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**EVALUATION OF THE HUMAN RESOURCES DEVELOPMENT COMPONENT  
OF THE EXPANDED URBAN HEALTH SERVICES PROJECT (521-0218)**

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## EXECUTIVE SUMMARY

### I. PURPOSE

The purpose of this evaluation was to assess the Complexo Medico Social de La Cite Soleil's (CMSCS) effectiveness in implementing human resources development and vocational training activities in Cite Soleil under the Expanded Urban Health Service Project (521-0210), initiated in June 1989.

The scope of work for this evaluation included:

- o Evaluation of progress made by CMSCS under the project to improve the training programs, strengthen the relationship between private sector employers and the training program, and upgrade the management and efficiency of the training centers;
- o An assessment of the quality and relevance of vocational training at Cite Soleil;
- o An analysis of the internal and external efficiency of the training provided by CMSCS.

### II. METHODOLOGY

The findings reported were derived from site visits, a review of relevant CMSCS and USAID/Haiti documents, personal interviews with staff of CMSCS, the Centres Pour Le Development et La Sante (CDS), and a limited survey of instructors, students and graduates of the training centers, and local employers. Only ten working days were available to conduct this study. More time to conduct a more expansive survey would have been especially beneficial.

### III. OVERVIEW

USAID/Haiti support for the Human Resource Development (HRD) activities of CMSCS began in 1980, was reaffirmed under a second project in 1984, and continues today under the current project. The overriding objective of the HRD programs is to improve the standard of living of low income residents of Cite Soleil through basic education, vocational skills training, and income-generating activities. CMSCS operates three training centers which provide HRD services to three disadvantaged groups: unskilled adolescents (Boston Center); unskilled and/or illiterate adult men and women (Papayo); and mothers of severely malnourished children (Brooklyn). These centers represent the sole source of technical training available to the 160,000 residents of Cite Soleil.

Previous evaluations of the HRD activities of CMSCS were conducted in 1983 (Alvarez) and 1989 (Evans). The 1984 project satisfactorily addressed most of the concerns cited in the first evaluation. Current project activities incorporate many of the recommendations made in the subsequent assessment, foremost of which was to strengthen the linkage between the training centers

and the local business community.

#### IV. MAJOR FINDINGS AND CONCLUSIONS

##### A. Progress in Implementing Project Activities

1. Strengthening Linkage With Private Sector. There is no evidence to substantiate that CMSCS has improved its relationship with the local business community. The training centers have yet to establish a private sector oriented steering committee, a job placement center, or automated student record and follow-up system as specified in the 1989 project paper. Efforts to accomplish these project activities were hampered by CMSCS's delay in finding a qualified employment/training coordinator to manage this work. The individual was hired in August 1990, more than one year following initiation of the two year project.
2. Evaluate and Upgrade Training Programs at Boston and Papayo, and Develop New Income Generation Programs at Brooklyn. Boston has been the only center to receive significant attention under the project. The center has been evaluated by the employment/training coordinator who also serves as Director of the Boston vocational center. The time demands on the coordinator at Boston, in his capacity as Director, have afforded him little time to attend to the other two centers. It is unrealistic to believe that one individual can perform both of these jobs adequately.\*

##### B. Training Quality

1. Training Relevance. The relevance of the HRD training program is uncertain since no linkage exists between industry and the centers to test the validity of the training. Thus, it is entirely conceivable that the demand for training in skill areas not offered at the centers is far higher than exists for the type of skills training presently offered.

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\* As a consequence of the coordinator not having had time to assess areas of need and assign priorities to improve the HRD program, more than 70 percent of the \$194,200 budgeted for program strengthening activities has yet to be obligated under the project.

2. Teaching Curricula and Materials. The training centers of Boston and Papayo continue to use curricula for the technical courses made available by the Institute National de Formation Professionnelle (INFP). This curricula appears adequate for the technical courses. However, there are no courses available in micro-enterprise development for the significant number of graduates who enter self-employment.\*
3. Student Selection, Guidance, Placement, and Follow-up. An entrance examination is now given by the Boston center to students not attending the Boston primary or secondary academic schools to rationalize the selection process since demand exceeds supply of available slots. This action should reduce student drop-out rates by raising the caliber of the student body. None of the centers offer guidance to students in their course selection or job search. This lack of assistance provided to students during their training probably results in poor course selections by some students, increasing their chances of terminating early. The adverse impact of not offering job placement services is manifested in low placement rates among graduates, estimated between 30-50 percent.
4. Staffing and Staff Development. Most instructors have technical secondary degrees, but lack training in pedagogy. Turnover among teachers is low, partly as a result of their favorable salaries relative to the pay of public school teachers. No in-service training of staff has taken place at the centers since 1986, nor does any center currently have plans to upgrade staff. The number of students per teacher averages 35, an acceptable level, but varies among the three centers, and tends to decrease as the training becomes more formal. This is logical since more complex training requires instructors to devote more attention to each student. However, at Boston, teacher-student ratios fluctuate widely between similarly complex classes. Variations of this magnitude reflect an improper allocation of staff which needs to be corrected.\*\*

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\* CMSCS has recently obtained donor funding to begin a small loan program to assist graduates in establishing their own business. This program will also provide graduates with complementary training in business.

\*\* For example, the welding class has 14 students per instructor, while in sewing, each teacher instructs 42 students.

5. Physical Resources. The HRD program suffers from a severe shortage of capital and training equipment, especially the centers of Boston and Papayo. The needs are enormous: telephones at all three centers to facilitate communication with the business community; a generator at Boston to operate its welding machines, personal computers and other electrical training equipment during frequent power outages; and additional welding machines, computers and electronic kits at Boston and Papayo to reduce the number of students sharing each piece of equipment from an average of 10 to 4; An additional classroom is also needed at Boston for the woodworking class, now situated in a noisy, common area, poorly suited for learning.
6. Organization and Management. The centers are managed by dedicated and, for the most part, technically competent administrators. The organization is "top-light", as reflected in a very efficient ratio of one administrator for every 13 instructors (1:4 is considered average). However, this lean administrative structure also hurts the organization as none of the directors has much time to address the more complex management and technical issues associated with their programs. This is most apparent with the current Director of Boston who also serves as the employment/coordinator of the entire HRD program. While as coordinator he is responsible for implementing the major activities of this project, he has not been able to attend to this work because of his heavy administrative workload at Boston.
7. Relationship to the Private Sector. The apparent absence of a linkage between the training centers and private sector is the most significant deficiency of the HRD program. Without systematic feedback from industry regarding course content, it is not possible to know whether the training provided is relevant to the needs of local business. The employer community is also less likely to hire graduates from a program with which it is not familiar. Thus, higher job placement rates would be a natural consequence of any effort to reach out to the private sector.

### C. Employer Survey

1. Skills in Short Supply. All five employers surveyed find it most difficult to obtain skilled industrial mechanics and well-trained supervisors and managers. It is precisely this type of feedback from industry which CMSCS requires to insure that it is providing training in skill areas needed by local industry.
2. Knowledge and Opinion of CMSCS Training. The three employers familiar with the training provided at Cite Soleil rated it as good. All of the employers expressed a desire to hire graduates in the future. Moreover, recruitment, they indicated, would be facilitated were the centers to possess

telephones.

3. Employer Interest in Participating on Steering Committee. All of the employers expressed an interest in serving on a committee to advise the HRD programs at Cite Soleil. This interest is motivated not by charity, but by self-interest as each employer would like to have a reliable source of well trained individuals from which to recruit.

#### D. Financial Sustainability of HRD at Cite Soleil

1. Available Sources of Income. Brooklyn represents the only center where the sale of center-made products should be further encouraged to generate additional revenue. Sales at Brooklyn could be greatly expanded through aggressive marketing, both in Haiti and abroad. The additional revenue would raise the incomes of the women producers as well as pay for a larger share of the costs of the training program.
2. Student and Employer User Fees. Given the low incomes of Cite Soleil's residents, student user fees are not considered a viable option for generating significant revenue for the training centers. However, the nominal fees now being charged at Boston do provide students with an additional incentive to remain in school. Regarding employer fees, given that the principal purpose of the HRD program is to provide employability skills to the residents of Cite Soleil, the program is not likely to ever become a direct deliverer of fee based training to local businesses.
3. Endowment Fund. Since the combined revenue from the sale of products at Brooklyn and student user fees is not likely to ever cover the total costs of the HRD program at Cite Soleil, CMSCS should consider establishing an endowment fund, with contributions from other donors, in an effort to reduce its dependence on USAID/Haiti. Interest from the fund would be used to cover operating expenses of the HRD programs. An endowment fund worth between US \$1.5-2 million would be needed to maintain the programs at existing levels of activity.

#### E. Internal and External Rates of Efficiency

1. Internal Efficiency--Costs of Operation. The programs at Cite Soleil operate at a relatively low cost. The cost per student year is US \$68 at Brooklyn, \$354 at Papayo, and \$1792 at Boston. This is due, in part, to the lean administrative structure of the centers, and shortage of training equipment. The benefits of investing more funds in additional staff and equipment may outweigh the costs, especially if wastage from early student terminations can be reduced. Even Boston, the most expensive center, possesses a more favorable internal rate of efficiency than other comparable vocational schools in Haiti.

2. External Efficiency--Job Placement Rates. The placement rate among graduates is not known since none of the centers track the employment success of their graduates. Estimates range from 30-50 percent based on the results of a small survey of graduates, and feedback from the directors of the centers. Increasing the job placement rate improves the rate of external efficiency by expanding the financial benefits of the training program, measured through the increased income among skilled graduates.

#### **F. Economic Return of HRD Program**

1. Benefit-Cost Analysis. A benefit-cost analysis of the HRD programs during the 1989-91 project years revealed that the cost of every \$1 invested in training, generated a benefit of \$2.80 as measured in additional income for those graduating during the project years who were able to secure employment. The internal rate of return on the investment was computed to be 35.3%. This return is particularly impressive considering the analysis was based on a job placement rate of just 30 percent. This suggests that the project has resulted in a favorable return on the investment and that the project is judged to be economically sound and justified. The investment is viewed as even more attractive when considering the non-quantifiable spillover benefits of the training, reflected in better personal and family health care, a more civic minded society, and better schooling among children of graduates.

#### **V. RECOMMENDATIONS**

1. Establish Linkage with Private Sector. CMSCS should immediately form a private sector advisory committee as an initial step toward establishing a strong relationship with local employers.
2. Job Placement Center and Student Counseling Services. CMSCS should begin developing a job placement center to assist graduates with their employment search. The placement center should also offer referral services to those seeking assistance in self-employment. Guidance from instructors and center staff should be provided routinely to students during registration to reduce the incidence of early termination.
3. Administrative Support at Boston. An additional administrator should be hired at Boston for managing most of the day-to-day operations to permit the current Director to dedicate at least 50 percent of his time to his other position as employment/training coordinator. Unless the Director is liberated of most of his duties at Boston, it is unlikely that program areas in need of improvement will be addressed.
4. Student Record and Follow-Up System. As a complement to the Job placement center, a student record and follow-up system should be developed and automated. Such a system could be

developed relatively easily in Cite Soleil by utilizing the family identification cards of the health project which provide basic household information on every family in the area. This is a unique resource which should be exploited by the HRD programs of CMSCS.

5. Marketing Strategy. A marketing strategy should be developed to expand the sales of crafts made at the Brooklyn Center, and begin selling appropriate items produced at Boston.
6. Technical Assistance. CMSCS should purchase technical assistance with some of the remaining \$194,200 in project improvement funds. The formation of an advisory committee, development of job placement center, graduate tracking system and new marketing strategies are complicated endeavors which would benefit from individuals with experience in those areas.
7. Management Training. CMSCS should consider offering courses in micro-enterprise development at all three centers for those trainees interested in self-employment. This training should be coordinated with, and complementary to the business training that will be offered to graduates of the HRD program under the recently formed CMSCS credit program for new entrepreneurs.
8. Equipment Purchases. While the need for training equipment is great, purchases should be deferred until members of the advisory committee have had an opportunity to validate the training offered. Purchases of telephones at Papayo and Boston, and generator at Boston should be made immediately, however.
9. Reallocate Instructors at Boston. Serious consideration should be given to reallocating instructors at Boston to provide more equitable instructor-student ratios among the technical classes there.
10. Student User Fees. Consideration should be given to expanding the existing user fee system to cover additional students at Boston, as well as the trainees at Papayo.
11. Endowment Fund. Serious consideration should be given to assist CMSCS in the creation of an endowment fund to lessen their dependence on USAID/Haiti for funding of the HRD program at Cite Soleil.

## **I. INTRODUCTION**

### **A. Purpose**

The purpose of this assessment is to assess the Complexe Medico-Social De La Cite Soleil's (CMSCS) effectiveness in implementing human resources development (HRD) and vocational training activities in Cite Soleil under the expanded Urban Health Services Project (521-0210), initiated in 1989. This is a five year, US \$10.8 million project with multiple components, the smallest of which is a human resource development program, funded at \$ .5 million for a two year period. The other, larger components focus on health services: primary health care; family planning; AIDS prevention and control; and the institutional strengthening of CMSCS. USAID/Haiti will draw on this evaluation to make a decision on the desirability of seeking outside sources of funding to continue the HRD component of the project beyond the scheduled expiration of USAID/Haiti funding at the close of FY 91.

### **B. Methodology**

The information contained in this report was obtained through direct observations of the training centers, interviews with members of CMSCS, administrators of the vocational and basic education programs at Cite Soleil, relevant staff at USAID/Haiti, and the management of the Centres Pour Le Development et La Sante (CDS), the umbrella NGO administering the entire health project in Cite Soleil, as well as several other urban sites in Haiti. A limited survey was also conducted of five school instructors, twenty students, twenty-five graduates, and five local employers to gather information about their impressions of the training provided, as well as the employment rate and income levels of graduates. In addition, examined were many documents supplied by CMSCS and USAID/Haiti, including past evaluations of the HRD component, the current project paper, annual reports of the vocational schools, and teaching materials. (See appendices A and B for a complete listing of individuals, organizations and documents consulted.)

The thoroughness of this evaluation was limited by the timing of the visit. A total of only eight working days were available to review documents, visit sites, conduct interviews and a survey, and write the draft report. More time would have been especially valuable to gather a larger, more reliable sample of individuals for the survey. Further, it was not possible to observe teaching methods at Boston as the center was closed for student vacation. Finally, the Director of the Brooklyn Center was out of country during the time of this assessment.

## II. PROJECT BACKGROUND

### A. History

USAID/Haiti involvement with the Complexe began in 1980, when the mission provided a four-year grant to support overall CMSCS program goals and operating expenses for various health, education and vocational training activities. USAID/Haiti support for these same programs was reaffirmed in 1984, through the Urban Health and Community Development Project, and continues today under the current project.

The objective of the human resources development component of the Expanded Urban Health Services Project is to improve the standard of living of low income residents of Cite Soleil through basic education, vocational skills training, and income-generating activities.

Interventions under the HRD component of this project serve three purposes: (1) improve the quality, level, content and relevance of CMSCS training programs; (2) strengthen the relationship between private sector employers and the training program; and (3) upgrade the management and efficiency of the training centers.

The human resources development programs of the Complexe have evolved through concern for three disadvantaged groups: (1) mothers of severely malnourished children; (2) adolescent students; and (3) unskilled and/or illiterate adults. The program is serving each of these three target groups at separate facilities which provide a wide variety of educational, vocational and social services.

### B. The Project Setting: Cite Soleil

Cite Soleil is one of the worst urban squatter settlements in Haiti, this hemisphere's poorest country. With a population exceeding 150,000, Cite Soleil contains about 10 percent of the entire population of Port-au-Prince. The settlement consists almost entirely of one story shacks crowded over approximately one square mile of low lying land fronted by the Gulf of Gonave. With a mean elevation of one foot above sea level, flooding occurs frequently, aggravating existing drainage and sanitation problems. The area has limited access to potable water and electricity. Infections, diseases, parasites and diarrheal disease combined with malnourishment create one of the least favorable environments for survival, especially for children.

Socio-economic surveys indicate that the average annual per capita income of Cite Soleil is less than \$200, more than 50% of the population is unemployed or underemployed, and more than 80% are illiterate. Most of the employed work in the informal commercial sector; the balance of employed work in small transformation

microenterprises, as domestic labor, and as factory labor in a nearby industrial park which employs about 30,000 in export assembly industries (electronics, clothing, and sporting goods).

### C. Description of CMSCS Services at Cite Soleil

#### 1. Health Care Delivery

The CMSCS health care system provides a wide range of public health services in Cite Soleil: child nutrition, surveillance and rehabilitation; immunization for mothers and children; pre-natal and maternity care services; training and supervision of birth attendants; AIDS prevention; control of endemic diseases; emergency treatment and general hospitalization; and family planning. The system is geared to respond to the gravest health risks confronting the population, such as malnutrition, diarrhea and communicable diseases. CMSCS is able to serve the population effectively by relying on a trained network of community agents.

#### 2. Human Resources Development

The three groups which have become the target of HRD activities provided by CMSCS receive their education and training at separate facilities: (a) The Mother Craft Center (Brooklyn); (b) the Foyer Cultural Center for adolescents (Boston); and (c) the Centre de Promotion Familiale for adults (Papayo).

The general programs as well as specific areas of training provided by each center are outlined below.

<u>PROGRAM</u>	<u>CENTER</u>	<u>AREA OF SPECIALIZATION</u>
<b>General Education</b>		
Primary Education	Boston	Grades 1-7
Secondary Education	Boston	Grades 8-13
Adult Literacy	Papayo	Basic Literacy/Numeracy
Adult Post-Literacy	Papayo	Grades 1-4
<b>Formal Vocational Training</b>		
	Boston	Typing Welding Sewing/Embroidery Personal Computer Operation Woodworking Tailoring

**Non-formal Vocational  
Training**

Brooklyn

Sewing  
Embroidery  
Crafts

Papayo

Typing  
Welding  
Tailoring  
Industrial Sewing  
Electricity  
Electronics  
Personal Computer Operation**Income Generation**

Brooklyn

Embroidery  
Crafts  
Cooking**a. Brooklyn Mother Craft Center**

The Brooklyn Center functions both as a training facility and as a workshop for income generation. The trainees are women whose children are suffering from malnutrition and who have been brought in for rehabilitation. The Center not only teaches mothers how to care for their children, but in recognizing that child care is more likely to improve if the economic position of the mothers themselves improves, offers training in literacy, sewing, embroidery, and craft production. The most skilled graduates remain with the facility to assist in the production of crafts sold by the center. About 100 women are involved in the production which includes greeting cards, ceramic figures, embroidered cloth, and dolls. Last year, the center sold about \$90,000 worth of merchandise. Profits from these sales are paid directly to the women, enabling most to earn a nominally small, but significant income of about \$20 per month.

Another important income generating activity at the center is a self-supporting women's bakery cooperative, formed several years ago by graduates of the training program in cooking, no longer offered by the center. The cooperative employs 11 women who produce and sell pastry and other food locally in Cite Soleil. Members of the cooperative earn an average monthly salary of \$50. Because of the recognized success of this activity, CDS has successfully obtained additional funding from another donor agency to support expansion of the bakery.

**b. Boston Adolescent Center**

The Boston Center serves youth, ages 6 - 25, through a variety of programs, most notably a primary and secondary school, and vocational education program. The primary and secondary schools

provide an especially critical service in the local area as they represent two of just three accredited schools serving the entire population of Cite Soleil. A vocational school is also situated at the Boston site, offering formal technical training to secondary students principally, but to older primary students as well. The Boston vocational school is the only school in Cite Soleil providing technical training to adolescents.

Vocational training courses are all three years in duration, except for typing and computer operation which have one year terms.

### c. Papayo Adult Center

The Center offers male heads of households, ages 20 - 45, non-formal vocational training in electrical installation, electronics, tailoring, industrial sewing, and welding as well as literacy and post-literacy education (primary, grades 1-4). Adult Women can also participate in the literacy programs and industrial sewing class. The aim of the Center is to provide illiterate and unemployed adults with tools to enhance their employment opportunities. The technical courses are limited to six months in order to limit trainees' opportunity costs. An important complement to the literacy and technical training are formative classes, held each Saturday which center on various aspects of personal, family and community life.

### 3. Changes in Program Content Since 1989

Since the last evaluation of this HRD component in 1989 (Evans), the Boston and Papayo Centers have amended their program offerings; the program at Brooklyn, however, has remained constant. Boston no longer offers remedial primary education to adolescents because of the increasingly high demand for primary education at Boston among school age children of Cite Soleil. The Center also no longer produces and sells crafts, preferring to focus efforts on strengthening its vocational program, to which it added courses in personal computer operation, woodworking, and tailoring. Papayo has opened its doors to women in response to their strong demand for training in basic education and industrial sewing. The program also added courses in post-literacy, typing, and personal computer operation.

In addition, a loan program was initiated in 1990 for established micro-enterprises in Cite Soleil. The program is administered by the Mennonite Economic Development Agency (MEDA). Thus far, this credit program is experiencing an impressive repayment rate of over 90 percent. In an effort to offer graduates of the HRD program at Cite Soleil interested in self-employment with start-up capital, CDS has recently obtained US \$120,000 in funds from the IDB for the creation of a loan program to assist individuals in the creation of a micro-enterprise. This program will be jointly operated by CDS and MEDA. Complementary training in micro-enterprise development

will also be provided by MEDA personnel who now conduct such training under their existing loan program for established small businesses.

### III. PAST EVALUATIONS

Two previous evaluations have been conducted of CMSCS's human resources development activities at the Brooklyn, Boston, and Papayo centers. Both studies were commissioned by USAID/Haiti. The first was done in 1983 (Alvarez); the second in 1989 (Evans).

The results of both studies were sufficiently favorable to warrant continued financial support of the activities by USAID/Haiti, though each evaluation identified a number of areas in need of improvement.

#### A. The 1983 Evaluation

This evaluation assessed each of the three centers in great detail. Overall, the centers were praised for their positive impact on the most needy members of Haiti, and growing self-sufficiency. The Brooklyn Center, in particular, was hailed as a model facility for its income generating activities. In contrast, Boston was rated poorly with respect to the quality of its training, placement of graduates in jobs, operational costs, and marketing of products manufactured by the students. Papayo was criticized for its low job placement rates and poor utilization of training equipment.

The report recommended that the income generating activities of the centers be improved and expanded in order to provide individuals with income earning skills, as well as generate additional revenue for CMSCS. To carry out such an expansion, it was suggested that additional USAID funds be allocated to the vocational training activities from the overall budget of the Health Services Project, and that the administrators of the vocational training program be granted authority to independently solicit and receive funds from the private sector and other donors. Funding for the human resource development activities was increased by USAID/Haiti from US \$137,000 in 1983 to US \$500,000 in 1989.

#### B. The 1989 Evaluation

This evaluation concluded overall that "substantial, but uneven, progress had been made in the development of the human resources development programs of the health project." The economic analysis of the project suggested that, even under unfavorable assumptions, the project had resulted in modest returns on the investment. Consequently, the project was judged to be economically sound and justified.

The school administrators, staff and physical plant were cited as areas of program strength, while identified in need of significant

improvement were the level, content, quality and relevance of the training program, equipment and training materials, interrelationships with private sector employers, and the overall management of the human resource component.

The author recommended that the overall focus of future activities be on increasing the quality, relevance and efficiency of the training. To improve the job placement rate among graduates, it was strongly suggested that an employment/training coordinator be hired immediately.

#### IV. CURRENT EVALUATION FINDINGS

This evaluation reviews the progress to date in achieving the overall project objective and underlying purposes.

Two sets of criteria are used to evaluate the project. The first set represents specific measures stated in the project paper which CMSCS was supposed to have implemented during the two year project. The second set assesses the overall quality of the HRD program, in terms of training content, relevance, employer feedback, financial sustainability, efficiency, and economic soundness.

##### A. Project Specific Activities of CMSCS

Several of the recommendations contained in the 1989 evaluation were incorporated into the project paper as specific measures that CMSCS was to have implemented during the two year project. For a variety of reasons, only two of seven identified interventions have been accomplished.

##### Measures Implemented

##### 1. Hire an Employment/Training Coordinator.

The employment/training coordinator was hired by CMSCS in August 1990, more than one year following initiation of the two year project. This delay was largely attributed to the long search required to locate a qualified candidate. The new coordinator also serves as the Director of the Boston Vocational Center, a job which, by itself, absorbs about 80 percent of his time. Consequently, this leaves him with little time to implement many of the other project activities targeted at strengthening the HRD program.

##### 2. Upgrade the Level and Content of Existing Training Programs at the Papayo Training Center, with Improved Educational and Training Materials and Equipment, and In-Service Training Programs for Instructors.

The CMSCS has partially implemented this measure. Under the

project, the Papayo center has instituted typing and personal computer operation classes, established a library, and purchased a generator. Together, these actions have served to upgrade the training provided at Papayo, even though the need for new courses in typing and computer is not absolutely clear since the demand for this training by local employers has never been assessed. The benefits of the generator and library are readily apparent. Training is no longer hampered by frequent blackouts, and the availability of learning materials has been greatly expanded through the library.

On the other hand, CMSCS did not provide in-service training to instructors, upgrade the level and content of the training programs, nor improve the educational training materials and equipment used by those programs; the programs and teaching methods remain exactly the same as before the project.

#### Measures Not Implemented

3. Establish and Maintain a Formal Steering Committee Composed of CMSCS staff, an Employment/Training Coordinator, and Private Sector Employer Representatives.
4. Develop, with Technical Assistance From a Women in Development Specialist, New Income Generation Training Programs for Women at the Brooklyn Training Center.
5. Install and Maintain a Student Placement Center to Strengthen Relationships with Potential Employers.
6. Install and Manage an Automated Student Record and Follow-up System.
7. Evaluate and Improve the Remedial Education and Skills Training Programs for Adolescents at the Boston Training Center.\*

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\* The remedial education program for adolescents at Boston was eliminated in 1990 as a consequence of a change in enrollment policy favoring younger students. Children older than 8 years of age are no longer admitted into the primary school. This was done to accommodate the increasingly large number of younger children of Cite Soleil seeking a primary education at the Boston school, one of just two serving the entire population of Cite Soleil.

These actions were not taken, in large part, because of the delay in hiring the employment/training coordinator, who was to direct implementation. During his first nine months, the coordinator dedicated nearly all of his time to upgrading the program at Boston, the most problematic of the three centers (Evans, 1989). He has since completed a detailed evaluation of the Boston Center, and begun to institute a series of changes there, which are described in subsequent sections of this report. He is only now beginning to focus his energies on the other two centers, and the broader measures needed to improve the overall HRD program.\*

## B. Program Quality

This section evaluates the overall quality and efficiency of the program by reviewing those key factors which experience has shown to have a primary influence on vocational education (Evaluating Vocational Training Programs, World Bank, 1986). Survey results, interviews, document reviews, and site visits formed the basis of these findings.

### o Level, Content, Quality and Relevance of the Training Programs

- Format and content of curricula and syllabi
- Implementation of courses: teaching process, methods, materials used and training activities
- Examination scheme; content and conduct of examination

The Boston Center offers three year courses in welding, woodworking, tailoring and sewing, and one year programs in typing and personal computer operation. All of Papayo's courses are 23 weeks, and those of Brooklyn range from 1-3 months, depending on the proficiency of the student.

Since 1989, the Boston Center has added courses in personal computer operation and woodworking, while Papayo has added a typing course and similar computer class. No changes in course content were made at Brooklyn. The new courses at Papayo and Boston were added by the Directors in response to their perception that such training was needed by employers. Their assessment was entirely independent, formed without the assistance of any input from the employer community. This method of deciding course content in isolation has been the standard approach used at Papayo and Boston since they began offering vocational training more than 10 years

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\* The lack of action taken by CMSCS to strengthen the HRD program under the project is manifested in the limited amount of funds it has dedicated to this end. Of the \$194,120 budgeted in the project to improve the HRD program, only about 30 percent of this amount has been spent. No funds have been obligated for teacher training and materials or technical assistance, and only a small portion of available funds have been used for needed equipment purchases.

ago. Consequently, the relevance of the training, course content and examinations at Papayo and Boston is not clear since no linkage exists between industry and the centers to test the validity of their programs. Students and graduates are also not consulted by the centers to determine training relevance. It is entirely conceivable that the demand for training is far higher in skill areas not being taught by the centers such as, for example industrial mechanics and masonry, than it is for the training they now offer. Competency-based instruction, now universally accepted as the most effective teaching method, would help to ensure that course content was relevant to the needs of employers.\*

Instructors at Papayo and Boston continue to use the curricula and syllabi made available by the Institute National de Formation Professionnelle (INFP). Each course contains a set of objectives and specific tasks which students are expected to perform proficiently by the end of the course. The Director of Boston is seeking INFP recognition of the center's programs which will expand the INFP presence at Boston even further. At Brooklyn, where the training is far less formal, instructors develop their own teaching materials.

No training is available in micro-enterprise development/management to assist graduates of the HRD program interested in becoming self-employed.

Students do not receive textbooks as the Papayo and Boston Centers only have sufficient funds to copy limited sections of the INFP books for student consumption. The examination system at Papayo and Boston consist of written exams, covering subject concepts and theories, as well as practical tests where student's are graded on their products. Brooklyn relies exclusively on practical exams since many of its students are illiterate.

Brooklyn and Papayo continue to use the literacy curricula provided by the National Organization for Literacy and Communication. The primary education programs for children at Boston, and for adults at Papayo rely on the curricula of the Ministry of Education, as does the secondary school at Boston.

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\* Competency-Based Instruction (CBI) is a teaching method tailored to the student's individual pace at achieving competency in every aspect of the trade. Skilled jobs are theoretically disassembled into a series of sequential tasks, of which the student must prove himself competent before advancing to the next level. In addition to improving efficiency by enabling trainees to exit and enter training based on acquired skills, CBI helps insure that training is relevant to work as training content is initially determined through an analysis of job tasks at work sites. CADERH, a major vocational education project of USAID/Honduras, is instituting a national CBI system of instruction.

Surveyed students and graduates of Boston and Brooklyn all rated as satisfactory the level, content, quality and relevance of the training programs. Many of the students and graduates of Papayo, however, were dissatisfied with the level of training, indicating that it was too superficial. This may signify a need to reassess the content of the programs offered at Papayo.

o **Students**

- Selection methods, entry qualifications
- Counseling, guidance, placement and follow-up

To enter the technical courses at Papayo and Boston, students must be literate and numerate as success in the course requires competency in reading, writing and simple mathematics. Brooklyn does not impose this same requirement on its students, although illiterate mothers are encouraged to attend literacy classes while learning a technical skill.

In 1990, it became a requirement for all first year students at the Boston secondary school to enroll in technical training at the center for at least one year. This was done to equip the secondary students with an employable skill, since statistically only about 20% of first year students graduate. Older primary school students at Boston are also eligible to enroll in a vocational course, though it is not a school requirement. Adolescents not attending the Boston primary or secondary school may also enroll in the Boston vocational center. In an effort to increase the retention rate among students, the Boston vocational center administers an entrance exam for students not attending the Boston primary or secondary school. The aim is to screen out those students not likely to succeed at the center.

Because demand for entry into the primary and secondary schools at Boston far exceeds the supply of available slots, the schools have had to administer entrance examinations to rationalize their selections.

Adult men and women seeking entry into the literacy programs at Papayo are selected based on their apparent interest. Admission to the first year post-literacy program is based on passage of a literacy examination. Entrance into the second through fourth year classes is also dependent on testing successfully.

None of the vocational centers offers students counseling or guidance services to assist in their selection of trades, nor helps them find jobs once they complete their training. Several years ago, the Director of Papayo solicited employers for jobs periodically at the nearby industrial park, but she no longer has time to conduct this work. No follow-up information on graduates is maintained by any of the centers.

o **Staffing and Staff Development**

- Staffing policy, salaries
- Selection and qualifications of staff
- Size and quality of staff; turnover
- Staff development plans

Except for the additional computer, typing, and woodworking instructors hired at Papayo and Boston, the teaching staff of the HRD program has remained constant. Teachers at the centers earn comparatively more than their public school counterparts which is the principal reason for the low turnover among staff.

Most of the instructors of the three year programs at Boston all have technical secondary degrees. The computer and typing instructors all have academic secondary degrees and several years work experience in the private sector. The vocational training instructors at Papayo all have diplomas, are employed in other jobs as teachers and technicians, and have been with the center for several years. At Brooklyn, the sewing teacher is the only one with a secondary technical degree. The other two instructors are graduates of the Brooklyn training program, and have just a few years of primary school. Each has been teaching at Brooklyn for about ten years.

None of the centers has a staff development plan to upgrade the skills of instructors. Yet, this is critical since instructors of the HRD program lack training in pedagogy which probably limits their ability to successfully teach complex material. The absence of pedagogical skills among the instructional staff underscores the need for periodic in-service training of HRD teachers.

The ratio of instructors to students varies among the centers, and decreases as the training becomes more formal. Teacher to student ratios of about 1:25 are considered optimal for the more formal vocational training programs, provided that resources are also available to support instruction. Although lower teacher ratios probably could not be financially justified, higher ratios inhibit good instruction. At Brooklyn, where training is the least formal, the ratio is 1:60, at Papayo 1:30, and at Boston, 1:25. However, at Boston the ratio fluctuates widely depending on the class, from 1:14 in welding to 1:42 in sewing. While the complexity of some courses requires a smaller number of students per instructor, variations of this magnitude reflect an improper allocation of resources within the school.

The survey found that students and graduates from all three centers were fully satisfied with the quality of instruction.

o **Physical Resources**

- Range, areas and layout
- Facilities, service and maintenance
- Range, relevance and adequacy of equipment
- Replacement of equipment

The buildings at all three centers are in good condition, and appear well maintained. The layouts, ventilation, and lighting at Papayo and Brooklyn are satisfactory. Equipment, however, represents one of the most significant deficiencies within the HRD program.\*

The programs at Papayo and Boston, in particular, suffer from a severe shortage of training equipment and supplies. The centers are without a telephone, making it difficult to cultivate relationships with local industry. Welding, electronics, and computer equipment are needed at Papayo. To illustrate the need, in the computer class, 25 students share 2 computers; in welding, 20 students share 2 welding machines; and in electronics, 35 students share 3 electronics kits. The equipment and supply shortages are as great at Boston, particularly in the programs of computer, welding, and woodworking. It is difficult to conceive how learning takes place in these classes at Papayo and Boston.

The woodworking and welding programs at Boston also suffer from a shortage of space. Students learn in small open areas, heavily trafficked by other students frequenting the cafeteria nearby. This traffic distracts learning as the associated noise of those passing by the open classrooms makes it difficult for students to hear the teacher.

Of even greater significance to Boston than the dearth of equipment and space is the absence of a generator. With power outages a frequent occurrence in Cite Soleil, it is critical that Boston have its own power source since it depends on electrical equipment for training. During the dry season, from February - July, power is often limited to less than 2 hours of instruction daily.

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\* Part of the reason for the equipment shortages is that most of the funds budgeted in the project for this purpose have not yet been spent. This also is attributed to the delay in hiring the employment/training coordinator who was to have been responsible for developing a procurement plan for the HRD program, following completion of a detailed assessment of equipment needs. This assessment was not completed until after the cycle had expired for submitting the procurement plan to USAID/Haiti.

The surveyed students, instructors, and graduates all agreed that equipment is the area of the HRD program requiring the most improvement. Employers surveyed who were familiar with the training centers at Cite Soleil indicated they would hire more graduates from the program were they able to recruit by telephone to fill job vacancies requiring immediate occupancy.

o **Organization and Management**

- Management style and effectiveness
- Institutional plan
- Organization structure
- Management information system

All three centers are administered by a dedicated group of individuals committed to improving the employability and income earning potential of the poor of Cite Soleil. Papayo and Brooklyn are each managed by a nun from the St. Vincent de Paul Order. The sister directing Brooklyn has a degree in technical education. Sister Isabella, the Director of Papayo, is a dynamic individual who excels at obtaining outside sources of funding for her programs, but lacks the technical background to make necessary adjustments in course content, instructional methods, and approaches to creating a strong linkage between the center and employer community.

The recently hired Director of Boston, who also serves as employment/training coordinator of the HRD program, has the technical background, natural intelligence, and drive to make significant improvements to Boston, as well to the other centers. However, to be successful as coordinator, he must be relieved of some of his duties at Boston to give him the requisite time to devote to his other responsibilities.

As a result of the initiative taken by the Director, only Boston had developed a current action plan to accomplish a number of clearly articulated program objectives. None of the centers has a management information system, though the Director of Boston indicated an interest in developing one for the entire HRD program.

The dedication of the directors is demonstrated in their ability to manage their centers without the assistance of additional administrative staff. This has helped to produce a very "top-light" HRD program, manifested in an administrator to instructor ratio of 1:13. This is extremely low, considering that the average vocational education program has an administrative ratio of 1:4.

o **Relationship to the Private Sector**

- Training and employment
- Formal links and services
- Industrial links of staff
- Industry-like environment

The linkage between the HRD program and the private sector is virtually non-existent as none of the centers has regular contact with the local industry. The HRD program lacks a formal mechanism to obtain periodic input from the employer community regarding training needs, areas of employment opportunity, course content, required job competencies, and appropriateness of training equipment. Training continues to take place in a vacuum without knowledge of whether it is at all relevant to the needs of local employers. This lack of contact between the centers and industry also hinders job prospects for graduates of the HRD program as employers are less likely to hire an individual from an unfamiliar training institution. Outreach services to the employer community through the formation of a job placement center would certainly help to promote the center, and improve the possibilities of employment among graduates. Job placement rates among graduates are estimated to be 50%, but without a student follow-up system in place to verify such employment data, the reliability of this figure is questionable. Of the graduates covered in the survey, many of whom had completed their training several years ago, only 45% were currently employed.

None of the Centers has a job placement center or any one devoting time to soliciting employers for jobs. Prior to 1989, the Director of Papayo sought jobs from local employers on behalf of her center's graduates, but she no longer has time to devote to this activity with her heavier administrative workload at Papayo.

Because most of Brooklyn's graduates find employment at the center as producers of handcrafts that are sold both locally and abroad, it is more important for the center to create linkages with wholesalers and retailers which would be willing to market Brooklyn's products, than to seek strong ties with local employers.

**C. Employer Feedback**

A total of five employers were surveyed from the nearby industrial park of export assembly industries. The five included two apparel manufacturers and three electronic assembly plants. Of the five employers surveyed, all but one had expanded employment last year. The average number of new hires was about 150, but most of these were for unskilled assembly positions. Employers also indicated that the recent hirings were largely to refill positions that had been reduced during the political disturbances last year. Recruitment is done mainly through existing employee contacts, and by responding directly to solicitations for employment. None of

the employers indicated that they recruited employees from vocational training centers.

Perhaps, because these employers do not recruit at vocational schools, they all indicated that it is difficult to easily find skilled workers. Employers indicated that the most difficult employees to locate were those with good supervisory and management skills and training in industrial mechanics.

Three of the five employers were familiar with the training provided at Cite Soleil. All had hired graduates of Papayo several years ago in response to the efforts of the Director there, but had not employed any recently, in part because of the difficulty in readily communicating with the center. Those familiar with the training all rated it good.

Employers indicated that they prefer to provide training themselves for the lower skilled positions in order to provide the employee with important company specific knowledge. Higher skilled employees, such as welders and mechanics, were expected to be adequately trained prior to their employment.

All the employers surveyed indicated they would be very interested in participating on a committee to advise the centers on their training programs. Because of their positive perception of the training provided at the centers, they seem to view their involvement in the activities of the centers as a benefit to both the HRD program and their own companies, rather than simply a charitable exercise on their part. This type of mutually beneficial arrangement is critical for the long-term success of any formal employer-CMSCS relationship.

#### **D. Financial Sustainability**

An objective of USAID/Haiti is to assist in the creation of an HRD program at Cite Soleil that is less dependent upon U.S. government aid. This section assesses the opportunities for further diversifying the income of the HRD programs to lessen that reliance.

##### **1. Income Generating Activities**

Brooklyn is the only training center which generates a significant amount of income. Revenues from the sale of crafts totaled about US \$90,000 last year. These funds were used to provide income for the producers at the center, and to pay for production materials and supplies. This revenue represents a significant amount, considering the center was the exclusive retailer of the products. Increasing sales by more aggressively marketing the products, both in Haiti and abroad, could raise incomes for the women producers, as well as finance the training operations of the center, estimated

to cost about \$30,000 annually.

Products made at Papayo and Brooklyn are no longer sold. Since their focus is on training individuals for salary employment and self-employment, income-generating activities are not viewed as a viable option for the two centers. The short-training period at Papayo also does not offer students sufficient time to make products of marketable quality. However, the longer training period at Boston does provide students with opportunities to produce marketable products during the course of their training, as was demonstrated in a recent exposition at the center. This production could be increased, perhaps, to a level where sales would finance the purchase of production materials and supplies. Increasing production beyond that level could undermine the purpose and quality of training at Boston.

## 2. Student User Fees

Nominal user fees of Haitian \$5 per month are charged to students attending vocational classes at Boston who are not enrolled at the center's academic primary or secondary school. Waivers are provided to those unable to pay which represents a majority of the students based on collection records. These fees are viewed not as a source of revenue for the school but as a way to give the student a sense of investment in his education in hope of further motivating him to learn and remain in school. Given the dearth of financial resources among Cite Soleil's residents, user fees are not considered a viable way to generate significant revenue for the training centers.

## 3. Employer User Fees

Vocational centers with solid reputations for providing high quality training are often contracted by industry to upgrade employee skills. This training is conducted at the training center or the plant. In the U.S. this training is usually conducted by technical community colleges and private commercial training organizations. At this time, the training centers at Cite Soleil do not possess the requisite equipment, instructors and experience to successfully market their training to industry on a fee for service basis. Thus, this is not considered a viable option in the short-term, and may never be given the objective of the training at Cite Soleil.

## 4. Other Donor Assistance

Since the combined revenue from the sale of products at Brooklyn and student user fees at Boston is not likely to ever cover the total costs of the HRD program at Cite Soleil, CMSCS will need to diversify the amount of financial assistance they receive from the donor community. Donor contributions of US \$1.5-2 million could be used to establish an endowment fund, the interest from which would

be sufficient to support the HRD program at its current level of activity.

### **E. Efficiency of HRD Program**

#### **1. Internal Efficiency**

The internal efficiency of vocational training is reflected in the average cost per student year of training. Internal efficiencies improve as the graduation rate among trainees increases. In 1990, the cost per student year at all three centers in Cite Soleil averaged US \$738. The cost was lowest at Brooklyn, \$68, where teacher-student ratios are high, training is of short duration, equipment costs are minor, and all students, according to the instructors interviewed there, complete the program. Costs were considerably higher at Papayo (\$354) and Boston (\$1792)\* where training is more formal, and only about 55% of initial enrollers complete the training program. Raising the completion rate to 80% would reduce the cost per student year at Papayo and Boston to \$283 and \$1434, respectively.

#### **INITIAL ENROLLERS AND COMPLETERS OF VOCATIONAL TRAINING 1990-91 SCHOOL YEAR**

<b>VOCATIONAL CENTER</b>	<b>ENROLLERS</b>	<b># COMPLETING</b>
<b>Brooklyn</b>	<b>720</b>	<b>720</b>
<b>Boston</b>	<b>327</b>	<b>170</b>
<b>Papayo</b>	<b>270</b>	<b>158</b>
<b>TOTAL</b>	<b>1317</b>	<b>1048</b>

Based on discussions with directors of the centers and the survey, the 45 percent of initial enrollers who do not complete training most often leave prematurely to seek employment, tend to family problems, and because of poor health.

\* The cost per student year at Boston also includes the costs of the primary and secondary schools there as disaggregated data was not available. Thus, the actual cost per student year of the vocational school is considerably less than \$1792.

In spite of the low completion rates at Papayo and Boston, their internal efficiency levels compare favorably with other similar vocational programs in Haiti. According to a 1987 assessment of the education sector in Haiti, the average cost per student year was less at Boston and Papayo than at similar programs offered by formal public vocational schools and proprietary schools.

**COMPARATIVE COSTS OF VOCATIONAL EDUCATION  
(US \$)**

TYPE OF VOCATIONAL SCHOOL	1990 PRICES	1984 PRICES
Haitian Public Vocational		\$1164
Boston Center	\$1792	\$1053
Haitian Proprietary School		\$ 269
Papayo Center	\$ 354	\$ 207

**2. External Efficiency**

The external efficiency of training is the second comparative measure of the overall efficiency of vocational instruction. The external efficiency of training is determined by the extent to which graduates of training programs are able to obtain employment or become self-employed. If graduates are not obtaining employment it is evident that the training programs are not well articulated with employers' needs and the realities of the job market. Similarly, if self-employed graduates are experiencing serious difficulties as entrepreneurs, the training program may be deficient and, probably, should be revised.

Due to the absence of any follow-up system to track the employment outcome of graduates, the external efficiency of the HRD program at Cite Soleil is unknown.\* Directors of Boston and Papayo estimate the job placement/self-employment rate among those completing the program at between 30-50 percent. The limited survey conducted for this evaluation of Boston and Papayo graduates revealed an overall employment rate of 45 percent. Of those employed, the average annual salary was \$2820. This compares with an average annual salary for unskilled workers of \$1200.\*\*

Data on the external efficiency of other vocational schools in Haiti was not available.

#### F. Economic Soundness of HRD Program

A benefit-cost analysis was conducted to determine the economic soundness of the HRD program at Cite Soleil. Benefits from the program accrue to both individual graduates of the training who enter employment, measured in terms of added income, and to society as a whole, reflected in the social utility of having a better educated population. Experience indicates that individuals with additional years of schooling are more likely to vote, participate in civic affairs, practice better family health care, and encourage their children to perform well in school. These spillover effects, while certainly benefiting society, are difficult to quantify.

The relationship between an individual's education and income level is easy to demonstrate quantitatively, however. All other factors equal, better educated individuals are generally more productive and, consequently, earn more income than less educated members of society.

Because no national income data by educational level was available in Haiti, a typical human capital approach was used to quantify the benefits of the HRD program at Cite Soleil. This approach monetizes the value of the increased skills acquired by participants as a result of the training which they received. The economic gain from the improved labor supply is increased productivity, which is assumed to be measured by increased earning potential. Because of the difficulties in quantifying the income benefits of the primary, secondary, and literacy education offered by the HRD program, this analysis is limited to the earning benefits of vocational training at Papayo and Boston.

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\* According to instructors interviewed at Brooklyn, all trainees either secure employment outside the center or produce crafts for the center. The average salary of women working for the center is \$200 per year. This is extremely low considering the legal minimum wage in Haiti is about \$4/day or \$1040 annually.

\*\* Based on employer survey.

Two measures are applied to assess the economic soundness of the investment. The first is the benefit-cost ratio. The second is the internal rate of return (IRR), i.e. the weighted average return over the life of the project to the resources engaged in the project.

### 1. Benefit Stream

Since none of the centers maintain any data on the earnings of graduates, this data had to be obtained from the limited survey of employers and employed graduates of Boston and Papayo. The earning stream for Haitians without vocational training represents what unskilled workers are generally paid. The earning stream for Haitians with vocational training is based on the reported income levels of graduates of Boston and Papayo, as well as salary information for skilled technicians provided by employers. The annual wage differential between these skilled and unskilled workers was computed to be \$1620 (Appendix C, table 1).

The potential earnings difference for skilled workers was based on the number of actual graduates from the Boston and Papayo training programs during the two-year project period. It was assumed that 30 percent of the graduates would secure employment. This rate represents the bottom of the 30-50 percent range reported by CMSCS staff. The working life of these individuals following training is assumed to be 20 years. Wage benefits during the course of this 20 year period were discounted to their present value at a rate of 12 percent, considered standard for this type of analysis in Haiti (table 2).

### 2. Cost Stream

As an approximation of the actual cost of providing training at Boston and Papayo during the two-year project period, this analysis relied on the budgeted costs contained in table 10 of the Expanded Urban Health Services Project Paper. Because the budget does not disaggregate the various programs at each of the two centers, the budgeted cost of Boston includes the cost of the primary and secondary schools as well. Thus, the cost stream overstates the actual cost of vocational training at Boston. Costs during the second year of the project were also discounted at 12 percent.

### 3. Results

The analysis indicated that the benefits of the training were 2.8 times as great as project costs. The internal rate of return was computed to be 35.3 percent, significantly higher than the opportunity cost of capital in either Haiti or the U.S. (table 3). This return is particularly impressive considering that the benefit and cost streams were both based on conservative assumptions regarding job placement rates and program costs at Boston. A job placement rate of 50 percent, and more accurate cost data for the

vocational training at Boston would have yielded a significantly higher return.

This analysis suggests that the project is economically justified as the investment in developing human resources has yielded a significant monetary return. The returns from this investment are even greater when considering the additional spillover benefits.

## V. CONCLUSIONS AND RECOMMENDATIONS

### A. Conclusions

1. Strengthening Linkage With Private Sector. The linkage between the HRD program at Cite Soleil and the private sector is nonexistent. Efforts to accomplish these project activities were hampered by CMSCS's delay in finding a qualified employment/training coordinator to manage this work.
2. Evaluate and Upgrade Training Programs at Boston and Papayo, and Develop New Income Generation Programs at Brooklyn. Boston has been the only center to receive significant attention under the project. The time demands on the coordinator at Boston, in his capacity as Director, have afforded him little time to attend to the other two centers. It is unrealistic to believe that one individual can perform both of these jobs adequately.
3. Training Relevance. The relevance of the HRD training program is uncertain since no linkage exists between industry and the centers to test the validity of the training.
4. Teaching Curricula and Materials. The curricula appears adequate for the technical courses. However, there are no courses available in micro-enterprise development for the significant number of graduates who enter self-employment.
5. Student Selection, Guidance, Placement, and Follow-up. The newly instituted entrance examinations at the Boston vocational center should reduce student drop-out rates by raising the caliber of the student body. The lack of assistance provided to students during their training probably results in poor course selections by some students, increasing their chances of terminating early. The adverse impact of not offering job placement services is manifested in low placement rates among graduates, estimated at between 30-50 percent.
6. Staffing and Staff Development. The quality of training is adversely affected by the complete absence of any staff development plan for instructors and administrators of the training centers. The overall instructor-student ratio of 1:35 is considered acceptable, but varies too widely at Boston

between courses of similar complexity. Variations of this magnitude reflect an improper allocation of staff which needs to be corrected.

7. Physical Resources. The HRD program suffers from a severe shortage of capital and training equipment, especially the centers of Boston and Papayo. The needs are enormous: telephones at all three centers to facilitate communication with the business community; a generator at Boston to operate its electrical training equipment during frequent power outages; and, assuming current training is valid, additional welding machines, computers and electronic kits at Boston and Papayo. An additional classroom may also be needed at Boston for the woodworking class, now situated in a noisy, common area, poorly suited for learning.
8. Organization and Management. The organization is "top-light", as reflected in a very efficient ratio of one administrator for every 13 instructors. However, this lean administrative structure also hurts the organization as none of the directors has much time to address the more complex management and technical issues associated with their programs.
9. Relationship to the Private Sector. The apparent absence of a linkage between the training centers and private sector is the most significant deficiency of the HRD program. Without systematic feedback from industry regarding course content, it is not possible to know whether the training provided is relevant to the needs of local business. The employer community is also less likely to hire graduates from a program with which it is not familiar. Thus, higher job placement rates would be a natural consequence of any effort to reach out to the private sector.
10. Employer Interest in Participating on Steering Committee. Employers are willing to serve on a committee to advise the HRD programs at Cite Soleil. This interest is motivated not by charity, but by self-interest as each employer would like to have a reliable source of well trained individuals from which to recruit.
11. Financial Sustainability of HRD Program. In order to lessen the dependence of the HRD program on assistance from USAID/Haiti, other sources of revenue need to be found. Expanding income through additional craft sales at Brooklyn, initiation of product sales at Boston, and higher student user fees at Papayo and Boston will reduce this dependence somewhat, but not enough to make the HRD program completely self-sufficient. For this to occur, CMSCS will need an endowment fund.
12. Internal Efficiency--Costs of Operation. The programs at Cite

Soleil operate at a relatively low cost. This is due, in part, to the lean administrative structure of the centers, and shortage of training equipment. The benefits of investing more funds in additional staff and equipment may outweigh the costs, especially if wastage from early student terminations can be reduced.

13. External Efficiency--Job Placement Rates. The placement rate among graduates is not known since none of the centers track the employment success of their graduates. Estimates range from 30-50 percent based on the results of a small survey of graduates, and feedback from the directors of the centers. Increasing the job placement rate improves the rate of external efficiency by expanding the financial benefits of the training program, measured through the increased income of employed graduates.
14. Economic Justification of HRD Program. The investment in training during the two-year project period was found to be economically justified based on a computed benefit-cost ratio of 2.8, and 35.3 percent internal rate of return. This return is particularly impressive considering the analysis was based on conservative assumptions.

#### B. Recommendations

1. Establish Linkage with Private Sector. CMSCS should immediately form a private sector advisory committee as an initial step toward establishing a strong relationship with local employers.
2. Job Placement Center and Student Counseling Services. CMSCS should begin developing a job placement center to assist graduates with their employment search. The placement center should also offer referral services to those seeking assistance in self-employment. Guidance from instructors and center staff should be routinely provided to students during registration to reduce the incidence of early terminations due to poor course selection.
3. Administrative Support at Boston. An additional administrator should be hired at Boston for managing most of the day-to-day operations to permit the current Director to dedicate at least 50 percent of his time to his other position as employment/training coordinator. Unless the Director is liberated of most of his duties at Boston, it is unlikely that any of the program areas in need of improvement will be addressed.
4. Student Record and Follow-Up System. As a complement to the Job placement center, a student record and follow-up system should be developed and automated. Such a system could be

developed relatively easily in Cite Soleil by utilizing the family identification cards of the health project which provide basic household information on every family in the area. This is a unique resource which should be exploited by the HRD program of CMSCS.

5. Marketing Strategy. A marketing strategy should be developed to expand the sales of crafts made at the Brooklyn Center, as well as several of the more marketable products made at Boston.
6. Technical Assistance. CMSCS should purchase technical assistance with some of the remaining \$194,200 in project improvement funds. The formation of an advisory committee, development of job placement center, graduate tracking system and new marketing strategies for Brooklyn are complicated endeavors which would benefit from individuals with experience in those areas.
7. Management Training. CMSCS should consider offering courses in micro-enterprise development at the Boston, Papayo and Brooklyn centers for those trainees interested in self-employment. This training should be coordinated with, and complementary to the business training that will be offered to graduates of the HRD program under the recently formed CMSCS credit program for new entrepreneurs.
8. Equipment Purchases. While the need for training equipment is great, purchases should be deferred until members of the advisory committee have had an opportunity to validate the training currently offered. Purchases of telephones at Papayo and Boston, and generator at Boston should be made immediately, however.
9. Reallocate Instructors at Boston. Serious consideration should be given to reallocating instructors at Boston to provide more equitable instructor-student ratios among the technical classes there.
10. Student User Fees. Consideration should be given to expanding the existing user fee system to cover additional students at Boston, as well as the trainees at Papayo.
11. Endowment Fund. Serious consideration should be given to assist CMSCS in the creation of an endowment fund to lessen their dependence on USAID/Haiti funding of the HRD program at Cite Soleil.

**APPENDICES**

APPENDIX A

**Individuals and Organizations Contacted**

CDS

Dr. Reginald Boulos, President Director General  
Sabrina F. Jaar, Assistant Director

USAID/Haiti

Marie Marlene Charlotin, Program Specialist  
Office of Health, Population and Nutrition  
Gabriel Verdet, Economist

Boston Center

Cayo Jean Bernard, Director of Vocational School;  
Employment/Training Coordinator  
Venise Robillard, Director Primary School  
Pierre et Aude, Director Secondary School  
Michel Estime, Welding Instructor  
Dehane Jean Claude, Woodworking Instructor  
Lavand Andre, Tailoring Instructor

Papayo Center

Sister Isabelle Lumpy aud Dominique, Director

Brooklyn Center

Mdm. Lamare, Sewing Instructor  
Rose Marie, Bakery Manager

## APPENDIX B

### DOCUMENTS CONSULTED

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8. Approximately, how much do you earn now per week?

9. How did you find employment?

School placement

Word-of-mouth (friends)

Advertisements

Others

10. Have you ever been unemployed since you were trained?

yes  no

How many times? \_\_\_\_\_ How long? \_\_\_\_\_ (months)

11. How long did it take to find employment?

I found a job immediately

3 months

6 months

1 year

more than a year

### Opinion of Training

12. Are you applying in your work what you have learned during your training?

No

a little

a lot

13. What is your opinion of the training compared to your expectations?

It met my needs and expectations

I was disappointed by the training

Reasons for disappointment (explain)

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14. In your opinion, which of the following aspects of the course are satisfactory or unsatisfactory?

(S: satisfactory - U: unsatisfactory - ?: no opinion)

a: level of training	S	U	?
b: content of training	S	U	?
c: Quality of instructors	S	U	?
d: Workshops equipment	S	U	?
e: Discipline	S	U	?
f: Other aspect (specify)	S	U	?

15. In your opinion, what two actions would most improve the course (no more than two answers)

- a: improve buildings
- b: improve equipment
- c: raise standard of training staff
- d: raise standard of course
- e: increase length of course
- f: provide better guidance of trainees
- g: tighten discipline

16. In your opinion what is the level of training in the course in relation to the ability of the students?

- a: course too difficult
- b: course too easy
- c: course about right

17. Would you recommend to your friends or relatives the same type of training you took?

- yes     no

18. Do you consider your views to be representative of all students?

## Questionnaire for Instructors

*Instructions:* This questionnaire is designed as a basis for an interview with a small group of instructors (about six to eight). The answers should record the consensus (if there is one) or indicate the diversity of views.

1. What course(s) do you teach?
2. In your opinion, are there enough instructors for the vocational program?
  - a. Enough
  - b. Too few
  - c. No opinion
3. If there are too few instructors, what is the main reason?
  - a. Pay is too low
  - b. There is no interest in the speciality
  - c. Other
4. What is your main reason for entering the teaching profession?
  - a. Money
  - b. Status or social position
  - c. Good working conditions
  - d. Employment stability
5. If you have colleagues who have left the teaching profession, what were the main reasons?
  - a. Too few chances for promotion
  - b. Mental fatigue or stress
  - c. Pay too low
  - d. Working conditions bad
  - e. Duties too heavy
6. What is the range of class size in your courses? \_\_\_\_\_  
Do you think this number is
  - a. Adequate?
  - b. Too large?
  - c. Too small?
  - d. No opinion
7. In your opinion, what is the level of the students' ability in relation to the planned level of the course?
  - a. Superior
  - b. Inferior
  - c. The same
8. In your opinion, what is the main reason for students' dropping out?
  - a. Inadequate level of knowledge
  - b. Difficulty of travel to center or school
  - c. Lack of discipline
  - d. Health
  - e. Financial reasons
  - f. Availability of employment before graduation
  - g. Family problems
  - h. Other

9. Do you have enough teaching materials for your courses?
  - a. Yes
  - b. No
  - c. Satisfactory in some ways, but not in others (give details)
10. Is the equipment adequate for your courses?
  - a. Yes
  - b. Insufficient in quantity
  - c. Inadequate in quality or range
  - d. Technologically obsolete
11. Is the equipment similar to that used in industry?
  - a. Similar
  - b. Superior
  - c. Inferior
12. What do you think of the maintenance and cleanliness of workshops?
  - a. Good
  - b. Insufficient
13. In your opinion, is it easy for graduates to obtain employment?
  - a. Easy
  - b. Difficult
  - c. Don't know
14. If it is difficult, what is the main reason?
  - a. There is little demand for the specialty.
  - b. The training is inadequate.
  - c. Other (give details)
15. In your opinion, what two measures would contribute most to the improvement of the school or center?
  - a. Improve buildings
  - b. Provide more equipment
  - c. Review and update curricula
  - d. Improve materials
  - e. Upgrade instructors
  - f. Improve student selection
  - g. Improve counseling and placement of graduates
  - h. Coordinate courses more closely with the requirements of the market

QUESTIONNAIRE FOR EMPLOYERS

Name of Company \_\_\_\_\_

Industry \_\_\_\_\_

Number of workers \_\_\_\_\_

1. Approximately how many workers did you hire last year?

2. Can you easily get skilled workers to do the work in your firm?

/ yes / /no

3. How do you recruit new workers?

a. Advertise in newspapers

b. Use word-of-mouth of employed workers

c. Contact vocational schools and skill training centers

d. Provide own training

e. Others

4. Which candidate of those described below is most likely to be hired?

a. No experience

~~b. Primary school graduate with skilled training experience~~

c. Middle school graduate

d. Academic high school with no experience

e. Others (explain)

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5. Why do you prefer your choice above? (choose no more than two)
- a. They have more theoretical knoweldge
  - b. They have more practical knowledge
  - c. They have more initiative
  - d. They are more productive immediately
  - e. They can advance faster into higher skills
  - f. They are more reliable
  - g. They follow instructions better
  - h. Their starting wage is lower

6. When you hire workers without experience, how do you train them?
- a. Forman and other skilled persons show them how to work?
  - b. We provide in-plant training
  - c. We sponsor training in skill centers

7. Are you familiar with the skill centers (Boston, Brooklyn, Popayo) in Cite Soleil?

yes  no

8. If yes, what is your opinion of it?

- a. good
- b. average
- c. poor
- d. no opinion

9. Have you hired graduates from the Boston, Brooklyn or Papyo skill training centers in the past few years?

yes  no

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10. If yes, how do you rate the graduates if the skill centers compared to other workers in the same occupation but with different educational background?
    - a. They are the same as other workers
    - b. They are better
    - c. They are not as good
    - d. No opinion
  
  11. If you answered that they are not as good, why?
    - a. They lack theoretical knowledge
    - b. They lack practical knowledge
    - c. They are not acquainted with the machinery in the plant
    - d. They lack discipline
    - e. They demand higher wages than other applicants
    - f. Others
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**APPENDIX C**  
**ECONOMIC ANALYSIS**

**TABLE 1**

**ESTIMATED UNDISCOUNTED EARNINGS STREAM FOR HAITIANS  
WITH AND WITHOUT TECHNICAL TRAINING**

<b>YEAR</b>	<b>WITHOUT TRAINING 1/</b>	<b>WITH TRAINING 2/</b>	<b>WAGE DIFFERENTIAL</b>
1	\$1200	\$2820	\$1620
2	1200	2820	1620
3	1200	2820	1620
4	1200	2820	1620
5	1200	2820	1620
6	1200	2820	1620
7	1200	2820	1620
8	1200	2820	1620
9	1200	2820	1620
10	1200	2820	1620
11	1200	2820	1620
12	1200	2820	1620
13	1200	2820	1620
14	1200	2820	1620
15	1200	2820	1620
16	1200	2820	1620
17	1200	2820	1620
18	1200	2820	1620
19	1200	2820	1620
20	1200	2820	1620

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1/ Average wage of unskilled worker, based on salary data reported by surveyed employers.

2/ Average wage of skilled worker, based on salary data reported by survey employers and graduates of Papayo and Boston.

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TABLE 2

**ESTIMATED UNDISCOUNTED WAGE BENEFIT FOR HRD PROGRAM GRADUATES  
DURING EXPANDED URBAN HEALTH SERVICES PROJECT, 1989-91**

<b>YEAR</b>	<b>GRADUATES</b>	<b>PLACEMENTS*</b>	<b>WAGE DIFFERENTIAL</b>	<b>WAGE BENEFIT</b>	<b>TOTAL GROUP WAGE BENEFIT</b>
1	196	59	\$1620	\$ 95,256	\$ 95,256
2	207	62	1620	100,440	195,696
3					195,696
4					195,696
5					195,696
6					195,696
7					195,696
8					195,696
9					195,696
10					195,696
11					195,696
12					195,696
13					195,696
14					195,696
15					195,696
16					195,696
17					195,696
18					195,696
19					195,696
20					195,696

\* Assumes job placement rate of 30 percent.

**TABLE 3**

**BENEFIT-COST ANALYSIS OF HRD PROGRAM UNDER  
EXPANDED URBAN HEALTH SERVICES PROJECT, 1989-91  
(Discount Rate of 12 percent)**

<b>YEAR</b>	<b>TOTAL WAGE BENEFITS</b>	<b>TOTAL PROJECT COSTS*</b>	<b>COSTS DISCOUNTED</b>	<b>BENEFITS DISCOUNTED</b>
1	\$ 95,256	\$263,834	\$235,566	\$ 85,050
2	195,696	319,748	254,901	156,137
3	195,696			139,408
4	195,696			124,471
5	195,696			111,135
6	195,696			99,228
7	195,696			88,596
8	195,696			79,104
9	195,696			70,628
10	195,696			63,061
11	195,696			56,304
12	195,696			50,272
13	195,696			44,886
14	195,696			40,076
15	195,696			35,782
16	195,696			31,949
17	195,696			28,526
18	195,696			25,469
19	195,696			22,740
20	195,696			20,304
		<b>TOTAL:</b>	<b>\$490,467</b>	<b>\$1,373,127</b>

**Benefit-Cost Ratio = 2.8**  
**Internal Rate of Return = 35.3 percent**

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\* Costs are estimates based on budgeted costs contained in table 10 of the project paper.

APPENDIX D

**SURVEY QUESTIONNAIRES**

QUESTIONNAIRE FOR STUDENTS

1. What courses are you taking?
2. What are the major reasons that persuaded you to take the course?
  - \_\_\_\_\_ I do not have a job and want to get one
  - \_\_\_\_\_ I want to start my own business
  - \_\_\_\_\_ I want to acquire a skill
  - \_\_\_\_\_ Other
3. In your opinion, what will be your chances of getting a job at the end of the course?
  - \_\_\_\_\_ good
  - \_\_\_\_\_ average
  - \_\_\_\_\_ poor
  - \_\_\_\_\_ other
4. What is your opinion of the course compared with your expectations?
  - \_\_\_\_\_ This course was very productive
  - \_\_\_\_\_ I was disappointed
5. In your view, what aspects of the course respond to the following specifications? (S" = satisfactory; "U" = unsatisfactory; "?" = no opinion)
 

a. level of training	S	U	?
b. course curriculum	S	U	?
c. quality of instructors	S	U	?
d. equipment	S	U	?
e. discipline	S	U	?
f. other aspects	S	U	?

QUESTIONNAIRE FOR GRADUATES

Background

Name of Student \_\_\_\_\_ Age \_\_\_\_\_ Sex  M /  F /

Name of School Attended \_\_\_\_\_

1. What Course did you take (technical area \_\_\_\_\_)

Have you taken additional training courses? Where \_\_\_\_\_

2. Level of formal schooling before entering training

a: none

b: Primary school

c: Middle school

d: High school

3. Length of training program

a: 1-6 months

b: 7-12 months

c: more than 12 months

4. Year when finished training \_\_\_\_\_

Employment

5. Are you currently employed  yes  no

6. Are you self employed , or employed by others for a wage?

7. Does your present occupation related to your training?

yes  no