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**Skill Training for the Informal Sector:
Analyzing the Success and Limitations of Support Programs**

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ABSTRACT

This paper discusses the effectiveness and limitations of programs conducted by government institutions, nongovernmental organizations, and development assistance agencies which support skill training for the informal sector. Several effective programs have the following elements:

- o careful participant selection;
- o job placement assistance;
- o consideration of infrastructural needs or community concerns;
- o efforts to match labor supply requirements, or skills trained, to the demand for those skills in the labor market; and
- o practical technical skill instruction that includes apprenticeships, often attached to businesses.

Some limitations include a mismatch between trainees skills and assumed skill requirements, the urban bias of programs, the oversight of new technologies in training, the high cost of training, and the external constraints on employment growth such as the macroeconomy and the prices of raw materials and fuels.

This paper is the result of a joint initiative of the Development Center of the Organization for Economic Cooperation and Development (Paris), the Education and Employment Division, Population and Human Resources Department, World Bank and the Education and Training Division, Africa Technical Department, World Bank. It has been discussed in a joint OECD Development Center/World Bank seminar held in Paris in September 1988, entitled "The Informal Sector Revisited." The proceedings of this seminar, including a revised version of the present paper, will be published shortly in the OECD Development Center Seminar series.

I. INTRODUCTION

1. As the anticipated growth in large-scale industrialization has failed to materialize in many developing countries, development planners have turned increasingly to the informal sector as a source of economic growth. In particular, much hope has been placed in the capacity of this previously neglected sector to help meet their countries' future employment needs. The small enterprises of the informal sector are known to use labor more intensively than large firms and, even without external assistance, already account for at least two thirds of all economic activity in many poorer developing countries. There is an emerging belief that, if given appropriate support, the informal sector might absorb, even as industrialization falters, the growing numbers of job seekers entering the labor market each year.

2. While many agree that the informal sector can be expanded, there is much less consensus about exactly how to assist this sector to play a greater role in the economy. The fact that the informal sector has survived in the face of government neglect and sometimes hostility suggests to some that it might flourish under a policy of active government interest and financial and technical support. Others view the very existence of an informal sector as a natural haven for those who profit from doing business beyond the reach of either government regulation or beneficence. Introducing even well-intentioned government programs simply might create dependence on external assistance or drive many informal sector operators into even less visible and legitimate operations to evade the hand of government.

3. Notwithstanding this controversy, a number of initiatives have been launched in recent years and others are being conceived to stimulate growth in the informal sector. Some of these approaches have chosen the training of prospective workers and entrepreneurs either as a major strategy or as part of a more comprehensive package of development assistance. Although much of the field implementation of these programs is relatively recent and their results still uncertain, enough experience has been gained to draw some tentative

insights regarding operational issues: (1) what kinds of assistance succeed and which fail; (2) under what conditions do they succeed or fail.

4. This paper analyzes organized forms of developing and up-grading skilled workers and entrepreneurs for the informal sector labor market. The impact of vocational training and education is then examined in relation to other variables that affect conditions in the informal sector economy. The experience of various programs in grappling with training-related issues--whether or not training is explicitly offered as a solution in every case--is drawn upon to arrive at some cautious conclusions about the most important considerations to take into account in assisting the informal sector.

5. Support programs included in this survey were drawn from a sample of sponsoring organizations that included a broad range of both indigenous and Western NGOs, government agencies, and bi-lateral and multi-lateral development assistance agencies. Information on the sampled support programs was gathered through personal interviews with program officers from the sponsoring organizations and printed reports when available, both of which gave a somewhat less direct perspective to the assessment of the field activities than would a first-hand visit. In some cases, the author was personally familiar with the support programs. This analysis of operational issues naturally includes suggestions on not only how the use of vocational and business management training, should they be selected as the interventions of choice, can be optimized, but also considers options where some approach other than vocational training and education might be more effective or less expensive.

II. CHARACTERISTICS OF THE INFORMAL SECTOR

6. A number of studies over the last two decades has generally agreed that small enterprises can be divided into two major categories: "micro" enterprises, which are one or two person firms of marginal profitability that

serve very small markets; and small and medium size enterprises, which are larger (sometimes as many as twenty or more workers), more established businesses that serve somewhat larger markets, are better equipped and housed and are probably more profitable. Entrepreneurs are often distinguished from "pre-entrepreneurs", whose economic activities, if they exist at all, are so marginal as to be hardly subsistent.

7. The term "informal sector," or "shadow economy," is usually reserved for those small enterprises which utilize the most rudimentary and traditional technology and business practices. These businesses are usually unlicensed, unregulated and, therefore, virtually unknown to the government, which allows their owners to avoid minimum wage, social security, and tax obligations as well as other labor regulations. Informal sector enterprises also make heavy use of family and unpaid labor, usually apprentices who are learning on the job. Operators are highly flexible in entering and exiting particular economic activities in response to market demand.

8. In contrast to informal enterprises, modern enterprises employ more sophisticated, modern technologies and business practices, interact more directly with formal institutions and may receive financial or technical support from the government (Harper, 1984). In addition, their operators meet government licensing, financial, and regulatory requirements, make far more use of wage labor and move less flexibly in and out of the market. Although not necessarily a function of size, these modern features are more likely to be found among small- to medium-size enterprises than micro-scale operations.

9. Relative size of a firm may not be its distinguishing feature, but size does tend to be a good predictor of the owner's income and ability to expand. The owners of relatively larger firms with numerous employees usually earn more than the owners of smaller enterprises. The smallest micro enterprises often yield no more than a means of survival for their operators and no savings for future investment. In addition to larger size, higher owner income is also associated with a higher educational level of the owner and perhaps a longer length of time in business.

10. Beyond these distinctions, small operators generally make their living by producing goods and services for or selling goods produced by others, primarily for the poorest segments of the population. This characterization is not without exception, though, since the small automotive workshops in urban areas obviously serve customers affluent enough to own an automobile, and, similarly, small tailoring workshops sew clothes for individuals at all levels of the socio-economic spectrum. However, regardless of who their customers are, small-scale entrepreneurs produce goods and services of a generally acceptable, although probably lower, quality more cheaply than large modern firms because of the following factors: their greater reliance on labor rather than on more expensive mechanically-driven equipment; their less elaborate (or even nonexistent) facilities; their ability to improvise products from scrap materials or in the face of irregular sources of raw material; their willingness to operate their businesses at times and locations convenient to their customers; and their proclivity for finding market niches too small for larger firms.

11. While the informal sector is often perceived as an exclusively urban phenomenon, a rural, non-farm informal sector also exists in the medium and small-size towns and villages of developing countries. The entrepreneurs in these two different environments operate businesses that reflect the consumer needs and tastes of their respective markets: blacksmithing, leather craft, water pump manufacture, or herbal medicine, for example, for the rural economy; auto, radio, watch, and refrigerator repairing, manufacturing of bricks and other construction materials, and money-exchanging, to name a few, for the urban economy. As expected, incomes among rural small enterprises tend to trail behind those of their urban counterparts of similar size. Income inequalities often arise along ethnic or regional lines, with entrepreneurs from certain groups enjoying the benefits of favorable government treatment or subsidies.

III. CONVENTIONAL SKILL DEVELOPMENT FOR THE INFORMAL SECTOR

12. Skilled workers for the informal sector of the economy have long been trained either within the informal and formal sector enterprises themselves or in formal vocational training institutions. Some of these training systems link directly with the informal labor force, while others serve as more circuitous routes to informal sector employment and self-employment. Together, they compose a backdrop of conventional skill provision, as distinguished from the relatively more recent non-formal support programs introduced to complement and extend these existing forms of skill training.

III.1 Traditional Apprenticeships

13. The most familiar organized means of training workers is the traditional apprenticeship system which has been around for as long as there has been a need for individuals who could perform specialized economic functions in their communities. Long associated with artisan workshops, traditional apprenticeships represent an effective and culturally appropriate system both for operating a viable business and for training young workers in a trade at the same time. Before widespread exposure to Western products, training was restricted to trades needed in a traditional farm economy. The growth of urban areas and the introduction of modern products and technologies opened up a host of new opportunities for small-scale repairers and producers. Except where an industry was monopolized by formal sector enterprises or where no demand for less expensive alternatives existed, small enterprises were established to repair the array of imported products and, in some cases, manufacture acceptable substitutes from local materials. The concept of the traditional apprenticeship was also extended to these new urban skill areas, and the system has since become the prevailing mode of training workers for informal sector trades in which highly technical knowledge and skills are involved.

14. While entry into apprenticeships in traditional trades is often reserved for offspring or close relatives of masters, apprenticeships in modern trades, on the other hand, are usually open to any interested learner. The arrangement is consummated through an informal contractual agreement with the apprentice's parent in which the master agrees to train a youth (usually a male) in exchange for a fee. Apprentices can expect to become fully qualified in the trade in anywhere from one to five years, depending on the technical difficulty of the trade. Completion of apprenticeship training might then lead to paid employment as a journeyman for a few years in the same workshop and eventually to self-employment.

15. The daily labor of the workshop, therefore, does "double duty" as an income-producing activity and as a learning experience for trainees. Through their labor, apprentices assist the master in providing a product or service that is sold to paying customers. Likewise, performing these work tasks enables apprentices to acquire the component skills and knowledge of their trade.

16. Training begins with simple and repetitive tasks and progresses incrementally to more difficult assignments as trainees gradually acquire skills. Apprentices learn by observing the master and more advanced apprentices, by asking questions, and then by attempting to perform the routine themselves. Training is intensively practical; no instruction in a school sense is ever given. Because training tends to focus on the immediate problems of the work itself, apprentices in highly technical trades usually develop little theoretical knowledge of the systems or processes with which they work, except when their training is supplemented through a repair manual or personal textbook. This often results in proficiency in assembly, disassembly, and replacement procedures, but rather unsystematic and random diagnostic procedures and unfamiliarity with the most efficient technology for the purposes at hand.

17. Apprentices also acquire knowledge of business practices and customer relations through the same process of observation and participation.

As they become competent in the technical work, apprentices begin to assume more responsibility for interacting directly with customers. Older apprentices and journeymen often act as the master's agent in negotiating the piece of work, setting the prices, and collecting the payment in the master's absence. Through these interactions with customers, apprentices can build up a small clientele who may become the nucleus of their business after leaving their master's workshop.

III.2 Training in Formal Sector Firms

18. Employees in modern formal sector firms constitute an indirect source of skilled labor for the informal sector. Before the extension of traditional apprenticeships to new trades like automotive or appliance repair, entry into these trades usually came through employment in modern, formal-sector enterprises either in their own countries or in countries to which they migrated temporarily. Workers might have worked there for several years, perhaps receiving in-service training, before deciding to launch their own small businesses. Such transitions from formal sector employment to informal sector self-employment continue, but the gradual proliferation of informal sector operators in trades previously dominated by large firms, such as automotive repair, has probably made self-employment less attractive except in situations where workers are clearly being exploited by their formal sector employers.

19. Unlike the traditional apprenticeship, selection into formal sector skill training would be open only to those who had been hired as paid employees by the firm. In the past, such firms often hired workers who may have been trained in the army or perhaps were completely untrained. They were given on-the-job training and possibly qualified for a certificate from one of the formal trade certification bodies. However, employees in formal sector firms in recent years are more likely to be drawn from the ranks of formal vocational training programs than from the untrained. They would be expected to assume a fully functioning role upon entering employment, and any training

that might be given would simply be to acquaint the worker with the specialized equipment or procedures utilized by the firm.

III.3 Formal Vocational Training Courses

20. Although they have been the main skill provider for the large-scale, modern sector, regular full-time technical courses of formal vocational training institutions can also be considered an indirect source of skilled labor for the informal economic sector. Until fairly recent times, almost every graduate of a formal vocational training program in developing countries could expect to be absorbed into wage employment in the formal sector. Today, in countries experiencing sluggish growth, the expected jobs have failed to materialize, and many graduates have been forced to consider self-employment as an alternative.

21. The idea of going into business for oneself has not been easily accepted by all vocational school leavers. The very expectation associated with attendance at a formal vocational institution may leave some with a sense of disappointment at being forced to accept a second best alternative. Observers have often noted a tendency among educated, technically-trained individuals to view themselves as white collar "engineers" who perform managerial duties while other, less-qualified workers do the actual hands-on work. Many school leavers find these distinctions uncomfortably blurred in the operations of small enterprises.

22. Those leavers who have grudgingly accepted the economic reality and sought to adapt their skills to the informal sector have not always found a ready market for their skills. For example, an ILO study of formally and informally trained jewelers in Ivory Coast (Fluitman, 1987) concluded that informally trained artisans possessed a wider range of skills and produced work of more artistic merit than those who were formally trained. When approached for employment, traditional master artisans, especially in technical trades, have often insisted that formally trained workers first serve as apprentices to acquire the necessary practical skills not covered in

their heavily-theoretical vocational school training. Also, formal leavers have sometimes not succeeded in going into business for themselves, even if technically qualified, due to the lack of a customer base and business management skills.

23. Notwithstanding these shortcomings, formal technical training may nonetheless yield some benefits to leavers who look for opportunities in the informal sector. Because formally trained workers often understand better than traditionally trained workers the theory of highly technical systems, master artisans in those trades may allow them to complete the required apprenticeship in a shorter than normal period and, in some cases, to forgo it altogether. Also, the systematic learning skills required in formal instruction may enable technical school leavers to cope more effectively with modern institutions such as banks and government agencies.

III.4 Education and the Informal Sector

24. Entrants into the informal sector span all levels of the socio-economic and educational spectrum. It is still true that the bulk of informal sector workers--from technical trades to street-hawking--still come from the ranks of those who dropped out of school or never attended at all. Individuals with more formal education, of course, tend to gravitate toward better-compensated, high-skill trades, while those with little formal education or recent rural migrants with few familial connections in the city are more often relegated to marginal, low-skill activities.

25. Beyond this expected stratification, however, the informal sector seems to be experiencing a general rise in educational standards throughout the work force. Where only a generation ago most trainees were illiterate or minimally literate at best, today's trainees are more likely to possess at least a minimal and perhaps a high level of literacy. For example, a vast majority of the automotive apprentices interviewed in a Ghanaian city had completed at least middle school in contrast to their mostly unschooled masters (McLaughlin, 1979). A survey of small enterprises in Malawi found

that the owners of recently established firms were far more likely to have a secondary school education than the owners of firms established before 1966 (USAID READI Project, 1986). While this trend no doubt reflects the accessibility of secondary education to a larger proportion of the population, it also suggests a growing realization on the part of school leavers and drop-outs that secondary schooling can be better put to use in establishing a small enterprise than in gaining employment as a salaried, white-collar professional. It also suggests that, while much of the content of school learning may be irrelevant to running a business, many of the higher order thinking and organizational skills acquired there can find useful application in solving the everyday problems of a small enterprise.

IV. PROGRAMS THAT SUPPORT INFORMAL SECTOR TRAINING

26. An array of interventions undertaken by government, indigenous and Western NGOs, commercial organizations and development assistance agencies has emerged in many countries in recent years to enhance the development of skilled manpower in the informal sector. Such support programs are deemed necessary by their sponsors to address one or more of the following three perceived inadequacies in the conventional skill development system. First, conventional skill training systems for the informal sector, although culturally appropriate and efficient for their basic purposes, lack the capacity to train all individuals who would potentially seek training if given the opportunity. Secondly, traditional apprenticeships sometimes leave specific gaps in the job-related knowledge of workers in technical trades. Thirdly, conventional skill development does not include the kind of business management skills, knowledge, and attitudes that would allow owners to expand their businesses and hire additional workers.

27. Although training is the basic thrust of the support programs described in this report, there is a realization on the part of program sponsors that training does not operate in isolation of factors such as availability of capital, scarcity of supplies, tools and raw materials, the

technology used, and the policy environment. Many informal sector promotion packages, therefore, treat training as only one of several equal co-variables that must be combined to create a favorable mix of support. With this integrated approach to assisting the informal sector in mind, examples of various strategies are now described for each of the three mentioned program areas: capacity-building, skill upgrading, and entrepreneurship development.

IV.1 Enhancing the Capacity of Technical Skill Training

28. Probably the largest category of skill training support programs comprises those intended to increase the available pool of skilled labor for the informal sector. These programs encompass a vast range of sponsoring organizations, organizational contexts, and clientele served. While all types cannot be enumerated here, descriptions of a few representative programs will illustrate their particular strengths and weaknesses.

29. The exclusive focus of these support programs on technical skill competence is justified on several grounds. Some organizers claim that technical competence is sufficient to enable participants to translate newly-acquired skills into either employment or self-employment without any special "business" training. Others may reason that their institution's own resources and comparative advantage make concentration on technical skill the most appropriate and feasible assistance that can be provided. In other cases, institutions may start off with only a technical skill orientation but add an entrepreneurial component later as the need is recognized. For purposes of this discussion, such "hybrid" programs are still considered technical skill support programs .

30. "After-Hours" Formal Vocational Programs. Some countries such as Pakistan have begun to utilize the instructional resources of their own formal educational and vocational institutions to meet the training needs of the informal sector. Special "after-hours" programs have been established for individuals who, because of their lower educational attainment, cannot qualify for the institution's regular full-time courses that are geared to formal

sector employment. These special courses are open to anyone who can pay the entrance fee and who lives within a reasonable travelling distance from the institution. There is reason to believe that these programs, in fact, serve as a skill development link to the informal sector labor market.

31. Their particular appeal lies in their ability to take advantage of a normally vacant time period in the afternoons and evenings when the institution's facilities and equipment are not in use. The institution's regular instructors can be hired to teach the courses on an overtime basis. Courses often parallel the trade areas taught in the regular curriculum, but offer a lower level certificate upon successful completion. For example, in Pakistan, both male and female polytechnic institutions in large cities offer after-hours training in automotive and air conditioning repair and electrical wiring for males, and secretarial skills, dress design and construction, accountancy, and food-processing for females. Pedagogy largely matches the instructional process of the regular courses except in being adapted to the particular literacy and arithmetic levels of the lower-qualified group.

32. However, the reliance on modern lab equipment, textbooks and didactic teaching methods in many institutions tends to limit the effectiveness of these special programs in preparing trainees for the production technologies and everyday practical problems in the informal sector workshops. Such programs are also limited by the location of the institution, often on the edge of a city far from the major concentration of the population. As mentioned earlier, there is the possibility that leavers from such programs may require supplementary training or journeyman employment in an existing informal sector workshop in order to gain additional practical experience, develop an initial clientele or accumulate enough money to purchase the necessary tools and equipment. On the other hand, the less educated participants in these programs may find it easier to make the transition to "blue-collar" self-employed work than the more formally-educated trainees in the regular certificate courses.

33. Backstreet Colleges. This is a relatively new breed of training institution that has sprung up in recent years in larger cities of many developing countries to fill training niches not covered by other existing skill delivery systems (King, 1987). Backstreet courses differ from formal technical programs in being privately-owned, for-profit programs and from traditional apprenticeships in not combining training with production. Such programs may find their most receptive home in societies where traditional apprenticeships either are nonexistent or very oversubscribed. Their existence is an indication of the enormous demand for skill training in large cities and constitutes a kind of parallel system to the for-profit proprietary schools that offer schooling to children who either cannot afford or gain entry to such schools.

34. Backstreet colleges, as their name suggests, are dispersed around local neighborhoods convenient to their potential clients. Their doors are usually open to anyone who can afford the fee, which varies depending on the quality of the program. Training usually consists of technical job skills and tends to be organized along the lines of the formal school and vocational college rather than those of the traditional apprenticeship. Students are, therefore, likely to learn through a rather formal instructional process and receive an in-house certificate for completion of the program. Such private institutions may or may not be well equipped with the full range of tools, machines, and testing devices found in government technical colleges, but could safely be characterized as poorer versions of their public-financed counterparts.

35. It is debatable whether these programs actually deliver skills that can be converted into income-earning opportunities in the informal sector. One school of thought suggests that such commercial training schools ought to be considered for government subsidization since many youth already regard them as viable training alternatives (King, 1987). Questions would undoubtedly be raised, however, about the advisability of providing government assistance to for-profit, and occasionally disreputable, institutions. The

almost exclusive confinement of backstreet colleges to large cities would also restrict them to urban applications of skill.

36. Indigenous NGO Vocational Programs. The range of technical skill training programs sponsored by local non-governmental organizations in developing countries literally defies description in an analysis of this length. Some programs serve such geographically small areas as to be virtually unknown outside their immediate communities, while others are prominent, national organizations which maintain a system of centers throughout a region or the entire country and may enjoy contacts with a wider international development community. Some NGO programs assist special populations such as women, religiously-affiliated groups, disadvantaged ethnic or handicapped groups, while others serve anyone who expresses an interest in taking advantage of their programs. The programs might be geared to the development of rural, non-farm skills or, instead, to urban-based skills.

37. As for the recipients of such training, NGOs have often been credited with addressing the needs of the most disadvantaged, inaccessible parts of the population which many government-sponsored and foreign-assisted development programs fail to reach. The social isolation, physical remoteness, extreme poverty, and lack of education of these groups, now commonly referred to as "pre-entrepreneurs", often present special barriers that require outside intervention in order for them to succeed in establishing viable, income-producing activities. In Sierra Leone, a project in an upcountry town trains physically handicapped boys to be blacksmiths and welders and then markets their output through contracts to other development organizations. Another NGO project in Sierra Leone undertaken by the Boys Society of Freetown provides a home to street boys in Freetown and then trains them in one of several trades including automotive specialties, machine tools, carpentry and masonry. In Pakistan, so-called "industrial homes" in local neighborhoods throughout cities and larger towns train girls and young women in sewing, weaving and embroidery skills among others. Larger, better funded welfare-oriented or women's rights organizations in the larger cities of Pakistan train females in, in addition to the conventional domestic skills,

the more marketable secretarial, bookkeeping and even previously male-dominated trades and then assist the trainees in finding jobs.

38. These programs share the common qualities of reaching unskilled individuals of neglected or disadvantaged populations and of delivering skills that in principle have the potential to earn income for those learners. The handicapped youth and homeless street youths of the two Sierra Leone projects are examples of population groups that frequently fall through the meager safety nets of developing countries unless they are the beneficiaries of specially targeted efforts. Likewise, the females served by the Pakistani projects, as is the case in many other Islamic countries, are denied the same access to educational and training opportunities which males enjoy.

39. These programs differ in their ability to confer skills that bring any real degree of financial autonomy. While the blacksmiths can, after training, manufacture saleable implements as part of a group production unit, none have as yet reached a level of personal self-sufficiency that would permit them to set up a workshop of their own. Similarly, the young Pakistani women who attend the industrial homes more often than not find that the "traditionally female" skills taught there rarely translate into a wage job or even a small-scale business and usually provide little more than a small supplement to household income. The girls and women in the larger women's training programs in Pakistan, on the other hand, enjoy a higher likelihood that the marketable occupational skills they acquire will give them enough income to insure a reasonable measure of control over their living premises and lifestyle.

40. Some of these programs offer skill training in conjunction with literacy training, basic education and other support services. For example, the Freetown Boys Society runs a job-related literacy program alongside the practical training and plans to assist the trainees in finding work after completion of their training. The All Pakistan Women's Association and Behboud Women's Association both combine skill training with literacy instruction as an integrated process in their centers. But literacy training

in many of the small industrial homes is regarded as a separate program that serves different students, which greatly limits the potential impact that a combined approach would have.

41. Foreign Donor-Sponsored Vocational Training. Still another category of support for technical training is the class of programs initiated and assisted by private voluntary organizations and development assistance contractors based in Western countries. Although these programs have mostly been focusing on entrepreneurial development, foreign donor organizations do operate programs in which the primary goal is the development of technical skills. These are more often than not urban-based and directed toward males with some formal schooling but no practical skills.

42. One of the best known programs of this type is the vocational training sponsored by Opportunities Industrialization Centers International (OICI), based in Philadelphia. Started as a skill training program for unemployed minority youths in American cities, OICI has initiated and now supports skill training centers in twelve countries with several more anticipated centers in new countries in the near future (OICI International). The centers serve an audience largely composed of unemployed or underemployed secondary school drop-outs who probably have a primary or middle school certificate. In recent years, older displaced civil servants looking for new careers as independent business operators have also been added to rosters. A recent evaluation of five centers found that roughly 40% of those enrolled were women (Robert R. Nathan Associates Inc., 1987). About 16,000 men and women have been trained in OICI's African centers since the program's inception in 1970.

43. OICI centers rely on an on-the-job training model that combines some of the best aspects of apprenticeship training and formal vocational education. Surveyed employers of OICI graduates generally have given high marks to the skill, knowledge and work attitudes of OICI trainees. Because OICI training is intended expressly for wage employment in formal sector industries and government workshops, the centers teach trades such as

automotive repair, masonry, carpentry, plumbing, and electrical wiring (although OICI does operate some training centers geared to the rural economy) which are in demand in those establishments.

44. A major service of the OICI philosophy is to place successful graduates from the program in wage jobs, which the centers have actually succeeded in accomplishing for at least 75% of the students. The centers therefore must pay close attention to the supply of different trade specialists in the labor market. If a particular trade shows signs of becoming saturated locally, the center may decide to drop that course and instead offer another which has greater market potential.

45. OICI centers have experienced increasing difficulty in recent years in placing their leavers in formal sector jobs. Indeed, some centers now assist some of their graduates to go into business for themselves. While supplying skilled manpower for modern, large-scale industries will surely remain a major part of its mission, the OICI program is gradually being broadened to supply skilled manpower for the high end skill needs of the informal sector.

46. Rural-Oriented Technical Training. Programs that are intentionally directed toward rural areas tend to be scarce by their nature due to a number of problems that will be discussed later. But those that do exist at least make an attempt, with varying degrees of success, to introduce skill training for the purpose of creating non-farm employment for rural populations. Two African programs have achieved some credibility in this regard.

47. The Brigades movement in Botswana is one of the oldest and perhaps most imitated of rural training programs in Africa. Beginning with the first Brigade in 1965, Brigades have been established in 21 communities around Botswana. The Brigades share a philosophical commitment to rural development and a belief in the value of vocational training as a vehicle to that end (Brigades Coordinating Secretariat, 1986). Their primary focus has been

directed to the employment needs of rural school leavers who have often been left with little means for making a living once their education ends.

48. The Brigade movement is actually a confederation of similarly organized but fairly autonomous centers that reflect the particular needs and conditions of the local area. A Brigade center usually consists of several units that train youths in particular skills and also manufacture products or offer services that can be marketed in the local area or the larger national market. These units cover a remarkable array of skill areas which include, among others, construction (bricklaying), brickmaking, carpentry, automotive mechanics, electrical wiring, textiles, community vegetable gardening, and tree nursery management. Training is viewed as inseparable from the productive activities in the centers, so that it is expected that trainees will be learning while they are working. Actually, the breakdown of activities that are explicitly training and production is 33% and 67% respectively. Academic subjects such as English and math as well as trade theory are taught in many Brigades.

49. Brigades receive financial assistance from the Botswana government and also from foreign donor agencies, and many of them include foreign technical instructors and managers on their staffs. Generally, though, they have had to rely on revenue generated from their productive activities to cover many of their costs. The financial hardships imposed by the need to be self-supporting have thus forced some Brigades to sacrifice the quality of training in order to maximize production.

50. Little has been reported about how many ex-Brigaders are able to earn a living in their local areas. Brigades do not provide assistance in placing their leavers in positions nor in preparing to set up business for themselves. Consequently, a sizeable percentage probably end up migrating to larger towns and cities in search of work, particularly those in the more urban, technical trades. The effect of the Brigade experience then might be simply to delay their inevitable migration to the city and give them a better

chance, through possible possession of a trade certificate, to secure a skilled job.

51. Another example of support directed primarily to rural skill development is the Youth Polytechnic (formerly known as the Village Polytechnic) program in Kenya. Youth Polytechnics were established for the purpose of transferring marketable skills to youths who have completed primary education but have no immediate means of earning a living (O'Regan, 1981). In addition, it was intended to provide goods and services to local communities (in other words, to combine training and production) and democratize and de-centralize the development process by strengthening community participation in development activities.

52. The program was initiated in 1966 by the National Christian Council of Kenya with only four experimental Youth Polytechnics. New YPs were quickly added and the program was turned over to government management in 1971. As of the early 1980's, 220 Youth Polytechnics were receiving assistance from the Kenyan government, with plans for continued expansion of the program. These 220 YPs are training a total of about 19,000 trainees at any one time at an average cost of about \$150 per trainee according to 1979 figures. The Youth Polytechnic Program, like Botswana's Brigades, has received financial and technical support from several international donor organizations.

53. Although some can be found in the largest cities and district centers, the vast majority of Youth Polytechnics are located in rural areas. Thirteen trades ranging from agricultural skills to technical trades such as automotive repair and electrical wiring are taught--with the largest selection offered at the urban YPs. Youth Polytechnics were run in the early years with a degree of local autonomy and community involvement that resembled the Brigades. Since coming under government control, however, management of Youth Polytechnics has become highly centralized in a YP unit within the national government. This has brought attention to the dilemma between assuring acceptable management practices in all centers and maximizing local decision-making in their operation. There has been a corresponding trend

within the YPs toward more structured and formalized training and less individualized counselling, causing concern in some quarters that YPs have already or will become simply another formal vocational training program.

54. Nevertheless, Youth Polytechnics have apparently been successful in preparing many of their leavers for entering the labor market. About 70% of leavers reportedly found employment according to mid-1970's statistics. The fact that two-thirds of these consist of wage employment suggests that many leavers still migrate to urban centers where such opportunities exist, thereby continuing the rural to urban movement that the YPs were intended to counteract. A recent study suggests that the employment problem of YP leavers may now be greater because of the failure of YPs to create employment opportunities in the surrounding communities and to integrate training and production within the curriculum of the YP courses themselves (Kaduru, 1985).

55. Self-employment is officially promoted by Youth Polytechnics, which some YPs have put into practice by assisting leavers to form support groups as a basis for going into business. However, little more than a superficial introduction to business management has been included as part of the curriculum, and a revolving loan fund that was set up to provide start-up capital to would-be entrepreneurs has been plagued with a high default rate and alleged mismanagement. As a result, only a third of those who found employment ended up in self-employment, usually in a business organized around a group.

IV.2 Upgrading Existing Technical Skill and Technology

56. A second major category of programs supporting skill development for the informal sector is concerned with improving the technical skills of those already engaged in an economically productive activity. These programs start from the premise that deficiencies in the technical skills and knowledge (as opposed to the business skills) of existing entrepreneurs and workers, or in the technology they employ, limits the full potential of both the individuals and their firms: (1) by raising costs due to waste of or damage to expensive

parts or equipment, and (2) by lowering profits due to an inability to provide a new, more highly finished or more efficiently-made product that would tap a wider or more affluent market. The programs must rely on intervention strategies that appeal to those who probably have little disposable time and patience for learning that is not directly related to their immediate problems. Also, the programs tend to focus on upgrading of very technical trades where a deficiency in skill or the lack of a new technological process is more likely to have an impact.

57. Technical Skill Upgrading. Some form of extension service is usually involved in any program that attempts to raise the technical competence of practicing informal sector workers. Delivering skill training to the artisans on their own premises has the advantage of overcoming the natural reluctance of busy workers to leave their workshops--and, therefore, sacrifice business--to attend a class where they might be expected to share valuable know-how with potential competitors.

58. One example of such technical extension is an automotive advisory service that was established for small-scale "wayside" mechanics in Accra and Kumasi Ghana in the mid-1970's. Initiated by a Canadian volunteer, the service was intended to improve the technical capacity of the private automotive repair enterprises and their workers. This was done through a program of short but regular visits to the workshops of interested owners by a team of skilled mechanics/instructors. A lengthy period was devoted initially to gaining the acceptance of the artisans for the expertise of the extension team.

59. The team would visit the workshops in a panel truck equipped with a full set of mechanics tools, instruments, power equipment and blackboard and chalk. This allowed the team to tackle any repair problem that the operator was finding particularly difficult to solve. Typically, the sessions focused on some intractable diagnostic problem which the team assisted the owner and his apprentices in working out. Attending to an immediate business concern

also created an opportunity to convey some theoretical and safety information related to the problem at hand.

60. The extension program was originally financed by a CIDA grant and sponsored with the support of a vocational technical institute and the Ghanaian government. Although directed by an expatriate with Ghanaian counterparts for several years, the program was subsequently turned over to Ghanaian operation. There is no quantitative evidence available of the impact such a program might have had on the skill competencies of the recipient audience--even less evidence of its effects on the profitability or the employment generation of the enterprises. However, the receptive treatment accorded the team and the immediate application of its advice by the mechanics stand as anecdotal testimony to the efficiency of this mode of skill delivery and suggest at least a modest improvement in productivity and, probably, profitability.

61. Support for Technological Improvement. Programs that focus on the technological aspects of small-scale production constitute a second means of upgrading the skill proficiency of the existing informal labor force. This genre of programs is predicated on the assumption that technological improvements, whether they be in the form of new processes, materials, tools, or machines, can cut down on costs, increase production, or open up new product lines for untapped markets. The benefits of new technologies to the informal sector, however, can be realized only if entrepreneurs and workers are trained to adopt them effectively in a viable business.

62. Institutions have been established in a number of countries to develop technological innovations and then disseminate them to small-scale enterprises. While many of these institutions have devised many new technologies, they have frequently failed to gain widespread adoption of the innovation among small producers (Gamser and Almond, 1988). Two technology development centers that have succeeded in transferring new technologies are the Technology Consultancy Centre (TCC) in Kumasi, Ghana and the Birla Institute of Technology (BIT) in Ranchi, India.

63. TCC was started in 1972 as a program of the University of Science and Technology in Kumasi to assist Ghana's industrial sector, but quickly became oriented toward the needs of small-scale enterprises (Smillie, 1988). Its creation came at a time when Ghana's large-scale industrial sector was declining and a greater proportion of the productive activity was being taken over by the informal sector. TCC's mission from the beginning was to provide assistance to a growing number of requests from small producers who wanted the Center's help in solving technical problems or investors who wanted new ideas for business ventures.

64. Since its establishment, TCC has researched and developed many new technological processes for application in small-scale enterprises. Among these are: (1) new ideas for businesses such as poultry feed made from the spent grain husks discarded by breweries, a glue made from cassava starch and steel bolts produced on used machine tools imported from Europe; (2) cheaper or less scarce raw materials for existing production processes such as oils not normally utilized from certain tree species for soap-making, and (3) new processes for making existing products, for example, presses for extracting oil for soap-making and color baking techniques for glass bead production. Each of these technological innovations was first developed in an experimental production unit at the Center itself where production techniques were refined, costs monitored, and market potential assessed before being introduced under market conditions. Those that appeared promising enough to be disseminated to private producers were then introduced first to a few selected entrepreneurs who demonstrated the interest in and willingness to tolerate the uncertainty of initiating a new industry.

65. Because innovations, including even some promising ones, often failed to gain adoption outside the experimental conditions, TCC's focus shifted increasingly to transfer of the technology to small producers in the marketplace. Attention was devoted to other factors that affect successful adoption such as credit, marketing, raw material purchasing, provision of machines and selection of clients who would adopt the innovation. Perhaps

most importantly, technology transfer units were set up in close proximity to informal industrial areas where the training and consulting services would be more accessible and less intimidating to potential clients than if located on-campus. The larger goal became not so much one of promoting appropriate technology but using it as a vehicle to increase production of Ghana's basic needs.

66. It is difficult to estimate statistically what effect a technology development center like TCC has had in terms of stimulating expansion and improving profitability of informal sector enterprises. Certainly the existence of a small nucleus of light engineering firms can be counted among TCC's contributions to technological development in Ghana. These shops manufacture a growing variety of products with applications in, among other things, automotive repair, agriculture, rural industry, food processing, and woodworking. And numerous other improved practices and materials resulting from TCC's R & D efforts have found their way into the prevailing practice of many small repair and production enterprises. Not the least of TCC's benefits, however, may be the emerging role of the technology transfer units as "mini-TCCs" that perform the same sort of technological experimentation as their parent institution (Carr, 1988). This may accelerate development of scientifically designed, mechanically powered machines along with wider diffusion of their benefits to the small-scale industries of Ghana in the years ahead.

67. The Birla Institute of Technology also has succeeded in developing and transferring new technology to small-scale producers in India (Carr 1981). In contrast to TCC, BIT built into its structure programs devoted to training entrepreneurs to utilize the technology developed in the research laboratories of the Birla Institute of Technology and its spin-off organization, the Birla Institute of Scientific Research (BISR). Through the assistance of the third organization in BIT's small industry development scheme, the Small Industries Research, Training and Development Organization (SIRTDO), entrepreneurs make the transition from supervised use of prototype technology to independent commercial production in their own businesses.

68. BIT's accomplishments in developing technology span a range of industries. A metal fabrication unit has developed the technology for small-scale fabrication of such products as roof trusses, grills and a coal feeder, while a metal processing unit has designed techniques for casting motor housings. In the electronic and electrical industries, one unit has focused on the technology for producing control panels and another on power control devices and transformers. A chemical and pharmaceutical industries unit has experimented with production of various chemicals and commercial pharmaceutical drugs. Still another unit attempts to revive ailing industries with an infusion of more efficient technology.

69. The three component institutions of the small-scale industry scheme at Ranchi have achieved success in the three areas they set out to tackle: training entrepreneurs, developing and promoting profitable small firms and developing an R & D model that could be replicated elsewhere. From a beginning enrollment of only four entrepreneurs in 1978, 75 entrepreneurs have participated in the three entrepreneurial development courses run by SIRTDO, and several other entrepreneurs not enrolled in the courses have been assisted as well. Of the enrollees, 47 have gone on to start small businesses of which all but a couple are thriving. This compares with the only 2-3% of participants in other Indian entrepreneurial development courses who actually manage to start a successful business. This success is attributed to the highly practical nature of the technical courses at BIT, the extended training period through a "nursing" stage and the emphasis of the program on developing a new class of "techno-entrepreneurs" who are more concerned with solving technical problems than simply turning a profit.

70. In terms of the second area, the twelve prototype small industrial units sponsored by SIRTDO have created employment (an average of 15 workers per industry) and have been able to produce high quality goods at prices considerably lower than large-scale Indian industries. The products of some of the industries have been good enough to obtain certificates from international standards boards or to allow the industries to enter relatively

impenetrable markets. While profits were low or non-existent in the initial years, most of the firms now enjoy profitable operation.

71. The replicability of the Ranchi model is somewhat less proven at this point, but the scheme's success has attracted considerable attention both from the Bihar State Government and other state governments in India. Other small industry R & D centers modelled on BIT are currently in existence or are under development. While none of these centers appear to match the unique qualities that epitomize the Ranchi scheme, the best appear to have adopted the important ingredients that contributed to the effectiveness of the original model.

IV.3 Developing the Entrepreneur

72. The third major class of programs that support skill development in the informal sector focuses on the business aspects of small enterprise development. These programs reflect the greater importance their organizers attach to capital availability and ability to manage wisely all the factors of the production process than to purely technical job skills in determining the success of a small business venture. While an individual who is knowledgeable about business management but only minimally skilled in a technical sense may succeed in starting a business, a technically skilled individual who lacks business management skills is more likely to experience difficulty. In recognition of this, many technical skill training programs have added entrepreneurial development and/or business management components in recent years, and many other support programs from their inception have directed their attention exclusively to the problems of starting and managing a small business.

73. Whether operated separately or in conjunction with technical skill training, business-oriented programs differ widely in terms of scale, target audience, mode of delivery, organizational structure, and sponsoring institution. Some limit their activities to providing a single necessary input, for example, credit--to which the label "minimalist approach" has

frequently been applied. In contrast, others try to deliver a comprehensive package of inputs and technical assistance. Some programs concentrate on a specific sector or audience, while others make their benefits available to a broad spectrum of recipients.

74. The "Minimalist" Approach to Credit. The minimalist approach to supporting the informal sector is probably best exemplified in the Grameen Bank of Bangladesh. Strictly speaking, Grameen does not qualify as a skill delivery system for the informal sector since it simply provides a necessary input, in the form of small loans, and conducts little explicit training of either business or technical skills to those to whom it grants loans. Lack of capital, rather than skill deficiency, is seen as the real factor limiting the expansion of business, at least at the micro-enterprise level of operation.

75. However, implicit within the loan-granting procedures of Grameen are some assumptions about the kind of skill necessary to utilize effectively the capital it provides and how the Bank assures that those skills are adequately met by the borrowers. The fact that Grameen loans only to groups of five individuals called "tontines" presumes that the end-user of the loan must have been able to persuade the other members of the viability of his or her business plan. Such a process involves intense socialization of the tontine, and especially the borrower, into the institutional philosophy of the Grameen Bank. No doubt, too, some informal training on business management takes place between the borrower and the Grameen loan officers while the loan is under consideration. This informal "training" allows Grameen to rely to a certain extent on the intuitive judgement of individual entrepreneurs in how best to use a small amount of borrowed capital (an average loan of \$67) for their businesses. The 98% repayment rate of Grameen loans attests to the belief in the honesty and rudimentary managerial skill attributed to Grameen's borrowers.

76. Grameen has managed to assist 400,000 individuals, 82% of whom are women, to establish a micro-enterprise or make an incremental improvement in their income (Yunus, 1988). This has been done largely without the kind of

technical assistance more comprehensive programs believe to be necessary when providing credit. The seeming irrelevance of business management skill in the success of the loan program might be explained by the fact that the credit benefits operations at the "micro" and, therefore, least complex end of the informal sector.

77. The Grameen Bank, however, is not the only minimalist, capital-sans-training program. The Trickle Up Program based in New York serves a similar function of providing small start-up capital, but does so in the form of grants rather than loans. Trickle Up claims to have helped over 40,000 people in 93 countries to become entrepreneurs. Using volunteer grant administrators in the countries in which it operates, the program gives a \$100 grant, payable in two installments, to any group of five individuals who agree to devote 1000 hours to a profit-making enterprise (Trickle Up Program Fact Sheet, 1988). The entrepreneurial group is issued the second \$50 payment when it can demonstrate that at least 20% of the profits from the venture has been re-invested.

78. Recipients of Trickle Up grants, like borrowers from the Grameen Bank, must bear the burden of defending their business plans in order to qualify for the grant. The Trickle Up Program requires that the group prepare a detailed business plan initially and a business report afterwards which the program's managers believe acts as a self-learning instrument for applicants. It is expected that in following such a procedure, recipients in effect demonstrate their ability to conceive and execute a viable micro-level business without lengthy entrepreneurial training.

79. Support for Entrepreneurial Training. Most programs assisting the development of small enterprises, however, go beyond the minimalist approach to credit to provide some form of multi-dimensional assistance. Often this approach comes out of the sponsoring organization's perception that provision of a single input, such as credit, is insufficient to elicit the desired outcomes from the intended beneficiaries (Tendler, 1987). Other essential

needs of the beneficiaries or conditions within the business environment itself may have to be dealt with simultaneously.

80. One such class of programs is based on the proposition that efforts to assist all would-be entrepreneurs are inherently wasteful because they assist individuals who may have little predisposition for entrepreneurship. Adherents of this view claim that it is possible to identify individuals with strong entrepreneurial inclinations who can then be selected out to receive specialized training to heighten and expand their self-employment leanings. The practical applications of this view are derived from earlier research of achievement motivation in different cultures and how it manifests itself in one's work domain. While a single psychological model of an entrepreneur is no longer accepted by many theorists, entrepreneurial tendencies now are perceived as a cluster of behaviors that are personified in an opportunity-driven personality often referred to as a "promoter" (Stevenson, 1983). This is an individual who has a need to take risks, to initiate something with or without "adequate" resources and to control that entity independently of others.

81. Programs that identify entrepreneurs as a preliminary step to launching an assistance program sometimes make use of one or more instruments that purport to measure such characteristics. Several western PVOs (private voluntary organizations) which adopt this approach all apply some kind of instrument to identify a target group to which they administer various degrees of technical assistance. In one widely-used "minimalist" approach that employs a screening questionnaire, interview, and short workshop, potential participants are assessed on 10 different behavioral traits indicating entrepreneurial tendencies. Those with a favorable constellation of psychological and experiential characteristics are selected to receive entrepreneurial training which may be as short as two weeks (Management Systems International, 1988). Participants pay a fee for attending the workshop and are then entitled to take a loan from the program at full commercial interest rates. The beneficiaries of this training reportedly

include a heavy representation of already successful entrepreneurs who appear ready to proceed to a higher, more sophisticated level of operation.

82. Many organizations have opted for a more intensive and, therefore, costly intervention that involves more extended training and follow-up advising of entrepreneurs. One of the oldest and best known programs of this type is the Entrepreneurship Development Program (EDP) in Gujarat State of India (Patel, 1986). Like the above entrepreneurship development program, the Gujarat EDP devotes careful attention to selecting appropriate candidates to receive the training. This is done through a combination of preliminary screening, testing and interviewing. The successful candidates then participate in either a 90 day evening program (for those with work experience) or a six-week, full-time residential program (for those without work experience). The program's curriculum covers a broad range of business management components, including achievement motivation training, product selection counselling, preparation of a business project and practical experience with operational industries. After completion of training, a trainer-motivator provides follow-up technical assistance in filling out loan applications, solving infrastructural problems and facilitating favorable relations with state regulatory agencies. In the first fourteen years of its operation, the EDP had developed nearly 8,000 new entrepreneurs through 300 programs in 130 locations. These trained entrepreneurs had established three thousand new industrial enterprises, which each employed between three and five people (including the owner) and of which 80% were profitable after five years in operation. This compares to a profitability rate of 60-70% for non-trained manufacturing enterprises in India.

83. The features of the Indian EDP can be found in various combinations in a number of similar entrepreneurship development programs elsewhere. A worldwide survey of 40 such entrepreneurial training programs revealed that 77% of them select participants on the basis of prior experience in starting a business; only 31% use psychological tests in selecting participants (Harper, 1984). Only 25% of the programs also conduct technical skill training (which will be discussed in the next section), but 75% include simple management and

motivational training. And, of course, more than three-quarters also provide credit to their trainees.

84. While entrepreneurship development programs have many enthusiastic advocates around the world, opinion about them is by no means uniformly positive. Fundamental criticism of the approach itself comes from skeptics of the idea that entrepreneurship is a clearly identifiable quantity in the first place (Dooley, 1983). These critics point out the difficulty of attempting to specify entrepreneurial traits when so many real-life entrepreneurs defy the very qualities usually attributed to them. Moreover, the doubters contend that not enough is known about what determines successful entrepreneurship to be able to teach those who are believed to be favorably inclined toward it. Nevertheless, a number of programs do claim success in training individuals in entrepreneurial skills and facilitating a certain percentage of them to get into business for themselves.

85. Small Enterprise Promotion Packages. Many other programs seek to develop or improve business management skills, but do not necessarily restrict access to those who conform to an "entrepreneurial" psychology or have already shown success in starting a business. The approach of this class of programs generally rests on the premise that assistance to small enterprises can be effective only by addressing several interrelated needs simultaneously. Success in small business may indeed require a source of additional capital, but it also depends on the ability to husband existing resources properly and to orchestrate a host of complex organizational tasks such as identifying markets, planning products, maintaining supplies of raw materials or spare parts, laying out the workshop and controlling quality. Such programs may also attempt to improve some infrastructural aspect of the local community in which the enterprises are located or act as advocates in effecting a more favorable policy climate for their clients.

86. Programs that attempt to improve business management skills are sponsored by indigenous NGOs, government/university partnerships, and foreign PVO and development contractors. The majority of Western PVO-sponsored small

enterprise development programs appear to fall under this category. So many combinations of features exist in these programs that classification is made difficult, but it is possible to discern some of their representative features.

87. One of the more common types is community-centered business management training (sometimes including skill training) which is combined with provision of credit or facilitation of credit from some other source. The target population in these programs, particularly those run by several Western PVOs, is often a pre-entrepreneurial group which has been prevented by social barriers from engaging in any significant economic activity outside the home--for example, women, urban slum-dwellers and the rural poor. Overseas Education Fund and Save the Children offer illustrative examples of programs devoted primarily to assisting disadvantaged populations.

88. Both OEF and Save the Children operate programs in several countries which employ an integrated, multi-sectoral approach beginning with community organizing or infrastructural improvement. These initial efforts are designed to gain the confidence of the high risk population and create a favorable climate for the subsequent economic development activities (Volunteers in Technical Assistance, July 1987; Clark, 1986). Organizing participants into groups of similarly-motivated individuals provides the structure for a group enterprise as well as a supportive environment for introducing management and skill training. Some programs provide assistance in finding employment or going into business after training or set up participant savings schemes or NGO-administered community loan funds to help trainees accumulate capital and become acquainted with banking operations. OEF experimented for several years with different designs until arriving at a methodology which provides the minimum threshold of household resources necessary for the maximum number of beneficiaries to succeed in a micro-enterprise activity.

89. Other enterprise development programs are targeted more specifically to existing small entrepreneurs in the informal sector. This approach is justified on the greater likelihood of these individuals to take advantage of

outside assistance and the catalytic effects their success can have on others striving to enter the marketplace. In projects in several Latin American and African countries, CARE has been training the owners of different small-scale industries in management practices using extension methods and guaranteeing loans that are obtained from local commercial banks. A CARE project in Peru attempts to increase the training and employment potential of traditional apprenticeships by subsidizing the wages of additional apprentices that the owner takes on in exchange for his agreement to employ the workers at an acceptable wage after the training is completed. In Sudan, CARE provides technical assistance to traditional metal-workers and pottery-makers who construct stoves that both save fuel and provide a marketable product to small and medium-size producers (Allen, undated).

90. Several countries in different regions of the world employ a low-cost form of extension service to assist existing small enterprises. In Kenya, Brazil, Malaysia, Nepal, South Africa, Botswana and Indonesia, cadres of trained young people, usually middle or secondary school drop-outs and leavers, traverse the countryside to advise small-scale owners in how to manage their businesses more effectively (Harper, 1984). They operate in both rural and urban settings and advise such diverse entrepreneurs as grocery store owners, carpenters, weavers and garment makers. While the breadth of their advice is obviously limited by their youth and limited experience, these "barefoot advisers" have generally managed to gain the ear of their recipient audience due to their somewhat greater formal education, the effectiveness of the simple diagnostic and advisory procedure in which they have been trained and the close supervision of their activities by experienced business advisory experts.

91. In a somewhat different use of extension to assist existing enterprises, Catholic Relief Service has established a management outreach center in Tunisia in collaboration with an artisans' trade association. The intended audience of the program is small enterprises with the potential to grow if owners were skilled in managing them more efficiently (Catholic Relief Services, 1987). In the first two years of its existence, the center delivered

management advisory assistance to 60 small-scale (10 to 20 employees) enterprises in Tunis using trained Tunisian graduates of local business schools as the extension agents. The program is now being expanded with some government subsidization to service enterprises as far as 100 km from Tunis. A similar program has been organized in Morocco in cooperation with a business school.

92. Institutions that previously concentrated on vocational training for wage employment have now begun to add a self-employment dimension. As stated earlier, Opportunities Industrialization Centers International (OICI) now incorporates a business management component in its vocational training curriculum and a post-training credit service to assist graduates to go into business for themselves. These changes have been precipitated by changing labor market conditions that have made placement of OICI's graduates increasingly difficult. Because of its commitment to find acceptable employment opportunities for all their graduates, OICI has thus been forced to assist a growing proportion of its graduates in finding viable alternatives to what had previously been almost guaranteed wage jobs.

93. Finally, at the opposite end of the continuum from minimalist approaches stands an initiative recently undertaken by the Government of Malawi, which ranks as one of the more comprehensive models of small business promotion to date. The Malawian Entrepreneurs Development Institute (MEDI) integrates technical skill training, business management training, entrepreneurial selection/training, and follow-up extension service for the expressed purpose of creating and expanding the indigenous Malawian entrepreneurial community (MEDI, 1987). The program is in many ways a response to the stagnated growth in the large-scale industrial sector of Malawi and the need to expand employment elsewhere for the growing numbers of young educated Malawians coming into the labor market. MEDI also is only one part of a rather concerted effort by the Malawi government to mobilize its institutional resources on behalf of the small enterprise sector.

94. About 150 of the "brightest and best" among Malawi's educated but unemployed youth are admitted each year. While restricting benefits to the educational elite of the country, the policy of recruiting those who stayed in school the longest and performed the best is congruent with the results of a survey which showed that highly educated Malawian business owners tend to earn more income and hire more employees than do less educated operators (USAID READI Project, 1986). Entrepreneurial inclination is valued as well as schooling for admission, and applicants are screened for their entrepreneurial potential using procedures along the lines discussed above.

95. Vocational training is offered in four technical areas, including automotive, electrical installation and repair, construction, and metal fabrication. The on-the-job training regimen is intended to replicate the work conditions in the marketplace and also serve as a model of excellence for conducting business. Trainees are expected to earn money while they are learning by selling their products or services to outside consumers. Costs to the program are defrayed in part by producing for contracts often funded by outside donors. Unlike the entrepreneurial development program of the Birla Institute of Technology, however, the MEDI program engages in little if any research and development of new technology for its prospective entrepreneurs.

96. Training in business management and entrepreneurship is conducted concurrently with the vocational training. Trainees are constantly monitored both for their technical competence and their entrepreneurial skills and attitudes. At the completion of training, graduates with the greatest estimated potential for becoming self-employed are rewarded with both a set of tools and a loan, while those of lower potential are given incrementally less valuable inputs. Interestingly, no trade certificate is given in order to discourage leavers from going into wage employment.

97. The post-training experience of graduates is monitored closely by MEDI. Follow-up technical advice from experts and assistance in gaining access to other sources of credit act as incentives to encourage new business operators to overcome the initial hurdles of self-employment and set the stage

for future expansion. As one would expect, the cost of running such a comprehensive program is high, but it has in the few years of its existence turned out an expanding population of MEDI-trained entrepreneurs whose businesses appear to have a higher sales volume, employ more workers, and use more modern facilities (i.e. electricity) than do non-MEDI trained owners.

98. Rural Business Promotion. Programs that facilitate the development of non-farm enterprises in rural areas generally find a group concept of business organization more effective in dealing with widely dispersed populations and participants with a low awareness and knowledge of business. A program run by a Ghanaian NGO illustrates one organization's response to the special obstacles of stimulating off-farm business development in rural areas.

99. The Association of People for Practical Life Education (APPLE), based in Ghana, helped to establish and continues to advise an association of rural industries in a primarily agricultural area of northern Ghana. Begun in the late 1970's, the Association consists of an aggregation of artisan and trade groups, including bakers, bee-keepers, salt sellers, seamstresses, welders, and blacksmiths. The different groups essentially act as separate industries for production purposes--some as a group enterprise, others on an individual enterprise basis. They act in concert through the association when it comes to the purchase of raw materials, interactions with government officials, and the marketing of their products. The association accomplishes this through a combination of elected representatives and hired staff.

100. While resembling a producer or marketing cooperative on the surface, the association actually serves as the setting for informal technical skill and business skill training conducted both by the association members and APPLE organizers. Technical skills are passed from experienced workers to trainees through an improvised form of apprentice training and short-term workshops. Members also learn the rudiments of small business management and are entitled to receive a start-up loan from the association's revolving fund. Because of the seasonal nature of many rural activities, individuals are free to move from one enterprise to another in order to fill niches in

both the market and their own time. Some artisans have been instilled with enough confidence to work independently of the other members, while retaining their membership in the association, and some market their products quite widely in the surrounding countryside using paid salespeople.

101. One spin-off effect from the activity is a recent offer by a local bank to provide additional capital to the association. If accepted by the association, this would give members access to the financial resources of a commercial bank--in effect doubling the size of a loan from the existing revolving fund--in exchange for the association's contribution as a loan manager and guarantor. The high quality of the association's business management training has given the bank confidence that its capital will be well managed by its members.

V. EFFECTIVE SUPPORT TO TRAINING

102. Ever since a consensus has emerged in favor of assisting the informal sector, debate has raged over exactly what combination of external financial and technical assistance and policy changes would optimize the potential of this economic sector to fulfill the expectations being placed on it. The sponsored support programs reviewed above exemplify some of the dilemmas faced by program planners in sorting through the many competing options. Deficiencies in conventional systems for training technical and managerial skills must, of course, be considered in relation to the lack of capital and unfavorable regulatory conditions for informal sector enterprises. The controversy is more than academic since the scarcity of resources for development assistance both from developed countries and from national governments and organizations within countries imposes certain opportunity costs on any particular assistance path taken.

103. In many ways, the small enterprise support programs undertaken by many governments and western donors are too new to have established any definite benchmarks for their performance. But enough experience has been

gained from the successes of a noteworthy few, as well as from the errors of others, to draw some tentative conclusions about the kind of issues that need to be considered in undertaking support programs. Knowing which program design features seem to be correlated most highly with successful outcomes would naturally offer some useful guidelines for future program planning.

V.1 Employment Versus Self-Employment

104. It is probably reasonable to conclude that a vast majority of those participating in skill training of one form or another do manage to acquire some level of skill competence upon completing the program. The question is, how relevant are these skills to the conditions in real work places and how can individuals actually use the skills they have acquired in economically productive ways. Ultimately, it is the percentage of graduates who are able to make a living at what they have been trained to do that will be used to measure the success of any given skill training program.

105. Technical skill training programs seem to perform quite differently, however, in the kind of income-producing opportunities for which they best prepare their participants. While technical training in the context of the informal sector is often assumed to result only in self-employment in newly-established firms, it can also result in employment in existing small-scale enterprises. Not every worker in the informal sector is also a business owner, and there is a demand--as yet probably undetermined--for skilled journeymen to be hired as employees in small firms. Although the notoriously low wages paid to workers in small enterprises are sometimes cited as an exploitative feature of informal sector operations, such employment can be a potentially viable alternative for many youths and a legitimate outcome of some vocational training programs.

106. It is difficult to know in many cases exactly what kind of training succeeds in helping individuals find paid employment in established small enterprises. Not many institutions track the progress of their trainees after training, so the answer must sometimes be surmised from impressionistic and

anecdotal evidence. Such data that can be gleaned from the literature and the experience of various organizations would suggest that most formal vocational training programs, including the "after hours" courses set up for individuals with lower educational qualifications, serve as a source of skilled labor for informal sector employment simply because these institutions generally make no effort to place their graduates in modern firms nor provide any follow-up assistance to businesses started by the graduates. When no opportunities for modern sector jobs exist, the path of least resistance for many of these graduates becomes journeyman employment in an informal sector firm.

107. However, as noted earlier, the quality of the training offered by the institution probably does have some bearing on how easy it is for leavers to convert their trade certificates into immediate paid employment. Vocational training that over-emphasizes theory, utilizes uncommon or inappropriate equipment, or departs radically from actual business conditions, often requires leavers especially in the technical trades, to upgrade their practical skills through an apprenticeship before informal sector owners will hire them. On the other hand, that same mediocre vocational training, very likely will enable leavers to shorten the apprenticeship normally required of new workers and to tackle in a more systematic way some kinds of technical and management problems in the work place. Formal vocational training, therefore, would appear to have some, albeit limited, return on investment for the informal sector.

108. Relatively few graduates of formal vocational training programs, such as OICI, that take the unusual step of placing their graduates in formal sector establishments either want or are forced to accept paid employment in informal sector firms. Thus, well-performing vocational training programs whose leavers are eagerly sought out as employees by large-scale industry and government workshops probably serve as poor providers of journeyman employees for the informal sector simply because most of their graduates have better options.

109. Of course, vocational training graduates can opt for the other possible outcome of going into business for themselves--that is, becoming business owners. In such cases, self-employment might be the unintended consequence of a thwarted search for work in the modern sector or the expressed goal of a business-oriented vocational skill program which assists its trainees to become self-employed after graduation. The increasing difficulty OICI centers are experiencing in placing all their graduates in wage jobs is forcing even such effective programs to undertake just this sort of self-employment component. The success of vocational training graduates in establishing and maintaining their own small businesses also depends on factors other than their technical competence alone.

V.2 Minimalist vs. Generalist Approach

110. One of the most controversial issues in evaluating the design of technical assistance programs for the informal sector is whether an approach providing a single input (e.g. training) or several related inputs in an integrated package yields the most effective results. Programs representing all levels of comprehensiveness from single feature "minimalist" programs to multi-dimensional "generalist" programs have, of course, been reviewed in this paper. It seems evident from a brief analysis of their outcomes that effectiveness is not confined to either of these polar opposites, but is distributed over the full spectrum of program features.

111. There is some evidence that the most effective programs do impose limitations on their own scope of activities. Tandler's study of small enterprise support programs concluded that the most successful programs concentrated either on assisting one trade or sub-sector (e.g. garbage collectors or food preparers) or on delivering a single service (e.g. credit) to a variety of sub-sectors as efficiently as possible (Tandler, 1987). While conceding that many target populations have a variety of unmet needs, her research found that the multi-feature programs mounted by so many "generalist" organizations to address these needs often performed more poorly than single focus programs. The latter succeeded because they confined their activities

to making an incremental improvement in some existing activity--supplying the "missing ingredient" as it were. Given this perspective, one might argue that programs in which training is either the only activity or is delivered along with other services to a single discrete target group would constitute the most effective use of training to support the informal sector.

112. It may not be possible to make as definitive a statement as this about the comprehensiveness of training support programs, since the effectiveness of particular programs depends on a host of factors: who the target population is, where that population is located, and whether the services delivered to that population are valuable in their own right. For example, some organizations argue that a minimalist approach only works where the beneficiaries are concentrated in urban areas, are already engaged in a productive activity and can readily take advantage of the service offered without a great deal of prerequisite community development, team-building or specialized orientation. In glancing over the programs reviewed in this paper, certainly the beneficiaries of the single-input, vocational training programs of OICI and the credit services of the Grameen Bank seem to fit this pattern.

113. In contrast, a more comprehensive approach would probably be essential for any program whose intended beneficiaries are disadvantaged populations living in widely dispersed rural areas. The programs serving these populations would require more resources just to overcome the physical dispersion of the participants and empower them to where they could take advantage of otherwise conventional technical assistance. Also, the comprehensive features of technology development programs such as the Technology Consultancy Centre and the Birla Institute of Technology would appear to be necessary to nurture new industries through their infancy. If the societies and the organizations sponsoring such programs decide that their benefits are worth the investment, then perhaps the most that can be said is that the more costly, multi-dimensional approach that is required to make these programs work may be the price for their benefits.

V.3 Extension Service and Attachments

114. Due to the lack of studies that assess training as a separate program variable, the role of training in fostering self-employment has generally had to be inferred from the combined effects of an integrated support package. A recent survey of vocational training programs worldwide, however, has shed some light both on the prevalence of self-employment activity in vocational training programs and on the kind of program components that contribute the most to the self-employment of trainees (Grierson, 1988). The study found the programs surveyed were involved in self-employment activities in some way (either in including a training component or having their clients become self-employed) to a "modest" extent. Of the 33 vocational training programs in which self-employment was a program component or from which trainees often found success in going into business, two design features in particular were found to contribute the most to success in self-employment: post-training extension service to leavers and "attachments" or contracted apprenticeships with outside firms. Interestingly, attention to self-employment in general and incorporation of post-training extension and attachments as design features in particular occurred more often among NGOs than government-run programs.

115. The above findings would seem to conform to the experience of organizations reviewed in this paper. Several of the vocational/entrepreneurial programs sponsored by PVOs mentioned some form of follow-up monitoring or extension service as an integral part of assisting their participants in establishing and maintaining income-producing enterprises. Catholic Relief Services' business advisory programs in Tunisia and Morocco are notable in this regard for receiving government recognition and/or subsidies for helping to raise the performance of their clients. Among government sponsored programs, the exhaustive follow-up assistance given to MEDI graduates in Malawi has been cited for the greater productivity of their businesses compared to non-MEDI entrepreneurs; and the built-in, but somewhat less consistently applied, extension services provided by some Youth Polytechnics in Kenya (both surveyed in the Grierson study) has been credited

with benefiting at least some trainees in making the transition to self-employment.

116. Attaching trainees to outside firms for additional hands-on training as apprentices was used less widely by the programs reviewed here, but appeared to have a positive effect on program outcome when it was employed. The importance of attachments seems to be in exposing trainees to work on actual jobs under market conditions. In this sense, OICI's practical training constitutes a type of built-in attachment that explains the high regard job supervisors--94 percent of those surveyed in a recent evaluation--have of the practical skills of its graduates (Robert Nathan Associates, 1987). CARE's arrangement with local business owners in Peru to train additional apprentices in exchange for support payments represents an example of how a culturally acceptable training system can be extended to accommodate more learners. The Botswana Brigades, Youth Polytechnics and MEDI programs all attempt to combine training and production with results not dissimilar from attachments.

V.4 Socio-Cultural Variables

117. Sensitivity to socio-cultural factors can contribute to the success of much skill training both in terms of employment and self-employment. This is likely to be the case particularly when dealing with pre-entrepreneurs from groups which have been excluded from the mainstream economy. These socio-cultural factors can positively or negatively impinge on a program in a variety of ways.

118. As noted earlier, some disadvantaged communities may look for a gesture of good will on the part of the sponsoring organization before granting the "right" to train members of its population. Organizations that are sensitive to these concerns often respond by addressing some infrastructural need of the community or assuring it that the program will not undermine strongly held values. Several Western PVO-funded projects were able to gain entry for their enterprise development projects by first mounting

efforts to bring health clinics, sanitation facilities, roads, or housing to the community.

119. Failure to take into account significant socio-cultural influences can result in the kind of unintended consequence experienced by a Western FVO-sponsored training/entrepreneurship program in Morocco. A group of Moroccan women were given training in construction of hand-made dolls and then assisted in setting up a group business to sell their own products. After completing the skill training, some of the women doll-makers expressed a strong preference not to engage in the entrepreneurial activity because it would take them away from their families too much of the time. Even though they made less money, the women preferred to restrict themselves to producing dolls and avoid involvement in purchasing raw materials, marketing, and bookkeeping even though those activities would have increased their profits.

120. In another setting, traditional potters in Nepal refused to be trained to market their wares because that function was traditionally done by individuals from another caste (Harper, 1984). Likewise, individuals from groups that have historically been denied educational opportunities (e.g. females in Muslim societies) sometimes find the skills they have acquired in training programs insufficient to allow them to enter the marketplace. For example, trainees in some of the so-called "industrial homes" in Pakistan cited earlier are often given skill training that offers little hope of employment outside the home. The prevailing social norms (in this case, that the only acceptable economic activities for females are those they can do in the home) that prevent beneficiaries from fully exercising their employment choices obviously are not overcome, and are probably reinforced, by the kind of services provided by these programs. Therefore, only training and technical assistance that seeks to transcend the traditional barriers placed on the target group can truly be characterized as offering the genuine opportunities enjoyed by less disadvantaged groups in the society.

V.5 Market-Determined Training

121. A closely related factor that contributes to success is whether or not the vocational skill being trained has some demand in the market. All too often, formal vocational training programs offer courses on assumed demands for those trades or on continuation of training offered in the past. However, teaching participants skilled trades for which a sufficient supply of workers already exists may leave trainees with few prospects for jobs and little demand for their services should they decide to go into business for themselves.

122. More successful programs try to avoid this by planning the type of training to be offered on an estimate of the market potential of particular products or services or on skill needs identified by the clients themselves. As was seen, OICI training centers regularly assess the advisability of offering particular courses, and Ghana's Technology Consultancy Centre carefully researches the marketability of experimental products or processes before attempting to disseminate them to small scale enterprises.

123. Sometimes this may mean that the training must be supply rather than demand-driven--that is, the program offered might run counter to the initial stated preferences of the intended beneficiaries. Individuals, such as pre-entrepreneurs from a high risk group, who are unfamiliar with market forces may be swayed by popular, but inaccurate, opinion about the expected demand and profitability of certain trades and request appropriate training. The effective response in this case may require the sponsoring organization to guide participants against their own intuition into activities that are non-traditional or unfamiliar to the group but potentially far more lucrative. For example, one western PVO reported that one of their client groups, consisting of rural women in Senegal, initially sought to set up a tie-dyeing business. However, after conducting a feasibility exercise (which was part of the training), the group found so many well established tie-dye operations that they abandoned their proposed venture in favor of a

sheep-fattening enterprise--a far more viable, if somewhat unusual, activity for the group.

124. Organizations with relatively modest budgets are continually reminded of the importance of making some sort of market analysis of training demand. An illustration of what can go wrong when training courses are selected on assumed demands for skills is provided by the experience of one FVO. A Sri Lankan leather products unit established originally to train leather craft workers began auspiciously enough with large orders from the government. However, after orders quickly dried up, the trainees in the operation found they could not get outside jobs and could not afford the cost of equipment to go into business for themselves. The unit has tried unsuccessfully to market other product lines. Until a solution can be found, the organization has been forced to subsidize the operation indefinitely so as not to leave the workers stranded with no means of income.

V.6 Selection of Target Group

125. Limitation of the population to whom training and other services and inputs will be delivered is a factor which has been shown in at least two recent studies to have some bearing on program effectiveness (Tendler, 1987; Grierson, 1988). Although many institutions attempt to serve all individuals that show up at their doorsteps, the case for limiting the target audience seems warranted given the wide diversity of unemployed sub-populations searching for training and employment opportunities and the explicitness of services required to assist them. The relationship of client selection to program success seems to come into play in two respects: first, by increasing the chance that those who are exposed to the intervention will be the ones most likely to benefit from it; and second, by allowing the program to deliver its services to the specific groups to be served more effectively and less expensively.

126. How the sponsoring institution goes about selecting the target population for its programs may determine whether such selection actually

enhances the program's effectiveness. For example, questions about the efficacy of the entrepreneurial identification instruments that are used to select participants for some small enterprise promotion programs has already been noted. In the case of MEDI, various monitoring procedures, financial incentives and follow-up visits apparently must be brought to bear to insure that the graduates of its entrepreneurial training remain entrepreneurs rather than drift into wage jobs. One might question why such intensive measures would be necessary to buttress the entrepreneurial inclinations of individuals who supposedly exemplify those instincts.

127. Programs targeted to disadvantaged populations do, of course, enjoy a kind of ideological "higher ground" that makes them appealing to some sponsoring organizations. Indigenous NGOs and Western PVOs in particular often adopt this mission as their own special province because of their greater capacity to devise flexible, tailored responses to specific conditions. But organizers may find that any sense of ideological or moral superiority is cancelled out by the difficulty of assisting such marginal populations. And the cost of mounting a truly effective program may exceed their earlier estimations of program expenditures.

VI. LIMITATIONS OF TRAINING

128. Effective support for skill training must be considered in relation to the larger issue of how best to support the informal sector. When placed in this broader context, support for training of either job skills, job upgrading or business management, even when effective, may or may not always yield results that enhance opportunities in the informal sector. This is the case for a number of reasons that have to do both with the limitations of skill training itself as presently being conducted and with policies and economic conditions that affect the relevance as a development strategy. Some of these limitations will be examined and then other considerations that may have an equal bearing on the future of the informal sector will be suggested.

VI.1 No Assurance of an Adequate Income

129. Existing skill delivery systems like traditional apprenticeships act as informal gate-keepers in addition to training grounds for new artisans. Small business owners know intuitively the overall size of the market they tap and their own share of that larger market. Also, they may be expected by custom to assist their apprentices in setting up shop themselves after training. Such considerations guide owners in setting the number of apprentices they take in for training and, ultimately, the number of competitors they will want to face in the future.

130. Most support programs, in contrast, train as many individuals as program resources will allow and rely on other mechanisms to determine which trainees find employment and where. In the case of the formal sector one gains entry through possession of a wage job. Entry can be gained to the informal sector, however, if sufficient skill is possessed to convince others to buy one's services or products. Other than the cost of establishing a business, then, there is no absolute ceiling on the numbers of entrants who end up going into business for themselves.

131. The assumption is usually made that all newly trained workers, should they not find employment, can be absorbed in the informal sector. This is true to some extent because population growth and urban migration provide additional consumers for those new small-scale operators. Because these new consumers tend to come from the lower end of the socio-economic scale, however, they have less income to spend on informal sector goods and services than older, more established residents. Thus, continued unrestrained intake into urban informal sector industries and commerce ultimately forces an ever larger number of operators to share a relatively stable amount of wealth, resulting in depressed incomes for all operators and, in particular, those who most recently arrived on the scene.

132. Basing the choice of courses offered and the numbers of trainees inducted on a careful assessment of market demand, as discussed in the last

section, does offer a way to control the supply of skilled artisans and minimize market saturation and depressed incomes in affected industries. But doing so might eventually indicate the desirability of scaling back rather than expanding job training in the future, particularly in highly specialized trades involving repair of products manufactured in the West. This sobering scenario would be tempered if new markets could be tapped, new products developed, or cost-cutting new materials and processes that benefit informal sector enterprises introduced. To the extent that training programs can assist in developing these innovations and disseminate them to small producers it will have overcome the tendency to create an oversupply of skilled labor.

VI.2 Sometimes Irrelevant or Unnecessary

133. Training is often one component of a larger technical and financial assistance package rather than a self-standing vocational training program. As one of several possible interventions for assisting particular populations, training naturally must be viewed as a competing demand on scarce resources that might be allocated to other potentially valuable tools for supporting the informal sector--what might be called an opportunity cost of using training. Comparative evaluation of these demands often reveals instances when the use of training is simply too expensive or its effects too insubstantial to justify the resources allocated to it.

134. Elaborate job or business training is often mistakenly prescribed as a result of well-intentioned, but superficial, assessments of clients' needs. For example, hasty assumptions about the level of literacy and numeracy required to perform typical work tasks in many small-scale industries have sometimes led planners to recommend lengthy literacy training for informal sector workers. Closer inspection of the actual literacy and numeracy skills involved in the jobs would uncover the extent to which illiterate business operators are able to circumvent the skills in which they are deficient (Anzalone and McLaughlin, 1983). Given this assessment, a far more specific kind of training (or even no training) would be the more appropriate response.

135. Similarly, one only need consider the widespread but controversial practice of requiring elaborate written records of business transactions as a pre-requisite for loans to all small-scale entrepreneurs. Loan applicants dutifully attend the courses organized to teach bookkeeping skills and demonstrate the desired competence to loan managers considering their applications. More than a few of these credit training schemes, however, have witnessed their clients revert back to their previous practice of recording financial transactions only in their heads once the loan has been granted. Repayment in this case could hardly be attributed to the bookkeeping skills.

136. In contrast to the above programs, other credit institutions have successfully flouted the conventional wisdom of requiring bookkeeping training before providing credit. The Grameen Bank has been justifiably praised for its high repayment rate on many thousands of small loans despite the fact that it conducts no significant business management training nor demands written records of their borrowers' businesses. This is not to say that training would always be unnecessary for entrepreneurs and pre-entrepreneurs who are to receive loans. Grameen Bank loans are in fact micro-loans, and it is reasonable to expect that written financial records and other modern management practices--and the training programs to develop those skills--would come into play when much larger loans are made to more sophisticated small enterprises.

137. It remains for program planners to decide if training, whether to develop job skills or business management capacity, should be included as an integral part of an informal sector assistance program or the resources directed to some other input. Except in highly technical trades with a considerable corpus of job-related skill and knowledge to master, job training might be better left to informal systems of skill delivery, including traditional apprenticeships, which are probably far more attuned to market demands and better able to take advantage of changing tastes and gaps than more formal training systems. This is offered with the large caveat that job skill training as well as simple business training probably must be provided to disadvantaged populations, as has been noted earlier, largely to compensate

for the systematic exclusion of these groups from any kind of meaningful education, training, or productive economic opportunity. In the case of business management training, the issue is whether the skills contribute anything of real value or relevance to the problems with which entrepreneurs already grapple on a daily basis. It may be difficult indeed for business management trainers to teach improved management practices to entrepreneurs who, in Harper's words, "often turn their capital over once a day or more, who make raw materials out of what others have discarded, who find market niches in the most obscure corners and construct machinery and tools of amazing ingenuity and economy" (Harper, 1988, p. 8).

VI.3 Often Very Expensive

138. Questions of effectiveness must be considered in view of the costs of mounting training and technical assistance programs. Programs might train skills that are relevant and insure adequate income, but cost so much to deliver that only a relatively small number of beneficiaries can be reached. In fact, high per-participant costs afflict many training support programs operated by both indigenous and international assistance organizations.

139. Establishing participant costs of programs that would allow decisions to be made about their comparable worth is not, however, as easy as might be assumed. Programs differ greatly in the level of benefits that accrue to participants. It has already been noted that some programs simply train students in certain skilled trades and release them to the job market, while other programs do this and also help them find employment, teach them business management skills, provide vital inputs, help to market their products or act as advocates for them. Delivering such technical assistance to a disadvantaged or remote population, in particular, is likely to be much higher than for an urban mainstream population. The kind of activities that might have to be done just to gain the support of the recipient community or to prepare the participants for the training itself may vary widely in substance and cost. Moreover, a program that is in an experimental stage will also cost more than after it has become a replicable, operational model.

Therefore, the costs of a program will need to be evaluated in terms of several criteria, including the program's potential contribution to equity, job creation or foreign exchange savings in the society, its potential for reduced costs after deployment of an operational model, the potential to recover some costs from the participants and the prospects of achieving the same benefits through some other programmatic intervention.

140. Per-participant costs were obtained from a few of the organizations that conduct training and technical assistance for the informal sector. Table 1 shows these costs along with the kind of program and audience to which it was targeted. These costs become most useful, of course, when they can be compared to other programs that deliver comparable benefits to the same population. Since such comparisons are not usually available, these figures mainly represent the general range of participant costs for different types of training programs. The high cost of training individuals for certain kinds of skills and target populations obviously must become a consideration in deciding whether to proceed with a particular intervention.

Table 1

Type of Program and Audience	Per-Participant or Unit Cost
Business management assistance for small/medium manufacturers	\$ 2,275/enterprise
Loans, training and marketing assistance to rural producers and urban commercial partners	\$ 387/participant
Loan guaranty, extension and wage subsidization for small-scale employers and unemployed school leavers	\$ 78/participant
Small loans and technical skill and business management training in agriculture to rural youth	\$ 950/participant

Skill training, loans and technology support to widely dispersed rural women	\$ 520/participant
Agricultural skill training for adult farmers and farmer trainees	\$ 1,031/participant
Technical skill training for unemployed youth	\$ 1,507/completion
Skill training in leather craft for disadvantaged urban adults	\$ 346/participant

141. An analysis of one kind of training support--namely, technical skill upgrading of existing artisans--will illustrate the difficulty of deciding whether a programmatic intervention is cost-effective. On the one hand, effective extension programs of this type do often improve the on-the-job competency of their intended target audience, as was seen in the case of the Ghanaian automotive mechanics. Many wayside auto repair workshop owners and their apprentices acquired new knowledge and skills from the itinerant mechanical advisers described in the Ghanaian program. A case can also be made that more systematic understanding of a technical trade reduces mistakes inflicted on customers' vehicles, thereby saving the worker or their customers additional expenses for unnecessary or damaged vehicle parts. This improved efficiency might even, on an aggregate basis, be credited with a noticeable (although probably not significant) savings in the foreign exchange outlays of the country for purchase of replacement parts. On the other hand, when one considers the vast numbers of individuals who have little or no access to training or financial assistance, the highly expensive nature of many such technical extension programs would tend to argue against any broad commitment of resources for this purpose .

142. Harper offers a test that might help planners decide if resources devoted to training would be well spent: would the money to be spent on training be of more benefit to the intended trainees than if it is instead given directly to them to be spent however they like? The successful

experience of institutions like the Grameen Bank and Trickle Up Program that provide capital to the informal sector suggest that many small entrepreneurs might well make better use of more financial resources than technical assistance at their present level of operation.

VI.4 Neglected Rural Areas

143. When development planners speak of assisting the informal sector of developing economies they invariably are referring to operations that are located in urban areas. This is not difficult to understand. The future employment crisis to which many statistics ominously point is characterized above all as a problem for cities. Descriptions of the scale of the problem portray the challenge as one of creating enough jobs for the enormous numbers of city-residing job seekers who are expected to be looking for work in the future.

144. Sometimes overlooked is the plight of the non-farm enterprise sector in rural areas and the connection between the deprivation there and present and future employment problems in the cities. The aggravation of urban unemployment by the large and continuing migration of rural residents to urban areas has, of course, long been analyzed, as has the effect of lack of off-farm, income-producing activities in rural areas in pushing rural youth to migrate to cities. While conceding the linkages between the rural and urban aspects of the unemployment problem, the thrust of much of the literature on the subject centers on how to deal with the future ramifications of the problem in urban areas rather than on what could be done today in rural areas that would mitigate in some way the severity of those projected problems.

145. Besides a seeming lack of interest at the national policy level, this neglect can be explained in part by the difficulty of undertaking training programs or technical assistance of any kind in rural areas. Potential participants as well as markets are widely dispersed. Credit-providing institution and training facilities are far-off or non-existent. Finally, demand for some skilled crafts and trades is fairly

low. Complicating all this is the reluctance on the part of many governments to direct any significant resources away from cities to urban areas. It is hardly surprising that relatively few technical and financial assistance programs have been mounted in rural areas and that few have found successful approaches for overcoming these inherent constraints.

146. Rural non-farm entrepreneurship would seem to be possible if at least two precepts are accepted: (1) there are individuals with useful skills living in rural areas; and (2) potential rural entrepreneurs are--or are in close proximity to--the producers of many food crops that later get transported to urban areas where they are processed and sold at higher prices. Associations of rural industries such as the one created by the Ghanaian NGO APPLE described earlier has managed to create a successful model both for transferring skills from masters to learners and for adding value to goods from raw materials (food-stuffs in this case) produced locally before being marketed locally or elsewhere. The creation of a system for producing goods which normally would be absent from rural areas or would have to be imported from cities not only has contributed desirable products to rural communities but has generated wealth which can sustain these and other rural non-farm operations. The fact that some of these products are even being marketed in cities (e.g. honey) signifies an encouraging reversal of the usual flow of wealth from rural to urban areas.

147. Other programs elsewhere have organized rural-based training and production operations that merit study, notably the Botswana Brigades and some of the Youth Polytechnics in Kenya reviewed here. Overseas Education Fund has also evolved a working model for delivering training and technical assistance to marginalized populations in relatively inaccessible areas. Unfortunately, rural entrepreneurship has not sufficiently taken root in many of these settings to stand on its own without continued program support. Clearly, technical assistance, including both job and business-related training, needs to be applied in a sustained way to rural areas if there is to be any hope of arresting the widening wealth gap between the cities and the countryside and

of preventing the almost unthinkable consequences of continued neglect of this sector.

VI.5 Lack of New Technology

148. Most training programs as well as the larger technical assistance packages of which they are often a part suffer from an excessive preoccupation with and dependence on conventional technologies in their support of informal sector enterprises. The lack of interest in the technology used in small-scale industries can be attributed in part to the emphasis of most small enterprise promotion programs on commerce and trade rather than on production activities (Gamser and Almond, 1988). While the problems of street hawkers receive attention, those of the small-scale manufacturer do not. The effect of this is to confine small producers to inefficient and sometimes more expensive technologies and traditional products, which limit their capacity to increase incomes or expand their operations.

149. Gamser and Almond analyze the need for alternative technologies to allow small-scale production of goods (ranging from baked goods to electricity generation) that have usually been--but do not have to be--monopolized by large-scale producers. They cite instances where new technology must be designed, rather than large-scale technology simply down-sized, to accommodate factors such as the smaller markets, the smaller amount of initial capital for equipment, the need to maintain quality without control instrumentation, the possible unavailability of electricity and the use of less expensive fuels that are typical of small-scale production. The need for assistance has been identified not only for the development of technology but in convincing government officials to change policies that constrain small producers from entering certain product markets or competing fairly with large-scale manufacturers. And small-scale producers also require assistance from extension advisers in making the transition to different technologies or a larger scale of operation.

150. The success of technology transfer institutions such as the Technology Consultancy Centre in Ghana, the Birla Institute in India and others in developing and field-testing technological innovations has already been described. There would appear to be a great need to proceed beyond the stage of prototype development to diffusion of the most successful ideas and practices to the wider entrepreneurial community. Promoters of mass diffusion of new technology envision a cadre of "technology conscious" extension agents modelled along the lines of the "barefoot" business extension programs described earlier. Re-deployment (following some skill upgrading) of these low-level advisers as production advisers might allow a technological component to be folded into a low-cost system of reaching a large audience.

151. Giving access to technological innovations would launch small producers into new high value-added industries or might dramatically reduce costs which would in turn create the wealth for expansion of employment in those firms. Because many of the new products are currently being imported from large manufacturers abroad, local production might result in potentially significant savings of foreign exchange which could be re-invested in the informal sector. TCC's extension efforts in getting small producers around the country to make soap, carriage bolts, and some automobile spare parts, all of which are products being imported, demonstrate the potential for some limited substitution of products by local producers. There is the possibility, too, that improved technology might allow some small-scale producers to move into the production of export quality goods. However, the nature of the informal sector market and formidable problems of achieving and maintaining high levels of product quality militate against any immediate advancement of small producers into the latter economic arena.

VI.6 Scarce Raw Materials and Fuel

152. Training, credit, policy changes, and new technology all can be mobilized in support of small-scale businesses, but any hope that opportunities in the informal sector can be expanded to the levels required to accommodate the expected employment crisis may depend ultimately on the

relative abundance of raw materials and fuels on which small producers depend. These materials account for a major share of the operating costs of firms which spend relatively small amounts on other factors of production, and any change in the cost to the owner, either financially or in terms of his or her time in obtaining them, can significantly affect income for better or worse.

153. Wood and wood products is one of those resources which is critical both as a raw material and as a fuel for the informal sector in most developing countries. As a raw material, the importance of wood and wood products for small scale production can be appreciated in the fact that anywhere from 16 to 35% of small enterprises worldwide regularly depend on it as a raw material (FAO, 1987). This includes applications that range from exclusive raw material, as in furniture making, to secondary material, as in wood-constructed packing cases or tools. Locally available wood and wood-derived products (i.e. charcoal) are also in great demand among the many small-scale businesses who use them as fuels. The prohibitive expense of petrol-based fuels to informal operators and the likelihood that the cost will go still higher insures that wood's importance as a fuel will loom even larger in the years to come. If its uses as a fuel and as a raw material are combined, wood is estimated to affect the operation of a startling three-quarters of all small scale enterprises in developing countries (USAID Forestry Program data).

154. Yet the declining forest reserves in many developing countries, especially around major cities, and well-publicized accounts of wood gatherers being forced to scavenge ever greater distances for fuel wood warn ominously of a future scarcity that could imperil the hoped-for growth of the informal sector. The specter of such shortages and the effects on small-scale entrepreneurs make it all the more imperative that this resource be addressed from the supply side. In view of the failure of communally operated village woodlots in developing countries, it may be necessary to experiment with incentives that are based on the expectation of a profit for developing and managing woodlots. Some isolated experiments in a few countries give some

hope that tree planting for private gain might work. A USAID-funded support project to the forestry industry in Ecuador, for example, is attempting to deal with the supply problem. Assistance is being provided to small-scale wood-related enterprises in the belief that, because of their high stake in the preservation of forest resources, their owners will play a greater role in reducing the enormous wastage of wood during logging and in promoting wood as a resource (Bremer-Fox, 1987). Beyond this, there will undoubtedly be a need for small enterprise assistance programs, particularly those which have directed their attention to rural-based enterprises, to find new ways to organize support for small-scale tree plantations and wood-processing industries for their rural clients.

VII. SUMMARY

155. Programs that provide assistance to the informal economic sector of developing countries often attempt to expand opportunities for employment and self-employment by enhancing the capacity of existing skill delivery systems. These support programs usually address three perceived inadequacies of existing training systems in developing skilled manpower for small-scale enterprises: (1) an inability to train all those who would potentially seek job skill training; (2) specific gaps left in the technical job knowledge and skills of existing workers and owners of small enterprises; and (3) a lack of business management skills and knowledge that would allow existing owners to raise their incomes and expand their operations.

156. A sample of representative or exemplary support programs conducted by both indigenous and foreign NGOs, government institutions, and development assistance agencies was surveyed for this study. Major distinguishing features of these programs were analyzed for their success or failure in promoting employment in the informal sector. Programs that supported skill development for both urban and rural non-farm settings in each of the three deficiency areas were included in the analysis. Skill training that was operated either as a self-standing program or as part of a larger multi-dimensional promotion package was covered in the survey.

157. Several factors that appear to contribute to effective skill development were identified from the range of support programs surveyed. Firstly, in terms of technical skill development, the most effective formal programs generally taught their trainees practical, marketable skills, and then often assisted them in securing paid jobs or going into business for themselves. Less effective formal programs, in contrast, offered a more theoretical, didactic form of instruction which often required further apprenticeship training before trainees could secure paid employment in the informal sector, although even mediocre programs did tend to shorten the length of the apprenticeship. Secondly, the particular needs, prior business experience and physical location of the target population tended to determine whether a single-input "minimalist" approach or a more comprehensive approach would be most effective in preparing trainees for jobs or self-employment. Thirdly, providing practical apprenticeships, in the form of attachments to external businesses, and post-training extension services to graduates clearly enhanced the likelihood of successful self-employment. Fourthly, attending to socio-cultural issues such as dealing first with infrastructural needs or community concerns of the target population often gave entry to more disadvantaged populations and avoided unintended, undesirable consequences. Fifthly, gearing the skills trained or the technology to be transferred to the demand in the labor or consumer markets gave some assurance that the training would lead to a viable income-producing activity. Sixthly, carefully selecting participants ensured that the program was serving the clients most likely to benefit from the training provided.

158. The paper also identified several factors that suggest the limitations of skill training in supporting the expansion of the informal sector. Firstly, it was found that while individuals can be trained in job skills utilized in informal sector enterprises, the continued and unrestrained entry of newly skills workers does not guarantee that they can earn an acceptable income with their new skills. Secondly, skill training is sometimes found to be unnecessary or irrelevant to the task of "going into business" or raising the income of someone already in business. Thirdly,

although the costs of programs tend to decline after deployment of replicable, operational model, the per-participant costs of such programs may still be so high as to challenge the benefits of support. Fourthly, the strongly urban bias of much current skill training in developing countries helps to perpetuate the very economic disparities that invite rural populations to migrate to cities for training and employment opportunities. Fifthly, much of the existing skill training tends to reproduce conventional skill areas rather than introduce new technologies that might allow informal sector operators to manufacture new products or produce existing ones at lower cost. Sixthly, the growing scarcity of certain raw materials and fuels, particularly wood, may constrain the future expansion of the informal sector far more than any deficiency in technical or business management skills.

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