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SMALL MANUFACTURING AND REPAIR ENTERPRISES
IN HAITI: SURVEY RESULTS

By

Steve Haggblade, Jacques Defay, and Bob Pitman

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1979

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Table of Contents

Page

Page

List of Tables

Page

Foreward

This paper is one of a series of reports produced by Michigan State University's Off-Farm Employment Project. The project, which is funded by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development, has the basic purpose of enhancing the ability of AID missions and host country institutions to identify and implement programs and policies that generate off-farm employment and income opportunities benefiting the rural poor. One of the major components of the project is the generation of new knowledge relating to off-farm activities. In collaboration with host country institutions and AID missions, detailed field surveys of small-scale enterprises are currently being conducted in Bangladesh, Jamaica, Honduras, and Thailand; the results of these studies will be published in this series. A second component of the project involves the marshalling and dissemination of existing knowledge of off-farm activities. A state-of-knowledge paper and special studies relating to off-farm activities will also appear in this series. Previously completed studies in this area currently available through the Off-Farm Employment Project include:

1. Carl Liedholm, "Research on Employment in the Rural Nonfarm Sector in Africa," African Rural Employment Paper No. 5, 1973.

2. Carl Liedholm and Enyinna Chuta, "The Economics of Rural and Urban Small-Scale Industries in Sierra Leone," African Rural Employment Paper No. 14, 1974.

3. Enyinna Chuta, "The Economics of the Gara (Tie-Dye) Cloth Industry in Sierra Leone," February, African Rural Economy Working Paper No. 25, 1978.

4. Adewale Mabawonku, "An Economic Evaluation of Apprenticeship Training in Western Nigerian Small-Scale Industry," African Rural Employment Paper No. 17, 1979.

Copies of these papers as well as additional information on the Off-Farm Employment Project can be obtained by writing

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Acknowledgments

Numerous individuals and organizations cooperated in carrying out the small enterprise survey in Haiti. The organizations which participated in this effort are: USAID/Haiti, the Office of Rural Development and Development Administration Development Support Bureau, AID/Washington, the Pragma Corporation, and the Off-Farm Employment Project of the Department of Agricultural Economics at Michigan State University. Funding was provided by USAID/Haiti and by the Office of Rural Development and Development Administration, Development Support Bureau, AID/Washington. USAID/Haiti provided technical assistance throughout the project and also provided transportation and logistic support for the survey work. Pragma took primary responsibility for the fieldwork and data coding. Michigan State University (MSU) took leadership in the data analysis and in writing up the survey report. The general methodological framework for the survey came from MSU, but all three cooperating parties shared in designing the questionnaire for specific use in Haiti.

A study of this sort requires cooperation in many quarters and a number of specific individuals need to be thanked for their generous assistance during various phases of this study. In preparations for the survey work, Gary Smith, USAID/Guatemala offered many valuable insights and suggestions. Enyinna Chuta offered valuable advice throughout and guided the sample selection for the second phase of the

survey. Bob Pitman and Jacques Defay of the Pragma Corporation handled the fieldwork over difficult terrain and in the face of the Haitian rainy season. Pere Roger Desir applied his considerable linguistic skills in translating the Phase II questionnaire. Herb Kriesel, Enyinna Chuta, Steve Jacobson, Peter Kilby, and Carl Liedholm were very generous in offering their insights on various drafts of this report. Jim Boomgard offered timely assistance with the analysis of the survey data. Jim Pease and Micki Terwillegar provided timely typing and technical assistance at various stages of the report preparation. Finally, the Haitian Ministry of the Interior is to be thanked for the cooperation they showed throughout the study.

I. INTRODUCTION

Small manufacturing and repair businesses are of widespread importance in Haiti. Despite their importance, remarkably little was previously known about these small firms. So little was known that a recent ILO report on Haitian small enterprises felt obliged to begin with a complaint about "the cruel lack of information" concerning small enterprises (Stimbre, 1978, p. 3). The report goes on to insist that such information would be invaluable to policy makers interested in assisting the small enterprises. Given their great potential for employment creation and broadly-based income generation, a survey of small enterprises in Haiti was undertaken to fill this important information gap. The goals of the survey were twofold: (1) to determine the magnitude, composition, and basic characteristics of the small-scale enterprises in Haiti, and (2) to make a preliminary identification of major constraints facing these small firms.

For purposes of this study small enterprises are defined as those with less than fifty workers. Among the different kinds of small firms in Haiti, this survey concentrated specifically on small manufacturing and repair enterprises. Retailers, traders, and services were not enumerated, and it is important to bear this in mind while reading this report.

Before proceeding with the results of the small enterprise survey, it will be useful to give some general background information on Haiti

and, in particular, a brief outline of the overall industrial sector within which the small enterprises operate. One of the most distinguishing features of Haiti is its high population density. An estimated five million people live on Haiti's third of the Caribbean island of Hispanola. Haiti covers 27,750 km square kilometers of extremely mountainous territory. Total Gross Domestic Product (GDP) was approximately one billion dollars in 1976, which makes GDP per capita approximately $220. Agriculture accounts for 45 percent of GDP, and an estimated 75 percent of the population works in agriculture. The principal crops grown are corn, sorghum, sugar cane, and coffee.

The industrial sector accounts for 12 to 18 percent of Haiti's GDP. Within the industrial sector, by far the most dynamic segment is the assembly-goods industries, which have been established in the 1970s. These assembly industries are export-oriented. They manufacture primarily electronic components, baseballs, and undergarments — all of which utilize almost exclusively imported raw materials. These export-oriented assembly industries account for 40 percent of the value added in Haitian manufacturing and two-thirds of the formal sector industrial employment. Agro-industries are the second major component of Haiti's industrial sector. Older agro-industries, which process primarily local raw materials, include the manufacturers of sugar, rum, essential oils, twine, and leather products. More recent agro-industries, such as textiles, flour, cigarettes, and beer, utilize mainly imported inputs. Heavy industry in Haiti is extremely small. It consists of one cement plant and a small steel mill which produces mainly reinforcing rods used in construction. It should be noted in conclusion that the vast majority of Haiti's formal industry is concentrated in the Port-au-Prince area.

With this general background we turn to our report of the basic characteristics of the small enterprise sector in Haiti. The paper is divided into four major sections. In the first, the survey methodology, geographic coverage, and data collection procedures are outlined. The second section of the paper provides a broad overview of the small enterprise sector, describing its extent, composition, and basic characteristics. The third portion of the report examines in detail the potential constraints faced by Haitian small enterprises. Specifically discussed in this section are issues concerning the demand for small enterprise output, capital constraints, raw materials, and management and skilled labor problems. The final chapter of the report provides a summary of the main findings. We turn now to our discussion of the survey methodology as this will lay the groundwork for the subsequent analysis of the survey results.

II. SURVEY METHODOLOGY

2.1. General Strategy

As with other small enterprise surveys in which Michigan State University has participated, this survey was divided into two phases. During Phase I, a census of small industries was conducted in all major urban areas of Haiti as well as in many of the smaller rural[1] localities. The objective of the census was to provide a sampling frame from which a representative sample of enterprises could be drawn for more intensive study in Phase II. The principle difference between the Haiti survey and other MSU studies lies in the Phase II portions. In Haiti, time constraints necessitated a single-interview Phase II survey whereas, in Sierra Leone, Jamaica, Bangladesh, (and soon Thailand and Honduras), the Phase II surveys are multiple-visit, year-long data collection efforts.

In the Phase I census in Haiti enumerators traveled street by street in each of 36 chosen localities listing all small enterprises and their locations.[2] Enumerators obtained basic descriptive information on each enterprise — information such as the number of employees, number of machines, and a brief description of the workshop.

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[1]The United Nations defines rural localities as those with less than 20,000 inhabitants, and that convention is adopted in this paper. For reasons which are explained on the following page, this survey thoroughly covered only those localities of over 1,000 in population. Therefore, when the term "small, rural localities" is used in this paper, it refers to the localities between 1,000 and 2,000 in population.

[2]Addresses were listed where possible, but formal addresses often did not exist. In those cases where formal addresses were not available, a serial number was marked on the wall of the enterprise and its location was carefully noted.

From the Phase I listing a sample of firms was drawn for study in Phase II. At each Phase II enterprise a single one to two hour questionnaire was administered to the owner or manager of the firm. The information obtained in the Phase II survey was more detailed than that obtained in Phase I. In particular, the Phase II questionnaire covered the following topics: socioeconomic characteristics of the owners, education and training of the owners and workers, initial capital and its sources, a detailed inventory of current capital goods, seasonality of the business, linkages with other sectors, perceptions of growth patterns of the industries, detailed credit histories, management practices, and entrepreneurs' perceptions of principal constraints faced by the small businesses.[1]

The survey methodology outlined above was designed for operation within the six month time horizon required by USAID/Haiti. The USAID mission determined that information adequate for their project identification could be gathered within that period. The six month time horizon did, however, necessitate two compromises of which the reader should be aware:

1. The focus of the study was limited to the more densely settled areas of Haiti. The sample of localities surveyed included only six from among those with population under 1,000. Because of the time limitation, these six were largely selected for purposes of convenience; often they were located along main roads. In addition, these six areas account for only .5 percent of the population living in communities of less than

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[1]Copies of both the Phase I and Phase II questionnaires are available upon request from the author.

1,000 inhabitants (table 1). Because of lack of representativeness it is not feasible to extrapolate the data from these six localities to the rest of the very small Haitian localities. In three cases we have made extrapolations in this report, in tables 2, 4, and 28. These extrapolations concern the number of small enterprises, magnitude of employment, and demand for credit. It is important to realize that these extrapolations are made only for areas of Haiti over 1,000 in population.

2. Time required that this survey consist of a single Phase II interview rather than a very intensive, multiple-visit investigation. Because the Phase II was limited to a single interview, the prospects for obtaining reliable information on flow variables such as annual output, purchased inputs, and profits were exceedingly low. The difficulty of obtaining reliable flow information from a single interview arises since, in the absence of systematic, uniform records, one must rely on the respondent's memory for obtaining the required information. Generally, data relating to flow variables are subject to high measurement and reporting errors since there exist large fluctuations in seasonal activity levels and long periods of memory recall are involved. For these reasons information on magnitude of annual output and on profitability were not obtained from this survey.

2.2. Sample Selection

2.2.1. Localities. Thirty-six localities were enumerated in the Phase I survey. These 36 localities were chosen in an effort to assure geographic representation, the representation of different locality sizes, and areas of special interest to the USAID mission. The localities

TABLE 1

DISTRIBUTION OF LOCALITIES SURVEYED IN PHASE I

Locality Population Size	Localities			Percent of Population-Group Covered In Phase I Survey
	Number	Names	Percent of Total	
Under 1,000	6	Recourt, Pont Sonde, Estere, Les Poteaux, La Chapelle, Ennery	--	0.5
1,000 - 2,000	7	Duvalier-Ville, Bainet, Marigot, Caracol, Plaisance, Anse Rouge, Camp Perrin	16	21.0
2,000 - 5,000	9	Leogane, Mirebalais, Lascahobas, Belladere, Acul-du-Nord, Gros Morne, Dessalines, Aquin, Verette	28	29.0
5,000 - 20,000	9	Petit-Goave, Jacmel, Trou-du-Nord, Limbe, St. Marc, Hinche, Petite-Riviere-de-l'Artibonite, Jeremie, Port-de-Paix	69	81.0
20,000 - 100,000	4	Cap-Haitien, Gonaives, Les Cayes, Carrefour	100	73.0
Over 100,000	1	Port-au-Prince	100	80.0

SOURCE: Population figures are taken from the Institut Haitien de Statistique, Resultats preliminaires du recensement general de la population du logement et de l'agriculture, September 1971.

surveyed were: Port-au-Prince, Carrefour, Cayes, Gonaives, Cap-Haitien, Port-de-Paix, Jeremie, Petite-Riviere-de-l'Artibonite, Hinche, St. Marc, Limbe, Trou-du-Nord, Jacmel, Petit-Goave, Verette, Aquin, Dessalines, Gros Morne, Acul-du-Nord, Belladere, Lascahobas, Mirebalais, Leogane, Camp Perrin, Anse Rouge, Plaisance, Caracol, Marigot, Bainet, Duvalier Ville, Ennery, La Chappelle, Les Poteaux, Estere, Pont Sonde, and Roucourt.

In the Phase II sample, 28 of these localities were represented. The areas excluded from the Phase II survey were: La Chapelle, Ennery, Duvalier Ville, Bainet, Marigot, Caracol, Dessalines, and Petit-Goave. The size distribution of these localities is outlined in table 1.

2.2.2. Enterprises. The survey was limited to manufacturing and repair industries with less than 50 employees. The Phase I census of small firms yielded a sample frame consisting of 4,950 small enterprises. That sample frame was stratified by enterprise type and size, and by locality size. From the stratified sample frame 1,100 firms were randomly selected for study in Phase II. In addition to the 1,100 random choices for the Phase II sample, 200 firms were chosen in a purposeful manner in order to ensure that the smaller industry classifications would be adequately represented in the sample. Thus the firms ultimately chosen for study in Phase II represented a cross-section of enterprise types, enterprise sizes, and locality sizes.

2.3. Fieldwork

Including the basic survey organization, questionnaire pretesting, enumerator training and coding, the fieldwork for the entire survey lasted from 1 October 1978 to 15 March 1979. The Phase I data was

gathered between 24 October and 17 November 1978. Phase II interviewing took place between 18 January and 17 February 1979, and during that period 1,256 questionnaires were satisfactorily completed. All interviews were conducted in Creole.

III. DESCRIPTIVE PROFILE

3.1. Magnitude of the Small Enterprise Sector

Small-scale enterprises (SSE) are of widespread importance in Haiti. The Phase I survey found SSE in large numbers all across the country and at all locality size levels. In total, 4,950 enterprises were surveyed during Phase I and these enterprises employed a total of 20,404 individuals. Since inadequate representation[1] of localities below 1,000 in population will not permit extrapolation to other similar-size areas in Haiti, extrapolations of the enterprise and employment figures are offered in table 2 for all localities of over 1,000 in population. From these extrapolations we estimate that approximately 8,500 small-scale enterprises operate in Haitian localities with population over 1,000 and these enterprises employ roughly 34,000 people.

In assessing the absolute magnitude of the SSE in Haiti it is important to note that these projections undoubtedly underestimate both the number of firms and the employment generated in Haitian small enterprises. This underestimation occurs because the smallest localities (those below 1,000 in population) were not surveyed, and these areas account for 80 percent of the population in Haiti. Furthermore, the importance of small enterprises appears to increase in the smaller localities. The percentage of population "directly employed" by the SSE rises

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[1] See p.5 for elaboration.

TABLE 2

ESTIMATES* OF EMPLOYMENT AND NUMBER OF ENTERPRISES IN LOCALITIES OVER 1,000 IN POPULATION

Localities	Enterprises			Employment		
	Number Surveyed	Estimated Number By Locality		Number Surveyed	Estimated Number By Locality	
		Number	Percent		Number	Percent
Under 1,000	136	---	--	414	---	--
1,000 - 2,000	288	1,632	19	820	4,659	14
2,000 - 5,000	525	1,805	21	2,100	7,219	21
5,000 - 20,000	1,288	1,585	19	4,592	5,648	17
20,000 - 100,000	948	1,291	15	4,577	6,223	19
Over 100,000	1,765	2,199	26	7,901	9,876	29
Total	4,950	8,517	100	20,404	33,625	100

SOURCE: Phase I survey.

*Estimates are made by multiplying actual numbers surveyed by the inverse of the sampling fractions for each locality size.

from 2.2 percent in Port-au-Prince to 8.4 percent[1] in the localities with population between 1,000 and 2,000 (table 3). Since our figures do not include estimates for four-fifths of the population living in the extremely small localities, and since the importance of the SSE seems to increase in small localities, the 34,000 employment figure presents only a partial estimate as to the aggregate importance of the SSE. The actual importance of the SSE contribution to total Haitian employment would loom much larger if the extremely small localities could be considered.[2]

3.2. Composition

The small enterprises in Haiti are involved in a wide variety of activities — from cement block making and printing shops to candy making, tailoring, and leatherwork. Most numerous among small enterprises are the tailors. Tailors also offer the bulk of the employment in the SSE sector with 45 percent of those employed (table 4). Carpenters are the second most important with 11 percent of SSE employment, followed by

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[1]The reader is urged to consult the note in table 3 for a discussion of potential biases in these figures.

[2]It would be desirable to compare SSE employment with that generated by the large-scale industries in Haiti, however, the data do not currently exist that would permit a satisfactory comparison. Our survey covered enterprises employing under fifty persons. A study in the Institut Haitien de Statistique (IHS) has studied firms that employ over 100 workers. The IHS survey found that the large firms generate a total of 24,819 jobs, mainly in the Port-au-Prince area (Institut Haitien de Statistique, 1978). A comparison of this figure with the 34,000 we project is not particularly meaningful. When data can be gathered on firms employing between fifty and one hundred workers, and also gathered for the extremely small localities in Haiti, one will be able to make meaningful assessments of the relative importance of the large versus the SSE sector. We signal this lacuna in the hope that some future researchers will be able to supply the final missing data.

TABLE 3

"DIRECT EMPLOYMENT"* IN HAITIAN SSE, BY LOCALITY SIZE

Locality Population	SSE Employment (1978) / Total Population (1971)
1,000 - 2,000	8.4
2,000 - 5,000	7.5
5,000 - 20,000	4.7
20,000 - 100,000	4.7
Over 100,000	2.2

SOURCE: Phase I survey and Resultats preliminaires du recensement general de la population, du logement et de l'agriculture. Institut Haitien de Statistique, September 1973.

*These "direct employment" percentages are biased upwards because 1978 employment figures are used in the numerator while 1971 population figures are all that is available for the denominator. This bias should not pose a problem given that the purpose of these figures is only to rank the importance of small enterprises by locality size. Biases in the locality rankings may occur because of the time lag between the gathering of the population and employment data and because population may be growing at different rates in the various locality size groups. For example, it is most probable that the population of Port-au-Prince has been growing more rapidly than the population in other areas, and it is likely that the number of small enterprises is also increasing more rapidly than in the other localities. Therefore our 1978 employment figures for Port-au-Prince are biased upwards compared to other areas. Using inflated 1978 employment figures we tend to overstate the importance of small enterprises in Port-au-Prince relative to their importance in other localities. Therefore, if we could correct for this bias, the trend would be accentuated.

TABLE 4

ESTIMATED EMPLOYMENT BY ENTERPRISE TYPE
(For Localities with Population Over 1,000)

Enterprise Type	Enterprises		Employment	
	Number	Percent	Number	Percent
Tailoring	3,956	46.4	15,210	45.2
Carpentry	990	11.6	3,664	10.9
Car repair	219	2.6	2,538	7.5
Bakery	297	3.5	2,007	6.0
Metal working	528	6.2	1,887	5.6
Shoe repair	723	8.5	1,432	4.3
Wood products	213	2.5	1,012	3.0
Machine repair	264	3.1	942	2.8
Beverage manufacture	175	2.1	893	2.7
Cement block making	145	1.7	600	1.8
Grain milling	113	1.3	431	1.3
Goldsmithing	142	1.7	406	1.2
Cloth making, nets	64	.8	376	1.1
Straw, sisal, bamboo products	130	1.5	359	1.1
Candy making	165	1.9	316	.9
Production of soap, oils, and essential oils	22	.3	276	.8
Tire repair	95	1.1	267	.8
Pastry shop	71	.8	190	.6
Printing	24	.3	181	.5
Leather work	49	.6	102	.3
Mattress making	24	.3	93	.3
Watch repair	53	.6	88	.3
Other	55	.6	356	1.1
Total	8,517	100.0	33,625	100.0

SOURCE: Phase I survey.

car repair with 9 percent, metal work with 6 percent, bakeries with 6 percent, shoe repair with 5 percent, and wood products and machine repair with 3 percent.

Within each enterprise group it is interesting to note how relative importance, in terms of employment, varies by locality size. As table 5 shows, tailoring, carpentry, and bakeries become less important in larger towns. On the other hand, car repair, metal work, and machine repair are more prevalent in the large urban areas where demand for their output is greater. Wood products (largely wood sculpture) are also more important in large urban areas than in the rural areas; as we shall see later, this is because of the availability of the export and tourist markets which are centered in the large cities.

3.3. Seasonality

The vast majority of small enterprises visited experienced seasonal fluctuations in their levels of activity.[1] Of the firms surveyed, 94 percent have either a high or a low season. The high season seems to coincide for a large number of enterprises; 63 percent of the firms indicated their peak season to be in December (table 6). On the other hand, the periods of low activity appear to be spread more uniformly throughout the year. Even so, there does seem to be a large slump in January and

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[1] In a single-interview survey it is difficult to obtain accurate estimates of the magnitude of seasonal variations. To get any feel for the size of the seasonal fluctuations requires a whole series of questions which attempt to compare activity levels in different months. Such a series of questions was not asked, both because of the difficulty of obtaining reliable estimates and because it was felt the interview time could more profitably be spent exploring other areas of interest concerning the functioning of the small enterprises.

TABLE 5

DISTRIBUTION OF ENTERPRISES, BY LOCALITY SIZE

Enterprise Type	Locality Size				
	1,000-2,000	2,000-5,000	5,000-20,000	20,000-100,000	Over 100,000
	Percent of Total SSE Employment				
Tailoring	46	58	49	47	32
Carpentry	14	11	12	11	9
Car repair	3	-	5	12	14
Metal working	5	3	5	6	8
Shoe repair	4	1	5	5	6
Bakeries	8	8	9	4	3
Wood products	3	-	1	1	7
Machine repair	2	1	1	2	6
Beverage manufacture	0	9	1	1	1
Cement block making	0	1	2	1	3
Milling	0	4	2	0	0
Goldsmithing	0	1	1	1	2
Cloth and net making	4	0	0	2	1
Straw, sisal, and bamboo products	2	1	1	0	1
Candy making	2	0	2	0	1
Essential oils	3	0	1	1	0
Tire repair	1	0	1	0	2
Pastry shop	1	1	1	0	1
Printing	0	0	0	0	2
Leather work	0	0	0	1	0
Mattress making	0	0	0	0	1
Watch repair	0	0	0	0	1

SOURCE: Phase I survey.

TABLE 6

SEASONALITY

	Entrepreneurs Indicating Their:	
	High Season	Low Season
	Percent	Percent
January	3	23
February	2	21
March	3	7
April	1	4
May	1	7
June	2	8
July	2	14
August	1	3
September	5	2
October	10	3
November	3	1
December	63	2
Total	100	100

SOURCE: Phase II survey.

February. Forty-four percent of the entrepreneurs indicated these two months to be their period of lowest activity.

The seasonality in small businesses is caused by several factors. In some cases the supply of inputs used by the small enterprises varies substantially over the course of the year. This is the case, for example, in agricultural processing activities such as grain milling. At harvest time the supply of inputs (grain) rises sharply and activity levels among the small mill operators increase substantially. In other industries the supply of inputs remains stable throughout the year, but demand for the small industry output varies greatly over the course of the year. This is true, for example, among tailors. Seventy-seven percent of the tailors interviewed pointed to a high season in December, and 88 percent of them attributed this increase in activity to the demand generated by the festivals which occur during Christmas and New Year. Thus variations in the supply of inputs as well as variations in demand patterns play important roles in determining the seasonal patterns of small businesses.

In addition to fluctuations in input supply and output demand, there exists a third possible cause of variations in small enterprise activity — seasonal work requirements in other activities, primarily agriculture. Alternative employment is important among the small enterprises surveyed. Twenty-eight percent of the entrepreneurs visited were currently working at another job. This is not surprising given that we interviewed them in Janaury and February, months which 44 percent of them considered to be their period of lowest activity. Of the 28 percent who were working at another job, the single largest source of outside employment was

agriculture, which employed 31 percent.[1] Given the importance of agriculture as an outside source of employment, it is not surprising to find that additional occupations are much more important in rural areas than in the larger localities. Forty-five percent of the entrepreneurs in the smaller localities work at other jobs in addition to their small-scale enterprise, while only seventeen percent of those in Port-au-Prince have another job (table 7). Given the importance of outside employment in agriculture, which is itself very seasonal, it is easily seen how fluctuations in agricultural labor demands can be important causes of seasonality in the small enterprise activity.

While seasonality is important for the majority of businesses, there are several enterprises which are less susceptible to seasonal fluctuations. It is primarily the machine repair, car repair, and printing businesses which indicated no seasonality in their levels of activity (table 8). For these industries the lack of seasonality is probably due to consistent, year around demand for their products.

3.4. Labor Profile

The average size of the enterprises studied was quite small, 4.1 employees per firm. Firms in the large towns, though, do tend to be larger than those in rural areas. In the smallest localities, enterprises employ 3 workers per firm on average while in the largest cities the average size is 4.5 workers (table 9).

The workers in Haiti's SSE include entrepreneurs, family workers, apprentices, hired workers, and "jobbers." Virtually all firms are owned

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[1]The second largest source of alternative employment was retailing, which employed 22 percent.

TABLE 7

PERCENT OF SMALL BUSINESS ENTREPRENEURS WITH OUTSIDE OCCUPATIONS
(January, February 1979)

Locality Size	Percent
1,000 - 2,000	44
2,000 - 5,000	48
5,000 - 20,000	37
20,000 - 100,000	23
Over 100,000	17

SOURCE: Phase II survey.

TABLE 8

LACK OF SEASONALITY

Enterprise Type	Percent of Entrepreneurs Indicating:	
	No Low Season	No High Season
	Percent	Percent
Machine repair	21	18
Car repair	20	16
Printing	18	10
Candy making	16	7
Straw products	15	12
Wood products	14	16
Cement block making	14	12
Cloth, net making	13	19
Tire repair	12	11
Goldsmithing	9	6
Pastry shops	8	14
Bakery	7	6
Beverage manufacture	6	6
Mattress making	6	13
Metal working	6	7
Leather working	4	4
Carpentry	2	3
Tailoring	1	1
Shoe repair	1	1
Average for all firms surveyed	6	5

SOURCE: Phase II survey.

TABLE 9

LABOR PROFILE OF HAITIAN SMALL ENTERPRISES

Locality Size	Total Employment	Entrepreneurs	Family Workers	Apprentices	Hired Workers	Jobbers
Under 1,000	3.0	1.0	.05	.5	1.1	.06
1,000 - 2,000	2.9	1.0	.10	1.0	.7	.06
2,000 - 5,000	4.0	1.0	.20	1.8	.9	.07
5,000 - 20,000	3.6	1.1	.20	1.4	.9	.08
20,000 - 100,000	4.8	1.1	.40	2.0	1.4	.06
Over 100,000	4.5	1.1	.30	1.3	1.7	.14
Average for all firms surveyed	4.1	1.0	.25	1.5	1.3	.10

SOURCE: Phase I survey.

by a single entrepreneur. The average entrepreneur interviewed has eight dependents. Roughly 80 percent of the entrepreneurs are men and 20 percent are women. Over half of the owners/managers have completed six years or more of education. The majority (60 percent) received their training as apprentices in other small enterprises, while 11 percent were trained in vocational schools and 14 percent are working the same line of business as their father or mother. In looking further at the family background of the entrepreneurs, one finds that farming was by far the most common occupation of the entrepreneurs' fathers. Many of the mothers were also farmers (34 percent) but large numbers of them were involved in business activity. Thirty percent of the mothers were retailers and twenty-two percent were tailors. Slightly under half (40 percent) of the current small business entrepreneurs were involved in another line of work prior to opening their small business. Of these, the most common previous occupations were farming (20 percent) and retailing (15 percent).

Family workers are of minor importance in Haitian small enterprises. They constitute 6 percent of SSE employment.

It is hired workers and apprentices which form the bulk of the employment in Haitian small enterprises. Together these two groups account for 66 percent of total SSE employment, with hired workers accounting for 31 percent and apprentices 35 percent. The importance of apprentices does not vary across locality sizes. Hired workers, however, are used more commonly in large urban areas than they are in the rural areas. In the rural areas, firms average one hired worker each, whereas firms in Port-au-Prince employ an average of 1.7 hired workers each.

The "jobbers" constitute the smallest, but still a very interesting, segment of the SSE work force. A jobber is a worker who possesses a skill but no workshop or equipment. He receives orders for work and then arranges to use the facilities of an established shop in order to perform the requested job. Jobbers constitute only 2 percent of overall employment in the enterprises surveyed, but that figure rises to 7.3 percent in machine repair shops, 7.1 percent in wood products, and 4.5 percent for car repair businesses.

Women account for 16 percent of the employment in Haitian small enterprises. The importance of women employees varies markedly by industry. Of total pastry shop employment, women account for 50 percent (table 10). Tailors are next with 30 percent, followed by manufacturers of straw products at 27 percent. At the other extreme, carpenters employ only 1.2 percent women, metal workers .8 percent, while the tire repair and leather workshops surveyed employ no women. Across locality sizes, though, the employment of women is fairly uniform.

Women are owners or managers of 18 percent of the firms surveyed. In many respects, male and female entrepreneurs have very similar characteristics. Their educational background, age, training, and the number of employees they supervise are virtually the same. One major difference, however, is that women entrepreneurs tend to employ many more female workers than do their male counterparts. Among establishments run by male entrepreneurs, only 6 percent of the workers are female, whereas under women entrepreneurs two-thirds of the employees are female. This is closely associated with the fact that women are concentrated in certain industries such as pastry shops, tailoring, straw products, and candy

TABLE 10

THE EMPLOYMENT OF WOMEN IN HAITIAN SMALL ENTERPRISES

Enterprise Type	Women As A Percent of Total Employment	Percent Of Women Entrepreneurs
Pastry	50	86
Tailoring	30	43
Straw products	27	23
Cloth making, nets	25	6
Wood sculpture	24	7
Milling	22	6
Printing	16	0
Baking	16	20
Candy making	15	86
Goldsmithing	10	0
Beverage manufacture	7	6
Cement block making	3	3
Oils and essential oils	3	0
Machine repair	3	0
Carpentry	1	0
Shoe repair	1	0
Car repair	1	0
Metal working	1	0
Leather working	0	0
Watch repair	0	0
Mattress making	0	0
Tire repair	0	0

SOURCE: Phase II survey.

making. In these industries women entrepreneurs account for 86, 43, 23, and 86 percent respectively of all entrepreneurs in those lines of activities. It is clear from table 10 that large amounts of female employment is concentrated in those particular industries.

3.5. Capital Composition

In describing the capital composition of small enterprises in Haiti, we will examine three measures of capital usage: equipment per worker, total capital per worker, and total capital per firm.[1] The value of equipment per worker is the most accurate capital figure obtained from the survey because enumerators made an item-by-item inventory of machinery and tools in each firm visited. Estimates of total capital were also obtained but they are less reliable than the equipment figures because entrepreneurs gave lump sum estimates for three of the total capital components — raw materials, building, and inventory of finished goods.

By any of the three capital measures, the sums of capital required by small enterprises in Haiti are modest. The average value of equipment per worker currently lies between $130 and $300[2] among tailors, carpenters, metal workers, and car repair shops, four of the largest employers among the small enterprises (table 11). This equipment per worker figure varies more dramatically when all types of small enterprises are considered. Equipment per worker ranges roughly from $2,200 among ice makers to $20 for manufacturers of straw products.

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[1]Equipment is machinery plus tools. Total capital is equipment plus building, raw materials, and inventory of finished goods.

[2]All capital values in this report are given in 1978 dollars. To arrive at this current dollar valuation we used the capital price deflators given by Zuvekas (1978, p. 6). Using these deflaters along with original purchase price and year of purchase, one is able to reflate the original purchase price to 1978 dollars.

TABLE 11

CURRENT CAPITAL STRUCTURE
(1978 Dollars)

Enterprise Type	Capital/Labor Ratios			Total Capital Per Firm
	Equipment†/Worker	Equipment Plus Building/Worker	Capital/Worker*	
Ice making	$2,161	$3,714	$3,814	$21,615
Printing	1,969	4,816	5,482	28,892
Grain milling	1,763	3,171	3,364	14,019
Heavy wood products (boats and truck bodies)	1,285	1,285	1,554	4,819
Essential oils	919	2,321	4,428	73,803
Cement block making	429	804	1,624	10,162
Shoe repair	404	1,039	1,209	2,437
Goldsmithing	344	1,013	1,367	2,412
Car repair	294	464	654	5,248
Pastry shops	280	3,931	3,985	12,524
Metal work	272	1,094	1,230	2,633

SOURCE: Phase II questionnaire.

*Total capital is equipment plus building, raw materials, and inventory of finished goods.

†Equipment is machinery plus tools.

Table 11 continued

Enterprise Type	Capital/Labor Ratios			Total Capital Per Firm
	Equipment†/Worker	Equipment Plus Building/Worker	Total Capital/Worker*	
Machine repair	$257	$2,427	$2,524	$8,858
Cloth, net making	251	333	364	1,797
Beverage manufacture	243	829	1,760	17,987
Tailoring	176	1,512	1,665	7,484
Tire repair	155	156	232	866
Carpentry	126	639	816	3,302
Wood sculpture	93	135	929	7,939
Mattress making	75	829	1,033	2,296
Candy making	42	343	373	635
Straw products	18	104	385	1,540

SOURCE: Phase II questionnaire.

*Total capital is equipment plus building, raw materials, and inventory of finished goods.

†Equipment is machinery plus tools.

Total capital per worker ranges between $650 and $1,700 among the tailors, metal workers, shoe repair shops, and carpenters. Outside of these major 4 employers the total capital per worker varies between a high of $5,500 in printing shops and a low of $230 among tire repair businesses. Total capital per firm varies from $74,000 in essential oil plants to $870 in tire repair shops.[1]

Part of the reason that capital costs are kept as low as they are among small businesses is that many entrepreneurs do not own buildings. In fact, 30 percent of the firms surveyed do not operate inside buildings. They work outside on sidewalks or on verandas. There are certain

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[1]It is somewhat difficult to compare these capital figures with those for large-scale industries in Haiti (large-scale industries are those employing over fifty workers). In heavy industry investments per worker are much larger than those in small enterprises. Schwartz (1978, p. 5) maintains that investment per worker in large agro-industries and in import substituting industries (presumably steel and cement) ranges between $20,000 and $35,000 per worker. These figures are an order of magnitude larger than most of the capital/labor ratios for the small enterprises cited in table 11.

At the other end of the large-scale spectrum are the export-oriented assembly industries which manufacture baseballs, textiles, and electronic goods. For these large assembly industries it is not clear whether large firms require more or less capital per worker than do the small enterprises surveyed. Schwartz (1978, p. 5) states that in the export-assembly industries, "capital investment per worker" ranges between $750 and $3,500. This corresponds to the World Bank estimate that, "average investment per employee" in enterprises created under the industrial incentive laws is between $200 and $3,200 (World Bank, p. 21). A mimeographed publication put out by the U.S. Commercial Library indicates that, "average investment per assembly job is less than $2,000" (U.S. Commercial Library, 1978, p. 1). It is difficult to compare these figures with the capital/labor ratios given for Haiti's small enterprises. The comparison is difficult because the investment figures given for the large firms, figures such as "capital investment per worker," are not defined. It is not clear whether they refer to equipment per worker, fixed capital per worker, or total capital per worker. Furthermore, the range of values given for investments per worker is very large. Any comparison between small firms and assembly industries will have to be made for specific industries and this will require additional information concerning the large assembly firms.

industries in which working from outside of a permanent building is less common than in others. For example, in milling operations, printing shops, bakeries, and tailoring the vast majority of the enterprises surveyed operate from permanent buildings (table 12). However, in other types of enterprises such as metal working, mattress making, cloth making, car repair, tire repair, and cement block making over half of the businesses interviewed are located either on sidewalks, verandas, or outside. It should not be inferred that industries such as these, in which large numbers of firms operate outside of a permanent structure, are of a less stable nature than those industries which are more securely housed. Firms operating on verandas or outside will often open for business in the same location week after week and year after year. In fact, 58 percent of the tire repair shops, 40 percent of the car repair businesses, 47 percent of the metal workers, and 44 percent of the mattress makers surveyed have been in business for over 10 years. These industries operate largely outside and that clearly has not precluded their ability to remain in business for long periods of time.

Capital usage varies not only among industries; it also fluctuates widely within given industries. For example, tailors in the 2,000 to 5,000 person localities use only $47 worth of equipment per worker, whereas in Port-au-Prince tailors use an average of $310 worth of equipment per worker (table 13). Among metal workers, capital equipment per worker increases from $40 in the smallest localities to $330 in Port-au-Prince.

In both of these cases, for metal workers and tailors, the trend is for enterprises to be more capital-intensive in the larger urban areas

TABLE 12

BUILDINGS, PERMANENT VERSUS TEMPORARY

Enterprise Type	Proportion Operating: In Permanent Structures	Proportion Operating: Outside On Sidewalks Or Verandas
	Percent	Percent
Milling (sugar and grain)	95	5
Printing	95	5
Bakery	93	7
Tailoring	85	15
Pastry shops	85	15
Oils and essential oils	73	27
Machine repair	71	29
Leather products	68	32
Goldsmithing	67	33
Wood products	64	36
Candy making	63	37
Carpentry	58	42
Shoe repair	58	42
Straw products	57	43
Watch repair	57	43
Mattress making	50	50
Metal working	49	51
Cloth and net making	44	56
Car repair	47	63
Cement block making	28	72
Tire repair	22	78
Average for all firms surveyed	71	29

SOURCE: Phase I survey.

TABLE 13

VALUE OF EQUIPMENT[1] PER WORKER

Enterprise Type	Locality Size				
	1,000-2,000	2,000-5,000	5,000-20,000	20,000-100,000	Over 100,000
	1978 Dollars				
Tailoring	83	47	98	124	310
Metal working	39	127	130	383	328
Carpentry	42	51	114	189	137
Shoe repair	93	200	551	331	418
Leather work	--	--	91	123	168
Car repair	--	--	387	279	276
Machine repair	--	455	945	149	153
Bakery	95	162	715	173	779
Candy making	17	--	56	43	20
Straw products	22	31	14	33	19
Cement block making	--	419	389	155	478

SOURCE: Phase II survey.

NOTE: The enterprises included in this table are the only ones for which the data base was large enough to display differing capital costs over several locality sizes. Missing entries in the table indicate an inadequate number of observations.

[1]Equipment is machinery plus tools.

than in the rural localities. This same trend prevails among many other small enterprises. For example, carpentry, shoe repair, and leather working shops tend to use more capital per worker in urban areas than do their counterparts in rural localities. This trend probably results because of the greater availability of electricity and power machines in the major urban areas and because capital costs may well be lower in the larger towns than in the rural areas. The lower capital costs in large towns can result from the greater availability of low-cost credit and lower equipment prices because fewer transport and handling costs are incorporated into the final price. In addition, higher wages in the cities may make capital cheaper relative to labor, creating an incentive for the use of more capital-intensive methods of production in the large towns.

The trend of increasing capital per worker in larger towns does not appear to hold for all industries. For example, in machine repair more capital per worker is used in the rural than in urban areas. This reversal is probably due to the nature of the repair work taking place. The repair work in the rural areas may be repair of agricultural equipment, whereas the machine repair in the urban areas includes many light household appliances among the machines that are worked on. In other industries such as candy making, cement block making, and the manufacture of straw products, capital per worker is roughly constant across locality sizes. These three industries, though, seem to be exceptions. In general, there exist substantial variations in the amounts of capital per worker in the small firms.

3.6. Growth Trends in Small[1] Enterprises

The preceding discussion has addressed static issues: the current structure of Haitian small enterprises and the current importance of each of the different types of SSE. This concluding section of the Descriptive Profile will consider the dynamics of the small enterprise sector. In particular, an attempt is made to give some indication of how the relative importance of different small industries may be changing over time.

The basis for discussing growth trends in Haitian small enterprises is table 14. Table 14 provides several sets of information which offer indications on different aspects of small enterprise growth. The data deal with entrepreneurs' estimates of: increases in the number of firms per industry (column B), and indications of how their individual output per firm has been changing (column C). Also included is information on the age distribution of firms in each industry (column A) and on rates of net investment in capital equipment (column D). It is important to note that an inevitable inconvenience arises with these data because of the fact that, of all the firms in the growth process, we are only able to interview the survivors. Had it been possible to obtain information from those firms which have dropped out of business, the picture presented below might have been less rosy. This potential upward bias is particularly likely with respect to the rates of net investment given in column D. In addition to the survivor firm bias, it should be noted that, in giving their estimates of growth trends, entrepreneurs were asked to give

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[1] It is important to remember that the ensuing discussion pertains only to trends within the small enterprise segment of each industry. Firms with more than fifty employees are not included in the analysis.

TABLE 14

GROWTH INDICATORS

	A Age Composition				B Number of Firms		C Output Per Firm		D Rate of Net Investment In Equipment, 1974-1978[3]	
	Percentage of Firms In Business For:				Net Percentage Of Entrepreneurs Indicating Increase[1]		Net Percentage Of Entrepreneurs Indicating Increase[1]			
	1-4 Years	5-9 Years	10-19 Years	Over 20 Years	Past 5 Years	Past Year	Past 5 Years	Past Year	Industry As A Whole	Average of Individual Firms' Rates of Investment
	Percent									
All enterprises (1256)	27	23	24	25	18	24	16	13	2.4	6.3
Watch repair (15)	47	13	13	27	13	26	- 7	13	- 5.6	-19.0
Machine repair (55)	44	26	16	13	17	40	15	2	- 1.3	8.9
Essential oils (8)	44	11	33	11	75	63	25	63	---	---
Cement block making (35)	43	34	11	11	9	43	0	28	4.1	1.0
Candy making (28)	43	25	21	11	14	11	7	-25	-21.0	12.9
Car repair (45)	39	17	13	26	13	33	24	- 9	1.0	1.2
Pastry (13)	36	21	29	7	23	30	15	-18	-17.0	-22.0
Bakery (49)	35	18	22	22	- 4	33	21	-19	- 2.0	- 5.8
Beverage manufacture (18)	33	11	17	39	0	- 6	28	0	5.9	- 6.6
Mattress making (9)	33	22	11	33	-11	33	0	-11	- 4.5	.0
Wood sculpture (34)	32	32	15	21	26	38	24	24	1.0	- 4.5
Goldsmithing (34)	32	18	24	27	3	38	46	- 9	3.7	46.8
Metal working (74)	28	23	20	27	25	35	21	- 3	2.3	- 5.6

Table 14 continued

Straw products (44)	28	28	17	28	0	- 2	6	-15	- 6.3	11.0
Tailoring (378)	27	25	26	20	28	33	13	-15	7.1	7.7
Printing (11)	27	18	36	18	9	18	18	0	---	---
Cloth, net making (17)	24	29	29	18	35	35	18	6	13.8	-38.9
Heavy wood products (9)	22	11	22	44	45	22	45	0	---	---
Milling (36)	20	26	26	29	16	30	19	-19	.5	2.6
Shoe repair (128)	17	16	27	38	2	- 9	12	-45	.5	2.1
Carpentry (74)	14	21	29	36	30	10	19	-23	2.8	2.0
Leather working (24)	13	29	17	42	-25	8	- 4	-21	-11.3	- 7.5
Tire repair (19)	0	42	26	31	5	26	11	-16	- 4.3	2.8

SOURCE: Phase II survey.

[1]Column B is defined as the percent of entrepreneurs indicating an increase in number of firms minus the percent of entrepreneurs indicating a decrease. Each entrepreneur gave estimates only for his/her industry and for his/her own locality or neighborhood. Note that this column says nothing about the magnitude of the increase or decrease in number of firms. A positive number only indicates that more entrepreneurs lived in localities with an increasing number of firms than lived in localities with a decreasing number of firms.

[2]Column C is defined as the percent of entrepreneurs indicating that their own output had increased minus those indicating their output had decreased. A sample calculation is performed in paragraph 2, page 37.

[3]Column D is defined as the rate at which new equipment is purchased $\left(\left[\sum_{i=1974}^{1978} \frac{\Delta ki}{ki-1}\right]/5\right)$ minus the rate of depreciation (annual depreciation/K) of the total stock of equipment. Straight-line depreciation is used. The first figure, for the industry as a whole, computes the net investment rate when the entire industry is considered as a single unit. The second figure, the average of individual firms' rates of investment, computes net investment rates for each firm and then averages those rates. See page 39, paragraph 1 for a description of how to interpret the two figures.

only directions, not magnitudes. Thus for estimates of changes in the number of firms and output per firm the figures in table 14 (columns B and C) give only rough indications of the direction of change. With these two caveats in mind, we turn to an evaluation of the figures in table 14. When used judiciously the four sets of data information provided can offer important insights into growth trends in Haitian small enterprises. The information is particularly useful for constrasting trends among different industries.

3.6.1. Aggregate SSE Growth. The small enterprise sector in Haiti appears to be growing over the medium run, that is, over the past five years. Looking at the aggregate of all small enterprises, entrepreneurs indicate that both output per firm and the number of firms have increased over the past five years. There has been a positive net rate of investment in capital equipment over the past five years; the rate of increase in equipment has been 6.3 percent per year for the average firm. Apparently increases in output per firm are due at least in part to increased capitalization of the small firms.

Looking at the short-run, it appears that 1978 was perceived to be a difficult year for the small enterprises in Haiti. While 28 percent of the firms interviewed indicated that their output had increased last year, 41 percent indicated declines in output.[1] Adopting the convention used in table 14 we can say that a net of 13 percent of the firms indicated their output had decreased.

The age distribution of small firms indicates that there are large numbers of experienced firms currently operating in Haiti. Three-fourths of

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[1]The remaining 31 percent indicated their output was stable or that they were too new to respond.

the small enterprises surveyed have been in business for over five years, half have been in business over ten years, and one-fourth of the small firms have been producing for more than twenty years. In the aggregate, the small enterprises appear to be growing on all fronts — in terms of number of firms, capital stock, and in terms of output per firm.

As always, the average figures mask considerable variations among trends in different industries. We turn, therefore, to look at certain specific industries. The enterprises discussed below were selected for two reasons: either clear judgements could be made about their growth records, or they account for such a large proportion of SSE employment that they cannot be ignored. Of the industries selected for comment, the growth industries appear to be machine repair, cement block making, car repair, wood sculpture, and tailoring. The moderate gainers appear to be metal working, shoe repair, and carpentry. The declining small industries seem to be leather working and bakeries.

3.6.2. Machine Repair. The machine repair industry offers clear indications of growth. Large numbers of entrepreneurs have been moving into the machine repair business in recent years. So many have been entering the industry that fully 44 percent of the firms interviewed were less than five years old and 70 percent have been in business for 9 years or less.[1]

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[1]It is recognized that large numbers of new firms do not necessarily imply that an industry is growing. It is possible that failure rates are even higher than the entry rates, and that the industry is in fact declining. What large numbers of young firms does indicate is interest on the part of entrepreneurs, and ease of entry and movement into an industry. Where this movement into an industry occurs along with an increase in the number of firms and in output per firm (as in machine repair) we consider this to be a sign of growth within an industry. On the other hand, in the bakery industry there are also large numbers of new firms being established, but the total number of firms in the industry appears to be declining. Drop-out rates apparently exceed the rate of new firms. In this case large numbers of new firms are not a sign of growth in the industry.

Entrepreneurs indicate that the total number of machine repair firms has increased over the past five years. Even with the increasing number of firms it appears that the older firms (those in business for over five years) have still been able to increase their individual output over that period.

At 8.9 percent the average rate of investment in equipment is among the largest of all small industries. Only industries such as straw products, goldsmithing, and candy making, which start from very low bases, have invested faster than the machine repair shops. To arrive at the 8.9 percent figure, rates of investment are computed for each firm and then the rates are averaged together. This procedure gives small firms and large firms equal weight, and the figures computed in this fashion are the second figures listed in column D of table 14. However, investment rates can be computed in a different manner. The first figure in column D is computed in this different fashion where the capital for all machine repair shops is lumped together and a net investment rate is computed for the industry as a unit. When the capital is aggregated in this manner, changes in capital in the larger firms carry more weight than those among the small firms. Under this aggregate, industry-wide calculation there appears to be a slight, 1.3 percent, rate of disinvestment in capital stock. Since aggregate industry investment (where larger firms have a greater weight) is slightly negative and the average of individual firms' rates of investment (where small and large firms have equal weight) are large and positive, it is clear that the large firms are net disinvestors while the small firms are increasing their stock of equipment quite rapidly.

Indications are that the machine repair industry is growing both in terms of number of firms and in output per firm. In terms of stock of

equipment, the larger small-scale firms are net disinvestors while the smaller firms are investing at a rapid rate.

3.6.3. Cement Block Making. The cement block making industry also appears to be growing over the short- and medium-run. Large numbers of entrepreneurs have been investing in the cement block making industry in recent years. Forty-three percent of the firms have begun operations in the past five years and seventy-five percent have been in business for nine years or less. These large numbers of newly established firms make the cement block industry the youngest of all the small industries.

As with machine repair, the total number of cement block making firms appears to have increased over the past five years. Output per firm, though, appears to have remained roughly constant over that period. Rates of investment in equipment have been moderate but positive.

An indicator of short-run strength in the cement block making industry is the fact that the majority of cement block makers did not complain of a downturn in their activity levels last year. This is in marked contrast to the large majority of industries which felt 1978 to be a poor year. While bakers, metal workers, carpenters, shoe repair shops, and even tailors and car repair shops fell prey to the short-run downturn, the cement block makers continued to increase their output. One suspects that it is the existence of a local cement plant in Port-au-Prince as well as a strong demand for construction materials which have allowed the cement block makers to grow in recent years.

3.6.4. Car Repair. The growth indicators in the car repair industry are very similar to those in the machine repair and cement block making businesses. The more established firms have been increasing their output over the past five years and still there has been room for substantial numbers of new firms to enter the trade; 39 percent of the firms visited

have been established in the past five years. The total number of firms appears to have increased over that time span. Rates of investment in the car repair businesses have been positive but small, indicating that increases in output per firm may be resulting from the additional utilization of labor.

3.6.5. Wood Sculpture. Wood sculptors also appear to have been doing well. There are large numbers of young firms in the business indicating that it is attracting new entrepreneurs. In addition, both the number of firms and individual firm output have been growing over the past five years. The small wood sculpture firms have been net disinvestors in capital while the large firms have increased their stock of equipment slightly. Given the low net rate of investment in equipment it would appear that, as in the car repair business, increases in output per firm may be the result of increasing labor utilization.

3.6.6. Tailoring. Tailoring is the largest of Haiti's small industries and business in this line appears to be increasing over time. There are clear indications that both the number of firms and the output per firm have increased over the past five years. In addition, investment rates appear to be high among tailors, higher than in most other industries. The main cause for concern in reviewing the tailoring industry lies in the fact that many firms felt their output had declined over the past year. This implies that the tailoring industry may be susceptible to short-run fluctuations in general economic conditions. Despite this sensitivity to short-run downturns, the tailoring industry appears to be strong over the medium- to long-run. Over the past five years small tailoring firms have been growing in numbers in terms of output per firm and in terms of total capital stock.

3.6.7. Metal Working. Both the number of firms and output per firm have increased over the past five years among metal working firms. Reinvestment figures indicate that small firms have been net disinvestors in equipment while the larger metal working firms have increased their stock of equipment moderately over the past five years.

3.6.8. Carpentry. The carpentry firms constitute a rather old industry; 36 percent of the firms have been in business for over 20 years and there are very few new firms. Only 14 percent of the carpenters have been established in the past 5 years. This small number of new firms, combined with entrepreneurs' estimates that the total number of carpentry firms has been increasing, implies very low drop-out rates among carpenters. Output per firm appears to have increased over the past five years, and rates of capital investment have been positive but small. Many enterprises felt their output had declined last year indicating perhaps a sensitivity to short-run economic downturns.

3.6.9. Shoe Repair. Trends in the shoe repair industry are very similar to those in carpentry. There exist large numbers of very old shoe repair shops. Thirty-eight percent of the shops have been in business for over twenty years, and the number of new firms entering in the past five years has been small. Only 14 percent of the current firms have begun business within the past 5 years. Output per firm has increased over the past five years and the net rate of investment in equipment has been small but positive. As with carpenters, shoe repair shops appear to be sensitive to short-run downturns in activity.

3.6.10. Leather Work. Even more clearly than the bakers, small leather workers in Haiti appear to be on the decline. The number of firms seems to have dropped noticeably in the past five years; even output per

firm has declined. Very few entrepreneurs are getting into the leather working business and a huge proportion, 42 percent, have been in business for over 20 years. Rates of investment in capital equipment, strongly negative, are among the lowest of any industry.

This concludes the descriptive overview of small enterprises in Haiti. Having discussed the current structure of small enterprises as well as past growth trends, we turn to examine factors which can constrain the future growth of small-scale firms.

IV. POTENTIAL CONSTRAINTS FACING HAITIAN SMALL ENTERPRISES

A major goal of this study is to make a preliminary identification of constraints faced by small-scale industries in Haiti. A useful way to launch such a discussion is to look briefly at what entrepreneurs themselves perceive to be their principal problems; table 15 summarizes their concerns. Lack of machines and tools, and cash limitations are clearly perceived to be the most important problems facing the small entrepreneurs. Insufficient demand, shortage of raw materials, lack of credit, and lack of working space are also of concern. The variation in these problems across regions, locality sizes, and across industries will be examined in the following sections where each type of problem is examined individually.

As a framework for analyzing the constraints faced by small entrepreneurs we will look first at demand constraints faced by the small firms and then turn to supply problems. On the demand side current and potential markets for SSE products are examined and an attempt is made to evaluate their potential for growth. On the supply side a look is taken at the inputs used by small enterprises — inputs such as capital, credit, management skills, trained labor, and raw materials. Attention to the supply side is important as bottlenecks associated with any of these inputs can hamper the growth of the small enterprise sector. Each of the potential supply and demand constraints will be examined in turn, and the first constraint to be discussed is that of demand for the small enterprise output.

TABLE 15

OWNER/MANAGER PERCEPTIONS OF PRINCIPLE PROBLEMS FACING HAITIAN SSE

Problem	Owners/Managers Listing This Problem	Owners/Managers Listing This As Most Important Problem
	Percent	
Lack of machines and tools	62.8	20.2
Cash	41.4	38.1
Insufficient demand	35.1	8.7
Shortage of raw materials	31.9	5.6
Lack of credit	27.7	7.7
Lack of working space	25.0	5.2
Lack of electricity	16.7	.9
Lack of storage space	13.4	1.0
Lack of skilled labor	10.3	1.6
Transportation problems	5.8	.3
Maintenance and spare parts	5.7	.9

SOURCE: Phase II survey.

4.1. Demand as a Potential Constraint

Demand is the first constraint considered because it is so fundamental. Industries can function with poor quality machines and credit shortages, but they cannot survive without a market for their products. Limitations of the market tend to prescribe limits for the scope of small enterprise activity.

Thirty-five percent of the entrepreneurs surveyed listed demand as one of their major problems. The demand problem was prevalent across all industries and was deemed particularly acute in the leather goods industry where 63 percent of the entrepreneurs mentioned it, and among bakers where 41 percent complained of demand inadequacies. Demand appears to be least important in the car repair and machine repair business where 22 to 24 percent of the firms expressed concern.

In reviewing the role of demand our first task is to determine where the current demand lies. Table 16 indicates, by locality size, the nature of current market for Haitian SSE products. With table 16 as a starting point we will explore the demand issue in detail considering three major sources of demand: (1) consumer demand in Haiti, (2) subcontracting demand by larger businesses, and (3) export demand.

4.1.1. Consumer Demand in Haiti

4.1.1.1. Local Consumer Demand.

Local consumers provide the major market outlet for products of Haitian small enterprises. Eighty-four percent of the businesses interviewed sell to local consumers, and this dependence on local incomes is stronger in the smaller, rural areas where export and tourist markets are less readily available. Local traders are also an important source of demand in the smaller localities.

TABLE 16

CURRENT MARKET OUTLETS FOR HAITIAN SSE GOODS

Locality Size	Local Consumers	Local Traders	Outside Traders	Exporters	Tourists	Other	Total*
	Percent of Enterprises which Sell to Each Source						
All Haiti	84	13	17	4	2	56	175
Under 1,000	93	25	29	-	-	36	189
1,000 - 2,000	76	18	22	-	-	51	169
2,000 - 5,000	87	21	18	-	-	58	183
5,000 - 20,000	88	6	17	3	1	59	174
20,000 - 100,000	89	15	9	1	2	59	175
Over 100,000	78	12	19	6	4	54	174

SOURCE: Phase II survey.

*Entrepreneurs were allowed up to three answers which is why the total percent can exceed one hundred.

To the extent that these local traders circulate the SSE goods within a single locality, their importance in the rural areas reinforces the conclusion that small enterprises in the rural areas are highly dependent on local incomes as a source of demand for their goods.

4.1.1.2. Consumer Demand in Other Localities. There is considerable mobility of small-scale industry goods across Haiti. Thirty percent of the enterprises sell to traders, seventeen percent of whom are outside traders, indicating that trade with other localities is not uncommon in Haitian SSE. Bakeries (47 percent), leather work (38 percent), and grain mills (33 percent) are the enterprises most heavily involved in trade with other localities.[1] With the exception of the service industries such as car, tire, and machine repair, considerable mobility exists in all the other types of enterprises as well.

Consumer demand within Haiti — both local consumers and the demand from other localities — is of crucial importance for the small enterprise. Given the dependence on consumer demand and assuming a positive income elasticity of demand,[2] the growth of incomes in Haiti becomes a crucial determinant of the growth prospects in Haitian small enterprises. The limited data available indicate that, from 1960 to 1967, real per capita annual GDP fell slightly; since 1967 it has grown at a rate of about 1.3 percent per year (Zuvekas, 1978, p. 2). The data on which these

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[1]Straw products (38 percent) and wood sculpture (26 percent) are also heavily involved in outside trading, but as we will see shortly, this is primarily due to export demand rather than to the demand generated by consumers in other localities.

[2]Indeed evidence from other countries reveals that these coefficients are positive. See, for example, King and Byerlee, 1977.

income projections were made is admittedly weak, but in the absence of any other information, these figures are sobering. The growth of local incomes is of critical importance to the future growth prospects for small industries in Haiti.

4.1.2. Subcontracting. Another component of the local market demand for SSE goods is that afforded by larger businesses. A major reason for interest in this question of the demand relationship between small and large industries is the fact that in other countries, notably Japan, subcontracting arrangements between smaller and larger firms have been very important in the growth of small industries. Subcontracting can be an important potential source of demand for SSE products.

On average, 7 percent of the small firms interviewed do subcontracting work for larger businesses. However, as table 17 shows, the demand generated by the larger businesses is clearly much greater in the

TABLE 17

SUBCONTRACTING DONE FOR LARGER BUSINESSES

Locality Size	Percent of Total Enterprises Surveyed Which do Subcontracting for Larger Enterprises
Under 1,000	0.0
1,000 - 2,000	4.1
2,000 - 5,000	4.0
5,000 - 20,000	4.3
20,000 - 100,000	8.7
Over 100,000	9.8

SOURCE: Phase II survey.

larger towns than in the rural areas. None of the enterprises surveyed in the smallest localities were involved in subcontracting work whereas almost one-tenth of the firms in Port-au-Prince were so engaged. The bulk of the larger industries are located in the larger towns, particularly in Port-au-Prince, and so it is not surprising that the demand generated by larger industries is more prominent in the larger cities.

The importance of subcontracting varies not only by locality size; it also varies considerably by industry type (table 18). Tailors and shoe

TABLE 18

THE IMPORTANCE OF SUBCONTRACTING, BY INDUSTRY

Enterprise Type	Percent of Enterprises Surveyed Which do Work Under Contract For Larger Enterprises
Wood products	20.9
Machine repair	20.0
Cement block making	20.0
Straw products	13.0
Car repair	13.0
Metal work	10.8
Carpentry	6.2
Shoe repair	3.9
Tailoring	2.4
All other	--
Average	7.0

SOURCE: Phase II survey.

repair shops do essentially no subcontracting work for larger firms. However, for wood products, machine repair, and cement block making roughly 20 percent of the small firms do contract work for bigger enterprises. For straw products, car repair, metal working shops, and carpenters there is also a high frequency of subcontracting work done for larger firms.

Of the five industries in which subcontracting is most important, four were tagged as growth industries in our evaluation at the end of the Descriptive Profile. It is very possible that the subcontracting demand has played a role in the expansion of those four enterprises — wood products, machine repair, cement block making, and car repair. If so, further exploration[1] of these subcontracting arrangements would be of crucial importance in industrial policy making because where complementarities exist between large and small enterprises the two sectors can grow in tandem. In the cement block industry one suspects that large construction firms buy the small firms' blocks to use in their building projects. However, the relationship between larger enterprises and machine repair shops, car repair shops, and metal working firms is less clear. Exploration of these relationships could well lead to identification of the areas in which large and small industries are complementary, and the identification of these complementarities would be extremely useful in planning any industrial programs.

4.1.3. Export Demand. The export market represents another important outlet for Haitian SSE goods. From table 16 we saw that sales to tourists and exporters are made directly by only 6 percent of the firms

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[1]See, for example, Watanabe 1974 and 1979.

interviewed. However, this modest aggregate figure masks the fact that the export market is very important for certain of the small enterprises. For example, wood sculpture and straw products depend heavily on the export market. Sixty-five percent of the wood sculptors and twenty-three percent of the producers of straw products sell directly to exporters and tourists (table 19). In addition, 38 percent of the straw weavers and 26 percent of the wood sculptors sell to long distance traders and a large percentage of these wood and straw items probably flow into the export market. Considering the traders, exporters, and tourists it is clear that the export market is of prime importance to the straw and wood sculpture enterprises.

Export growth has the important advantage that it is not limited by the rate of growth of the local market; in fact, growth in Haiti's industrial sector in the past ten years has been paced largely by the growth of export industries. The recent World Bank Mission to Haiti has stated, "They (the export industries) played a dominating part in changing the face of Haiti's manufacturing sector" (World Bank, 1978, p. 21). The export of light manufactures (petite industrie) has skyrocketed in recent years as can be seen in table 20, and these light manufactures are made up of two distinct groups: (1) small-scale industry exports, and (2) large-scale,[1] primarily assembly type industries.

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[1]That the assembly industries are large-scale is verified by the observation that one-half of all firms in Haiti employing over 100 persons are involved in assembly-type export industries. This calculation is based on a report by the Institut Haitien de Statistique (IHS, 1978). In addition, the recent World Bank Mission to Haiti indicates that the average size of the assembly industries established between 1973 and 1977 is 89 workers (World Bank, 1978, p. 177).

TABLE 19

CURRENT MARKETS FOR SELECTED SMALL INDUSTRIES

Enterprise Type	Local Consumers	Local Traders	Sub-contracting	Outside Traders	Exporters	Tourists	Total*
	Percent						
Wood sculpture	46	21	21	26	44	21	179
Straw, sisal, and bamboo products	72	21	13	38	17	6	167
Metal working	84	16	11	20	3	0	134
Tailoring	88	6	2	10	2	2	110
Carpentry	87	3	6	12	1	0	109
Car repair	89	4	13	4	0	0	110
Machine repair	91	6	20	6	0	0	123

SOURCE: Phase II survey.

*Entrepreneurs were allowed up to three answers which is why the total can exceed one hundred.

TABLE 20

HAITIAN EXPORTS (IN GOURDES)[1]

		Exports of Light Manufactures[2]									
			Major Assembly Industries (Large-Scale)				SSE[3]				
	Total Exports	Total Light Manufactures	Baseballs	Leather Goods	Electrical Assembly	Underwear	Baskets	Straw & Sisal Handbags	Wood Articles	Total SSE	% of Light Mfg Exports
1975/76	587,668,875	155,460,631	68,221,098	11,732,440	11,330,379	6,222,850	4,038,709	1,768,790	4,113,986	19,689,849	12
1974/75	405,894,093	129,008,365	45,132,418	10,872,110	11,914,028	4,411,624	1,283,752	620,556	2,801,504	11,166,221	9
1973/74	356,665,755	92,245,102	26,193,000	11,112,000	5,347,000	981,000	214,000	40,000	3,524,000	11,200,000	12
1972/73	256,544,378	103,071,505	---	4,895,000	2,842,000	249,000	10,000	10,000	2,282,000	9,159,000	9
1971/72	211,534,983	78,567,869	---	3,668,000	2,954,000	515,000	---	29,000	2,176,000	9,057,000	12
1970/71	241,144,820	NA	10,025,000	2,550,000	1,136,000	1,954,000	23,000	130,000	1,401,000	10,160,000	
1969/70	202,583,382	NA	4,441,000	7,697,000	---	3,435,000	9,000	2,000	1,535,000	8,120,000	
1968/69	186,280,755	NA	2,008,000	4,961,000	---	---	4,000	4,000	751,000	9,924,000	

SOURCE: Le Commerce Exterieure d'Haiti. Departement de Finances et des Affaires Economiques. Various issues.

[1]Five gourdes equal one U.S. dollar.

[2]Light manufactures is a translation of "petite industrie."

[3]SSE products included all straw articles, sisal (except for string and fishing nets), wood articles, decorative items, items of shell, necklaces, and paintings.

We will examine first the exports from small-scale enterprises using official export data published by the Haitian government. According to these official trade statistics SSE exports have doubled since 1968 (table 20) and this large growth rate is primarily due to the rapid increase in exports of straw and wood articles. These data, therefore, corroborate the Phase II results which point to wood and straw articles as the most important of the SSE exports.

Turning to the large-scale, assembly goods exports we see spectacular increases over the past eight years. Baseball exports alone rose from virtually nothing in 1968/69 to over 11 percent of total Haitian exports in 1975/76. Electrical assembly, undergarments, and leather goods have increased rapidly as well. Roughly 200 of these large-scale export industries have been established since 1971 (World Bank, 1978, p. 21). Their importance in Haiti is undeniable.

It is important to realize, though, that the assembly goods exports have benefited from substantial amounts of assistance which was not available to the SSE sector. For example, the assembly goods industries enjoy considerable financial support from U.S. investors. Over 40 percent of the large-scale export firms are either partially or wholly owned by U.S. investors (Commercial Office, U.S. Embassy, 1978, p. 1). Furthermore, the large-scale exporters enjoy enormous tax and tariff exemptions which the SSE do not. As an illustration, the price a small entrepreneur pays for a sewing machine includes a 30 percent tariff duty (10.6 percent under GATT). The prices for saws, files, and other hand tools used by wood sculptors include a 1.1 gourde per kilo import duty (.9 GATT).[1] In

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[1]Republique d'Haiti.

contrast to the small enterprises, many of the large-scale assembly industries receive complete exemption from import duties on their equipment and raw materials. Thus the small enterprises are at a considerable cost disadvantage in many areas.

The substantial increases in SSE exports have been achieved without the benefit of any public intervention or outside support. Not only have they received no outside support, the SSE have operated under price handicaps due to input prices which are inflated by tariff duties. Given the fact that small industry exports have doubled in the past ten years despite these unfavorable conditions, there may well exist room for a major boost to SSEs through tariff adjustment and export promotion.

4.1.4. Conclusion. There are three principal sources of demand for the products of Haitian small enterprises — consumer demand in Haiti (local demand and consumer demand in other localities), subcontracting demand by larger firms, and export demand. Most small enterprises depend heavily on consumer demand within Haiti. However, firms with additional market outlets — either subcontracting or export markets — tend to fare better than those enterprises whose markets are limited solely to local consumers. Of the five industries in which subcontracting and export demand were the most readily available, four were classified as growth industries. Clearly, demand plays a crucial role in fostering the growth of small enterprises.

Having reviewed the demand for SSE products we turn to take an in-depth look at the supply side and the various inputs which can constrain the development of small enterprises. We look first at capital and credit and then move on to raw materials, and managerial and skilled labor inputs.

4.2. Capital Constraints

In discussing the issue of capital constraints we will examine several related topics: fixed capital, working capital, and credit. Entrepreneurs perceive all three to be major problems. When asked to list their most important problem, 40 percent of the entrepreneurs listed cash (working capital) as their most pressing concern, while 20 percent mentioned machinery and tools (fixed capital), and 8 percent considered credit to be their major concern (table 21). All three potential problems, fixed capital, working capital, and credit, are of major concern in Haitian small enterprises.

TABLE 21

ENTREPRENEURS' PERCEPTIONS OF CAPITAL CONSTRAINTS

	Percent of Entrepreneurs Listing:	
	Most Important Problem	Problem
Cash	48	56
Machinery and tools	20	63
Credit	8	28

SOURCE: Phase II survey.

The distinction made between working capital and fixed capital is very important. Entrepreneurs indicate cash (working capital) to be their most important problem, and their actions underline that concern. Of the entrepreneurs who borrowed money last year, 87 percent used the borrowed

funds to purchase raw materials, a short-term expenditure of working capital. Only 13 percent of those who borrowed spent the funds on fixed capital goods such as machinery and equipment. Working capital is clearly an important problem; when the entrepreneurs had to go outside of their business for financial support, the support they received was in the form of short-term working capital.

The working capital problem is of prime importance in small enterprises; it is very difficult, however, to identify the ultimate cause of working capital shortages. Working capital shortages are often symptoms of more basic underlying problems. For example, a raw material supply problem can easily manifest itself as a working capital shortage. Consider a small town where raw material delivery occurs only once every three months. The small entrepreneur is required to tie up large amounts of cash in procuring his three-month supply of raw materials. He is short of cash for other short-term expenses, and thus, what is really a problem of raw material supply, surfaces as a working capital problem. Similarly, unsteady demand can cause working capital shortages. During a period of slack demand an entrepreneur must still pay fixed costs, and maintain some stock of raw materials and perhaps a stock of finished goods without the inflow of revenue from the sale of his product. In such cases insufficient demand can manifest itself as a working capital problem. In similar fashion management problems, credit shortages, and a host of other problems can cause working capital shortages.

Before attempting to sort out these commingled effects and before evaluating the severity of each type of capital constraint it will be necessary to look briefly at the current capital structure of Haiti's small

enterprises. In reviewing the capital composition of the small enterprises we will look first at the current demand for capital among small enterprises. We then turn to sources available for supplying those capital needs. We conclude the capital section by attempting to assess the severity of the three types of capital constraints.

4.2.1. Demand for Capital

4.2.1.1. Initial Capital. The first demand faced by new firms is initial capital. The initial capital requirements for equipment and raw materials range between $6,243 for milling operations and $109 for candy makers (table 22). The major small industries such as tailoring and carpentry require $480 each on average.

4.2.1.2. Subsequent Investment. Once in business additional demands for capital arise for purposes of replacement and expansion. Table 23 displays data concerning these ongoing expenditures in machinery and tools. From these data for the years 1974 to 1978 it is evident that fixed capital expenditures vary considerably from year to year and from enterprise to enterprise. Table 23 is useful for giving an idea of the order of magnitude of annual equipment expenditures in small enterprises. The carpenters interviewed spend an average of $56 per year on machinery and tools. For tailors, that same figure is $103; for car repair shops an average of $248 is spent annually on tools and machinery.

4.2.1.3. Current Capital Stock. The initial capital and subsequent investments determine the current size of the capital stock of small enterprises. Currently those capital stocks range between $24,000[1] per firm among essential oil producers, and $900 per firm for

[1] These figures are obtained by reflecting original purchase prices to 1978 dollars.

TABLE 22

INITIAL CAPITAL BY ENTERPRISE TYPE
(In 1978 Dollars)

Enterprise Type	Average Initial Expenditure Per Enterprise for Equipment and Raw Materials
Milling (sugar and grain)	$6,243
Printing	4,865
Ice making	4,169
Oils and essential oils	3,606
Beverage manufacture	2,076
Bakery	2,076
Heavy wood products (boats and truck bodies)	1,747
Car repair	1,525
Cement block making	1,513
Wood sculpture	1,235
Cloth making, nets	1,119
Machine repair	815
Metal working	734
Shoe repair	492
Tailoring	480
Carpentry	479
Goldsmithing	474
Pastry shops	431
Tire repair	305
Mattress making	299
Straw products	291
Leather working	235
Candy making	109

SOURCE: Phase II survey.

TABLE 23

GROSS ANNUAL INVESTMENT IN MACHINERY AND TOOLS
(In 1978 Dollars)

Enterprise Type	Average Expenditure Per Firm					
	1974	1975	1976	1977	1978	1974-1978
Tailoring	$ 52	$121	$184	$ 59	$101	$103
Carpentry	54	15	118	25	68	56
Metal working	179	98	37	63	273	130
Goldsmithing	5	38	220	15	25	61
Shoe repair	129	27	145	14	32	69
Leatherwork	2	6	20	5	9	8
Straw products	3	0	19	16	20	12
Wood sculpture	84	33	38	168	110	87
Cement block making	127	233	4	817	261	288
Bakery	512	17	226	33	224	202
Beverage manufacture	0	0	620	576	263	292
Candy making	3	1	6	2	31	9
Grain milling	299	1071	373	3	101	369
Car repair	408	183	258	50	340	248
Machine repair	66	35	62	46	121	66
Tire repair	43	0	16	10	11	16

SOURCE: Phase II survey.

tire repair shops (table 24). Carpenters and tailors surveyed had capital stocks of $3,300 and $2,500 respectively.

Current capital stock can be broken down into its constituent parts in order to give a rough feel for the magnitude of fixed versus working capital requirements in small enterprises. The required breakdown of the capital stock is displayed in table 24.[1] It must be emphasized that these stock figures represent only a snapshot of the capital stock that was present the day each firm was interviewed. These figures may not be truly representative since raw materials and the inventory of finished goods in particular fluctuate dramatically throughout the year. As a second qualification it should be noted that we do not have data on cash on hand which is another important component of working capital. Keeping these qualifications in mind, table 24 can provide a crude indication of the magnitude of working capital versus fixed capital requirements in small firms. For example, it appears that essential oil plants require relatively large amounts of working capital — they average over $35,000 per firm in raw materials and inventory of finished goods. This amounts to 47 percent of their total capital. On the other hand, candy makers average only $51 worth of raw materials and finished goods which means that these components of their working capital come to 8 percent of the total capital stock. Tailors possess about $700 worth of raw materials and finished good inventories and these come to 9 percent of their total capital stock.

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[1]As was mentioned previously, in this breakdown machinery figures are much more accurate than those for buildings, raw materials, and inventory of finished goods. This is because we took a complete inventory of machinery and tools while the entrepreneurs gave only lump-sum estimates for values of their buildings, raw materials, and finished good inventories.

TABLE 24

CURRENT CAPITAL INVESTMENT PER FIRM
(Original Cost Reflated to 1978 Dollars)

Enterprise Type	Machinery	Building	Inventory Of Raw Materials	Inventory Of Finished Goods	Total
Printing	$10,383	$15,000	$ 3,340	$ 169	$28,892
Grain milling	7,346	5,868	312	492	14,019
Heavy wood products	3,998	0	681	140	4,819
Ice making	12,245	8,800	430	140	21,615
Machine repair	903	7,614	245	96	8,858
Car repair	2,362	1,362	1,315	209	5,248
Cement block making	2,687	2,348	1,213	3,914	10,162
Goldsmithing	607	1,180	438	187	2,412
Essential oils	15,312	23,667	23,909	11,215	73,803
Beverage manufacture	2,489	5,987	6,051	3,459	17,987
Shoe repair	815	1,280	98	2,453	2,437
Bakery	3,570	3,918	1,755	1,257	10,500
Carpentry	511	2,076	346	369	3,302
Tailoring	791	6,006	274	412	7,484
Metal working	1,018	3,077	293	218	4,606
Cloth, net making	1,247	400	79	71	1,797
Leather working	164	781	55	83	1,083
Pastry shops	881	11,474	148	21	12,524
Tire repair	583	0	70	214	866
Wood sculpture	807	258	2,937	3,937	7,939
Mattress making	166	1,789	261	81	2,296
Candy making	72	512	26	25	635
Straw products	72	343	619	506	1,540

SOURCE: Phase II survey.

4.2.1.4. Methods of Decreasing the Demand for Capital.

The demands for capital, particularly current fixed capital requirements, can be altered in a number of ways. First of all an entrepreneur can reduce his capital requirements by not investing in a building. This is an important option; 30 percent of the enterprises interviewed work without purchasing or even renting permanent building quarters. They operate their businesses outside on sidewalks and on verandas. It should be remembered, though, that this option is utilized more in some industries than in others (table 12). Printers, for example, would have a hard time operating out of doors whereas in tire repair, where noxious gases are emitted from melting rubber, working outside of a building may even be preferable to working inside. Therefore the feasibility of lowering initial capital costs through no investment in a building should be examined on an industry-by-industry basis.

A second way of minimizing capital requirements is through the use of rented buildings and equipment. Fifty-two percent of the firms interviewed, in fact, availed themselves of this option and rented their building quarters. Machinery rental appears to be much less common; only 6 percent of the enterprises in our study rented their equipment. It is not evident from this survey whether the small amount of machine rental is due to lack of demand or lack of a supply of rentable machines. Additional study[1] in this area would be of considerable value because, if supply of the rental machines is posing the constraint, a policy intervention might be of assistance in breaking that particular bottleneck. In any case it is

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[1]See, for example, Vancil, 1963 and Terborgh, 1967.

clear that renting, particularly the rental of buildings, is an important means of lowering the capital costs of entry into business.

Another form of rental is the rental of workshop space and equipment which is carried out through the jobber arrangement. A jobber, it will be recalled, is a worker with skills but no shop or equipment. He receives contracts to repair or produce a certain good and when he receives the contract arranges with someone who is currently in business to rent the use of his shop and tools for the time it takes to complete his work. Of the workforce surveyed 2.2 percent consisted of jobbers. This figure rose slightly in Port-au-Prince where 3.1 percent of the small enterprise employment consisted of jobbers. The jobbers comprise, therefore, a modest segment of the SSE sector. This particular arrangement, though, does offer the lowest capital barriers to entry in small business.

A final option which allows an entrepreneur to decrease capital needs is that of choosing among different methods of production[1] and selecting the one which requires the least amount of capital. We have seen previously (table 13) that there exists a wide variety of possible capital/labor combinations within many industries. Taking account of the price of equipment and labor, the productivity difference among different techniques, and the profit range which is acceptable to the entrepreneur, the businessperson may be allowed some latitude in the method of production he/she chooses. Where the latitude exists, a potential entrepreneur may

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[1]For an analysis of choice of technique which covers various industries in Sierra Leone see Byerlee, et. al., 1979.

select the technique with the lowest capital requirement and thus minimize that barrier to entry.[1]

4.2.2. Sources of Capital. Given the various determinants of the demand for capital it is important to identify the sources which are available for supplying the needed capital. Table 25 provides a convenient summary of sources of capital for both initial capital and ongoing investment expenditures.

4.2.2.1. Personal Savings. Personal savings provided the start-up capital for most small enterprises surveyed. In fact, 72 percent of the initial capital was provided from the personal savings of the entrepreneurs (table 25). Those savings were primarily generated in agriculture in the rural areas while in the large urban areas the majority of the entrepreneurs saved money from earnings in other businesses.

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[1]The preceding discussion has addressed macro-level techniques for decreasing capital requirements. There also exists an important micro-level method of affecting the value of capital utilized in small businesses — tariff adjustment. Import tariffs are imposed on most capital equipment used by Haitian small enterprises, and these tariffs automatically increase the barriers to entry and expansion by artificially raising the local purchase price of equipment. Examining the case of the tailors we find that hand and motorized sewing machines coming into Haiti face a 30 percent tariff (10.6 percent under GATT). On scissors, needles for the sewing machines, and replacement parts import duties of 30 percent are levied. For carpenters, handsaws, files, pliers, hammers, and punches all face a 1.1 gourde per kilo import duty (.9 gde in GATT) (Republique d'Haiti, p. 157).

While small firm enterprises in Haiti face artificially high barriers to entry due to the imposition of tariffs, many large firms are exempted from the tariff duties on their capital goods. The exemption status of firms is a complex issue. Schwartz (1977, p. 15) cites the example of the export industries in which the granting of tariff exemptions is not decided in a uniform matter but rather on a case-by-case basis. Because of this complication it is difficult to pinpoint the magnitude of the discrimination between small and large enterprises. Research into this question would shed important light on the degree to which the present tariff structure discriminates against small firms.

TABLE 25

SOURCES AND USES OF CAPITAL

Source	Initial Purchase Of Equipment and Raw Materials		Subsequent Investment in Equipment and and Tools, 1978	
	Percent Of Enterprises	Percent Of Capital	Percent of Enterprises	Percent Of Capital
Personal savings	62.0	72.0	95.0	81.0
Gifts (family and friends)	23.0	12.0		
Borrowed funds	8.0	12.0	5.0	19.0
(Family)	(2.4)	(2.7)	(0.4)	(0.4)
(Friends)	(3.7)	(4.0)	(2.0)	(8.7)
(Moneylender)	(0.8)	(2.4)	(1.7)	(1.3)
(Bank)	(0.8)	(2.8)	(0.9)	(8.1)
(Caisse Populaire)	(0.3)	(0.1)	(0.0)	(0.0)
Other	7.0	4.0	0.0	0.0
Total	100.0	100.0	100.0	100.0

SOURCE: Phase II survey.

4.2.2.2. Family and Friends. The second most important source of start-up capital was family and friends. Gifts from these two sources accounted for 12 percent of the initial investment capital in the firms visited. Family members and friends also granted loans to prospective entrepreneurs.

In addition to being an important source of start-up capital these two sources — family and friends, and personal savings — are of crucial importance in providing money for ongoing investments. Last year 90 percent of the equipment purchased by the small entrepreneurs interviewed was purchased with funds supplied by personal savings, and family and friends. Of that 90 percent, 9 percent came in the form of loans from family members and friends. Thus for both recurring expenditures and for start-up capital, personal savings, and family members and friends offer a large share of financing required by small businesses.

4.2.2.3. Moneylenders. Although substantially behind personal sources and family and friends, moneylenders offer a third source of capital for new firms. The moneylenders provided 2.4 percent of the start-up capital in the firms surveyed. However, the moneylenders are slightly more important in financing ongoing expenditures for existing firms; they provided 8 percent of the funds for equipment purchases in 1978. Moneylenders are important in all locality sizes although they are marginally more important in the smallest rural areas (table 26).

4.2.2.4. Formal Credit. Moneylenders, personal savings, and support from family and friends represent the informal sources of financing available to small firms. The banks and caisses populaire represent formal sources of credit. Together the banks and caisses

TABLE 26

SOURCE OF LOANS OBTAINED IN 1978, BY LOCALITY SIZE[1]
(Percent of Loans)

Locality Size	Family	Friends	Commercial Bank	Caisse Populaire	Money Lender	Landlord	Other	Total
	Percent							
Under 1,000	25	75	0	.0	25	0	0	100
1,000 - 2,000	14	57	7	7.0	14	0	0	100
2,000 - 5,000	25	50	5	5.0	5	10	0	100
5,000 - 20,000	14	59	4	0.0	14	6	6	100
20,000 - 100,000	17	52	19	0.0	15	3	1	100
Average for all enterprises surveyed	17	55	12	1.4	14	4	2	100

SOURCE: Phase II survey.

[1]Data pertain to firms established in earlier years; loans were for capital expansion or working purposes, not initial establishment.

populaire provided 3 percent of the initial capital to the firms surveyed. In terms of ongoing investment they provided 8.1 percent of the equipment investment in 1978. The caisses populaire appear to be more important in the rural areas whereas the banks tend to finance a larger percentage of businesses in the larger towns (table 26).

4.2.2.5. Terms of Credit. Credit is an important source of financing capital expenditures in small firms and in completing our look at sources of capital in small firms it is important to be aware of the terms under which small entrepreneurs can borrow these funds. The terms of credit granted to small entrepreneurs vary considerably depending on the source. The loans from family members and friends are generally very flexible in duration and often carry no interest.

Moneylenders are also extremely flexible in their timing — so flexible that in several cases it was impossible to compute an interest rate on moneylender loans; the repayment period could not be clearly specified. Among those loans for which it was possible to calculate the interest rate, the rate varied between 40 percent and 240 percent per year. These loans were generally of short duration ranging between one month and a year, and the loans rarely required collateral. The size of the loans granted by the moneylenders was most commonly in the $50 to $300 range although some were granted for as little as $25. At the other extreme one moneylender loan was offered for $6,000 over 5 years. The moneylenders do charge much higher interest rates than the banks, but they offer greater flexibility to their customers both in timing and magnitude of their loans.

The banks and caisses populaire charge much lower interest rates than do the moneylenders. The banks charge between 12 and 15 percent on

their loans, but they have high collateral requirements. The small entrepreneur who had borrowed from banks typically left a title to land, house, or some other building as collateral for the bank loan. The bank loans are generally larger in magnitude and of longer duration than those offered by the moneylenders. Bank loans were typically in the $2,000 to $10,000 range with their repayment term between 5 months and several years. The smallest bank loan encountered was a $200 loan over 6 months; the largest was $50,000 over 2.5 years. Banks do offer the lowest credit rates outside of family gifts and loans, but the collateral and other requirements imposed by the banks make it difficult for most of the small enterprises to qualify.

4.2.3. Evaluation of Capital Constraints

4.2.3.1. Barriers to the Formal Credit Market. A major barrier to using formal financial markets is the inaccessability of formal institutions in many of the rural areas in which the SSE operate. Ninety-four percent of the entrepreneurs interviewed had never applied for a loan from a formal credit institution. The large majority of them had never applied because there existed no local office or credit bureau and they had no contact with or knowledge of any formal credit institution.

Another problem with formal credit markets is that the processing time required by formal credit institutions is often too long for small entrepreneurs to wait. Lengthy processing time is particularly troublesome for small enterprises as short-term working capital loans represent the major portion of their credit needs. Of the firms which have applied for formal loans but have not received them, half have failed to obtain the loans because they have not yet received word back from the lending

institution. Several of the entrepreneurs indicated they had given up on the loan applications because they had gone so long without hearing from the banks. The length of processing time for the entrepreneurs who did receive formal loans is listed in table 27. From that table we can see that half of the loans were processed within two months of the date of application, but the other half took three months or more. A three delay may be acceptable to an entrepreneur looking to purchase a new piece of equipment but, as we saw, the bulk of the small enterprise credit goes for short-term purchases of raw materials. For these entrepreneurs a three-month delay may well be too long.

TABLE 27

PROCESSING TIME FOR LOANS FROM BANKS AND CAISSE POPULAIRE

Processing Time In Months	Number of Loans
1	18
2	4
3	11
6	5
8	2
12	1
15	1
22	1

SOURCE: Phase II survey.

Collateral requirements represent a third barrier to many small entrepreneurs. Thirty percent of the small businesses surveyed are not housed in any permanent building and without a building or piece of land to offer as collateral many of the small entrepreneurs have no hope of obtaining credit from the formal sector. Roughly half of the entrepreneurs who were denied credit from the banks did not receive the loans because they failed to meet the banks' collateral requirements.

4.2.3.2. Interest Rate and the Demand for Credit. While lack of institutions, lengthy processing time, and high collateral requirements pose serious obstacles to small entrepreneurs, the interest rates do not. It was noted earlier that the 12 to 15 percent interest rates of the banks are substantially below those charged by the moneylenders. In attempting any sort of loan program for small industries determination of the interest rate to be charged is a crucial issue. Table 28 attempts to give some feel for the demand for credit at various interest rates. Two simple rates were selected; 10 percent was chosen as a round number very close to the official bank rate and 50 percent was taken as a rough estimate of interest rates in the informal sector. Given these two interest rates, entrepreneurs were asked how much they would be interested in borrowing at each rate. At 10 percent the average loan requested was $2,410 while the 50 percent rate yielded an average response of $250. The number of loans requested also dropped at the higher interest rate but it dropped only half as much as the loan amounts. The figures for credit demand have been extrapolated to all of Haiti living in localities over 1,000 in population and the results are listed in table 28. From these extrapolations it is estimated that the total amount of credit

TABLE 28

ESTIMATES OF POTENTIAL DEMAND FOR CREDIT IN ALL LOCALITIES OVER 1,000 IN POPULATION

Size of Loan	10 Percent Interest Rate		50 Percent Interest Rate	
	Number of Borrowers	Amt. Credit Requested ($)	Number of Borrowers	Amt. Credit Requested ($)
Under $200	855	$ 85,000	353	$ 35,000
$200 - $999	2,732	1,616,000	551	328,000
$1,000 - $1,999	1,121	1,681,000	209	313,000
$2,000 - $2,999	716	1,790,000	47	117,000
$3,000 - $3,999	248	868,000	33	115,000
$4,000 - $4,999	179	805,000	14	63,000
$5,000 - $9,999	424	3,180,000	44	330,000
Over $10,000	463	4,630,000	52	520,000
Total	6,738	14,665,000	1,303	1,821,000

SOURCE: Phase II survey.

requested at a 10 percent rate of interest is $14 million and at 50 percent the total was for $1.8 million. It must be immediately noted that these figures are only very crude indicators of credit demand and the 10 percent figure surely represents an upper limit on the total credit demand in localities over 1,000 in population. The answers given to this question are not expected to be very accurate and even if they were, demand for credit and ability to qualify for loans are two very different matters. These figures on the demand for credit must be treated with extreme caution.

Rather than estimating the aggregate demand for credit, table 28 is probably most useful in giving some feel for the numbers and the size distribution of loans that might be potentially requested by small enterprises. Table 28 indicates that large numbers of loans in the $200 to $3,000 range might be expected. This corresponds closely to the size of loans actually contracted in 1978. The vast majority of the loans granted in 1978 were in the $100 to $3,000 range. In the granting of large numbers of rather small loans a potential credit program would want to carefully consider the overhead costs involved in processing the loans.

In concluding this evaluation of credit constraints we emphasize that several barriers combine to prevent the small firms from having access to formal credit markets. Formal institutions are physically inaccessable to many small enterprises, particularly those in rural areas. Where the formal institutions exist, collateral requirements, processing time, and loan sizes — particularly considering the small size requirements for working capital loans — are not well suited to the needs of the small enterprises. Flexible credit is available in the informal market but the interest rates are extremely high. The fragmentation of the credit

market disadvantages the small firms vis-a-vis the large firms. These larger firms do have access to formal credit channels where interest rates are extremely low. The small enterprises continue to experience credit problems even though they are willing to pay higher rates of interest to borrow funds in formal credit markets.

4.2.3.3. Fixed Capital Constraints. Large numbers of entrepreneurs in all localities and industries complained of shortages of machinery and tools. This is not surprising as it is very normal for small entrepreneurs to complain of equipment shortages even when they have no need for additional fixed capital.[1] It is essential, therefore, to carefully evaluate requests for fixed capital.

Several kinds of information are required before an informed judgment can be made as to whether or not fixed capital is in short supply. That information includes: (1) the capacity utilization of current equipment, (2) measures of technical and economic efficiency or current and alternative techniques of production, and (3) information on whether or not new kinds of machines offer potential for the production of more saleable goods.

Measurement of excess capacity is particularly useful in assessing the need for additional machinery,[2] and in seasonal businesses such as those surveyed, flow data are needed to make reliable estimates of annual rates of capacity utilization. We did, however, make crude calculations

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[1]See Harper, 1977.

[2]It should be noted that there is an economic rationale for a certain amount of excess capacity. See Winston, 1974 for a discussion of this issue.

based on our single interview. These rough calculations pointed to substantial amounts of excess capacity at the time of the interview; however, it must be remembered that our interview took place in January and February, periods which 44 percent of the entrepreneurs considered to be their lowest season. It is not surprising to find excess capacity in the low season. More detailed flow information will be required to determine capacity utilization during other seasons of the year.

In addition to capacity estimates, information concerning the technical and economic efficiency[1] of various types of equipment would be useful in evaluating the desirability of additional machinery. A technically efficient technique of production is one which produces a maximum amount of output with a given set of inputs. Economic efficiency refers to techniques which maximize output with respect to the scarce factor of production which in developing countries usually is capital. Measures of both kinds of efficiency are particularly useful[2] in evaluating the kinds of machinery that it would be desirable to encourage in machine rental or credit programs.

A third kind of information which is useful for diagnosing fixed capital shortages would be a determination of whether or not new kinds of machines will increase the saleability of the output. For example, it is possible that an embroidery attachment would enhance the marketability of a tailor's products. Newer vintages of machines may also produce items

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[1]For a good discussion of technical efficiency see: C. Peter Timmer, 1970.

[2]For a good, practical example of the use of such information see: C. Peter Timmer, 1973.

which are more highly sought by consumers than are those items produced with the current equipment.

Some of the information required for assessing fixed capital shortages can be studied on an industry-wide basis. For example, examination of demand conditions and the efficiency of different techniques of production falls in this category. On the other hand, information on capacity utilization is specific to individual firms and these estimates will have to be made on a case-by-case basis.

To obtain the above kinds of information — capacity estimates, demand appraisals, and information on technical and economic efficiency — additional study will be required, but the information gathered would be of great value in policy design and implementation. Information on capacity utilization of capital stock is, of course, useful in credit programs as part of an assessment of a firm's need for new equipment. Consideration of possible demand increases due to the acquisition of new equipment can also play a role in deciding whether or not to make a loan or rent a new kind of machine. Data on the technical and economic efficiency of various techniques of production allows those involved in credit or machine rental programs to evaluate the potential profitability and likely employment generation effects of different machinery packages they might provide. Efficiency considerations will also be important in allowing policy makers to compare actual techniques of production with those not currently in use and to detemine whether or not they can make an important contribution to the economy by playing an information disseminating role. Similarly, policies aimed at encouraging shifts in production techniques by tariff or

other price manipulations will want indication of the magnitude of the price change necessary to effect a desired shift. They would also find useful an ex ante indication of the likely effects in terms of employment and output of their policy intervention. Finally, a knowledge of average productivity and profit rates in an industry is extremely valuable in evaluating the need for management assistance and in indicating the direction in which possible operating improvements can be made. Thus in numerous areas demand, capacity, and efficiency considerations can provide invaluable information for policy makers.

4.2.3.4. Working Capital Shortages. As was mentioned previously, working capital shortages can be the manifestation of numerous underlying problems — demand, raw material supplies, credit shortages, mismanagement, and so forth. Statistical tests[1] were performed in an attempt to correlate working capital shortages with each of those possible underlying causes. The results of these tests indicate that those entrepreneurs keeping records are less likely to experience working capital problems than are those who do not. Lack of managerial skills may, therefore, be contributing to working capital shortages. Credit availability, demand, and raw materials also appear to be correlated with working capital problems. The exact nature of working capital shortages, however, is very subtle. It varies substantially from locality to locality and from firm to firm, and it is at the individual firm level that working capital shortages are best diagnosed. Many programs of assistance will be dealing with individual firms — either granting credit, loaning machinery, or

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[1] A chi-squared test and linear discriminant function were used.

offering management assistance — and a determination of sources of working capital is best made for individual firms at that time.

4.2.4. Conclusion. Shortages of working capital, fixed capital, and credit are of major concern to small entrepreneurs. Credit shortages appear to be related to the fragmentation of the credit market. A diagnosis of fixed capital shortages requires additional information on capacity utilization in individual firms, the efficiency of various techniques of production, and the demand for output produced by those different techniques. Working capital shortages appear to be related to management, credit, demand, and raw material problems. Specific problems of this nature, however, need to be evaluated at the firm level. Since many programs will be dealing with individual firms the determination of specific working capital requirements is best made on an individual basis at that time.

4.3. Raw Materials

The supply of raw materials is of moderate concern for small firms in Haiti. Thirty-five percent of the entrepreneurs listed raw material supply as a problem; six percent indicated it to be their most important problem. When entrepreneurs were asked what types of nonfinancial assistance they needed most their single most frequent response was "make raw materials available." Fifty-eight percent of the entrepreneurs surveyed made this request.

Shortages of raw materials can arise for several reasons. Raw materials can be in short supply due to bad transportation and marketing networks. Shortages may also occur when imported raw materials are not available in sufficient quantities or when the supply of imported raw materials is sporadic. Both of these explanations for raw material

shortages result from bottlenecks in the raw material supply network. It is possible, though, for raw materials to be a problem for small enterprises even in the absence of supply bottlenecks. Shortages of working capital can impede raw material procurement. Thus if working capital is in short supply due to mismanagement, lack of steady demand, or for any number of reasons, raw material procurement can still be a problem even where the necessary raw materials are available locally. Thus raw material problems can be related to supply bottlenecks or they can be related to working capital shortages. Each of these sources of raw material problems seems to exist in Haitian small enterprises.

4.3.1. Bottlenecks in the Supply of Raw Materials. Transportation difficulties appear to be an important factor influencing the severity of the raw material problem. Most of the enterprises experiencing larger than average raw material problems are those which are the least accessable by road — Hinche, Belladere, Mirebalais, Port-de-Paix, Anse Rouge, and Gros Morne (table 29). In these areas it would appear that the raw material deficiency is related to transport difficulties.

Another consideration which is of major importance in examining raw material problems is whether or not an industry uses large amounts of imported raw materials. In fact, industries in which the majority of the firms use at least some imported raw materials are those industries which complain the most about raw material shortages. Goldsmiths, watch repair shops, metal working shops, car repair shops, and carpenters are examples of such industries in which imported raw materials and raw material complaints appear to be correlated (table 30). For goldsmiths the import of their basic raw material poses an obvious constraint to their operations.

TABLE 29

PROPORTION OF ENTREPRENEURS REPORTING RAW MATERIALS AS A PROBLEM, BY LOCALITY

Locality	Percent
Hinche	62
Belladere	57
Mirebalais	50
Port-de-Paix	44
Acul-du-Nord	44
Anse Rouge	43
Cap-Hatien	38
Leogane	37
Gros Morne	33
Lascahobas	33
Petite-Riviere-de-l'Artibonite	32
Gonaives	31
Saint-Marc	31
Jeremie	31
Port-au-Prince	30
Limbe	30
Cayes	29
Verettes	28
Jacmel	27
Trou-du-Nord	26
Plaisance	25
Carrefour	22
Les Poteaux	17
Estere	8
Camp Perrin	8

SOURCE: Phase II survey.

TABLE 30

PROPORTION OF ENTREPRENEURS REPORTING RAW MATERIAL SUPPLY AS A PROBLEM

Enterprise Type	Raw Materials A Problem	Over 50 Percent Of Firms Use Some Imported Raw Materials	Raw Materials the Most Important Problem
Goldsmithing	74	+	21
Watch repair	60	+	7
Cloth, net making	47		24
Pastry shops	14	+	0
Metal working	42	+	10
Straw products	39		7
Tire repair	39	+	0
Leather working	38		8
Machine repair	36	+	6
Printing shops	36		0
Cement block making	35		12
Car repair	35		2
Mattress making	33		0
Shoe repair	33		6
Carpentry	31	+	6
Wood products	30		7
Tailoring	29	+	4
Candy making	14		0
Bakery	10		0
Grain milling	3		0
Average for all enterprises surveyed	32		6

SOURCE: Phase II survey.

In the repair industries — watch, car, and machine repair — which require the import of many replacement parts, the relationship between raw material constraints and imports is clear. Tailors use substantial amounts of imported cloth and the carpenters require imported nails, bolts, hinges, and so forth. On the other hand, agricultural processing industries, which do not require large amounts of imported raw materials, appear relatively unconcerned about raw material problems. Grain millers and candy makers express very little concern over raw material shortages. Thus it would appear that the import composition of raw materials is a major determinant of raw material problems.

In reviewing the relationship between imports and raw material problems it is of interest to examine more closely certain import substituting industries because several large-scale industries have been established in Haiti specifically to produce local raw materials and thereby reduce import dependence. Bakeries, cement block making, and metal working are three industries which find some of their inputs produced locally in these import-substituting industries. The bakers' demand for flour appears to be well satisfied by the local flour mill. Only 10 percent of the bakers surveyed listed raw materials as a problem, and none considered raw materials to be their most important problem.

Cement block makers, on the other hand, seem to be less well supplied by the local cement plant. Thirty-five percent of the cement block makers complained of raw material shortages and 12 percent considered raw materials to be their most important problem. This is difficult to explain given the large amounts of excess capacity in the local cement plant (World Bank, 1978, p. 21), and given the fact that substantial

amounts of cement are exported. It is possible that the large cement plant has produced adequate quantities of cement but that working capital or transport problems have impeded the distribution of the cement to small block makers. Further study will be required to resolve this issue.

The third import-substituting industry of interest is the steel industry. Despite the construction of the steel plant in Port-au-Prince the small metal working sector in Haiti still complains of substantial raw material shortages, and they also remain heavily dependent on imported inputs (table 30). The single steel plant in Haiti currently supplies only half of the structural steel used in Haiti and other basic inputs to the metal working sector remain in short supply (World Bank, 1978, p. 21). According to the head instructor of the metal working school in Camp Perrin, basic requirements of U-bars, I-bars, T-bars, plough shears, and bolts are extremely difficult to procure, even in Port-au-Prince. The metal industry suffers due to the fact that there currently exists no foundry in Haiti. The one steel mill possesses an arc furnace, but it has never been used because of the inadequate supply of electrical power. Thus the import substituting industries in Haiti appear to have solved the raw material problems of the local bakers, but for the cement block makers and metal workers raw material supply problems continue.

4.3.2. Working Capital Shortages. Supply bottlenecks are important in explaining raw material shortages but working capital shortages also contribute to raw material problems of small enterprises. Of the small businesses who borrowed money in 1978, fully 87 percent used the borrowed funds to purchase raw materials. This means that 16 percent of all the firms interviewed had to borrow money to purchase raw materials in 1978. Had that working capital credit not been available raw material problems

would certainly have been aggravated. It is clear that shortages of working capital and credit can contribute to problems of raw material procurement. Thus working capital shortages as well as supply bottlenecks currently contribute to raw material problems among Haitian small enterprises.

4.3.3. Conclusion. When policy decisions have been made identifying regions and specific industries on which to focus it will be useful to trace individual products and determine which factors — supply bottlenecks or working capital shortages — are relevant in explaining raw material shortages in those regions and industries. In some cases the potential for useful interventions may be easily diagnosed. For example, the cement block industry is an industry in which there appears to be a raw material problem despite the existence of excess capacity in the local cement plant. In this instance the cause of the raw material problem might be determined without much difficulty. The industry and regional rankings of raw material problems (tables 29 and 30) are useful in providing direction for any groups interested in further study of raw material shortages in Haitian small enterprises.

Having reviewed raw material problems in small enterprises we turn to look at management constraints in the operation of small businesses.

4.4. Managerial Personnel

Very few entrepreneurs considered management practices to be a problem in the operation of their businesses. When asked what type of nonfinancial assistance they would like most, only 4 percent requested help in developing management skills.

The following brief exposition is designed to offer an impressionistic view of certain aspects of current management practices in Haitian small enterprises. The exposition is brief because it is difficult to obtain penetrating insights on management practices in a single interview which covers as wide a range of topics as did ours. In the following discussion four aspects of management training and practices are discussed: education, record keeping, selling goods on credit, and use of banks.

4.4.1. Formal Education. Eighty-seven percent of the entrepreneurs interviewed have received some formal education and 56 percent of them have completed their education through the sixth year, through middle 2 (table 31). If these figures are correct[1] it would imply a high level of literacy as the average literacy rate for Haitian adults is only 20 percent (World Bank, 1978, p. 110). High levels of literacy are important as they indicate that many small business managers may possess the basic educational skills necessary for implementing new management and record keeping practices.

4.4.2. Record Keeping. Half of the entrepreneurs interviewed keep records of some sort. This figure is uniform throughout the country; businesses located in the larger towns are not more apt to keep records than entrepreneurs in the rural areas. The 50 percent of the firms who do not keep records of any sort were asked why they do not. The majority of them, 52 percent, responded that their business was not large enough to justify keeping records. In those enterprises which do keep records, cash

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[1]There may be a tendency to give inflated estimates of educational background in order not to appear uneducated in front of the enumerators.

TABLE 31

LEVEL OF SCHOOLING COMPLETED BY OWNERS OF SMALL ENTERPRISES

Years of Education Completed	Frequency	Cumulative Frequency
Over 14	.1	.1
13	2.9	3.0
12	4.2	7.2
11	3.5	10.7
10	6.4	17.1
9	8.1	25.2
8	6.7	31.9
7	6.4	38.3
6	17.3	55.6
5	7.2	62.8
4	8.1	70.9
3	5.9	76.8
2	6.6	83.4
1	2.6	86.0
0	14.0	100.0

SOURCE: Phase II survey.

books (23 percent), production books (21 percent), and sales books (20 percent) are the most common information recorded. However, even knowing what kinds of records are kept it is extremely difficult to determine exactly how sophisticated the bookkeeping procedures are without actually examining the books and discussing them at length with the entrepreneur.

4.4.3. Selling Goods on Credit. Seventy percent of the entrepreneurs interviewed sell their goods on credit. This figure seems quite large in view of the fact that so many entrepreneurs complain of shortages of working capital. By selling on credit the entrepreneurs are not replenishing their supply of working capital. It is probable that this practice is at least a partial cause of the working capital shortages mentioned by so many entrepreneurs.

It is not clear why so many entrepreneurs sell their goods on credit even in the face of working capital shortages. It could be that consumers are so short of cash that small entrepreneurs are required to sell on credit in order to maintain their clientele. Local consumer demand is extremely important for the small businesses and competition for customers may require selling goods on credit.

While the majority of entrepreneurs do sell goods on credit, 30 percent do not. They do not sell on credit because they are unwilling to risk nonpayment and they are concerned about cash-flow problems. These fears of nonpayment appear to be well founded as half of the entrepreneurs selling on credit complain of payment problems, and these payment problems aggravate working capital shortages.

4.4.4. Banks. One-third of the businesses surveyed maintain bank accounts of some sort; however, this percentage varies greatly by locality size. In the larger towns such as Cayes, Port-au-Prince, and Jacmel nearly half of the entrepreneurs possessed bank accounts. In the smaller and more isolated localities such as Verette, Mirebalais, Hinche, and Lascahobas less than 15 percent of the entrepreneurs utilized bank accounts (table 32). It is undoubtedly the greater availability of banking institutions in the large towns which explains this tendency. Without flow information indicating how the entrepreneurs utilize their bank accounts it is not possible to assess their impact on the management of the small enterprises.

4.4.5. Conclusion. This brief description indicates a relatively high level of education among small business entrepreneurs, high levels of record keeping, and a moderate propensity for using local banking institutions in managing their money. On a less optimistic note we observe that working capital problems may be aggravated by the widespread practice of selling goods on credit. Additional in-depth information will be required to provide a more definite assessment of the effectiveness of current management practices.

The next potential constraint to be considered is that of the availability of skilled laborers in small enterprises.

4.5. Skilled Labor

Lack of skilled labor is not perceived as a problem by entrepreneurs in Haitian small enterprises. On average, only 10 percent of the entrepreneurs interviewed considered skilled labor shortages to be a problem and less than two percent of the businesses listed shortages of skilled labor as their most important problem.

TABLE 32

PROPORTION OF ENTREPRENEURS WITH BANK ACCOUNTS, BY LOCALITY

Locality	Percent of Entrepreneurs With Bank Accounts
Cayes	49
Port-au-Prince	46
Jacmel	45
Port-de-Paix	42
Cap-Haitien	38
Carrefour	37
Leogane	37
Acul-du-Nord	33
Pont Sonde	25
Petite-Riviere-de-l'Artibonite	17
Jeremie	15
Belladere	14
Lascahobas	13
Hinche	13
Mirebalais	9
Verette	6

SOURCE: Phase II survey.

Concern with skilled labor did, however, vary by industry. Printing, watch repair shops, bakeries, cloth and net makers, and leather workers are more concerned with skilled labor shortages than are cement block makers, tire repairers, and mattress makers. In fact, not a single mattress maker or tire repair person expressed concern over skilled labor shortages (table 33).

The skilled labor in small enterprises is trained through the apprenticeship system, vocational schools, by family members, and in some industries large numbers of workers are self-taught (table 34). Each of these systems of training will be examined in turn.

4.5.1. The Apprenticeship System.[1] The apprenticeship system is by far the most important method of training workers in Haitian small enterprises and the system maintains its importance across all locality sizes. Fifty-nine percent of the entrepreneurs interviewed learned their trade as apprentices and among the current SSE labor force 35 percent of the workers are apprentices.

The training period for apprentices is typically one and a half years; however, the duration does vary by industry. Grain milling apprentices require only three months training, on average, while goldsmith, carpenter, and car repair shop apprentices spend, on average, over two years in training (table 35).

The system of remunerating apprentices varies among different industries. In 54 percent of the enterprises surveyed the apprentices receive a salary while learning their trade (table 36). Among tailoring

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[1]For a recent study which has compared the rates of return to apprenticeship training versus trade centers in Nigeria, see Mabawonku, 1979.

TABLE 33

PERCENT OF ENTREPRENEURS INDICATING LACK OF SKILLED LABOR AS A PROBLEM

Enterprise type	Percent
Printing	36.4
Watch repair	20.0
Bakery	18.0
Cloth, net making	18.0
Leather working	17.0
Pastry shops	14.0
Car repair	13.0
Grain milling	13.0
Shoe repair	13.0
Straw products	11.0
Tailoring	11.0
Metal working	11.0
Wood products	9.0
Carpentry	8.0
Machine repair	7.0
Candy making	4.0
Cement block making	3.0
Goldsmithing	3.0
Essential oils	0.0
Tire repair	0.0
Mattress making	0.0

SOURCE: Phase II survey.

TABLE 34

SOURCE OF ENTREPRENEURS' TRAINING

	Apprenticeship	Family	Vocational School	Self-Taught	Other	Total
	Percent					
Carpentry	76	7	12	-	5	100
Shoe repair	76	9	9	-	6	100
Wood products	70	2	5	-	23	100
Tailoring	70	11	16	-	3	100
Car repair	70	7	13	-	11	100
Tire repair	68	11	0	-	21	100
Goldsmithing	67	24	3	-	6	100
Machine repair	60	6	16	-	18	100
Mattress making	56	11	0	-	33	100
Metal working	55	4	23	-	18	100
Leather working	54	17	4	-	25	100
Watch repair	53	7	13	-	27	100
Cloth, net making	41	29	12	-	17	100
Straw products	40	34	4	-	21	100
Pastry shops	36	36	14	-	14	100
Beverage manufacture	33	39	0	-	28	100
Essential oils	33	11	0	-	56	100
Bakery	21	15	0	53	11	100
Candy making	19	22	0	46	13	100
Printing	18	27	27	-	27	100
Cement block making	17	3	3	66	11	100
Grain milling	8	19	0	-	72	100
Average	59	12	11	-	17	100

SOURCE: Phase II survey.

TABLE 35

DURATION OF TRAINING
(In Months)

Enterprise Type	Apprenticeship			
	Of Proprietors	Of Apprentices Currently In Shop	Family	Vocational School
Grain milling	3	6	6	-
Printing	5	11	10	34
Cement block making	6	5	-	-
Straw products	10	12	13	9
Tire repair	12	7	4	-
Bakery	13	9	3	-
Mattress making	16	-	-	-
Wood products	16	14	-	36
Shoe repair	16	17	28	40
Leather working	17	21	12	-
Cloth, net making	17	8	4	25
Tailoring	18	17	19	25
Beverage manufacture	18	-	30	-
Metal working	19	17	29	31
Machine repair	19	21	14	30
Pastry shops	20	16	5	19
Essential oils	20	-	-	-
Watch repair	20	18	-	36
Candy making	22	-	9	-
Goldsmithing	25	25	22	-
Carpentry	27	19	23	25
Car repair	30	21	19	29
Average	19	17	17	28

SOURCE: Phase II survey.

TABLE 36

FREQUENCY OF DIFFERENT COMPENSATION PRACTICES FOR APPRENTICES

Enterprise Type	Apprentice					
	Pays a Fee	Receives a Wage	Receives a Room	Receives Nothing	Other	Total
	Percent					
Tailoring	39	27	1	12	21	100
Carpentry	6	72	2	7	14	100
Metal working	13	77	3	-	8	100
Goldsmithing	0	50	0	13	38	100
Printing	0	83	0	0	17	100
Shoe repair	4	63	12	12	8	100
Leather working	0	50	33	0	17	100
Straw products	10	70	0	20	0	100
Wood products	0	80	5	15	0	100
Cloth, net making	0	100	0	0	0	100
Cement block making	0	83	0	0	17	100
Bakery	6	89	0	0	6	100
Grain milling	0	100	0	0	0	100
Essential oils	33	67	0	0	0	100
Car repair	14	73	0	7	7	100
Machine repair	3	70	0	12	15	100
Tire repair	10	70	10	10	0	100
Average	20	54	2	9	15	100

SOURCE: Phase II survey.

apprentices, however, 39 percent are required to pay a learning fee; these tailoring apprentices are required to pay for the privilege of learning their trade. An explanation was not obtained as to why tailors are so likely to require learning fees when virtually all other industries make payments to their apprentices. It would appear, however, that locality size is an important factor in determining whether or not the tailors require learning fees. In the small localities as many as 79 percent of the tailoring apprentices either receive no compensation or they are required to pay learning fees. In Port-au-Prince that figure drops to 38 percent (table 37). For some reason apprentices in the smaller localities are willing to pay for the privilege of learning the tailoring trade. It is not clear why this is so but further inquiry would certainly be important to anyone interested in running training programs in the small rural localities.

4.5.2. Teaching by Family Members. Of the entrepreneurs interviewed 12 percent learned their trade from family members. This method of training is more common in the rural areas than it is in the larger cities. In the smallest localities 20 percent of the entrepreneurs visited had been trained by family members while in Port-au-Prince that figure dropped to 9 percent. It would seem that family businesses are more common in the rural areas than in the large towns. As to the duration of the training period, the length of family training is virtually identical to that of apprentices; roughly a year and a half is required, on average.

4.5.3. Vocational Schools. Vocational schools provided the training for 11 percent of the entrepreneurs interviewed. The vocational training was most important in printing shops where 27 percent of the entrepreneurs

TABLE 37

COMPENSATION PRACTICES FOR TAILORING APPRENTICES

Locality Size	Apprentice					
	Pays Fee	Gets Paid	Receives Room	Receives Nothing	Other	Total
	Percent					
Under 1,000	16	33	0	50	0	100
1,000 - 2,000	25	38	0	25	13	100
2,000 - 5,000	67	9	0	12	12	100
5,000 - 20,000	40	17	2	19	23	100
20,000 - 100,000	38	35	0	8	18	100
Over 100,000	31	34	2	7	26	100

SOURCE: Phase II survey.

had received such training and among metal workers of whom 23 percent were trained in vocational schools.

Vocational schools are much more important in large cities than they are in small rural areas. None of the entrepreneurs interviewed in the smallest locality size had received training in a vocational school whereas roughly 15 percent of those in the largest towns had been trained in such schools. Vocational schools required the longest training period of all the training systems; on average, vocational training lasted for something over two years.

4.5.4. Self-Teaching

A final source of training in small enterprises is self-teaching. None of the self-taught entrepreneurs mentioned learning his/her trade from a book. The self-teaching appears to consist of observing and asking questions of established entrepreneurs without retaining any formal ties.

Self-teaching is of major importance in three industries — the bakery, candy making, and cement block making industries. In the cement block making industry 66 percent of the entrepreneurs interviewed are self-taught. Among bakers and candy makers that figure is roughly 50 percent (table 34). The large percentage of self-taught entrepreneurs in the cement block making industry is explained by the fact that it is the youngest of all the small enterprises surveyed and, because the industry is so new, no apprenticeship system was in existence to train the first-generation entrepreneurs. An apprenticeship system, however, may currently be developing as 34 percent of the entrepreneurs currently engaged in cement block making do have apprentices working for them. In the bakery and candy making industries it is less clear why so many entrepreneurs are

self-taught although this phenemenon is clearly related to the fact that the apprenticeship system is not well developed in these industries (table 34).

4.5.5. Conclusion. Skilled labor is not perceived as a problem except in certain industries, particularly in printing and watch repair shops. The major method of training skilled labor for small enterprises is currently the apprenticeship system. Family members, vocational schools, and self-teaching are also important sources of training in certain localities and in certain industries.

This concludes our case by case examination of various constraints faced by small entrepreneurs in Haiti. A recapitulation of the major findings and recommendations for further action are included in the following summary chapter.

V. SUMMARY

5.1. Profile of the Small Enterprise Sector

Small-scale enterprises (SSE) were found in large numbers in all localities surveyed. From the survey it is estimated that in all Haitian localities of over 1,000 in population there are approximately 8,500 small enterprises and these small enterprises employ roughly 33,600 workers.

The SSE in Haiti are involved in a wide variety of activities from printing shops to candy making to tailoring, carpentry, and machine repair. Tailors provide the bulk of the SSE employment with 45 percent, and carpenters are second most important in this regard accounting for 11 percent of total SSE employment.

The small businesses employ four workers each, on average. They are largely single proprietor shops and they employ very few family workers. Hired workers and apprentices account for the bulk of the SSE employment with 31 and 35 percent respectively. Sixteen percent of the small enterprise labor force is made up of women.

The sums of capital required by small enterprises in Haiti are not large. The average value of machinery and tools per worker currently lies between $200 and $300 among tailors and carpenters, the two largest SSE employers. Total capital per firm varies from a high of $64,000 in essential oil manufacture to $600 per firm among tire repair shops.

Capital-labor combinations used in small enterprises vary widely even within given industries. For example, tailors in the smallest localities surveyed use $80 worth of equipment per worker while that figure rises to

$290 per worker in the largest towns. In virtually all industries there exists a wide array of capital/labor combinations which are used.

In the aggregate the small enterprises sector in Haiti appears to be growing. The entrepreneurs interviewed believe that both the number of firms and output per firm have increased over the past five years. Growth trends vary considerably by industry. Machine repair, cement block making, car repair, wood sculpture, and tailoring appear to be experiencing the most rapid expansion of activity. The moderate gainers among the enterprises surveyed appear to be metal working, shoe repair, and carpentry. The declining small industries seem to be bakeries and leather working shops.

5.2. Preliminary Identification of Constraints

5.2.1. Demand. Demand is a critical constraint. Most small enterprises in Haiti rely primarily on local consumer demand; however, those industries with additional market outlets seem to be growing faster than industries which are solely dependent on local consumer demand. Export industries, notably wood sculpture, have done particularly well. Subcontracting with larger firms offers an additional source of demand for small enterprises. Of the five small industries most heavily involved in subcontracting, four — car repair, cement block making, wood sculpture, and machine repair — have been tagged as growth industries. Demand is a crucial variable affecting the growth of small enterprises.

5.2.2. Working Capital. Shortage of cash (working capital) is the single most important problem mentioned by entrepreneurs. Eighty-seven percent of the entrepreneurs who borrowed money in 1978 borrowed the funds in order to purchase raw materials indicating that their own supply of working capital was not adequate to finance the raw material purchases.

Working capital is clearly an important problem; however, it is often a symptom rather than the ultimate cause of problems. Inefficient management, shortages of credit, and slack demand, for example, can all lead to working capital shortages. The ultimate underlying cause of working capital shortages varies from region to region and from firm to firm, and working capital problems, therefore, are best diagnosed at the individual firm level.

5.2.3. Fixed Capital. Entrepreneurs felt lack of machines and tools to be their second most important problem. Lack of machinery can be a problem if a firm is currently operating at full capacity and requires additional equipment for expansion, or it can be a problem if the entrepreneur's current equipment is extremely inefficient or if newer machinery could produce higher quality items for which the demand would be higher. Concerning the capacity issue, our rough calculations indicate that large amounts of excess capacity existed in the small firms at the time they were interviewed. The interviews, however, were conducted in January and February, months which 40 percent of the entrepreneurs indicated were their periods of lowest activity; hence it is not surprising to have found large amounts of excess capacity. It is difficult to assess the validity of the entrepreneurs' complaints of inadequate supplies of fixed capital without further data on capacity utilization throughout the year, on the efficiency of differing techniques of production, and on the demand for products produced with new types of machinery.

In supplying their fixed capital needs entrepreneurs turn most often to personal savings, family, and friends. Together these three sources supplied 91 percent of the initial capital among the firms interviewed.

For ongoing investments in machinery and tools in 1978 these same three sources again supplied 91 percent of the investment funds.

5.2.4. Credit. Credit is a problem for small entrepreneurs. It was listed as their fourth most important problem behind working capital (cash), fixed capital, and insufficient demand. The capital market in which small entrepreneurs operate is extremely fragmented; 94 percent of the entrepreneurs interviewed have never applied for a loan from a formal credit institution. Interest rates in the formal sector range between 12 and 15 percent while those in the informal sector lie between anywhere from 24 to 240 percent per year. Major barriers to use of the formal credit market appear to be lack of credit institutions, particularly in the rural areas, high collateral requirements, and lengthy loan processing time.

5.2.5. Raw Materials. Raw materials are a problem of definite concern for small entrepreneurs. Thirty-two percent indicated raw material shortages to be a problem and, when asked what type of nonfinancial assistance they would like, 58 percent of the entrepreneurs requested raw materials. The raw material problems in Haitian small enterprises occur for two reasons: (1) there exist transportation and import bottlenecks which cause supply shortages, and (2) raw material procurement is sometimes a problem because of shortages of working capital at the firm level.

5.2.6. Management Skills. Very few entrepreneurs were concerned about managerial constraints although more detailed information than was obtained in this survey will be required to determine to what degree management practices constrain the activity of small enterprises. Firm managers do appear to be more highly educated than the average Haitian adult; 56 percent have completed 6 years or more of school. Half of the entrepreneurs interviewed keep records and one-third maintain bank accounts.

5.2.7. Supply of Skilled Labor. Entrepreneurs were unconcerned about supplies of skilled labor. It is the apprenticeship system which provides the bulk of the training for small enterprise workers and entrepreneurs. Thirty-five percent of the current small enterprise labor force is comprised of apprentices. The apprenticeship system provided training for approximately 60 percent of the current small enterprise entrepreneurs while 11 percent of the entrepreneurs were trained in vocational schools.

5.3. Recommendations

1. A policy review would be extremely useful in guiding future work with small enterprises. Such a review should make an assessment of the overall policy environment within which small enterprises operate. For example, a review of the current tariff structure would afford valuable information concerning the degree to which small enterprises are disadvantaged by current duty structures. The environment within which small enterprises operate is influenced by the large number of organizations currently involved in delivering assistance to small enterprises. A complete listing of organizations currently involved in such assistance programs would be valuable to any agency contemplating intervention.

2. Identification of a target group among the various enterprise types and regions will be important in formulating a policy or program intervention. This report has indicated wide variations in problems faced in different types of enterprises and in different locality sizes and regions. Delivery systems, types of assistance offered, and the kinds of enterprises assisted will vary greatly depending on geographical region and on whether the focus is on rural as opposed to urban areas or small versus medium-sized businesses.

3. Case studies of specific industries would be important in identifying differing techniques of production where they exist and in evaluating the efficiency of the different techniques. These studies should include an evaluation of techniques used in both small- and large-scale firms. Such information is extremely valuable for formulating general policies and for specific program use, for example, in guiding machine rental programs, and credit, technical, and management assistance programs. It also provides a basis for comparing the efficiency of existing techniques with the efficiency of those not currently utilized in Haiti thus allowing an agency to play an effective information-disseminating role.

4. An important follow-up to this survey would be to measure some key flow variables such as output, purchased inputs, and profits. This would be a crucial step in providing a technical data base for identifying sectoral linkages and for evaluating constraints such as management, markets, working capital, and fixed capital. Such information is also useful for identifying viable product and firm types, and for evaluating factors affecting the successful operation of small enterprises.

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