

ACCION Poverty Outreach Findings: SOGESOL, Haiti¹

Introduction

ACCION International is conducting a Poverty Outreach project to better understand the poverty profiles of microfinance clients and their households. ACCION intends to use this information to develop more effective means for its affiliate microfinance institutions (MFIs) to assess their outreach to poor clients at a low cost and on a regular basis. Additionally, this research will inform ACCION's on-going efforts to develop products that reach poorer levels of microentrepreneurs.

This report is the second in a series of poverty assessments performed by ACCION as part of its Poverty Outreach project². Here, we evaluate the poverty levels of SOGESOL clients relative to the Haitian national and urban populations as well as international poverty lines.

The results presented in this report must be considered preliminary, however, because of an anomaly discovered in the expenditure and income data at both Haiti's national level and within SOGESOL that warrants additional survey research. These data quality issues suggest that this study is more relevant as a part of the learning process in the effort to understand poverty measurement than as definitive results regarding SOGESOL's poverty outreach.

The Haitian Context

Haiti is the poorest country in the Western Hemisphere and one of the poorest in the world with a 2002 per capita GDP of US\$433 (World Bank, 2003). It has historically exhibited a pattern of little, no, or negative economic growth, eking out a GDP growth rate of just one percent per year from 1987 to 2000. Haiti's poverty is reflected even more dramatically in its social indicators. In 2000, Haiti's literacy rate was 50 percent, life expectancy at birth was less than 53 years and

¹ This InSight is based upon a more detailed report entitled *ACCION Poverty Outreach Findings & Analysis: SOGESOL, Haiti*, which includes the background data and a more detailed discussion of the findings. It is available at www.accion.org/publication_reports or by request to pdevaney@accion.org.

² The first institutional study in the ACCION Poverty Outreach project was conducted with ACCION's Peruvian affiliate, Mibanco. The results are available at www.accion.org/insight as *InSight #5: Poverty Outreach Findings: Mibanco, Peru* and as a more detailed report at www.accion.org/publication_reports.

infant mortality was 81 per 1,000 live births. Only 46 percent of the population had access to safe water and 28 percent had access to adequate sanitation facilities. Haiti ranks 146th out of 173 countries in the Human Development Index (HDI)³.

Haiti's underdeveloped economy is a result of decades of political instability and a wide range of other economic, environmental and international relations factors. The informal sector was born out of shrinking industry of the past several decades. The urban assembly sector, while vibrant in the 1980s, experienced a 79 percent reduction in jobs in part due to the 1994 UN embargo prohibiting all goods except humanitarian supplies from entering Haiti. As formal sector employment fell, those without jobs pursued their own microenterprises. As a result, domestic and international microfinance institutions made their appearance to provide business support to the growing urban and rural microenterprise market. Currently, the three largest urban microfinance programs (SOGESOL, MCN and ACME) reach over 13,000 microentrepreneurs with loans totaling more than US\$10 million.

The History of SOGESOL

SOGESOL was created in August 2000 as a service company for SOGEBANK, Haiti's largest commercial bank⁴. SOGESOL's mission is to promote Haitian entrepreneurship by adapting traditional banking services to micro and small businesses needs. SOGESOL shareholders include SOGEBANK (35 percent), ProFund (20.5 percent), ACCION International (19.5 percent), and private shareholders (25 percent). SOGESOL disbursed its first loans in November 2000, providing individual working capital and fixed asset loans primarily in urban areas.

Since its founding, SOGESOL has grown considerably despite the difficult economic, social and political situation in Haiti. As of July 2003, SOGESOL had six branches (four in Port-au-Prince, and two in the northern cities of Cap Haitian and Gonaives). It is the largest microfinance institution in Haiti, with an active portfolio of US\$4.2 million and 7,135 active clients as of August 2003. It reached full profitability in 2002 after just two years of operation.

Poverty Assessment Methodology

The poverty assessment methodology employed in our study is described in detail in the *ACCION Poverty Assessment Framework* (www.accion.org/insight, *InSight #1*). Therefore, we include only a brief discussion of our methodology in this section, focusing on cases in which we deviate from the general methodology because of issues unique to the Haitian or SOGESOL data.

³ UNDP Human Development Report, 2002. For comparison, out of a maximum score of 1.0, Haiti's HDI score is 0.471, while the other three poorest countries in the region, Guatemala, Nicaragua and Bolivia, have HDI indices of 0.631, 0.635 and 0.653, respectively.

⁴ For an in-depth understanding of the SOGESOL/ SOGEBANK service company model, see Lopez and Rhyne (2003).

Poverty Lines

To measure the absolute poverty levels of SOGESOL clients, we compare client households' per capita expenditure to national and extreme poverty lines and to the \$1/day and \$2/day international poverty lines. The national poverty and extreme poverty lines used were developed by the Norwegian Fafo Institute of Applied International Studies (Fafo) and are based on the 1999-2000 national household survey (*Enquête Budget-Consommation des Ménages, EBCM*) conducted by the Haitian Institute of Statistics (IHSI). We also use the \$1/day and \$2/day poverty lines representing the purchasing power of \$1 or \$2 per person per day across countries.

The national and extreme poverty lines developed by Fafo appear to be the only Haitian national and extreme poverty lines available. They are based on the cost of basic needs approach, in which the extreme poverty line represents the cost of basic food necessities and the poverty line is the cost of basic food *and* non-food necessities⁵. To arrive at the extreme poverty line, Fafo constructed a basket of foods typically consumed by the Haitian poor and then used price data to determine the cost of purchasing such a basket of basic food necessities. To obtain the overall national poverty line, Fafo adjusted the extreme poverty line upward to also include the cost of basic non-food necessities. However, because Fafo used a poorer group of households to determine the non-food adjustment factor than is commonly used in calculating national poverty lines, the resulting poverty line is relatively lower than the standard national poverty lines used in other countries⁶.

We converted the national, extreme and international poverty lines into 2002 prices in order to allow comparison with the SOGESOL 2002 data by adjusting for inflation. In addition, we converted the \$1 and \$2/day poverty lines into Haitian gourdes using the Haitian purchasing power parity (PPP) exchange rate. The resulting annual poverty lines are summarized in Table 1⁷.

Table 1: Haitian Poverty Lines based on 2002 Annual Expenditure Per Capita (Gds)

Poverty Line	Gourdes	US\$ ⁸
Extreme Poverty Line	5,620	\$210
National Poverty Line	7,468	\$279
\$1/day Poverty Line	4,277	\$491
\$2/day Poverty Line	8,555	\$982

Source: Fafo based on EBCM (1999/2000) (extreme, national poverty lines) and authors' calculations based on World Bank international poverty lines and PPP conversion factor (\$1, \$2/day poverty lines).

⁵ For information on calculating the Fafo poverty line and extreme poverty line, see Pedersen and Lockwood (2001).

⁶ Overviews of various poverty line methodologies are in Hentschel and Lanjouw (1996) and Ravallion (1994).

⁷ For further information on the poverty lines and adjustments, see Annex 1 of the long version of this report *ACCION Poverty Outreach Findings & Analysis: SOGESOL, Haiti* (www.accion.org/publication_reports).

⁸ The national and extreme poverty lines were converted to US dollars using the March 2002 exchange rate of G/26.76 to US\$1. The \$1 and \$2/day international poverty lines in 2002 US dollar terms are calculated by inflating the original \$1 and \$2/day poverty lines from 1993 to 2002 terms based on the US rate of inflation. These figures give a sense of the purchasing power of the \$1 and \$2/day poverty lines in Haiti. However, because of different rates of inflation in Haiti and the US and the purchasing power parity (PPP) exchange rate used to convert the \$1 and \$2/day poverty lines to Haitian Gourdes, they are not directly comparable to the national and extreme poverty lines in US dollar terms.

Poverty Indicators and Classifications

A primary goal of ACCION’s poverty assessment is to compare the distribution and not simply the incidence of poverty between SOGESOL clients and the population (in part because of the arbitrary nature of *any* poverty line). To better understand the profile of both the clients and the population, we classify households in five categories (Levels 1 through 5) on the basis of annual per capita expenditure compared with the national poverty line. Level 1 includes all households with per capita expenditure equal to 0-50 percent of the national poverty line; Level 2 includes households with expenditure between 50-75 percent of the poverty line; Level 3, 75-100 percent; Level 4, 100-120 percent; and Level 5, over 120 percent. Therefore, Levels 1, 2 and 3 represent all households below the national poverty line and Levels 4 and 5 include near-poor and non-poor households, respectively.

Poverty Outreach Data

SOGESOL Data

The database used in our analysis consists of clients from all SOGESOL branches (four at the time of the study, all located in Port-au-Prince) who received a microenterprise loan between April 2001 and May 2002. There are 4,454 clients in our sample, which represent all active clients at the time the data was collected⁹.

The SOGESOL database includes income and expenditure, client demographic and socio-economic information, as well as loan information that was collected by loan officers during the standard credit application process and stored within SOGESOL’s management information system (MIS). The SOGESOL expenditure data used in our analysis is based on detailed expenditure questions that ask the credit applicant for household expenditures on the following: food, rent, clothing, education, health, transportation, services, household furniture, household help or employees, and “other.”

National Data

While several national household surveys have been conducted in Haiti during recent years, the datasets were not available to the public at the time of this assessment. Therefore, to compare the poverty levels and demographic characteristics of SOGESOL clients with the national and urban Haitian populations, we must rely on summary data (as opposed to the original detailed data) available from two different national surveys.

We present the summary poverty measures that Fafo calculated and presented in their summary report (Pedersen and Lockwood, 2001). In addition, we refer to summary statistics from the

⁹ As a result of minor data inconsistencies, some active clients were excluded from the analysis. Exclusions are random, and therefore do not bias the results.

national Household Income and Expenditure Survey (EBCM) and Haiti Living Conditions (ECVH) surveys that were presented by the Haitian Institute of Statistics (IHSI, 2000 and IHSI, Fafo, UNDP, 2003). Relying on summary data limits our ability to conduct a robust comparison between SOGESOL clients and the broader population, although it does provide a benchmark from which to evaluate the poverty levels of SOGESOL clients.

Data Considerations

In our analysis, we use expenditure as a proxy for consumption, a standard approach in household surveys and poverty measurement. However, there are significant discrepancies between the SOGESOL income and expenditure data that may significantly affect our findings. As illustrated in Table 2, the SOGESOL median annual income per capita is reported to be G/53,782 (US\$1,992) while the median annual expenditure per capita is G/8,600 (US\$319). Expenditure is thus recorded as 16 percent of income. In most developing country household surveys, expenditure is generally reported to be approximately 80 percent of income.

Table 2: SOGESOL Clients’ Median Reported Income and Expenditure

Annual income per capita	G/ 53,783	\$1,992
Annual expenditure per capita	G/ 8,600	\$ 319
Annual household income	G/210,816	\$7,808
Annual household expenditure	G/ 34,800	\$1,289

A substantial discrepancy between income and expenditure data is not limited to SOGESOL, but is a broader problem in Haiti. According to the Fafo report based on the Haitian Institute of Statistics’ Household Income and Expenditure (EBCM) survey (Pedersen and Lockwood, 2001 and IHSI, 2000), national annual median household expenditure is G/32,587; this is significantly higher than the reported median income of G/19,080. Furthermore, based on the survey (IHSI, 2001), Pederson and Lockwood (2001) found nearly 0 correlation between income and expenditure, which led them to question the quality of the income data and ultimately exclude it from their study.

In the case of SOGESOL, additional research is required to better understand the root causes of the differential between income and expenditure. At this stage, it appears that several factors play a role. Clients and loan officers may have an incentive to understate expenditure and overstate income in order to receive or extend a loan. Clients may unintentionally omit infrequent expenditures such as healthcare costs or rent (many clients pay rent annually or semi-annually instead of monthly). Additionally, certain substantial expenses, such as home improvements or large lump-sum expenses (e.g., weddings), are not specifically solicited on the credit application. Therefore, we hypothesize that expenditure is biased downward, income data is biased upward, and that clients’ actual levels of expenditure and income lie between these two reported values.

We chose to rely on expenditure data for our analysis for several reasons. First, we find that the SOGESOL expenditure data results are generally consistent with national expenditure data,

supporting its use in our analysis. Second, Fafo’s assessment that the national income data is unreliable made it impossible to use income as a basis for comparison. Without quality national data, we would be unable to convert the expenditure-based poverty lines into income terms or compare the income levels of SOGESOL clients with the national population.

If we had chosen to use income data as the basis for comparison in our study, we would not have been able to determine appropriate poverty lines for comparison. However, it is certain that the overall client population of SOGESOL would have appeared significantly less poor, with the vast majority considered non-poor.

For these reasons, the results in this report are considered preliminary. Validation surveys will need to be conducted before we can rely on the results presented here.

Overall Poverty Comparisons

Serving Haiti’s Poor and Near-Poor Majority

As shown in Table 3, our findings suggest that SOGESOL clients have a similar poverty profile to the Port-au-Prince population. That is, our analysis indicates that 34 percent of Port-au-Prince residents and 37 percent of SOGESOL clients fall below the national poverty line. We also find that 20 percent of the Port-au-Prince population and 16 percent of SOGESOL clients have expenditures lower than the extreme poverty line. Additionally, we find that half of all SOGESOL clients are considered poor based on the \$2/day poverty line.

Table 3: Headcount Poverty Measures: Percent Below Poverty Lines¹⁰

<i>Population</i>	<i>National Poverty Line (G/7,468)</i>	<i>Extreme Poverty Line (G/5,620)</i>	<i>\$1/day Poverty Line (G/4,277)</i>	<i>\$2/day Poverty Line (G/8,555)</i>
Haiti	48	31	N/A	N/A
Port-au-Prince	34	20	N/A	N/A
SOGESOL (total)	37	16	6	50
Carrefour Branch	48	25	10	58
Delmas Branch	25	8	2	36
Pétion Ville Branch	33	13	3	46
Rue du Quai Branch	35	15	6	49

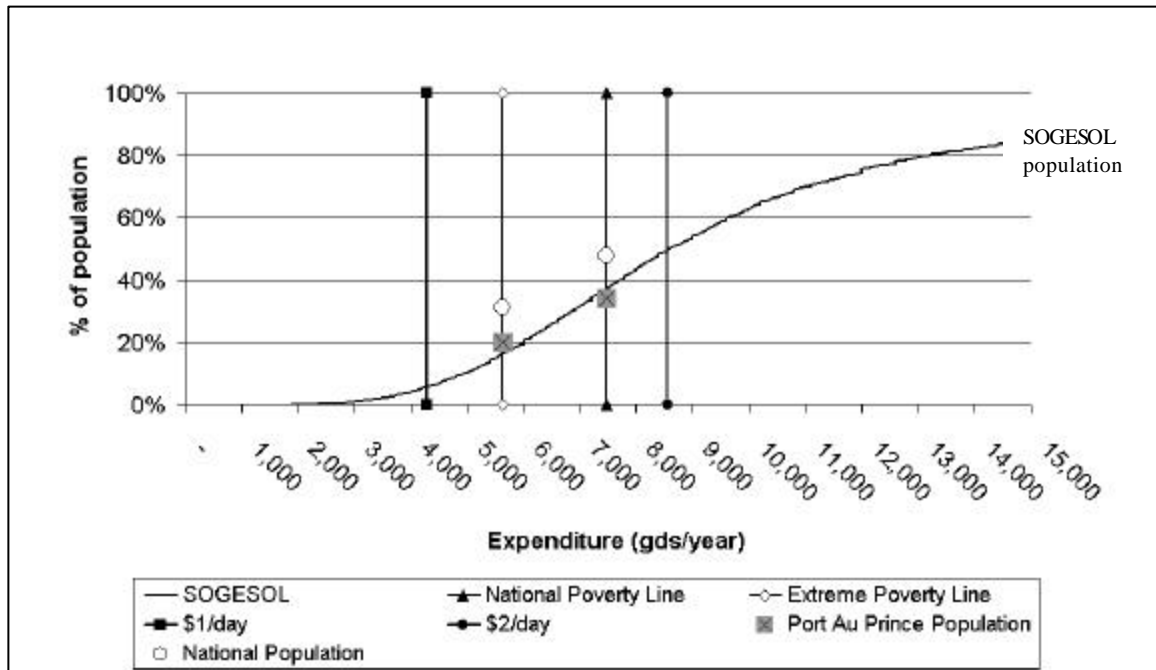
The overall Haitian population has a higher percentage of people below both the national and Port-au-Prince poverty lines than do the Port-au-Prince and SOGESOL populations. These findings are not surprising. At the time this data was collected, SOGESOL operated exclusively in Port-au-Prince. With urban populations generally more wealthy than the national population, we would not expect SOGESOL clients to be as poor as the general Haitian population. As is typical with

¹⁰ The Haiti and Port-au-Prince national and extreme poverty line statistics in this table are taken from Pederson and Lockwood (2001).

microfinance clients of most of ACCION’s partner programs, SOGESOL clients have neither extremely low nor very high expenditure levels. This suggests that SOGESOL is serving Haiti’s poor and near-poor majority.

The cumulative distribution function (CDF) in Figure 1 provides a more detailed illustration of how SOGESOL client households compare with the four poverty lines. This illustrates both the depth of outreach of SOGESOL, as well as the significant variability of poverty lines.

Figure 1: Household Annual Expenditure per Capita



Analysis by Poverty Levels

To illustrate SOGESOL’s poverty distribution in another way, we divide the client population into our five poverty groups using the national poverty line as a reference, in Table 4. In doing so, we find that three percent of SOGESOL clients fall into Level 1 (poorest category); 13 percent fall into Level 2; 21 percent are in Level 3; 16 percent in Level 4; and 47 percent are in Level 5 (wealthiest category).

Because the analysis performed on the SOGESOL database is static, it does not capture the natural income and expenditure fluctuations over time due to the particular vulnerability of poor households to external shocks. In reality, however, the 37 percent of client households clustered around the national poverty line (Levels 3 and 4) are likely to experience periods of both poverty and non-poverty at various points in time.

Table 4: Client Expenditure by Poverty Level

<i>Poverty Level</i>	<i>Poverty Level Definition</i>	<i>Statistical Indicator</i>	<i>Annual Household Expenditure</i>		<i>Annual Per Capita Expenditure</i>		<i>% of Clients</i>
Level 1 N = 134	0-50% of the National Poverty Line	Median Mean Std Dev	G/21,600 G/20,637 6,768	\$807 \$771	G/3,259 G/3,172 463	\$122 \$118	3%
Level 2 N = 586	50-75% of the National Poverty Line	Median Mean Std Dev	G/27,480 G/28,518 9,431	\$1,029 \$1,066	G/4,886 G/4,827 529	\$183 \$180	13%
Level 3 N = 931	75-100% of the National Poverty Line	Median Mean Std Dev	G/33,000 G/33,769 11,388	\$1,233 \$1,262	G/6,600 G/6,559 522	\$247 \$245	21%
Level 4 N = 706	100-120% of the National Poverty Line	Median Mean Std Dev	G/34,800 G/37,310 13,186	\$1,300 \$1,394	G/8,100 G/8,154 412	\$303 \$305	16%
Level 5 N = 2,097	Greater than 120% of the National Poverty Line	Median Mean Std Dev	G/40,200 G/44,615 24,585	\$1,502 \$1,667	G/12,300 G/15,468 10,488	\$460 \$578	47%

Extreme Poverty Line

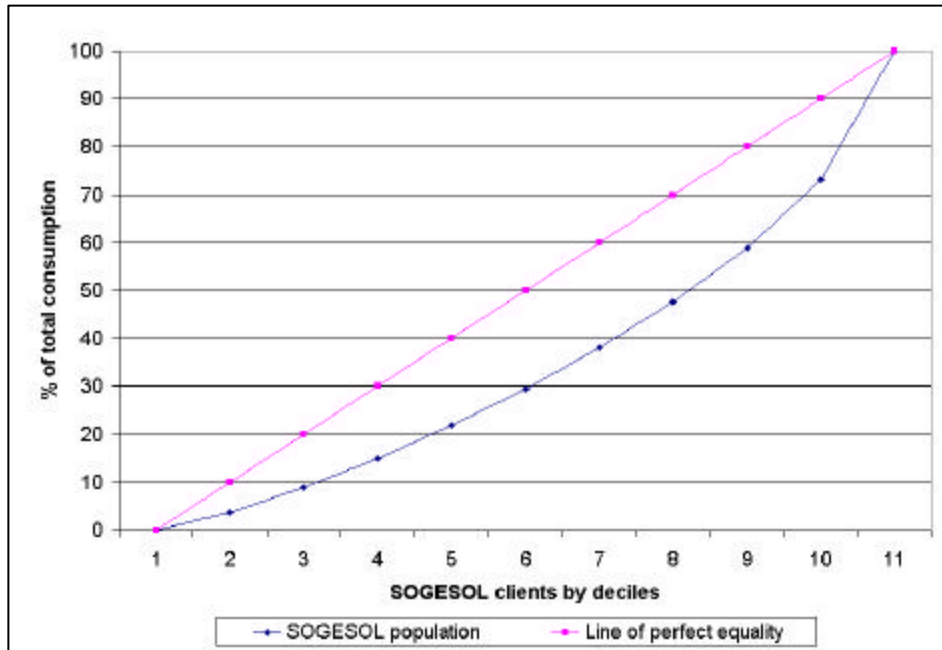
An alternative approach to assessing poverty is to measure SOGESOL client households' food expenditure in relation to the extreme poverty line, which is defined on the basis of the cost of a minimum subsistence diet. Using food expenditure as a poverty indicator, our analysis suggests that 45 percent of SOGESOL clients are considered poor.

Economic Inequality Among SOGESOL Clients

In addition to understanding the different poverty levels of SOGESOL clients, we are interested in the inequality of SOGESOL client households in terms of expenditures. To achieve this, we divided the client population by deciles and calculated the Lorenz Curve¹¹ in Figure 2 for SOGESOL clients.

¹¹ The Lorenz Curve is a graphical representation of income or expenditure inequality and shows that for the bottom x% of households, the percentage y% of the total income they have. A perfectly equal income distribution in a society would be one in which every person has the same income or expenditure, depicted by the line of perfect equality (the upper line in Figure 5).

Figure 2: Consumption Distribution Among SOGESOL Clients



From this figure, we observe that the Lorenz Curve remains relatively close to the line of perfect equality, indicating a fairly egalitarian consumption distribution among SOGESOL clients. We find that the Gini coefficient¹² of the SOGESOL population is .32 based on annual expenditure per capita. Comparing this to Haiti’s Gini coefficient of .50 and the Port-au-Prince coefficient of .59¹³, we learn that the wealth distribution among SOGESOL clients is more equal than it is the Haitian population. This result again supports the notion that SOGESOL does not serve the extremes of the Haitian population at either end of the spectrum (i.e., SOGESOL clients are fairly homogeneous in terms of expenditure levels).

Demographic & Socio-Economic Characteristics

In the SOGESOL client population, we find similar demographic characteristics across the five poverty levels, although some characteristics do exhibit interesting patterns, as discussed below and summarized in Table 5. When data are available, we compare SOGESOL client characteristics with those of the national population¹⁴.

¹² The Gini coefficient is a commonly used measure of inequality that ranges from 0 (wealth is distributed equally) to 1 (one person possesses all the wealth, the rest possess nothing).

¹³ This calculation is based on household expenditure per capita. For more details see Pedersen and Lockwood (2001). Haiti’s inequality is comparable to that found in South America, and higher than that for other Caribbean countries (e.g., Jamaica’s is 0.38, Saint Lucia’s is .43 and Dominican Republic’s is 0.49).

¹⁴ All national demographic statistics are taken from IHSI, FAFO and UNDP (2003).

Education level varies among poverty categories for both SOGESOL clients and the Haitian population. In general, and SOGESOL clients are better educated than the broader Haitian population. However, both groups follow the expected trend that a higher education level is associated with greater wealth. Seventy-three percent of the general population in the poorest quintile have no education, while only 15 percent of SOGESOL clients below the national poverty line (Levels 1, 2 and 3) have no education. Conversely, 10 percent of clients above the national poverty level (Levels 4 and 5) and 24 percent of the wealthiest within the general population have no education. Overall, 53 percent of Haiti’s national population, 30 percent of Haitian microentrepreneurs, and 14 percent of SOGESOL clients have no formal schooling.

Table 5: Demographic Comparisons by Poverty Level (median value or %)

Poverty Level	Age	Household size	Highest Education Level Attained		Gender	
Level 1 N=134	39	6	None	16%	Female	61%
			Primary	54%	Male	39%
			Secondary	24%		
			Technical	5%		
			University	0%		
Level 2 N=586	39	6	None	16%	Female	63%
			Primary	54%	Male	37%
			Secondary	25%		
			Technical	4%		
			University	1%		
Level 3 N=931	39	5	None	15%	Female	62%
			Primary	51%	Male	38%
			Secondary	29%		
			Technical	3%		
			University	1%		
Level 4 N=706	39	4	None	15%	Female	62%
			Primary	47%	Male	38%
			Secondary	32%		
			Technical	4%		
			University	2%		
Level 5 N=2,097	36	3	None	9%	Female	60%
			Primary	30%	Male	40%
			Secondary	46%		
			Technical	7%		
			University	8%		
Total N=4,454	39	4	None	14%	Female	61%
			Primary	40%	Male	39%
			Secondary	36%		
			Technical	5%		
			University	4%		

Although we expect per capita expenditure to increase as household size decreases, the difference in the client population is greater than one might expect. Among the poorest clients, average household size is six, while the wealthiest clients have, on average, a household of just three. The national average household size is estimated at 4.5 people.

In terms of age, we find that the wealthier SOGESOL clients tend to be slightly younger than the poorer clients. Median age at the poorest levels is 39, while clients in the wealthiest level are on average 36 years of age. This age differential could be explained by the fact that younger clients have fewer children, and therefore have higher per capita expenditure levels.

Based on studies in microfinance and gender¹⁵, we may expect to see a greater representation of female clients in the poorer levels. Interestingly, however, gender remains fairly constant regardless of poverty level, at about 61 percent female and 39 percent male throughout the SOGESOL client population.

Microenterprise, Loan and Household Budget Characteristics

ACCION’s analysis finds several interesting characteristics pertaining to clients’ microenterprises and SOGESOL loans, and their income and consumption patterns.

Whether a client is engaged in production, service or commerce changes only slightly according to his or her poverty level. For example, 88 percent of clients in the poorest poverty level are engaged in commerce, while 85 percent are engaged in commerce in our wealthiest poverty level. Clients engaged in production increases from six percent to nine percent from poorest to wealthiest category, suggesting that production may be more lucrative than commerce.

According to the national survey, of the non-agricultural self-employed microentrepreneurs (the sample most comparable to SOGESOL clients), 69 percent are engaged in commerce, 15 percent in service, 12 percent in production and five percent in “other” (ECVH, 2001). Table 6 compares the SOGESOL clients to the self-employed Port-au-Prince population in terms of business sector.

Table 6: Overall Comparison of Microenterprise Sector: SOGESOL and Haiti Populations

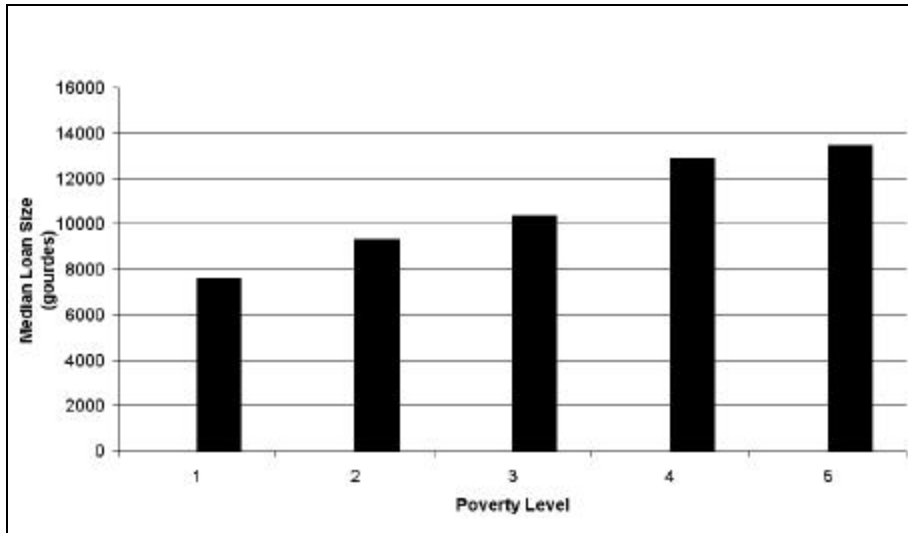
	SOGESOL	Haiti¹⁶
Commerce	86%	69%
Production	8%	12%
Service	5%	15%
Other	N/A	5%

¹⁵ For example, Sánchez (1998).

¹⁶ To compare the sectors pertinent to the urban SOGESOL population, microentrepreneurs engaged in agriculture are excluded from the national population in this table.

As expected, we find that loan size increases in accordance with household expenditure. As depicted in Figure 3, the median loan size increases by 77 percent from the poorest to the wealthiest poverty level.

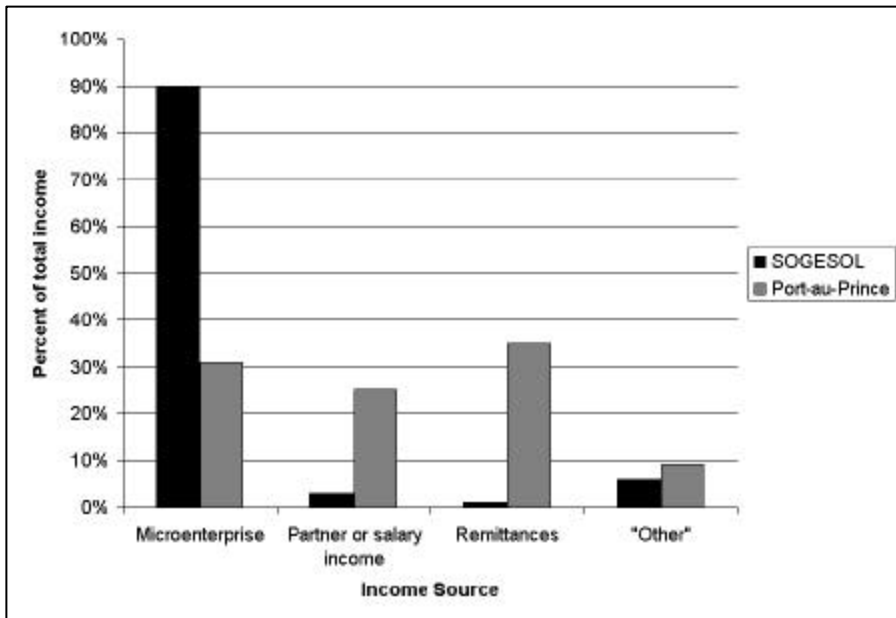
Figure 3: Median Loan Size by Poverty Level



Our study shows that borrowers who have taken out more than one loan tend to be wealthier than borrowers with only one loan. Surprisingly, however, the number of years SOGESOL clients have run their microenterprises appears to be inversely related to their poverty level. We also find in Table 6 that the percentage of borrowers who own their places of business (as opposed to renting a space) doubles from the poorest to the wealthiest category.

Based on our data, household income is more evenly distributed among income sources in the Haitian population than in the SOGESOL client population, as illustrated in Figure 4. Microenterprise income makes up the vast majority of the income of SOGESOL clients.

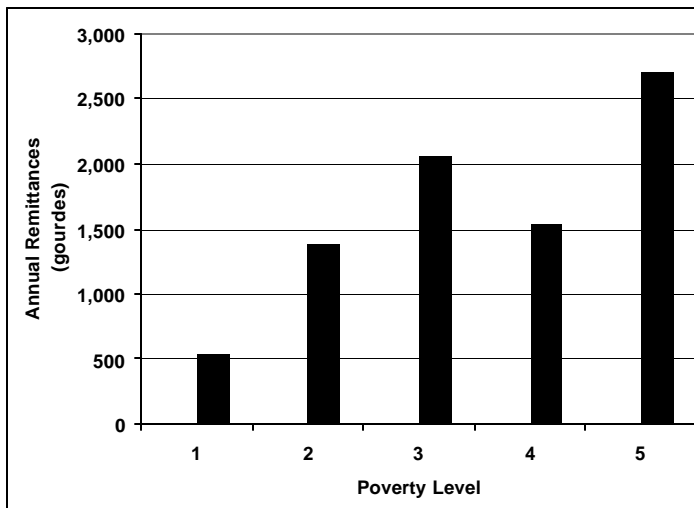
Figure 4: Income Sources for SOGESOL and Port-au-Prince Populations



Although we do not use income as a basis for measuring poverty in this study, two factors related to household income are particularly interesting in our analysis: the share of household income attributable to the microenterprise and annual household remittances. In the poorest level, 88 percent of household income comes from the client’s microenterprise. In the wealthiest category, that percentage increases to 92 percent. The fact that wealthier households actually have slightly less diverse income sources than poorer households may suggest that wealthier clients are afforded the opportunity to focus almost exclusively on their microenterprise. Alternatively, it may imply that microenterprises require a greater investment by the entrepreneur. Another potential explanation for the difference is that the poor are more vulnerable and seek to diversify their income sources. Further research is required to draw a more definitive conclusion.

Because the development of remittance products is increasingly attractive to SOGESOL and other microfinance institutions, and because of the high percentage of income attributable to remittances in the national population, it is interesting to note that remittance income increases dramatically as clients become wealthier, as depicted in Figure 5. Level 5 (wealthiest) borrowers have, on average, four times the remittance income that the poorest clients receive. However, it is important to note that only seven percent of all clients in our study report any income from remittances, compared to a national estimate of 27 percent of all Haitian households that receive remittances (ECVH, 2001).

Figure 5: Mean Annual Remittances per Capita



The “typical” SOGESOL client’s household budget consists primarily of food, clothing, health, utilities, and other basic expenditures. As illustrated in Table 7, the largest percentage of clients’ budgets is devoted to food, which amounts to a median of 2,000 gourdes per month or 67 percent of overall household expenditures. Nearly all clients report monthly expenditure on clothing and health care and spend a median of 100 gourdes on each. The majority of clients (61 percent) also report expenditures on utilities, including water, electricity and phone service. The median expenditure for those client households is 100 gourdes while the median value for the overall population is 50 gourdes. Median expenditure on “other” basic goods and services, including taxes, is 200 gourdes.

Table 7: Household Expenditure by Category (in gourdes per month)

	Median Household Expenditure (SOGESOL pop. N = 4454)	% of Total Household Expenditure (based on aggregate expend. by category)	Median Household Expenditure (of client households reporting positive expenditure)	N (number of client households reporting positive expenditure by category)
Food	2000	67	2000	4442
Rent	0	0	417	46
Clothing	100	4	100	4301
Education	0	8	425	2058
Back to School	0	0	176	134
Health	100	3	100	4235
Transportation	0	3	150	1430
Utilities	50	4	100	2722
Furniture/hh goods	0	0	200	36
Domestic employees	0	3	500	765
Other	200	8	200	4300
TOTAL	2900	100	2900	4454

Interestingly, rent does not appear to be a significant component of client household budgets. Among the SOGESOL population used in this analysis, only 46 clients (roughly one percent) reported regular monthly rent expenditure¹⁷. While total population median education expenditure is 0, nearly half of SOGESOL clients report spending on education. Of this group, the median expenditure is 425 gourdes per month. Transportation is not a significant expense for the overall population. However, for the 31 percent of clients that do report expenditure on transportation, the median amount is 150 gourdes.

Overall, median expenditure on domestic employees is 0, however 765 clients (17 percent) reported spending a median of 500 gourdes per month on “personnel de maison.” While employing domestic help is somewhat of a cultural phenomenon in Haiti that is not limited to the upper class, 70 percent of clients that report expenditure on domestic employees are in poverty level 5, the wealthiest group of clients.

Correlation and Regression Results and Discussion

As the microfinance field as a whole searches for appropriate indicators of poverty, it is important to understand the relationship between variables such as income, expenditure and loan size to determine whether loan size is a useful proxy variable for poverty. Furthermore, it is important to gain an understanding of additional indicators that may be appropriate poverty indicators and under which contexts they may apply. Through our correlation analysis, we find that income and expenditure are relatively highly correlated; that food expenditure is highly correlated with overall expenditure per capita; and that in the case of SOGESOL, loan size is only weakly correlated with expenditure and income per capita.

We find that the correlation between income and expenditure per capita is 0.60. This figure is much more reasonable than the correlation found in the 1999/2000 EBCM national survey which was indistinguishable from zero, leading Fafo researchers to doubt the reliability of income data in that survey (Pedersen and Lockwood, 2001). However, a correlation of 0.60 is still lower than 0.80, which is generally assumed in other countries based on the expenditure to income ratio from national household surveys or national account data¹⁸. As expected, particularly among the poor, we find that food expenditure is highly correlated with overall expenditure. Based on SOGESOL’s data, the correlation coefficient between the two variables is 0.92.

Among SOGESOL clients, loan size is only weakly correlated with income and expenditure (0.32 and 0.21, respectively), but more highly correlated with disposable income (0.52). We also find that loan size is significantly correlated with wealth, measured as the total assets of a client’s microenterprise. The correlation between loan size and total assets is 0.67.

¹⁷ This may be a case of under-reporting because rent is generally paid on an annual or semi-annual basis.

¹⁸ See, for example, Welch and Devaney (2003) and Dunn and Arbuckle (2001).

The correlation analysis also reveals that the number of loans a client has received is moderately correlated with home ownership (0.39). As a result, it may be interesting to investigate whether people use their loans to purchase homes and make home improvements. However, given that the SOGESOL program is new, we have minimal historical data on clients' number of loans and therefore can draw limited conclusions.

As illustrated in Figure 5, remittance income is higher in households with higher expenditure levels. The correlation between annual remittance income per capita and expenditure per capita is very weak (0.06) because it is driven by the large number of observations of 0 reported remittances. However, if one examines the correlation for the sub-set of 293 clients that report remittances, the correlation between remittances and expenditure is much higher: 0.46. The same observations hold for comparisons of remittances to income per capita.

Table 8: Correlation Matrix of Selected Variables: SOGESOL Population

	Income per capita	Exp. per capita	Dispos-able income	Remitt-ances per cap.	Food exp. per cap.	Total assets	House-hold size	Home owner-ship	Loan size	No. of loans
Income per capita	1.00									
Exp. per capita	0.60	1.00								
Dispos-able income	0.68	0.25	1.00							
Remitt-ances per capita	0.03	0.06	0.03	1.00						
Food expend. per capita	0.58	0.92	0.22	0.06	1.00					
Total assets	0.40	0.26	0.62	0.03	0.21	1.00				
House-hold size	-0.36	-0.46	0.06	-0.01	-0.51	0.08	1.00			
Home owner-ship	-0.06	-0.04	0.01	0.01	-0.05	0.05	0.15	1.00		
Loan size	0.32	0.21	0.52	0.04	0.16	0.67	0.09	0.18	1.00	
Number of loans	0.01	-0.01	0.06	0.00	-0.02	0.11	0.04	0.39	0.42	1.00

Regression Findings

The analysis of SOGESOL data yields no simple proxy variables that can serve as indicators of poverty. In the case of SOGESOL, we find that loan size alone is not a strong predictor of expenditure per capita. We find that one cannot predict expenditure per capita with a great deal of precision without including food expenditure, which is highly correlated with overall expenditure, in the regression.

Conclusion

Based on the SOGESOL expenditure data, we find that the poverty profile of SOGESOL clients is generally consistent with the Port-au-Prince population. In analyzing demographic, socio-economic and microenterprise variables of SOGESOL clients, we learn that clients are fairly homogeneous among the five poverty levels, although some traits are more prevalent among clients in certain poverty categories. Our correlation and regression analyses yield no simple proxy indicators for poverty. However, because of significant concerns regarding the quality of the SOGESOL and Haitian data, we consider our findings preliminary and a basis for further research. ACCION plans to work with SOGESOL to perform validation surveys that will investigate the data quality issues. Taking into consideration the results of the validation surveys, SOGESOL intends to implement an on-going poverty reporting system to track and understand the poverty levels of clients over time.

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