS. This technique is subject to criticism because of several, usually, heroic assumptions underlying the approach. One is the assumption of homoskedasticity in the distribution of error terms. If the sample is not completely homogenous, this approach, by forcing the parameters to be the same across the entire distribution of individuals may be too restrictive and may hide important information.

[10] The conversion is based on the 2000 PPP. The questionnaire asks for information about income in the last 12 months and self-consumption in the last week (which is multiplied by 52 to obtain the annual self-consumption).

The method applied in this paper is quantile regressions. The idea is that one can choose any quantile and thus obtain many different parameter estimates on the same variable. In this manner, the entire conditional distribution can be explored. By testing, whether coefficients for a given variable across different quantiles are significantly different, one implicitly also tests for conditional heteroskedasticity across the wage distribution. This is particularly interesting for developing countries such as Haiti where wage disparities are huge and returns to, for example, human capital may vary across the distribution.

The method has many other virtues apart from being robust to heteroskedasticity. When the error term is nonnormal, for instance, quantile regression estimators may be more efficient than least squares estimators. Furthermore, since the quantile regression objective function is a weighted sum of absolute deviations, one obtains a robust measure of location in the distribution, and as a consequence the estimated coefficient vector is not sensitive to outlier observations on the dependent variable.[11]

The main advantage of quantile regressions is the semi-parametric nature of the approach, which relaxes the restrictions on the parameters to be fixed across the entire distribution. Intuitively, quantile regression estimates convey information on wage differentials arising from nonobservable characteristics among individuals otherwise observationally equivalent. In other words, by using quantile regressions, we can determine if individuals that rank in different positions in the conditional distribution (i.e., individuals that have higher or lower wages than predicted by observable characteristics) receive different premiums to education, tenure, or to other relevant observable variables.

Formally, the method, first developed by Koenker and Basset (1978), can be formulated as[12]

$$y_i = x_i'\beta_\theta + u_{\theta i} = \text{Quant}_\theta(y_i \mid x_i) = x_i'\beta_\theta \qquad (2)$$

where $\text{Quant}_\theta(y_i \mid x_i)$ denotes the θ^{th} conditional quantile of y given x, and i denotes an index over all individuals, i = 1,…,n.

In general, the θ^{th} sample quantile ($0 < \theta < 1$) of y solves

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[11] That is, if $y_i - x_i'\hat{\beta}_\theta > 0$ then y_i can be increasing towards + ∞, or if $y_i - x_i'\hat{\beta}_\theta < 0$, y_i can be decreasing towards -∞, without altering the solution $\hat{\beta}_\theta$. In other words, it is not the *magnitude* of the dependent variable that matters, but on which *side* of the estimated hyper plane the observation is. This is most easily seen by considering the first-order-condition, which can be shown to be given as (see Buchinsky 1998) $\frac{1}{n}\sum_{i=1}^{n}(\theta - \frac{1}{2} + \frac{1}{2}\text{sgn}(y_i - x_i'\hat{\beta}_\theta))x_i = 0$.

This can be seen both as a strength and weakness of the method. To the extent that a given outlier represents a feature of "the true" distribution of the population, one would prefer the estimator to be sensitive, at least to a certain degree, to such an outlier.

[12] See Buchinsky (1998).

$$\min_{\beta} = \frac{1}{n}\left\{ \sum_{i:y_i \geq x_i'\beta} \theta \mid y_i - x_i'\beta \mid + \sum_{i:y_i < x_i'\beta} (1-\theta) \mid y_i - x_i'\beta \mid \right\}. \qquad (3)$$

Buchinsky (1998) examines various estimators for the asymptotic covariance matrix and concludes that the design matrix bootstrap performs the best. In this paper, the standard errors are obtained by bootstrapping using 200 repetitions. This is in line with the literature.

4. Sources of Income

Except in the metropolitan area, most Haitian households have low annual per capita incomes. In 2001, the median income per capita of extremely poor households (1,080 gourdes) was around one-tenth of the median income of the nonpoor (10,304 gourdes). Median income varies greatly across regions and locations. In 2001, median household income per capita in the metropolitan area (7,293 gourdes) was far higher than elsewhere in Haiti. The households with the lowest median incomes per capita are located in the Northeast region, where they stand at 617 and 804 gourdes in urban and rural areas, respectively (Table 4.1). In the West region, by contrast, the median income per capita of households is 5-6 times higher in rural and urban areas (excluding the metropolitan area) than in the Northeast. These figures reveal how access to imported goods and to a large market like Port-au-Prince can make a difference in people's well-being.

Table 4.1: Median Annual Income per capita, 2001 (gourdes)

Region	Metropolitan	Urban	Rural	Total Haiti
Artibonite	NA	1,723.0	2,134.8	2,000.0
Center	NA	2,316.7	2,430.0	2,389.7
Grand-Anse	NA	1,654.2	1,900.0	1,829.2
North	NA	3,304.2	1,585.0	1,900.0
Northeast	NA	804.2	616.7	671.7
Northwest	NA	2,470.7	1,500.0	1,734.2
West	7,292.5	4,014.6	3,100.0	4,366.7
South	NA	2,761.0	1,696.2	1,921.6
Southeast	NA	3,240.0	2,371.7	2,507.5
Haiti	7,292.5	2,264.7	2,035.0	2,403.1

Source: Own calculations based on HLCS 2001.

There are significant differences in the distribution of per capita household income (PCHI) by geographic locality. The PCHI of a household in the first decile of the income distribution is 199, 166, and 910 gourdes in rural, urban, and metropolitan areas, respectively (Table 4.2). Hence households on the low end of the income distribution in metropolitan Haiti have much better incomes than those in other urban or rural areas. Rural households are better off than urban households on the low end of the income distribution. The per capita income difference between households in rural and metropolitan areas is fairly constant across the income distribution. At a given location in the distribution of income, metropolitan households earn roughly four times more than households in rural areas. One important explanatory factor may be the greater number of

opportunities in metropolitan Haiti. People living in the metropolitan area have access to more jobs, and the self-employed have access to domestically produced and imported goods that they can resell in the metropolitan market or to other urban and rural markets. This is significantly different from conditions in other areas in Haiti, where very few goods originate (see Section 5 for more on income inequality).

Rural households are better off than urban households in the low end of the income distribution. This is a major difference to other countries in the region in the same location in the income distribution where rural dwellers always fare worse in terms of per-capita household income than urban households. The PCHI of rural households is higher than that of urban households for the first 4 deciles in Haiti (Figure 4.1). From the fifth quintile it changes and the average PCHI becomes higher in urban areas than rural areas. In the top deciles (9th and 10th) the PCHI in urban areas is 34 and 66 percent higher than in rural areas respectively.

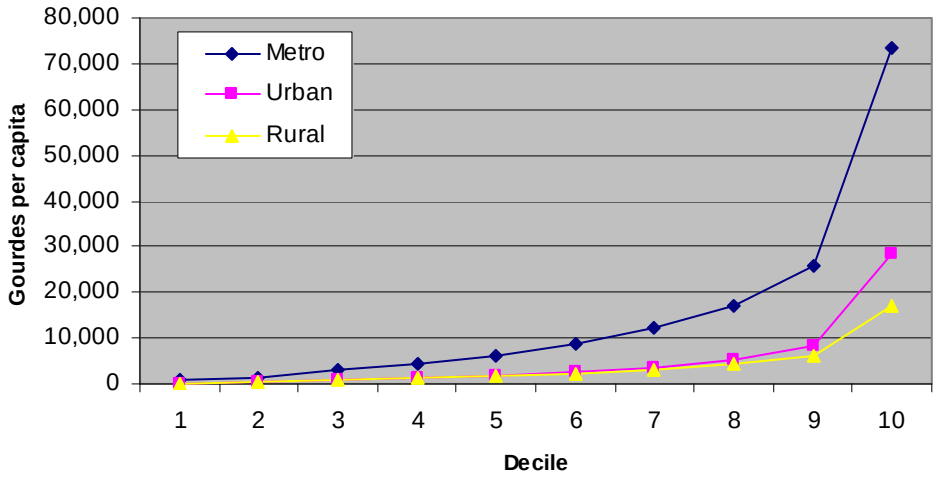
Table 4.2: Average Income Per Capita by Decile, 2001(gourdes)

Decile	Metropolitan	Urban	Rural
1	910	166	199
2	1,435	473	524
3	3,074	862	879
4	4,360	1,301	1,306
5	6,177	1,888	1,787
6	8,690	2,638	2,352
7	12,312	3,570	3,100
8	16,915	5,112	4,177
9	25,624	8,469	6,196
10	73,430	28,522	17,177

Source: Own calculations based on HLCS 2001.

Self-consumption is part of the explanation for the poorest being better off in rural than in urban areas, as shown in Figure 4.2. Given the difference between PCHI in urban and rural areas for the poorest in the population, it makes one wonder why people move to the urban areas except of course to gain access to public services. (See Section 7 for more on public service provision.)

Figure 4.1: Income per Capita by Decile, 2001 (gourdes)



Source: Own calculations based on HLCS 2001.

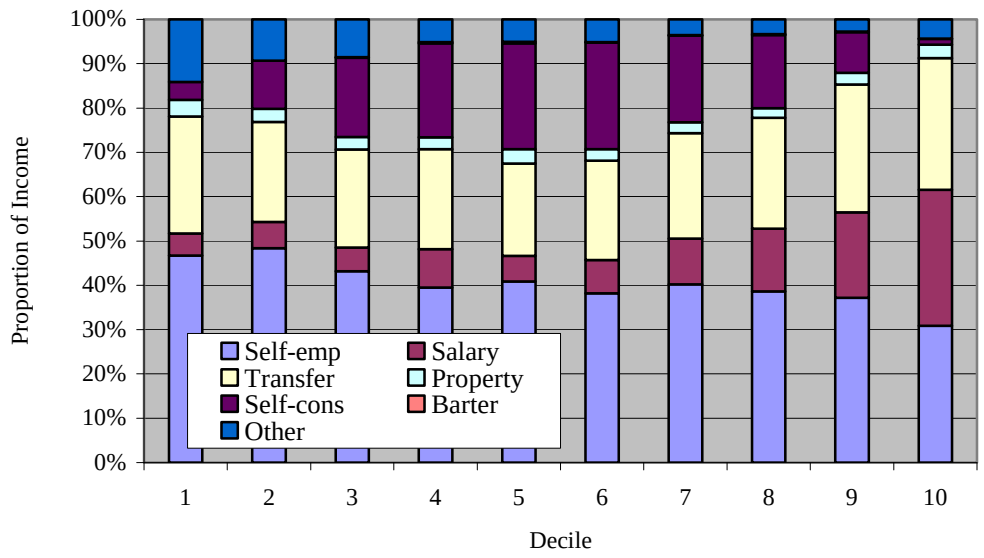
The poorest in rural areas get a marginally higher share of total income than in urban areas. The share of income going to the lowest 40 percent of the income pyramid amounts to 8, 7, and 6 percent in the rural, metropolitan and urban area respectively. This compares to the income share going to the top 10 percent of the income distribution that receive 43, 43, and 54 percent in the rural, metropolitan, and urban areas respectively.

Table 4.3: Income Source for Households per Capita 2001 (percent)

Decile	Self-employed	Salary	Transfer	Property	Self-consumption	Barter	Other
1	46.7	5.0	26.4	3.8	4.1	0.0	14.1
2	48.4	5.9	22.6	3.0	10.8	0.0	9.4
3	43.2	5.4	22.1	2.8	17.9	0.1	8.5
4	39.5	8.7	22.6	2.7	21.2	0.3	5.2
5	40.9	5.7	20.8	3.2	23.9	0.4	5.1
6	38.2	7.5	22.4	2.6	24.1	0.0	5.1
7	40.2	10.4	23.8	2.4	19.5	0.1	3.5
8	38.6	14.2	25.0	2.2	16.5	0.2	3.3
9	37.2	19.3	28.8	2.6	9.2	0.2	2.8
10	30.9	30.7	29.8	3.0	1.3	0.1	4.3

Source: Own calculations based on HLCS 2001.

Figure 4.2: Income Source for Households per Capita, 2001 (percent)



Source: Own calculations based on HLCS 2001.

Self-employment income, wages, and transfers are crucial to reducing poverty in Haiti. Self-employment is the most important income source for all income levels, although it accounts for more of the total income of the poorest 10 percent of the population (46.7 percent of their total income) than of the richest 10 percent (30.9 percent of their income). Private transfers, mostly remittances, are generally the second most important income source, accounting for 26 and 30 percent of the total income of the poorest 10 percent and the richest 10 percent, respectively. Salaries are relatively unimportant for deciles 1-3: less than 6 percent of this group's total income is from wage labor. For the upper deciles, however, salaries are a significant part of total income: 19.3 and 30.7 percent for the top two deciles, respectively.

Table 4.4: Income Source for Households per Capita 2001 (percent)

	Rural Population				Whole Population			
Quintile	Farm	Off-farm	Remittances	Other	Farm	Off-farm	Remittances	Other
1(poorest)	39.0	33.6	14.4	13.1	37.2	34.2	15.4	13.2
2	49.2	26.6	14.4	9.9	41.2	30.5	17.7	10.5
3	51.6	25.8	14.7	7.9	43.2	31.1	17.6	8.1
4	51.4	27.0	15.5	6.1	36.6	37.1	18.7	7.7
5(richest)	37.3	34.4	20.4	7.5	10.9	52.1	27.8	9.3

Note: 'Farm' includes own consumption of crops and meat and barter. 'Other' contains other transfers than remittances, property income and 'other'. 'Off-farm' contains all kinds of labor income and sales of products.

Source: Own calculations based on HLCS 2001.

Farm labor is still the most important income source for Haiti's rural population. Both the poor and nonpoor in rural areas receive the largest share of their total income from activities such as farming and agricultural labor (Table 4.4). Rural dwellers also

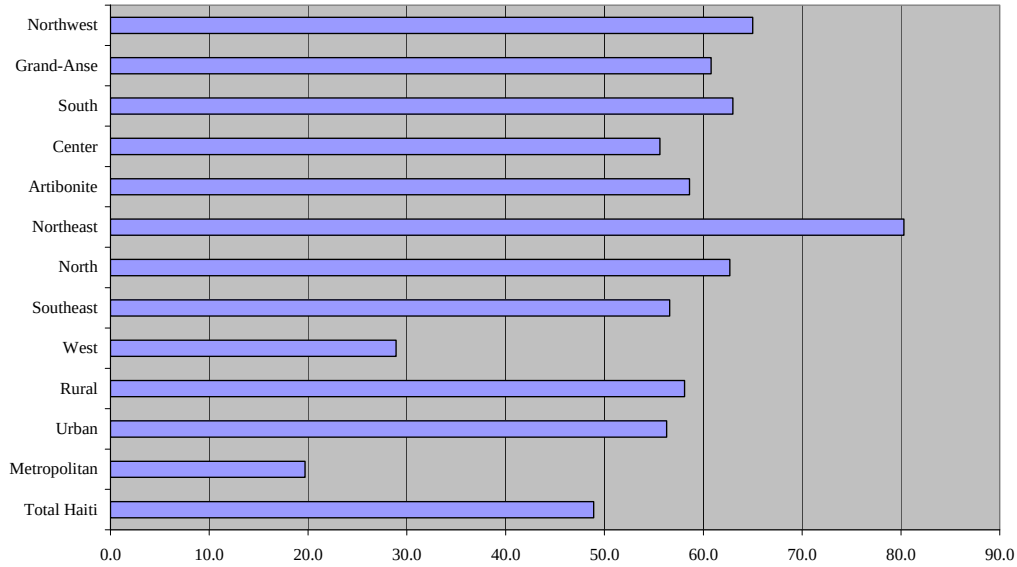
work as laborers in the nonfarm sector. The extremely poor and nonpoor rural populations receive 26-34 percent of their total income off-farm. Remittances account for 14 percent of the extremely poor's total income. This is 6 percentage points fewer than the share of remittances (20 percent) in the total income of the richest 20 percent of the rural population.

This section shows that the rural poor receive the largest share of their total income from agricultural activities such as farming and agricultural labor. Rural-dwellers also work as laborers in the off-farm sector. The poor and nonpoor in rural areas receive 26-34 percent of their total income off-farm. Remittances from friends and family in urban areas and abroad account for around 14 percent of poor people's total income, slightly less than that of the nonpoor.

5. Poverty and Income Inequality

As Section 2 shows economic growth is important, but it is not the sole component of a poverty alleviation strategy. Programs need to ensure that the poor can take advantage of job opportunities and protect some vulnerable groups that are not able to participate fully in the economy. In order to design these programs, information on the poor is needed. This section addresses headcount poverty and its depth, other poverty indicators, and income inequality. Due to a lack of data and information, this section does not address the broader issues of inequality of assets and opportunities.

Figure 5.1: Indigent Poverty Rate (P0) in Haiti by Location and Region, 2001



Source: Own calculations based on HLCS 2001.

In the last decades Haiti has made little creditable headway in reducing income poverty. In 2001, Haiti's extreme poverty for households, measured by P0, was still very high at 49 percent (Figure 5.1).[13] This means that more than 3.9 million people living in extreme poverty. This is more than twice the poverty rate of middle-income countries in the region such as Brazil (21.9 percent). Since the Haiti Living Conditions Survey (HLCS) dataset is the first household survey completed for the country, it is not possible to analyze the extent to which income poverty has changed in the past decade. In the past two decades, GDP per capita fell dramatically (see Section 2). In conjunction with the information on income inequality presented below, this may indicate that income poverty has increased in recent decades.

There are large differences in headcount poverty among localities and regions in Haiti. Data from 2001 indicate that rural households had the highest rate of extreme poverty: 58 percent were extremely poor in that year (Table 5.1). Households in the metropolitan area had the lowest extreme poverty rate: 20 percent were extremely poor. Households in other urban areas had a household poverty rate only slightly below that of the rural population: 56 percent were extremely poor. Hence the West region, unsurprisingly, has the lowest extreme poverty rate: 29 percent of households were extremely poor in 2001. The regions with the highest extreme poverty rates are the Northeast and Northwest, where 80 and 65 percent of households, respectively, have a per capita income that takes them below the extreme poverty line of US$1 per day.

Table 5.1 : Indigent Poverty Rate by Locality and Region, 2001

West	South-east	North	North-east	Arti-bonite	Center	South	Grand-Anse	North-west
28.9	56.6	62.7	80.3	58.6	55.6	63.0	60.8	65.0

Total Haiti	Metro-politan	Urban	Rural
48.9	19.7	56.3	58.1

Source: Own calculations based on HLCS 2001.

The level of poverty in Haiti can also be measured by indicators such as adult illiteracy, infant mortality, and malnutrition; all are very high. In the period 1970-2000, the adult illiteracy rate fell sharply from 78.0 percent to 39.5 percent (Table 5.2). The greatest improvement was in the 1970-1992 period. The female illiteracy rate, however, has fluctuated. In 2000 and in 1970, fewer males were illiterate (33.4 percent) than females (43.3 percent). Male illiteracy fell throughout the 1970-2000 period. Female illiteracy declined from 82.0 percent in 1970 to 37.9 percent in 1995, but since then the rate has increased, reaching 43.3 percent in 2000. Illiteracy is a major problem in Haiti. Efforts to lower illiteracy are hampered by the fact that many of the illiterates are adults, the result of years of educational neglect. It is more difficult to teach basic skills to adults

[13] As the poverty rate is for households the income (including self-consumption) is for the household. Not a single household reports zero income (including self-consumption) – lowest reported value is of 100 gourdes.

than to children. Even among young adults, educational performance is poor. The educational deficit, including the question of quality, has a spatial dimension in Haiti. Most of the illiterate aged above 15 years live in rural areas (education is further addressed in Section 7).

Table 5.2: Illiteracy rate in Haiti during 1970 – 2000 (percent)

Year	Total	Male	Female
1970	78.0	74.0	82.0
1982	63.0	61.7	64.4
1992	45.0	51.0	39.0
1995	42.0	45.6	37.9
2000	39.5	33.4	43.3

Source: EBCM 1999-2000.

The decline in Haiti's infant mortality corroborates the improvement in measured adult illiteracy, although the level is still very high. The infant mortality rate dropped dramatically from 148 per 1,000 live births in 1970 to 79 per 1,000 in 2002 (Table 5.3).[14] In view of the lack of economic growth and the dearth of social programs, it is not clear what caused this decline. The large volume of remittances may have played a role, as may service provision by NGOs, though more research is needed on this matter. To reduce the infant mortality rate further and reach the Latin American and Caribbean average of 28 per 1,000 live births, a number of measures are required, especially in rural areas. These include general livelihood improvements such as access to clean water and sanitation, high quality education and healthcare, and a daily calorific intake sufficient to cover basic needs. Moreover, Filmer and Pritchett (1997) find that a 10 percent increase in income is associated with a 6 percent lower infant mortality rate.

Table 5.3: Infant Mortality in Haiti, 1970-2002

Year	1970	1980	1990	1995	2000	2002
Mortality rate (per 1,000 live births)	148	132	102	91	81	79

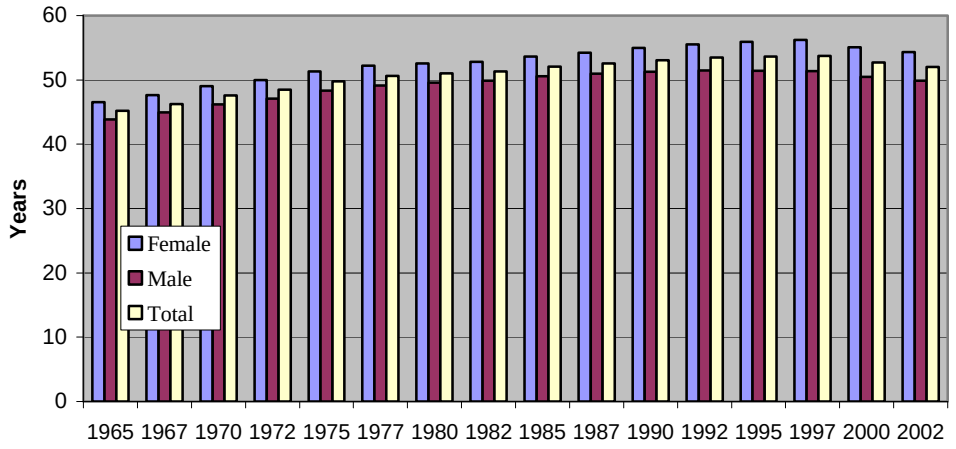
Source: WDI, World Bank 2004.

Life expectancy has increased over the last three decades in Haiti, but it is still very low. As in many parts of Latin America and the Caribbean, men in Haiti have a significantly lower life expectancy than women (Figure 5.2). In 2002, men and women could expect to live an average of 50 and 54 years, respectively. AIDS is a significant problem in Haiti and, according to the Global Health Council, the large number of AIDS cases has cut average life expectancy by eight years. Were it not for AIDS, therefore, life expectancy would have been 60. Other areas of concern include alcohol and substance use, male violence against women,[15] and general violence.

[14] Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. Data source: WDI, World Bank 2004.

[15] In fact, results from the household survey surprisingly showed practically no use of or contact with drugs, and levels of alcohol and tobacco use that were not alarmingly high. These results, however, may be explained to some extent by underreporting because of the link to gangs and illegal trade.

Figure 5.2: Life Expectancy for Women and Men in Haiti, 1965-2002



Source: WDI, World Bank 2004.

Like adult illiteracy and infant mortality, the prevalence of child malnutrition declined in the 1978-2000 period, although it remains very high. Child malnutrition is measured by two variables—weight-for-height and-height-for-age—that fell by about 17 and 20 percentage points, respectively, to 17.3 and 22.7 percent in 2000 (Table 5.4). Child malnutrition, however, is still significantly higher than the regional LAC average of 9 percent. Efforts to lower the prevalence of child malnutrition are hampered by income poverty and by limited access to quality water, micronutrients, and general healthcare, among other considerations.

Table 5.4: Child Malnutrition in Haiti, 1978-2000

	1978	1990	1995	2000
Height for age (% of children under 5)	39.6	33.9	31.9	22.7
Weight for age (% of children under 5)	37.4	26.8	27.5	17.3

Note: Weight for height is the percentage of children under five whose weight for age is more than two standard deviations below the median reference standard for their age. [16]
Height for age is the percentage of children under five whose height for age is more than two standard deviations below the median for the international reference population ages 0 to 59 months. For children up to two years of age, height is measured by recumbent length. For older children, height is measured by stature while standing. [17]

Source: WDI, World Bank 2004.

[16] As established by the World Health Organization, the U.S. Centers for Disease Control and Prevention, and the U.S. National Center for Health Statistics. Figures are based on children under age three, four, and five years of age.

[17] The reference population adopted by the WHO in 1983, is based on children from the United States, who are assumed to be well nourished.

Poverty Reduction Impacts of Economic Growth

The high poverty incidence in Haiti can be explained by a series of factors including national economic policies such as a lack of macroeconomic stability, good governance, and political stability. What would happen to extreme poverty rates if positive economic growth returned to Haiti? This is addressed in this section in the form of (i) agricultural sector growth alone and (ii) uniform economic growth to all sectors.

Table 5.5: Projected Poverty-Reduction Impact of Agricultural Growth in Haiti

		Total Haiti	Metropolitan	Urban	Rural
		Estimated Poverty Rate (P0)			
P0 in 2001		48.9	19.7	56.3	58.1
2 percent real annual per-capita agricultural growth for	1 year	48.5	19.7	55.8	57.5
	5 years	47.3	19.7	54.6	55.9
	10 years	45.6	19.7	52.8	53.6
5 percent real annual per-capita agricultural growth for	1 year	48.1	19.7	55.3	57.0
	5 years	45.0	19.7	52.6	52.6
	10 years	41.6	19.7	49.3	47.8
10 percent real annual per-capita agricultural growth for	1 year	47.3	19.7	54.6	56.0
	5 years	41.8	19.7	49.8	48.0
	10 years	36.2	19.6	44.6	40.2

Note: P0 for households (not individuals), based on per-capita income growth in agriculture income and self-consumption.

Source: Own calculations based on HLCS 2001.

For example, simulation exercises show that if income per capita in Haiti as a whole grew by 2 percent per year from 2001, the rates of extreme poverty would fall by only 3.3 percentage points after five years (Table 5.5). After 10 years, the gains would be greater, but the rate of extreme poverty would still be high at 42.2 percent. Even if the country was able to generate a record high growth rate resulting in 5 or 10 percent growth in per-capita income, this would need to be sustained for 10 years to bring the extreme poverty rates down to 33.5 and 22.9 percent respectively. The projected poverty impact of increased uniform economic growth is much greater in metropolitan areas than in other urban and rural areas. After 10 years of steady real economic growth of 2 percent annually, extreme poverty falls by roughly 18 percent in the metropolitan areas, and by 11 and 14 percent in urban and rural areas, respectively. The same pattern holds true for larger annual growth rates. One explanation is that poverty in Haiti is not only broad but also deep, as indicated above. More research is needed to address propoor growth in Haiti.

The projected poverty impact findings for metropolitan areas of increased uniform economic growth are much larger than in other urban areas and rural areas. After 10 years of steady real economic growth of 2 percent annually extreme poverty falls by roughly 18 percent in the metropolitan areas, while it falls 11 and 14 percent in urban and rural areas respectively. The same pattern holds for larger annual growth rates. One explanation is that poverty in Haiti is not only broad as we saw above but also deep (see above).

All the simulations presented in this section were based on a series of assumptions, including the supposition that per capita income grows equally in Haiti. But this is unlikely to be the case: the literature on other countries shows that income grows very unequally for different income groups. For the findings in this section, this means that the estimated poverty reduction impacts are much smaller than stated because poor households will benefit much less than rich households. Hence the need for much broader policies than economic growth strategies if poverty in Haiti is to be significantly reduced.

POVERTY DEPTH

Extreme poverty in Haiti is not only extensive but also very deep. The P0 measures the proportion of people below a certain poverty line, but it takes no account of how far they are below that line (the degree of poverty) or whether they are becoming even poorer. To address the situation of the poorest, the squared poverty gap measure, P2, is used. This takes the degree of poverty into account, because it gives more weight to the poorest and most vulnerable. The P2 poverty measure reveals that the extreme poverty depth reached 19.3 percent in 2001 (Table 5.6).

Extreme poverty in rural areas is slightly less deep than in urban Haiti. The P2 poverty measure reveals that the extreme poverty depth reached 22 percent in rural and 24 percent in urban areas in 2001 (Table 2.5). In the metropolitan area, by contrast, P2 reached only 5 percent in the same year. Haiti's Northeast region has the deepest poverty, and there are significant regional differences. The West region had a P2 of 8.5 but in the Northeast the measure reached 47.4, indicating that poverty is not only widespread but also very deep in the latter region.

Table 5.6: Poverty Gap and Squared Poverty Gap, 2001

	Metropolitan	Urban	Rural	Total Haiti
P1	8.8	33.4	32.0	26.9
P2	5.2	24.0	22.3	19.3

Source: Calculations based on HLCS 2001.

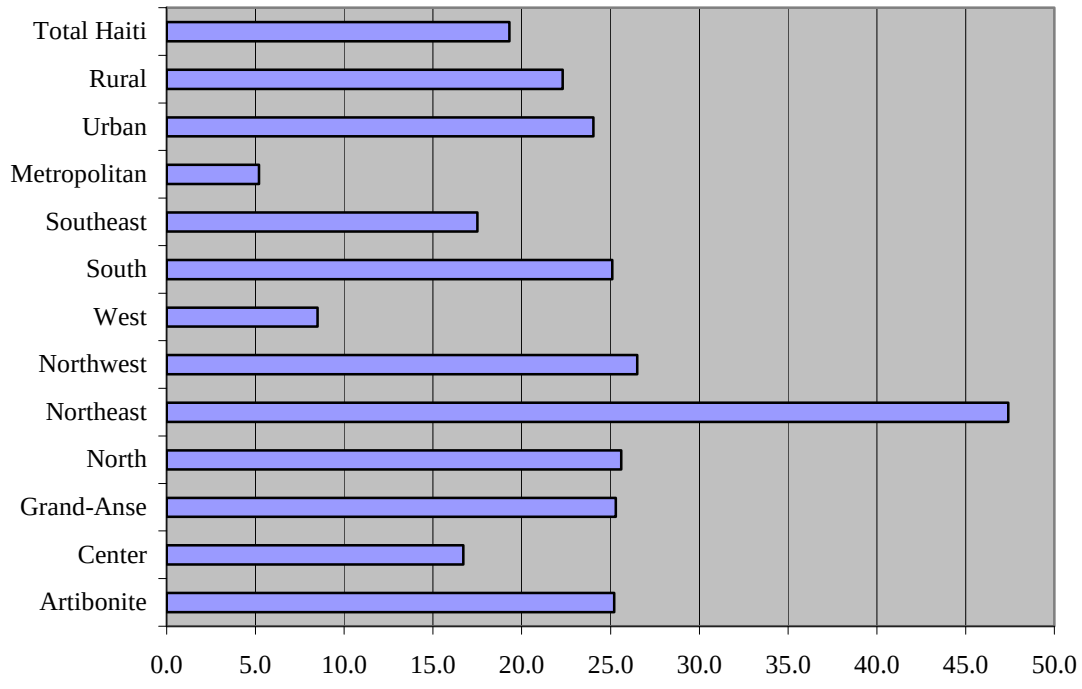
The Northeast region of Haiti is the region with the deepest poverty. Figure 5.3 shows the depth of extreme poverty measured by P2 for the 9 regions. Large differences are present. The West region experienced a P2 of 8.5. This compares to the Northeast where P2 reached 47.4 indicating that poverty is not only broad, but it is also very deep in the latter region.

INCOME INEQUALITY

Income inequality is part of the reason why Haiti's poverty indicators are worse than in other countries that have similar per capita incomes. Haiti has an extremely unequal income distribution. In 2001, the Gini coefficient for Haiti as a whole was 0.66, above the coefficient for Brazil (0.61). It is worth noting that international research shows that the more unequal income is distributed the less effective is economic growth in reducing poverty (Lustig et al. 2001).

Income inequality is lower in rural areas than in urban and metropolitan areas in Haiti and large disparities exist in the distribution of income across locality and regions (Table 5.7). In 2001, rural Haiti had a Gini coefficient of 58.9, slightly lower than in the metropolitan area (61.4) and significantly lower than urban Haiti (66.7). Based on expenditure surveys of 1986/1987 and 1999/2000, Pedersen and Lockwood (2001) also find that income inequality has increased in the Port-au-Prince area and rural inequality has decreased.

Figure 5.3: Squared Poverty Gap (P2) for Haiti and its Regions, 2001 (percent)



Source: Calculations based on HLCS 2001.

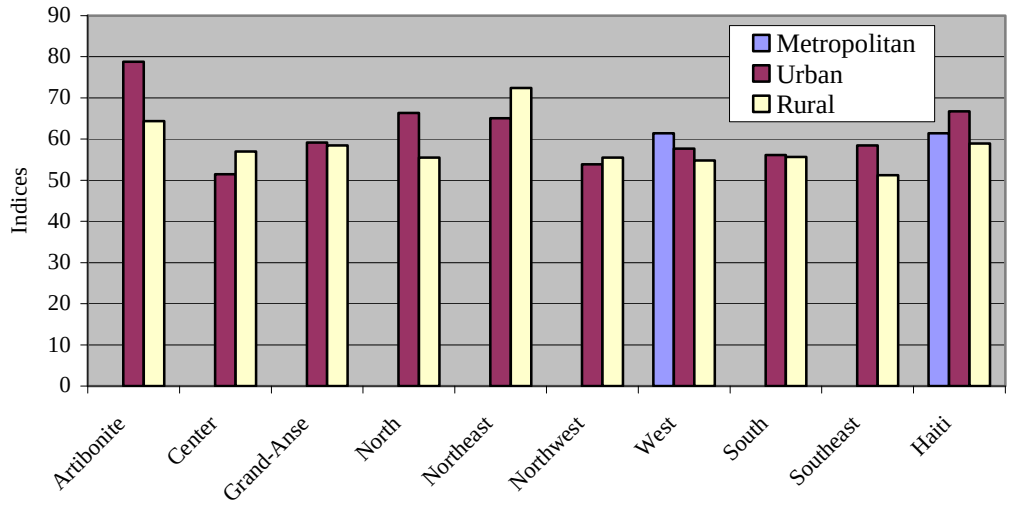
In 2001, regions with the least unequal distribution of per-capita income were Southeast (53.8), Center (55.6) and Northwest (55.8). The Northeast experienced the highest Gini coefficient of 69.8. Of rural areas, the Southeast had the lowest income inequality (Gini coefficient of 51.2) and the Northeast the highest (Gini coefficient of 72.4).

The share of total income by decile varies little among the lowest deciles and locations. However, the share of total income obtained by the top decile in Haiti is large, 43.3, 53.7, and 43.2 percent in metropolitan, urban and rural Haiti respectively (Figure 5.5). This compares to the lowest decile where the populations in the metropolitan, urban and rural areas receive 0.7, 0.3, and 0.5 percent respectively of total income in the particular location.

Table 5.7: Gini Indices for Haiti and its Regions, 2001				
Region	Metropolitan	Urban	Rural	Total Haiti
Artibonite	NA	78.8	64.4	69.8
Center	NA	51.5	57.0	55.6
Grand-Anse	NA	59.2	58.5	58.8
North	NA	66.3	55.5	66.1
Northeast	NA	65.1	72.4	69.7
Northwest	NA	53.9	55.5	55.8
West	61.4	57.7	54.8	63.7
South	NA	56.1	55.7	56.9
Southeast	NA	58.5	51.2	53.8
Haiti	61.4	66.7	58.9	66.2

Source: Calculations based on HLCS 2001.

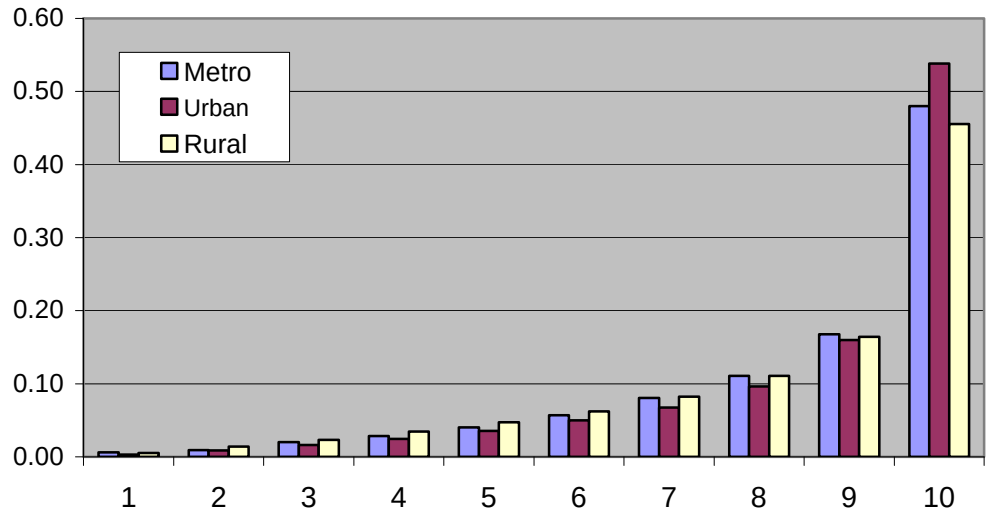
Figure 5.4: Gini Indices for Haiti and its Regions, 2001



Source: Calculations based on HLCS 2001.

Changes in inequality are typically very slow, except during periods of radical social and institutional change. Where inequality has fallen it has usually happened in association with a substantial expansion and equalization of educational attainment, as in Korea and Malaysia in the 1970s and 1980s. Haiti's expansion in education (a reduction in educational inequalities) has thus far been too small to have a significant effect on skills composition.

Figure 5.5: Share of Income by Decile and Location in Haiti, 2001



Source: Own calculations based on HLCS 2001.

Education is also unequally distributed and international research shows that this can more easily be reduced than income inequality. However, research also shows that a reduction in education inequality affects the income distribution very little in the short run (Ferreira 2002).

Table 5.8: Incidence of Education Level in Rural Haiti (percent), 2001

Quintile	No education	Primary	Secondary	Tertiary
1 (poorest)	78.8	18.0	3.2	0.0
2	77.0	18.7	4.2	0.1
3	72.1	22.8	5.1	0.0
4	67.2	22.9	9.8	0.1
5 (richest)	56.6	26.6	16.6	1.2

Source: Own calculations based on HLCS 2001.

Table 5.9: Incidence of Education Level in Urban Haiti (percent), 2001

Quintile	No education	Primary	Secondary	Tertiary
1 (poorest)	65.2	26.3	8.2	0.4
2	58.3	27.4	13.9	0.4
3	61.6	26.4	12.0	0.0
4	50.8	31.7	17.2	0.3
5 (richest)	33.3	31.5	31.7	3.6

Source: Calculations based on HLCS 2001.

Table 5.10: Incidence of Education Level in Metropolitan Haiti (percent), 2001

Quintile	No education	Primary	Secondary	Tertiary
1 (poorest)	33.3	30.7	35.5	0.5
2	24.7	32.2	40.8	2.3
3	20.8	40.1	36.6	2.5
4	18.8	34.6	42.7	4.3
5 (richest)	10.0	19.5	52.4	18.2

Source: Calculations based on HLCS 2001.

6. Poverty Profile

After counting the extreme poor we need to know who they are, the character of their poverty, where they live, and what they do. Comparing average levels of poverty for different categories is useful for learning about which population groups are falling behind or catching up in terms of poverty. This is useful for the design of policies: we would like to know not only whether, for example, more- or less-educated people are more likely to be poor in Haiti, but how the relative odds of being poor compares among rural and urban areas and among the nine regions. This section addresses poverty based on P0 for various population groups in 2001. The poverty profile constructed is based on data from the Haitian household surveys (HLCS). The main questions addressed are: (1) who are the poor, (2) what are the characteristics of poor households, (3) where do they live, and (4) where do they work.

Table 6.1: Poverty Profile for Haiti, 2001

Head of Household		Total Haiti	Metro-politan	Urban	Rural	West	South-east	North	North-east	Artibo-nite	Center	South	Grand-Anse	North-west
P0		48.9	19.7	56.3	58.1	28.9	56.6	62.7	80.3	58.6	55.6	63.0	60.8	65.0
Gender	Male	47.7	17.4	54.6	54.1	27.0	50.9	62.9	66.4	56.4	54.7	61.4	60.0	61.6
	Female	50.0	20.9	57.9	62.2	30.3	61.5	62.6	85.1	61.3	57.2	64.6	61.5	67.9
Age	<25	40.0	18.3	58.0	54.5	22.0	46.5	56.9	89.2	51.7	50.4	45.7	50.2	70.7
	25 to 45	46.8	18.5	56.1	60.6	26.6	65.9	68.2	76.6	58.7	56.0	58.9	60.9	68.4
	45 to 65	51.2	23.5	56.3	57.0	32.5	54.1	59.9	81.5	60.2	54.9	64.9	62.5	63.7
	>65	52.4	17.1	56.5	56.1	32.9	51.8	58.7	81.9	57.1	58.0	67.9	59.1	58.1
Illiteracy	Read	34.1	16.6	46.0	46.5	18.4	43.2	51.7	66.9	56.6	45.2	44.4	43.3	57.1
	Not read	59.9	29.3	65.1	62.8	43.1	61.7	70.7	89.9	59.6	63.0	71.5	67.8	67.8
	Write	47.2	19.1	56.0	57.0	27.3	56.4	60.7	78.7	58.4	54.4	62.2	61.6	65.4
	Not write	56.7	27.9	61.2	61.6	38.4	60.1	69.3	95.3	60.3	61.2	66.7	56.5	69.0
	Speak French	27.7	NA	24.8	66.5	9.5	NA	25.6	NA	100.0	NA	NA	36.6	NA
	No French	49.0	19.9	56.5	58.0	29.1	56.7	63.2	80.6	58.3	55.6	63.1	60.9	65.0
Schooling	None	61.0	31.7	66.7	63.1	44.5	61.7	71.1	90.6	60.6	63.3	71.6	68.6	68.1
Completed	Primary	42.8	19.8	51.2	52.1	24.1	48.3	61.8	80.1	55.2	48.1	51.3	47.7	61.9
	Secondary	24.7	16.1	37.5	33.8	16.3	33.4	37.1	47.3	54.7	38.4	NA	NA	40.7
	Tertiary	4.6	3.1	12.7	6.7	2.9	NA	NA	22.7	17.0	NA	NA	NA	NA
Dom. Migration	Yes	30.1	18.6	51.8	52.5	20.0	56.2	62.9	53.5	58.5	38.7	58.1	61.1	59.5
	No	54.2	21.5	56.7	58.7	35.0	56.7	62.7	89.1	58.6	58.9	63.6	60.8	65.2
Economic Active	Yes	47.1	19.4	55.2	55.6	28.2	54.8	58.6	77.9	58.0	53.6	61.0	58.9	62.7
	No	53.6	20.2	59.3	64.5	30.9	61.9	67.2	83.2	61.2	66.2	67.8	67.3	69.5
Work Position	Employee	21.3	6.0	43.5	31.6	9.0	36.2	48.2	38.2	50.5	38.7	21.9	46.9	47.7
	Self-employed	51.2	23.1	55.2	56.3	32.2	55.2	60.5	81.9	57.8	56.2	62.7	57.1	59.9
Work Sector	Agriculture	57.6	41.8	58.3	57.5	42.1	58.6	57.8	85.6	57.8	58.2	66.2	59.1	62.2
	Industry	42.6	20.3	52.8	55.1	26.4	51.0	64.6	82.4	58.4	52.2	53.6	52.3	57.6
	Service	34.4	18.5	47.2	43.5	21.7	49.7	56.3	50.0	51.4	19.5	58.4	61.6	52.6
	Public/Other	23.0	6.8	38.8	31.5	10.3	23.7	38.9	29.0	50.3	27.3	31.3	48.1	26.3
Social Capital	Member	44.6	18.2	56.5	51.1	24.4	51.8	57.3	87.5	60.9	56.0	51.8	45.3	64.4
	Not member	50.1	20.1	56.1	59.9	30.3	58.1	64.9	77.1	58.2	54.9	66.4	64.4	65.3
Work Tenure	1 year	43.1	NA	65.6	62.2	14.6	50.3	34.5	100.0	100.0	100.0	52.6	51.6	67.9
	2-4 years	36.2	18.6	56.1	NA	22.3	31.4	66.9	83.0	54.0	35.1	21.3	44.5	82.1
	5-9 years	25.2	3.8	37.5	35.8	6.9	29.6	73.7	67.0	41.1	26.7	16.8	46.6	40.0
	10-20 years	41.2	8.1	54.2	49.4	19.6	56.7	62.2	74.9	47.5	53.5	56.9	41.5	58.3
	20+ years	48.9	14.3	49.3	52.8	29.7	50.6	48.3	76.0	51.0	50.3	58.5	58.9	56.0
Religion	Catholic	49.3	20.3	56.5	57.5	30.0	52.3	63.4	82.0	54.7	54.2	67.5	61.2	62.2
	Baptist	51.2	18.2	57.0	64.9	23.3	68.0	59.2	84.7	77.8	55.2	50.4	63.4	67.0
	Voodoo	47.1	20.4	53.8	50.5	75.3	75.3	70.6	NA	49.2	33.8	41.3	41.5	92.5
	Other	46.7	19.5	55.3	57.4	29.2	59.6	65.2	65.4	62.1	61.2	57.8	60.9	69.8

Source: Own calculations based on HLCS 2001.

Literacy is strongly related to poverty. That is, being able to read is important in determining the likelihood of being in poverty. In Haiti, the P0 is 34 percent for household heads who are literate, and 60 percent for those who are not. Not surprisingly, these head counts are high compared to other countries in Latin America and the Caribbean. A large difference in poverty exists between household heads living in metropolitan and rural areas. P0 for heads who can read is 17 percent in the metropolitan area compared to 47 and 46 percent in rural and other urban areas respectively. Language skills are also strongly related to poverty.

In Haiti, the P0 is lower when the head speaks French, namely 28 and 49 percent for French speakers and non-French speakers respectively.[18] Again the poverty head count is much lower for French-speaking Haitians in urban areas (25 percent) than in rural areas (66 percent).[19]

Education levels are very strongly related with poverty. Household heads with completed tertiary education are much less likely to experience poverty than those who have completed secondary or primary only. There appears to be a large difference in P0 between household heads with no education (61 percent) and household heads with completed primary education (43 percent). Household heads who have completed secondary education are much better off (25 percent are poor) than those with only primary education. Of the household heads with completed tertiary education only 5 percent were extremely poor in 2001. These findings indicate that education is key to poverty reduction in Haiti as elsewhere.

Figure 6.1 presents the location differences in P0 for the four education levels. The chart clearly shows that poverty at any given education level is much more widespread in rural areas than in the metropolitan areas. This is also the case for other urban areas that perform worse than rural areas; only household heads with primary education are less poor in urban than rural areas. For all levels P0 is only slightly higher in rural areas if higher at all. Obviously, the presented data do not take into consideration that the quality of education may be lower in rural areas.

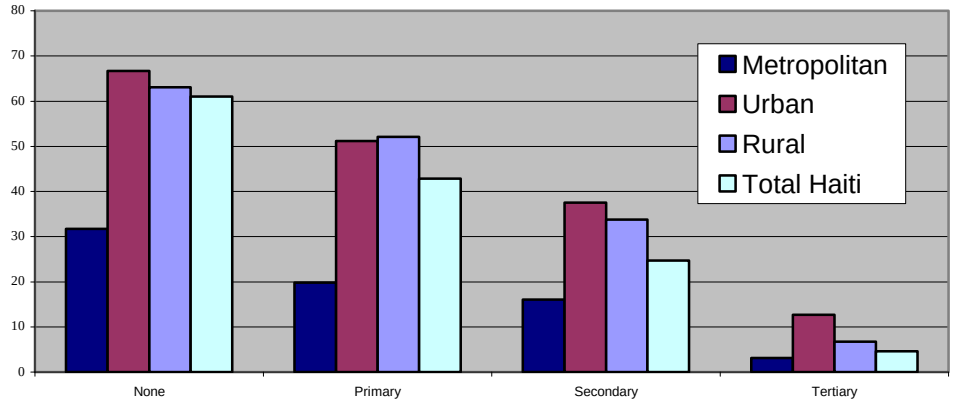
Figure 6.1 also shows that there are very large differences in poverty levels by education attained. Most likely the difference has increased over time as in other countries (no household data is available to address this further since the 2001 survey is the very first the country has undertaken). Table 6.2 shows that of household members with an income that places them in the lowest two income quintiles, more than 50 percent have not completed any education level, and only around 30 percent have completed primary education.[20]

[18] It may be worse noting that very few household heads in the sample speak French.

[19] Some data limitations have been observed such as: (1) only 39 households speak French at home, (2) 94 household heads have tertiary education completed, and (3) work tenure findings are based on only 1,588 observations.

[20] Notice that Table 6.2 includes 20,074 individuals.

Figure 6.1: Headcount Poverty and Education Attainment in Haiti, 2001



Source: Own calculations based on HLCS 2001.

Table 6.2: Highest Education Level Completed (percent), 2001

	Quintile				
	1 (poorest)	2	3	4	5 (richest)
No education	53.2	50.7	46.1	38.9	21.1
Primary	33.4	32.0	32.3	34.1	29.3
Secondary	13.3	17.1	21.1	26.1	44.6
Tertiary	0.1	0.2	0.6	0.9	5.0

Note: Age 15 and above included. No. observations 20,074.

Source: Own calculations based on HLCS 2001.

Elder household heads are more likely to experience poverty than younger household heads. In Haiti, only 40 percent of households headed by a member younger than age 25 are below the indigent poverty line. This compares to 52 percent for households headed by a member older than 65 years of age. The latter group has the lowest average income of any age group, which may be explained in part by lack of old age pensions in Haiti. The P0 of the population groups aged 25 to 44 and 45 to 65 was 47 and 51 percent, respectively, in 2001. Thus the older the head of household, the more likely they are to be poor. This therefore does not reflect a life-cycle profile of poverty, but illustrates that many households are born poor (mainly due to inadequate assets) and assets are only sparsely accumulated, and when reaching old age most are depleted. As there are very few social protection programs available for the elderly, there currently exist few mechanisms that can take households headed by an older person out of poverty. Other countries in the region such as Brazil have changed this pattern by introducing old age pensions for all poor old age people. Finally, it is worth noting that for all age groups the likelihood of falling below the poverty line is more than double for urban and rural dwellers than it is for metropolitan dwellers.

Female-headed households are marginally more likely to be poor than male-headed households. As a whole, 50 and 48 percent of female- and male-headed

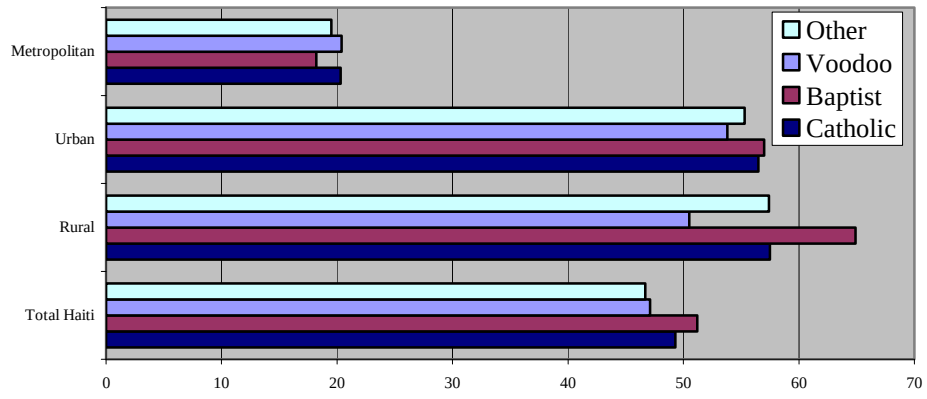
households, respectively, are likely to be poor in Haiti. However, in rural areas female-headed households (62 percent of which are poor) are much more likely to fall below the indigence poverty line than are male-headed households (54 percent are poor). These income poverty figures are, however, only part of the myriad of factors that affect a poor woman's well being.

The HLCS data on domestic violence shows that the most common forms of violence that women have experienced are forced sex, being pushed or kicked and slapped. Women experienced slightly more of these forms of violence than men claimed to have committed. Of those women who were at any time beaten, around 50 percent were beaten roughly every month.

Migrants experience less poverty than non-migrants do in Haiti as a whole. Household heads who migrated from one region to another experienced 24-percentage points less poverty than did heads that never left, 30 percent of the former and 54 percent of the latter group fell below the US$1 a day poverty line. That is a difference of 80 percent. One explanation for this is that migrants are better endowed than non-migrants (Justesen & Verner 2005, Egset 2004). For rural areas the difference is much smaller (12 percent) between *stayers* in rural areas in one region and *leavers* to rural areas in another region. Hence, there is little difference between rural dwellers who never migrated and those who did migrate to a region different from that of birth.

Religious belief has only marginal impact on poverty status. The three major religions by number of adherents in Haiti are Catholicism, Baptism and Voodoo and 49, 51, 47 percent are poor respectively for each religion.

Figure 6.2: Headcount Poverty and Religious Affiliation by Location in Haiti, 2001



Source: Own calculations based on HLCS 2001.

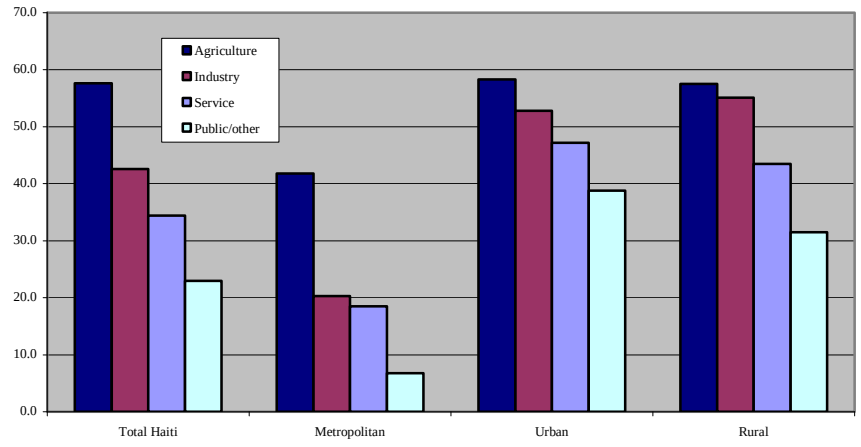
Household heads with social capital are less likely to fall into poverty in Haiti as a whole. This finding also holds true for heads in metropolitan areas, but even more so in rural areas. The relationships among extended family members and neighbors form an important informal social safety net for sharing assets, responsibilities, and risks.

Household heads that are members of one or more organizations are less likely (51 percent are poor) to fall into poverty than their peers that are nonmembers (60 percent are poor). One explanation for this finding could be that members of organizations have more ties to other members and friends who can assist in difficult situations be it economically or emotionally.

Help from friends, perhaps related to political affiliation, may therefore substitute safety nets and financial institutions and credit to smooth economic cycles in the household. There are large differences across the nine regions in Haiti. The heads with social capital are far less likely to experience poverty in the Grand-Anse, North, South, Southeast, and West regions. There is very little difference in the Northwest and Center regions. In the Northeast and Antibonite regions household heads with social capital are more likely to experience poverty. This may be explained by large out-migrations from these regions.

The self-employed are more likely to experience poverty than employees. The incidence of poverty for the self-employed was 51 percent while that of employees was 21 percent in 2001. Work position data show that for all locations, metropolitan, rural, and urban, household heads that are self-employed are more likely to experience poverty than employees are. In the metropolitan area the likelihood of falling below the poverty line is nearly four times higher for a self-employed compared to an employee, and in rural areas the likelihood is double.

Figure 6.3: Headcount Poverty and Work Sector by Location in Haiti, 2001



Source: Own calculations based on HLCS 2001.

Those who work in agriculture are far more likely to be poor than others. This suggests that productivity in agriculture is lower than in services or industry. The P0 is 58 percent in agriculture, but 43 percent among industrial workers, and 34 percent among service workers. Public sector workers experienced the lowest poverty incidence of 23

percent. The sectorial poverty pattern, highest in agriculture and lowest in public sector, is similar for metropolitan, urban, and rural areas although the poverty rates differ according to location (Figure 6.3). The main explanation for the high poverty rate in agriculture can be traced to migration out of the sector and into higher wage services by some of the most skilled and, in part, to the structure of land ownership and the quality of land and climate. Rural land ownership is characterized by a large number of small farms with an insufficient area to sustain a family by agricultural employment alone.[21]

Income poverty among landless rural-dwellers is not necessarily higher than among households with land. P0 for landless households is 36.3 percent compared to 64.8 and 46.8 percent for landholdings of 0.5 or less hectares and 6-10 hectares, respectively. Only households with more than 10 hectares experience less income poverty than landless households; of the farms with more than 10 hectares of land, 31 percent were poor. It is worth emphasizing that only 1.8 percent of farms are larger than 10 hectares in Haiti.[22] Moreover, extreme poverty is monotonically decreasing with farm size in Haiti (Table 6.3).

Table 6.3: Poverty Incidence by Farm Size (percent), 2001

	Arti-bonite	Center	Grand-Anse	North	North-east	North-west	West	South	South-east	Metro-politan	Urban	Rural	Haiti
No land	59.7	44.2	58.3	60.2	68.6	67.7	24.7	54.4	50.1	19.5	52.4	54.8	36.3
0-0.5 ha	64.9	70.4	75.9	70.1	96.5	68.5	39.9	73.0	56.8	38.6	63.7	65.4	64.8
0.5-2 ha	58.5	62.1	66.2	61.8	94.0	65.1	43.6	67.0	59.8	100.0	62.3	60.1	60.5
2-6 ha	48.7	44.9	49.4	55.4	78.3	64.9	48.4	42.6	52.9	NA	45.4	52.7	51.2
6-10 ha	48.1	33.9	40.0	47.2	55.5	59.5	41.2	53.1	62.2	NA	40.4	47.6	46.8
>10 ha	39.1	32.7	36.0	NA	NA	13.1	32.9	25.3	23.7	NA	42.0	28.8	30.6

Note: 7,177 households used and only 81 farms are bigger than 10 ha. NA: not available.

Source: Own calculations based on HLCS 2001.

The rural poor are primarily smallholders, sharecroppers, and informal wageworkers who depend on a diverse strategy of income-generating activities in which the subsistence production of corn, millet, bananas and plantains, beans, yams, and sweet potatoes and small animals predominates. Any crop surplus is sold at the local placket. Rice is grown in the areas of the country where irrigation systems have been introduced. In addition to subsistence production, Haiti's peasants have traditionally grown crops - principally sugar, coffee, cacao, indigo, sisal, and cotton - to sell for cash, and at times for export. Small farmers lack modern production technology, basic infrastructure to store harvests to take advantage of cyclical price fluctuations, technical assistance to improve productivity, and organized marketing facilities. Family income is therefore highly variable and there is little opportunity for saving. They have very few assets, including education, and are very vulnerable.

[21] See Verner (2007), Labor Markets in Rural and Urban Haiti.

[22] See Verner (2007), Labor Markets in Rural and Urban Haiti.

7. **Access to Services and Assets**

The value of goods produced by the rural population is closely linked to skills and availability of infrastructure, which is discussed in this section. Access to irrigation systems, flood control, energy, and good roads increase production capacity and the quality of products, in turn improving production value and thereby household income for the rural population. Lack of education for the rural population is another factor causing poverty, so is land tenure, both are addressed in this section.

The problem of poverty and inequality in Haiti largely reflects disparities in opportunities. The distribution of key productive assets – labor, human capital, physical assets, financial assets, and social capital – is highly unequal. These disparities are greatest between the poor and nonpoor, but also manifest themselves differently by geographic area. In addition, access to services is unequal. This section addresses a few of these areas, namely education, basic infrastructure services, and social assistance (or the lack hereof).

Education

Education is essential for poverty reduction. Increased educational attainment can improve the livelihoods of the poor and reduce the likelihood of becoming poor. More education is also a key factor in obtaining a higher income (see also Section 8). Furthermore, education is associated with fertility, i.e. the more education a woman attains, the lower her fertility rate, and therefore the lower the dependency ratio and the lower the likelihood of falling into poverty as each year of schooling yields an increase in hourly earnings.[23] One clear message, therefore, is that Haitians would greatly benefit from being helped to move up the educational ladder.

Youth and adults living in rural areas have accumulated far less human capital than their peers in urban areas. The level of educational attainment of the adult and youth population varies across location. Educational attainment for household heads increased steadily every decade during 1930-80 (Figure 7.1). The positive progress may not have continued in the 1980s. Data reveal a reduction in educational attainment from the cohort of the 1970s to the cohort of the 1980s, although some are still undertaking education.

Although the rural population has attained less education than urban and metropolitan populations, it also improved but at a slower rate (Figure 7.1). Hence not only is the rural population lagging behind, it is lagging further behind the urban populations as time passes. In addition, the level of educational attainment of household heads may also vary with economic performance of the country.

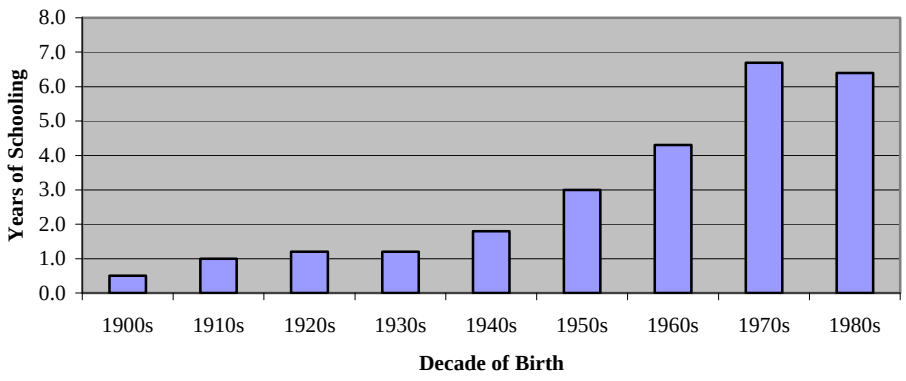
Educational gaps exist not only across the adult and youth populations, but also across the population of children and youth populations in Haiti. There exist large disparities in education attendance of children and youth across age and location and

[23] See Verner (2007), Labor Markets in Rural and Urban Haiti.

large strides still have to be made to bring all children up the education ladder. Efforts are needed to improve access for the poor to basic, quality education. Among the different age groups there is a huge variation. Among young children (5 year olds) only 4.3 percent attend formal education such as pre-school (Table 7.1). Among 6-11 year olds 77 percent attend formal education and the attendance rate increases to 81.5 percent for children aged 12-14. Location matters for school attendance in Haiti. In the metropolitan area, 82.1 percent of 6-11 year olds attend school. In urban areas, 84.8 percent of 6-11 year olds attend school, but the number falls to 73.3 percent in rural areas.

Children in rural areas often face a long travel time to go to school and for the poor this is especially so, as they go to school on foot. Of youth aged 18-24 only 39.1 percent attend formal education in Haiti, but the variation across location is large. Of 18-24 year olds 46.6 percent are in school in the metropolitan area compared to only 32.8 percent in the rural areas.

Figure 7.1: Average Years of Schooling for Household Heads by Decade of Birth, 2001



Source: Own calculations based on HLCS 2001.

Table 7.1: School Attendance by Age 2001 (percent)

Age	Metropolitan	Urban	Rural	Total Haiti
5	4.7	5.7	3.8	4.3
6-11	82.1	84.8	73.3	77.0
12-14	84.6	87.0	78.6	81.5
15-17	79.3	79.9	71.3	74.8
18-24	46.6	44.1	32.8	39.1

Source: Own calculations based on HLCS 2001.

Large differences also exist in school attendance across regions and children and youth in the poorest regions fall behind their peers in the richer regions. For example, in Northwest and Artibonite 71.3 and 68.1 percent of the 6-11 year olds attend school compared to 80.3 and 78.7 percent in the West and Center regions in 2001 (Table 7.2).

What causes the falloff in school enrollment after 14 years of age? Is it a supply constraint or lack of demand? Is the reason cost of schooling in dispersed areas or lack of

economic value for education above primary level for children? To answer these questions more research is needed.

Table 7.2: School Attendance by Age 2001 (percent)

Age	Artibo-nite	Center	Grand-Anse	North	North-East	North-west	West	South	South-East
5	2.2	5.4	2.9	4.8	8.5	0.0	3.7	10.1	1.6
6-11	68.1	78.7	71.0	79.8	82.6	71.3	80.3	82.1	77.1
12-14	73.6	83.5	82.5	84.6	81.9	76.4	81.7	89.3	82.2
15-17	69.0	65.2	76.5	74.3	82.6	70.9	75.8	79.9	81.1
18-24	35.6	30.0	36.4	36.5	42.9	30.4	42.1	39.6	44.4

Source: Own calculations based on HLCS 2001.

The incidence of education is unequal across income quintiles. As Table 7.3 shows, the trend is rapidly increasing for successively higher income quintiles, indicating a regressive nature of benefit incidence in education. The poorest (first quintile) receive 74 percent of primary school services, while the richest (fifth quintiles) receive 87 percent. The question is whether the lower participation of the lowest quintile is supply or demand driven. If the problem is related to lack of demand a conditional cash tranfer program like Bolsa Familia in Brazil may increase school attendance of the poor.

Table 7.3: School Attendance of 7-14 years olds by Income Quintile (percent), 2001

Quintile	Metropolitan	Urban	Rural	Total Haiti
1 (poorest)	73.7	78.5	71.2	73.6
2	80.8	89.0	73.8	77.1
3	90.9	84.6	78.1	78.6
4	88.7	90.7	77.4	82.7
5 (richest)	86.1	89.8	85.2	87.2

Source: Own calculations based on HLCS 2001.

School attendance of indigent students still lags in Haiti. This is the case in all three locations, although rural children from indigent families (the two lowest quintiles) lack slightly less than indigents in other locations—urban quintile 2 is as high as 89 percent (Table 7.3). Research shows that in rural areas (as elsewhere) children from richer households have on average a higher school attendance, are less likely to repeat a school year, and have more completed years of schooling than children from poor or indigent households. Data reveal a negative correlation between poverty and educational attainment in Haiti. The level of education of the extremely poor is the lowest, and research from other countries in Latin America and the Caribbean show that it is also increasing more slowly than average.

Education seems to reduce the risk of falling into poverty in Haiti (see above Table 6.1). Large gaps exist in school attendance between the poor and nonpoor. Policies to improve access of the poor to primary and secondary education linked with improved quality of education and increased focus on technical skills should be the core of the government's poverty reduction strategy.

Haiti under-invests in human capital. The quality of education in Haiti is alarmingly low (World Bank 1998). An indicator of poor quality is the low internal

efficiency in primary and secondary education and the resulting high proportion of over-age students. In order to bring the Haitians up the education ladder, it is key to improve the quality of government spending, provide for basic human needs, and invest in human capital. Investments in education, health, and nutritional status of the population contribute to a productive labor force, better living conditions, and higher per capita income.

Basic Infrastructure Services

Basic infrastructure services contribute to greater well-being and productivity. Some services, such as potable water and sanitation, make a direct contribution to overall well-being and health status. Others, such as electricity and telephones, help households use their homes productively in order to generate income. Research shows that access to basic services is highly correlated with a lower probability of being poor. Inequities in access to such services abound in Haiti's rural and urban areas, both between the poor and nonpoor and by geographical area. Key gaps for the rural poor include potable water, energy, and roads. Corruption and the impact on service delivery will not be addressed in this paper, although there is evidence that corruption and misuse of public funds have lowered the quality of all public services (World Bank 1998).

Access to public infrastructure services is generally poor in Haiti, especially in rural areas, and the rural- metropolitan gap is wide. In the public sector, only 20 percent of resources go to rural areas, where most people live (World Bank 1998). Haiti's rural population has little access to safe water; only 7.9 percent have access to water supplied by a public or private company, compared to 28 percent in the metropolitan area (Table 7.4). Rural dwellers have less access to safe water than some of their peers in rural African countries such as Kenya (31 percent) and Uganda (46 percent)[24], a fact having little to do with a highly dispersed nature of the rural population. In urban areas, only 17 percent of households have access to safe water. There are also large geographical differences in access to water supplied from a public or private company, for example 3 percent have access in the Southeast region while 16.5 and 14.8 percent have access in the West and Artibonite regions (Table 7.5).

Table 7.4: Household Access to Basic Infrastructure in Haiti, 2001 (percent)

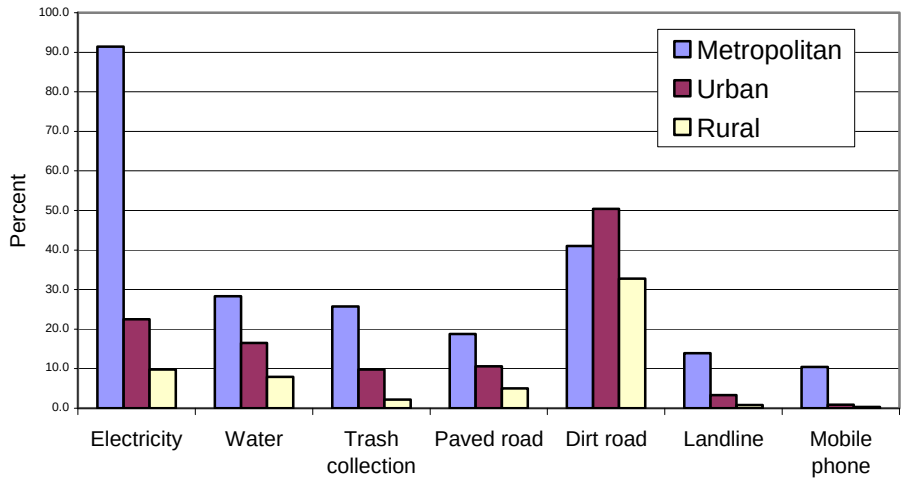
	Metropolitan	Urban	Rural	Total Haiti
Electricity	91.4	22.5	9.8	23.9
Water	28.3	16.5	7.9	12.6
Trash collection	25.7	9.8	2.2	7.1
Paved road	18.8	10.6	5.0	8.1
Dirt road	41.0	50.4	32.8	37.7
Landline	13.9	3.3	0.8	3.2
Mobile phone	10.4	0.9	0.3	1.8

Note: Water: Supplied from private or public water company. Trash: Collected by private or public company. Paved road: paved and partly paved road. Dirt road: Dirt and gravel road.

*Source: C*alculations based on HLCS 2001.

[24] Source: UNICEF database (2000).

Figure 7.2: Access to Infrastructure Services by location in Haiti, 2001 (percent)



Source: Own calculations based on HLCS 2001.

There are significant differences in access to energy. Households in the metropolitan area have far more access than those elsewhere. Energy and electrification projects help improve living conditions. The supply facilitates social integration, helps increase production value, and promotes diversification. As regards energy sources for cooking, rural residents mainly use charcoal while urban dwellers use propane, which entail both health and safety risks. Different localities have disparate levels of access to the electrical network. In the regions, public electricity connection reaches from 2.3 percent for the population in the Northwest to 58.2 percent in the West region (Table 7.5).

Large differences exist among locality with regard to access to the electrical network and the type of energy used, a commonly used energy source for cooking for rural residents is firewood or charcoal. Only 9.8 percent of rural households have access to electricity as compared to 91.4 percent of households in the metropolitan area (Table 7.4).

Table 7.5: Household Access to Basic Infrastructure by Region in Haiti, 2001 (percent)

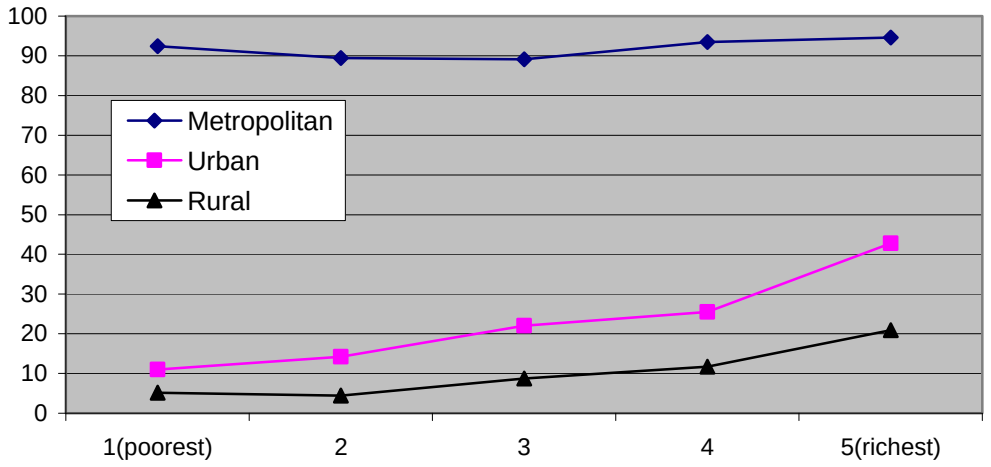
	Arti-bonite	Center	Grand-Anse	North	North-east	North-west	West	South	South-east
Electricity	15.1	13.3	11.1	15.9	9.3	2.3	58.2	9.1	8.7
Water	14.8	10.9	5.8	9.2	5.9	9.0	16.5	25.6	3.0
Trash collection	6.3	7.0	1.8	8.8	9.0	2.3	14.5	0.0	1.4
Paved road	14.9	3.4	6.1	9.8	3.2	0.3	12.9	4.4	2.0
Dirt road	41.7	40.4	25.8	47.0	62.9	25.8	34.7	43.0	30.1
Landline	1.4	3.2	0.4	4.4	0.8	0.0	7.7	0.3	0.4
Mobile phone	0.1	0.0	0.0	1.3	0.5	0.0	5.9	0.2	0.0

Note: Water: Supplied from private or public water company. Trash: Collected by private or public company. Paved road: Paved and partly paved road. Dirt road: Dirt and gravel road.

Source: Own calculations based on HLCS 2001.

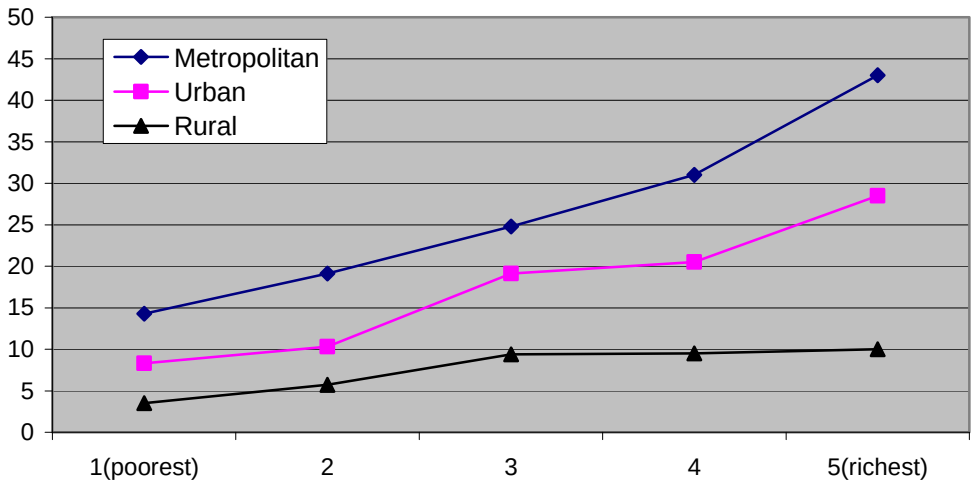
There are also extreme differences across the income distribution in access to electricity. The general trend is increasing for successively higher income quintiles, indicating the regressive nature of electrification in urban and rural areas (Figure 7.3). In metropolitan Haiti a high and fairly equal access to electricity across the income distribution exists.

Figure 7.3: Access to Electricity by Income Quintile in Haiti, 2001 (percent)



Source: Own calculations based on HLCS 2001.

Figure 7.4: Access to Water by Income Quintile in Haiti, 2001 (percent)



Source: Own calculations based on HLCS 2001.

The incidence of water access varies among rich and poor households. As Figure 7.4 shows, the trend is increasing for successively higher income quintiles. In rural and urban areas, the first quintile in the income distribution receives less than 4 and 9 percent, respectively, of water services, while the fifth quintile receives more than 10 and 29 percent, respectively. The benefit incidence of water is concentrated in the fifth quintile in all locations.

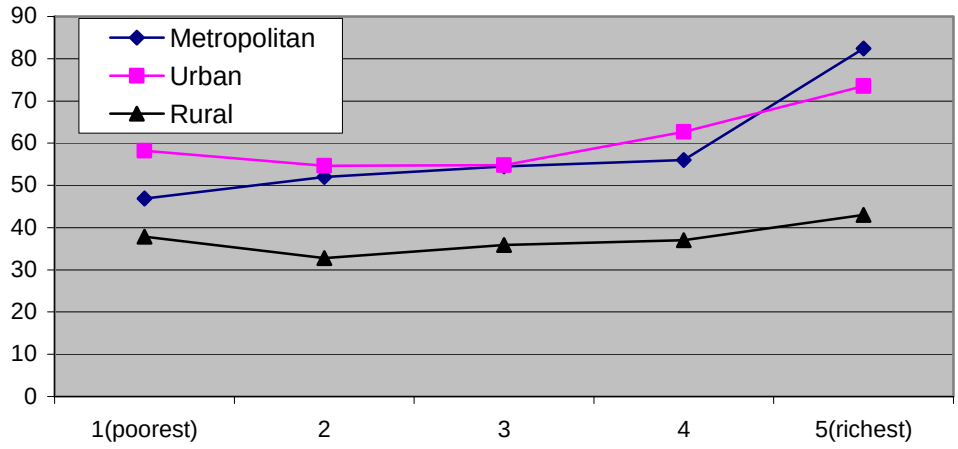
Since the provision of drinking water, sewerage networks, and electricity to a dispersed rural population would be very costly, efforts should first target the agglomerated population in localities, regions, and provinces with the most acute level and highest density of poverty. Special programs should also be devised with appropriate technologies to improve the rural population's access to water.

There is very little provision of public social and productive assistance in Haiti. Social protection for example, is only accessible in the form of a pension for public sector workers. There is no public safety net in place and only a few private or NGO-run programs in Haiti.

There are wide differences in access to roads. Households in rural areas lag behind those in urban areas. Only 5 and 33 percent of the rural population have access to paved and dirt roads, respectively (Table 7.5). Of the urban population, 11 and 50 percent, respectively, have access to paved and dirt roads. Roads play multiple roles associated with poverty alleviation and the improvement of the poor rural population's quality of life. They are essential elements for the production and marketing of products, stimulating economic activity that results in greater job opportunities and better income levels. They also facilitate access to labor markets and allow greater labor participation by the rural population in nonagricultural activities outside rural areas. In addition, they help improve quality of life by facilitating communication and access to basic services such as health or education, enabling greater social participation by more distant sectors.

The general trend in the metropolitan area is an increasing access to roads for successively higher income quintiles. In rural areas households all have little access, independent of location in the income distribution indicating no clear regressive nature of road access in rural areas (Figure 7.5).

Figure 7.5: Access to Paved or Dirt Roads by Income Quintile in Haiti, 2001 (percent)



Source: Own calculations based on HLCS 2001.

Haiti has never had an environment conducive to sustainable growth (World Bank 1998). Instead, an economic elite has supported a "predatory state" that makes only negligible investments in human resources and basic infrastructure. This pattern needs to be changed and more attention needs to be given to the extreme poor.

Findings in this section show that access to assets such as education and infrastructural services is highly unequal and strongly correlated with poverty. Educational attainment has increased over the last century and more so in urban than rural areas. Large differences exist in school attendance across regions and children and youth in the poorest regions fall behind their peers in richer regions. Moreover, children of indigent households attain less education than children from nonpoor households.

Access to safe water supplied by a public or private company is a major problem in Haiti, and access to electricity is the most unequal among locations. Most of the urban population has access to electricity, compared to only 10 percent of the rural population. Moreover, only about 8 percent of Haitians have access to a paved road and 3 percent have a telephone. Finally, the extremely poor have much less access to services than their nonpoor peers.

8. Rural and Urban Poverty Correlates—Are They Different?

The previous sections examined the disparities in key assets between the poor and nonpoor. This section takes the analysis a step further and analyzes the relative importance of some of these and other correlates of rural and urban poverty in a multivariate setting, and investigates the marginal impact of each individual attribute on the likelihood of a household falling below the indigence poverty line, taking into account other characteristics. The section analyzes the impact of experience, labor market

association, different levels of education, etc. on the likelihood of being poor for rural areas and Haiti as a whole. The status of the household—poor or nonpoor—is regressed on relevant individual and household characteristics using the probit regression technique. Standard errors are adjusted for the clustering process inherent in the sampling procedure of the HLCS survey. Given the way the regression model is specified, findings reveal when impacts for rural areas in Haiti are different from impacts for Haiti as a whole.

The analysis of poverty correlates reveals a conditional correlation between poverty and characteristics of household heads and indicates groups which are particularly vulnerable. The probability of a household being poor is analyzed based on relevant individual and household characteristics. The main conclusion emerging from the analysis is that disparities in assets such as education are indeed strongly correlated with poverty.

Other poverty studies for other countries such as Brazil, for example Ferreira, Lanjouw, and Neri (1998), show that in 1996 education was the central personal attribute determining the likelihood that a household would experience poverty. Other factors such as age, family size, race, and rural living are also important in determining the likelihood of poverty. The findings on Haiti in this section are very much in line with those of Ferreira, Lanjouw, and Neri. A discussion of some of the variables explaining income poverty follows below.

It is important to note the limitations of this analysis at the outset. First and foremost, the analysis does not capture the dynamic impact of certain causes of poverty over time. Most notably, the impact of changes in economic growth – most certainly a key determinant of poverty – cannot be assessed using this static, cross-section model. Second, the analysis is limited by the variables available at the household level from the 2001 HLCS. Other factors – physical conditions such as variations in climate or access to markets – could not be included due to lack of data at this level. Finally, though theory holds that many of the variables included in the analysis do indeed contribute to (cause) poverty (or poverty reduction), the statistical relationships should be interpreted as correlates and not as determinants since causality can run both ways for some variables.

Rural living is in many ways very different from urban and metropolitan living in Haiti (Table 8.1). The largest statistical differences in poverty reduction between rural and other areas are found in the effect of education, region, gender, and social capital.

Living in rural areas in Haiti does not by itself affect the probability of being poor. Hence, individual and household characteristics are more important than geographical location. This is good news for policy-makers as there are no non-measurable rural variables kicking-in and affecting the likelihood of a household in rural areas falling below the extreme poverty line.

Table 8.1: Probability of Falling into Poverty in Haiti, 2001

P0	dF/dx	Std. Err.	t-statistics	Variables in Column 1 interacted with rural	dF/dx	Std. Err.	t-statistics
Age	-0.00	0.00	-2.34	Rural age	0.00	0.00	0.57
Female*	-0.03	0.03	-1.23	Rural female*	0.08	0.03	2.22
Family size	0.12	0.02	7.73	Rural family size	-0.01	0.02	-0.57
Squared family size	-0.01	0.00	-6.02	R. squared family size	0.00	0.00	1.61
Primary education*	-0.20	0.03	-6.64	R. primary education*	0.06	0.04	1.66
Secondary education*	-0.27	0.03	-7.85	R. secondary edu.*	-0.02	0.05	-0.48
Tertiary education*	-0.43	0.03	-5.42	R. tertiary education*	-0.13	0.24	-0.51
Migrated*	-0.08	0.03	-2.36	Rural migrant*	0.04	0.04	0.88
Work tenure>5years*	-0.10	0.06	-1.64	R work tenure>5years*	0.04	0.09	0.42
No info (work ten.)*	-0.05	0.06	-0.75	R. no info (work ten.)*	-0.03	0.08	-0.41
Industry*	0.18	0.07	2.35	Rural industry*	0.02	0.11	0.22
Agriculture*	0.16	0.07	2.36	Rural agriculture*	0.08	0.10	0.84
Service*	0.18	0.06	2.82	Rural service*	0.03	0.09	0.31
Inactive*	0.24	0.06	3.58	Rural inactive*	0.12	0.09	1.27
Catholic*	0.03	0.10	0.33	Rural catholic*	0.02	0.12	0.16
Baptist*	0.03	0.11	0.29	Rural Baptist*	0.09	0.12	0.78
Other Religion*	0.02	0.11	0.23	Rural other religion*	0.07	0.12	0.59
Social*	0.03	0.03	1.09	Rural social*	-0.12	0.03	-3.39
Rural*	-0.02	0.18	-0.13				
Southeast*	0.22	0.06	3.56	Rural Southeast*	-0.09	0.07	-1.29
North*	0.25	0.04	6.08	Rural North*	-0.04	0.05	-0.67
Northeast*	0.47	0.02	10.29	Rural Northeast*	-0.18	0.07	-2.41
Artibonite*	0.38	0.03	9.42	Rural Artibonite*	-0.25	0.04	-5.00
Center*	0.28	0.04	5.70	Rural Center*	-0.15	0.06	-2.55
South*	0.20	0.05	3.97	Rural South*	0.03	0.06	0.45
Grand-Anse*	0.34	0.04	7.24	Rural Grand-Anse*	-0.21	0.05	-3.57
Northwest*	0.22	0.05	4.43	Rural Northwest*	0.00	0.06	0.05

Note: Number of observations: 7,031; (*) dF/dx is for discrete change of dummy variable from 0 to 1; t is the test of the underlying coefficient being equal to 0.

Source: Own calculations based on HLCS 2001.

The gender of head of households affects poverty in rural areas but not other areas. Households headed by women in rural Haiti are more likely to be poor than those headed by men, when other covariates are included in the analysis, such as labor market connection and education (Table 8.1). Moreover, female-headed households in rural areas are 11 percent more likely to be poor than female heads in the rest of Haiti. Hence, social policies favoring women, such as conditional cash transfer programs, e.g. *Bolsa Escola* and *Bolsa Alimentação* in Brazil, where the mother receives the benefit, should be introduced. Furthermore, introducing more kindergarten and childcare facilities for poor mothers could facilitate poor women's labor market participation.

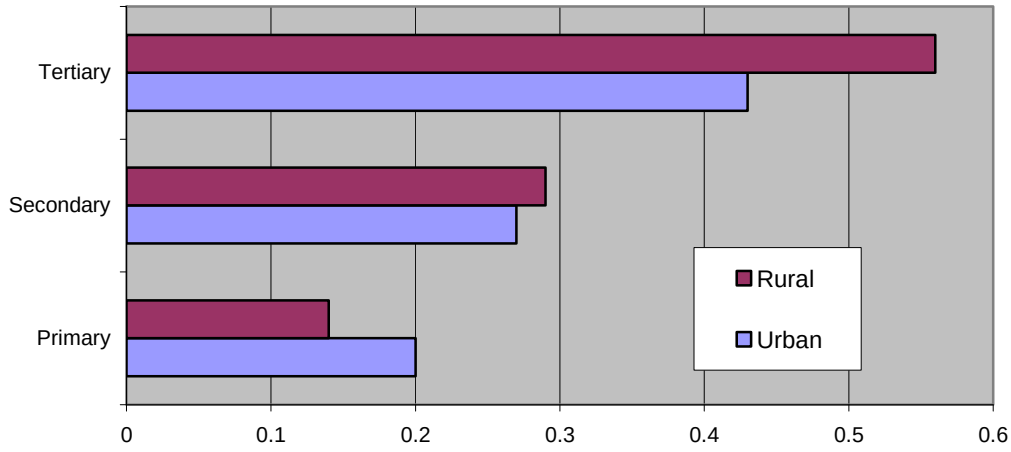
Social capital is important in rural areas to escape poverty. The probit regression findings presented in Table 8.1 show that rural dwellers with social capital are less likely to be poor than are rural dwellers with no social capital or political affiliation. That is, rural dwellers with no or little social capital have a higher incidence of poverty than their

peers with social capital, controlling for other characteristics. However, it is interesting to note that there is no measurable poverty reducing effect of social capital in urban areas in Haiti.

Education is the strongest poverty reduction correlate in Haiti. All levels of education from primary to tertiary are strongly statistically significant and negatively associated with the probability of being poor (Table 8.1 and Figure 8.1). The more education attained, the less likely it is that the household head falls below the poverty line of US$1 a day in 2001. The impact of having completed primary education on the likelihood of being poor is relatively low. For high-school graduates, the estimated impact is 30 percent larger than that of primary education.

Furthermore, completed tertiary education reduces poverty even more than completed secondary education. For university graduates, the likelihood of falling below the poverty line is less than a third of their peers that only completed primary education. Moreover, it is interesting to note that the likelihood of falling below the poverty line is higher for primary school graduates in rural areas than in other areas in Haiti, indicating that primary school educated individuals are a less scarce resource in rural Haiti than elsewhere, and they therefore receive a negative income premium. Another explanation could be that the quality of primary education may not be as high in rural areas as in urban or metropolitan areas in Haiti. There is no measurable difference in the likelihood of being poor between rural and urban populations for household heads who have completed secondary or tertiary education.

Figure 8.1: Marginal Impact of Attained Education on Poverty in Haiti 2001



Own calculations based on EVCH 2001.

As the age of household heads increases, the probability of falling into extreme poverty decreases slightly. The older the head of the household, the slightly lower is the probability that the household will be poor (Table 8.1). In rural areas the impact on the probability of being poor is not significantly different statistically from that of urban areas, namely 0.5 percent for every additionally year.

The larger the size of a household the higher the probability of falling into extreme poverty. Family characteristics, such as household size, are positively correlated with the incidence of extreme poverty. Hence, the larger the household, the more poverty prone it is. Moreover, larger households are poorer and the effect is concave, indicating that a scaling factor matters for poverty. Finally, the finding for rural areas is not different from urban areas.

Migration status is a significant correlate to poverty: migrants have an 8 percent lower probability of falling into extreme poverty than their peers who never migrated. Households that migrated to the metropolitan from rural areas show the same reduced risk of falling into poverty as those households that migrated from other areas.

The structure of poverty in Haiti is clear (controlling for individual and household characteristics, location, and region): residence in rural areas does not in itself affect the probability of being poor; female-headed households in rural areas are more likely to experience poverty than male-headed households; young households/household heads are more likely to be poor than older households/household heads; and those engaged in agriculture are not more likely to experience poverty than those engaged in services and industry. Poverty, therefore, is by no means strictly an agricultural problem. It is slightly more extensive in urban areas than in rural areas. Poverty and low levels of education are broadly correlated but the less educated in rural areas are more likely to be poor than their urban peers. Social capital protects against poverty in rural areas but the impact is not statistically significant in urban areas. Migration and education are two other factors that reduce the likelihood of falling into poverty. Without interventions to improve poor people's opportunities and assets, their plight is likely to worsen.

9. Conclusion and Policy Recommendations

Over the medium to long run what is needed to alleviate the high levels of poverty is broad-based growth. However, this is not enough to alleviate poverty, particularly in the short run. Measures are needed to protect vulnerable groups and to ensure that the poor will be able to take advantage of opportunities in the economy. In order to address these latter needs, this paper examined the profile of the poor and the correlates of poverty in Haiti.

In 2001, 49 percent of the Haitian households lived in absolute poverty and 20, 56, and 58 percent of the households in metropolitan, urban, and rural areas, respectively, based on a US$1 a day extreme poverty line. Most of the approximately 4.3 million indigents live in rural areas (3.06 million) and others live in the metropolitan and other urban areas (1.27 million). Poverty is especially extensive in the northeastern and northwestern regions of Haiti. Moreover, extreme poverty is not only large, but also very deep. Income is among the most unequally distributed in the world, indicated by a Gini coefficient of 0.66.

Social indicators such as literacy, life expectancy, infant mortality, and child malnutrition also show that poverty is broad in Haiti. Around 4 out of 10 cannot read and write, around 20 percent of children suffer malnutrition, nearly half the population has no health care and more than four-fifths have no clean drinking water. These indicators show that poverty in non-income terms decreased in the last decades. However, most of the social indicators do show that poverty has increased since mid-late 1990s. Moreover, the gap between rich and poor people and between regions is still large, such as between the Northeast and West regions.

The current demographic trend is unfavorable for Haiti's development. With the current growth rate of 2.2 percent the population will reach around 20 million by 2040. Although the fertility rate is falling, the large increase in the population and its growth rate over the last decade is pulling down the GDP per capita. Economic growth has performed very poorly and GDP per capita was reduced by roughly 50 percent in the last two decades. Agriculture has been the hardest hit of all sectors. Also in the last two decades, the rural population has flocked to urban Haiti, especially to the metropolitan area. In 2003, 40 percent of the Haitians lived in urban areas up from 25 percent in 1982. Moreover, Haiti is still far away from reaching the baby bust stage as children and youth account for roughly 50 percent of the population. The indigent households have around twice as many children as do the nonpoor. The lack of pensions, social security, and savings for most Haitians, often make children the only security for old age.

Rural households are better off than urban households in the low end of the income distribution. The per capita household income of rural households is higher than that of urban households for the first 4 deciles in Haiti. Self-consumption is the main explanation for the poorest being better off in rural than in urban areas. The rural poor receive the largest share of their total income from agricultural activities such as farming and agricultural labor. Rural-dwellers also work as laborers in the off-farm sector. The poor and nonpoor in rural areas receive 26-34 percent of their total income off-farm. Remittances from friends and family in urban areas and abroad account for around 14 percent of the poor people's total income, slightly less than that of the nonpoor.

Access to assets such as education and infrastructural services is highly unequal and strongly correlated with poverty. Educational attainment has increased over the last century and more so in urban than rural areas. Large differences exist in school attendance across regions and children and youth in the poorest regions fall behind their peers in richer regions. Moreover, children of indigent households attain less education than children from nonpoor households.

Access to safe water is a huge problem in Haiti; only 7.9 percent of the population has access in rural areas compared to 28 percent in the metropolitan area. Rural-dwellers in Haiti have less access to safe water than do some of their peers in rural Africa. Access to electricity is the most unequal among locations. While the majority (91%) of the urban population has access to electricity only 10 percent of the rural population has access. Moreover, only around 8 percent of Haitians have access to a paved road and 3 percent have a telephone. Finally, the extremely poor have much less access to services than their nonpoor peers.

The structure of poverty is clear in Haiti (controlling for individual and household characteristics, location, and region): living in rural areas does not in itself affect the probability of being poor and female headed households are more likely to experience poverty than male headed households in rural areas. Those engaged in agriculture are not more likely to experience poverty than those engaged in services and industry. Hence, poverty is by no means strictly an agricultural problem. Furthermore, the poverty is slightly broader in urban than in rural areas and among the poorly educated. Social capital protects against poverty in rural but not statistically significantly so in urban areas. Domestic migration and education are two other factors that reduce the likelihood of falling into poverty.

The lack of good governance in Haiti is one of the main reasons for deficient public policies to reduce poverty. Haiti needs a poverty alleviation strategy that sets clear and appropriate priorities and goals for poverty reduction efforts within a framework of a continuation of economic policies that would promote growth. The challenge and test of the government's resolve will be to what extent current and future policies and programs are governed by that strategy. In order to ensure that the poor reap the benefits, poverty measurement and monitoring are called for, including tracking changes and making appropriate adjustments in existing programs to reflect these changes (see below).

A FOUR-PRONGED POVERTY-REDUCTION APPROACH FOR HAITI

The poverty profile and determinants of poverty provide guidance on a social agenda and poverty alleviation strategy for Haiti. The strategic principles for reducing poverty involve seeking to strengthen the key assets of the poor, taking into account geographic differences in the poverty situation and priorities. The government of Haiti could apply a four-pronged poverty-reduction approach:

First, programs should focus on the extreme poor and prioritize among groups. Given the distribution of poverty, first priority should be given to: households with young children and people with or at risk for low educational attainment. Second priority should be assigned to programs that target poor workers and producers. Improvements in social policies and access to public services are needed to reduce extreme poverty for these groups.

- Extremely poor households are at great risk of poor or low human capital accumulation that includes poor health and undesired pregnancies because they lack access to family planning and clean water and sanitation facilities. Increased quality education and educational attainment can reduce the likelihood of becoming poor, as more education is a key factor in obtaining a higher income for workers and producers. Furthermore, education is associated with fertility: the more education a woman attains, the lower her fertility rate and, therefore, the lower the dependency ratio and the lower the likelihood of falling into poverty. To bring Haitians up the educational ladder, one approach could be to increase: (1)

access to early childhood development and daycare programs, (2) access of poor people to programs of financial transfers linked to early childhood development and primary education, and (3) the quality of education.

Second, reallocate public expenditures and promote community participation in service delivery. The top priority for effective action to reduce poverty should involve reallocating public expenditures. The government needs to reallocate existing spending toward areas that benefit the poor, boost cost recovery for services used by the non-poor, and improve efficiency in service delivery. A thorough review of public spending should be conducted to provide guidance on such reallocations. Promotion of community participation in service delivery is important to expand social programs and respond to community preferences for service delivery.

Third, implement key policy reforms to reduce disparities in assets. Special efforts should be made including: (i) expanding house and land property titling; and (2) ensuring access to high-quality primary and secondary education for youth from poor households.

Fourth, allocate resources to monitor poverty and evaluate the implementation of poverty reduction interventions. The government needs to develop a poverty monitoring system to track living conditions and provide data for the impact evaluation of interventions. The government should also seek to develop a key set of indicators for monitoring actions to reduce poverty.

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