In-Service Training in Zimbabwe

An Analysis of Relationships Among Education and Training, Industry, and the State

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(This study has been carried out as part of a series of studies of in-service training in Africa, undertaken by UNIDO in collaboration with the OECD Development Centre, and with additional support from the World Bank. The author acknowledges the assistance received in Zimbabwe from many individuals and institutions -- in government, in the private sector, and in training institutes. The opinions expressed here are those of the author and do not in any way commit the OECD or UNIDO.)
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CONTENTS

ABSTRACT

INTRODUCTION .................................................. 1

BACKGROUND .................................................... 2
  Institutional Change ........................................ 2
  Economic Context ........................................... 5
  Schooling, Training and Jobs ............................... 8

HISTORY OF IN-SERVICE TRAINING ............................. 10

GOVERNMENT INITIATIVES IN IN-SERVICE TRAINING, 1980-1987 ............... 16
  The Apprenticeship Mode .................................. 17
  Upgrade Training of Skilled Workers ...................... 22
  Pre-employment Training in the VTC Mode .................. 25
  Other Versions of Institutional Training ................. 27
  The Status of Vocational Training ....................... 30
  The Zimbabwe Manpower Development Fund (ZIMDEF) ............ 34

PRIVATE AND PARASTATAL INITIATIVES ............................ 47
  In-service Training of Unskilled Workers ................. 49
  In-Service Training in the Private and Parastatal Sectors ... 51
  In-Service Training in Small-Scale Firms .................. 53
  In-Service Training in the Service Sector ................. 56

CORRESPONDENCE, PRIVATE COLLEGE, AND TRAINING CONSULTANCY
  ORGANISATIONS .............................................. 60
  Correspondence Colleges ................................... 60
  In-service Education and Training Through the Private
    Colleges ..................................................... 69
  In-service Management Training and Consultancy Operations .... 72

IN-SERVICE TRAINING AND EDUCATION IN THE INFORMAL ECONOMY ............... 76

BIBLIOGRAPHY .................................................. 83
With independence in 1980, Zimbabwe experienced a loss of European skills and knowledge at all levels—from apprentices and journeymen to supervisors and teachers. This exodus of skills and knowledge affected both the private and the public sectors. It not only impacted on who would fill vacancies but also on the mechanisms that would be used to provide in-service training.

This paper discusses three primary providers of in-service training in Zimbabwe:

1. **The Government**: Public sector initiatives that are examined are apprenticeships, the backbone of in-service training prior to independence; upgrade training of skilled workers through vocational training centers; and pre-employment training, which allows youth direct labor market entry from school.

2. **Private and Parastatal Organizations**: In-service training initiatives in this sector range from very basic on-the-job training with no off-the-job instruction to very elaborate training systems which include classroom or laboratory learning as well as on-the-job training. The more effective programs tend to be concentrated in large, multinational firms and tend to be industry specific in focus.

3. **Correspondence schools, Private colleges, and Management Training and Consulting firms**: Apart from the correspondence schools which offered training as early as 1950, these organizations are just emerging as providers of in-service training. While initially limited to offering clerical, bookkeeping, and secretarial skills, correspondence schools are branching out into technical, vocational, and agricultural fields. Private colleges and management training and consulting firms also offer a wide range of training options that can be broad based or tailored to a particular need. These establishments are proving to be formidable competitors with both government and private sector in-service training programs.

While much has been done to provide adequate in-service training, a number of problems remain to be addressed: the high unemployment rate, the duplication of training efforts, the relatively low visibility of government training programs compared to other, private programs, and the negative perception industry has of employment policy. The paper suggests that in-service training efforts in Zimbabwe need to be better coordinated among the providers if a comprehensive training strategy is to be developed.
INTRODUCTION

To a greater extent than many other industrializing countries, Zimbabwe has sought to ensure that externally funded research and study relate directly to its own development concerns. If the state permits a study, then that study should as far as possible address to Zimbabwe's priorities. This implies that the research agenda should be localized and that the researchers report back to Zimbabwe's policy research communities during the course of the study.

In the case of this present research, this reporting took two forms. At the end of the first three weeks of work, during July 1987, a seminar on results was arranged at the Zimbabwe Institute for Development Studies and copies of the preliminary paper were provided to the Ministry of Labour Manpower Planning and Social Welfare and Ministry of Education. At the end of the second short trip of two weeks in July 1988, two seminars were arranged. One involved key training directors and training experts from the private sector, including several of the largest enterprises in Zimbabwe. The second was a meeting organized by the University of Zimbabwe's Faculty of Education, to which the Ministry of Higher Education had invited a number of its senior personnel concerned with in-service education and training.

Several issues became clear in early discussions within Zimbabwe. The most obvious was that for several of the most critical policy instruments related to in-service training few data were available in the public domain. For example, little was known about the workings of the Zimbabwe Manpower Development Fund (ZIMDEF). Although the fund was clearly a prime instrument for the encouragement and support of in-service training, virtually no information was available on the fund's beneficiaries or on the policy concerns facing decisionmakers responsible for setting forth regulations.

Data on one of the main modes of in-service training -- the traditional apprenticeship system -- also were sparse. The system had required some major surgery at Zimbabwe's independence to allow it to operate as an instrument of African advancement. But what had happened to it during the eight years since independence? Who was using the system? Could it
accommodate large numbers of young people? Who was aspiring to enter apprenticeship? Why were apprentice numbers continuing to fall despite state support?

These two concerns, central to in-service training in Zimbabwe, seemed to merit concentrated attention. This entailed a certain amount of primary research -- inspection of registers of apprenticeships, analysis of the enterprises using the system, and an understanding of the arguments of the system's critics. Equally important was research on what categories of trainees were receiving rebates from ZIMDEF and on why so few firms applied for rebates, apart from those getting them automatically for apprentice and skilled worker upgrading.

A third area of significant attention was the relationship between public and private training. To a degree unusual in sub-Saharan Africa, a significant element of in-service education and training is met in Zimbabwe by the large correspondence institutions and by the growing network of private tutorial colleges. Little is known about how these different kinds of institutions provide for the in-service needs of those already working. Even those working in the informal sector are believed to take advantage of these facilities occasionally. How could these institutions benefit the many people who no longer expect employment in the formal sector of the economy?

**BACKGROUND**

**Institutional Change**

Zimbabwe's vocational education and training system is clearly central to its in-service training policy, but it is a system in transition. A more detailed discussion of the history of training methods in the period prior to independence is contained in the valuable monograph by Ben Mothobi, *Training for Development* (1978). New institutions are being established, in several cases on a very different set of assumptions from the older parts of the system. How do these various pieces fit together? In-service vocational skill development appeared to take two forms: apprenticeship and upgrade.
training. However, several new forms, such as preservice, direct-entry training from the school system, have emerged. What has been the interactions among these various forms, both at the level of the firms and trainees and at the policy level? What might be the potential of these different modalities, and in what sense might they form part of any unified system of vocational preparation?

In 1987, many of these mechanisms of in-service education and training were the responsibility of the Ministry of Labour Manpower Planning and Social Welfare (hereafter Ministry of Labour). Several of them, however, specifically the technical colleges and the polytechnic, were expected to be shifted into the Ministry of Education. Less expected was the move of the directorate of industrial training into the Ministry of Education. In 1988, the Ministry of Education was split into the Ministry of Primary and Secondary Education, and the Ministry of Higher Education. Both institutional training (technical colleges) and industrial training were relocated from the Ministry of Labour to the new Ministry of Higher Education.

The old Ministry of Education had already contained an important element of the complex of vocational initiatives. This was the expansion of vocational training in the secondary schools, intended to address the transition from school to work. Once the Ministry of Education split, this initiative was not in the same ministry as those elements coming from the Ministry of Labour but instead was within the Ministry of Primary and Secondary Education. This may prove to be a minor disadvantage because the school-based vocational initiative will be planned somewhat separately from the other sections of vocational education and training. The vocational school element, as of mid-1988, was still very much at a pilot stage. What implications the recently selected pilot schools may have for the very large number of regular secondary schools had not yet become clear.

With responsibilities for vocational and professional preparation shifting from ministry to ministry and from section to section, the present study also served a briefing function, as well as an investigative one, as the
various options for training were being discussed. Thus, this report partly plays the role of an issues paper, putting on the agenda for debate questions that have not thus far been openly discussed in any detail.

By its very nature, in-service training requires a degree of cooperation among different institutions. Although some private enterprises have managed high-quality in-service training almost entirely in-house, most firms need the help of several outside parties. Frequently, such programmes require access to some technical and professional courses in further education. Professional associations and government may need to agree on access to courses and even payment in foreign exchange when fees have to be remitted outside the country. Ideally, also, trade unions and management, with government, should agree on the shape of in-service training.

Until relatively recently, much of the discussion about in-service training has had an adversarial quality. Government has expected widespread commitment by industry to more in-service training at all levels, as part of an indication that industry is serious about black advancement. Several of the initiatives of the independent government were founded upon the view that it would require regulations and legislation to persuade industry and commerce to take African in-service training seriously.

In recent months, however, the value of greater cooperation between the private and public sectors has gained credence. For example, getting the technical colleges and the polytechnic in Harare furnished with the staff they have lacked for many years has taken on new urgency. Release to the colleges, frequently used as an element in in-service training, had been a weak link in the chain of in-service provision. Another area in which education-industry cooperation has weakened over the years has been the infrequency of meetings of the various advisory committees concerned with curriculum and with general policy matters in the colleges and polytechnic. Both industry and the colleges have been out of touch with what assistance is possible. With new management shortly arriving in the colleges, this too may prove an opportunity for renewed cooperation.
The National Manpower Advisory Council (NAMACO) and its nine specialist committees may also advance government-industry liaison. Now that the changes in ministry responsibility are settled, the committee structure can be revitalized. In the experience of many other countries, however, high-level representatives from industry and commerce cannot be expected to continue attending meetings that are merely talking-shops and have little real impact on the training policy environment. The Ministry of Higher Education also seems eager to develop an active dialogue with industry, to discuss industry's concerns about training and other matters that have been troubling both sides. The Ministry is planning a number of occasions intended to produce open debate about options for the way ahead.

Some of this new openness is doubtless due to the relocation of responsibility for vocational and technical institutions, but it also may stem from a realization on both sides that during the rest of the 1980s and the early 1990s, large-scale unemployment among the educated (at the post-form 4 level) is likely to be a major political issue in Zimbabwe. Large numbers of young people are now in transition from secondary school to very uncertain futures, and a small initiative here or there is unlikely to make any dent in the total problem. Zimbabwe's aspirations to be considered a modern state with the welfare of its young people at stake will not allow it to disregard the phenomenon of educated unemployment. The government will undoubtedly review many forms of preservice and in-service training for their scope in meeting this challenge.

Economic Context

Very recent data and analyses are available on Zimbabwe's national economy, the manufacturing sector in particular, and patterns of employment. Some have particular relevance to in-service training. Of most direct value to the present study is the UNIDO monograph, The Manufacturing Sector in Zimbabwe (November 1986).
In 1987, the World Bank produced *An Industrial Sector Memorandum* on Zimbabwe. Forthcoming in late 1988 was Roger Riddell's country case study of Zimbabwe, which is to examine Zimbabwe's industrial future; this study is part of a larger ODA study on industrialization in Sub-Saharan Africa. These documents, along with other valuable work by the Zimbabwe government, afford a very full picture of the crucially important role of the manufacturing sector. Manufacturing produces 24 percent of Zimbabwe's gross domestic product, very much higher than the average in sub-Saharan Africa; it is also responsible for 16 percent of formal-sector employment. Manufacturing grew very rapidly during the period of enforced protection (UDI) and developed during that time a reputation for ingenuity in adaptation, repair, and maintenance. Much of this aptitude still survives, perhaps reinforced by the severity of the foreign exchange crisis in recent years.

The concern in this study is how the present character of industry affects training and employment. However important industry may be to the country, it has added little to employment since independence. Indeed, production employment has declined during most of this period; almost all of the small growth in formal employment came from the services sector. Moreover, the fact that industry is not working at full capacity is not attributable to human resource constraints; the country does not lack trained manpower or have a shortage of particular skills. Asked about their constraints to full capacity, manufacturers have pointed to such factors as shortages of imported materials or machine spare parts and to the lack of domestic and export demand. Shortages of specialized skills have been very low on their lists (UNIDO, 1986; p. 201).

Asked whether it could take on more employees, industry cites as obstacles some of the legislation relating to security of tenure, the rates to be paid for the employment of casual labor, and the tendency for government to announce across-the-board wage increases. Because the dismissal of any employee requires prior ministerial approval, employers probably resist hiring additional workers during upturns in their businesses, turning instead to overtime or short-term, fixed-contract workers (whether such workers are
necessarily counted in the estimates of formal sector employment is unclear. The Minister of Labour, Cde John Nkomo, in an intervention at the Confederation of Zimbabwe Industry congress in July 1988, mentioned that "consideration was being given to relaxing some of these regulations about casuals because the unemployment crisis was appreciated, and there could be ways of making more casual jobs available." (Herald, July 14, 1988.)

Several aspects of current labor laws and wage decrees might have negative effects upon training. The employers' confederation would argue that a policy of statutory wage increases undermines the system of collective bargaining, but it may also act as a disincentive for training policies within the enterprise. One possible reason that individuals invest time and energy in improving their knowledge and skills may be to increase their earnings. Across-the-board wage increases could interfere with promotion policies predicated upon rewards for the successful completion of in-service courses. Evaluating this premise would require careful investigation at the enterprise level.

The policy of taking on short-term contract workers is much more likely to discourage in-service training. This practice has developed in recent years as a way of dealing with the problems of high rates of pay for casual workers and of cumbersome dismissal procedures for permanent employees. Short-term contract workers probably will not be granted access to training or reimbursed for their own training expenditures. Given the prevalence of using contract labor, these questions deserve study.

Although the discussion here centers on the mechanisms and policy instruments government and enterprises use to improve the quality of existing labor, government is increasingly concerned about how to expand the number of new jobs rather than how to alter marginally the skills within the existing formal-sector labour market. Indeed, in January 1988, it announced new and wider ranging plans to encourage employment creation through a variety of means.
Schooling, Training and Jobs

Under the very restricted secondary school policy regime prior to independence, only a rather small proportion of those in formal-sector jobs had ever reached the form 4 level. In fact, form 4 achievement equated with a job. Early after independence, form 4 was growing in size, but it was still as small as 24,000 in 1983. As the first effects of the campaign to universalize secondary school access began to move through the system, the numbers attaining form 4 shot up, reaching 92,000 in 1985. When the 1988 form 1 cohort of more than 250,000 reaches form 4, the numbers will have more than doubled again. Contrasted with the total of 160,000 jobs in manufacturing, the scale of the imbalance between formal school and formal work becomes clear.

Of course, forecasts of schooling cohorts may go astray. For example, school dropouts could rise rather significantly as parents reflect on their investment in school fees and the absence of the kind of work that form 4 qualifications could once command. Even if dropout and wastage do increase, however, the shape of the population pyramid ensures that large numbers will complete school.

One time-honored political reaction to this kind of arithmetic of unemployment has been to develop a rationale for making secondary education partly vocational. This movement within Zimbabwe, termed the "new structure and content of education," has been recent, dating from July 1986. The initial pronouncements indicated that each child in the first two years of secondary school would be encouraged to take at least two technical/vocational subjects. In the second two years, children specializing in technical and vocational education would still take some academic courses, and those following academic courses would take at least one technical subject. Eventually, no child would leave secondary school without being exposed to a major or minor dose of technical/vocational education.
The task force working on the details of this proposal in the once-unified Ministry of Education is now relocated within the Ministry of Primary and Secondary Education. As yet it has identified only a small number of pilot schools that could pursue a serious measure of vocationalization. Effectively, then, very little prevocational training is currently available in the school system, so pupils must still look to the post-school institutions for their training. So far, however, the government training system has not experienced any of the dramatic expansion associated with the school system. Partly, this is because the major form of training for industry has been apprenticeship, which is predicated upon in-service arrangements with employers; partly, perhaps it is because responsibilities for training and for secondary schooling are now located in different ministries. Whatever the reason, the number of training places, just for vocational skills, has remained very small.

The role of postschool vocational preparation, either in the in-service or preservice mode, has stimulated little discussion in Zimbabwe. The tendency is to continue to think of the urban vocational and technical institutions as connected to the urban industrial sector, and some of the rural vocational centers (such as the fourteen belonging to the Ministry of Youth, Sports and Culture) as being oriented to cooperative employment or self-employment in the rural areas.

Now that much of formal-sector training once associated with the Ministry of Labour has moved within the ministry responsible for the planning of postschool education and training, much more consolidated planning is likely and more resources may become available. One crucial policy issue may turn out to be the need to involve local funding in the provision of postschool training, just as such funding has been essential to the massive expansion of schooling itself. Without these local resources, postschool vocational training is likely to continue to develop rather slowly, dependent upon the several external donors prepared to respond. With the best international will in the world, however, these external sources can only
provide a fraction of the places demanded, and these will tend to be concentrated on urban formal-sector skills.

The absolute shortage of places in traditional in-service training (such as apprenticeship) may require the establishment of relatively low-cost, community-based skill-training centers. These will operate essentially in the preservice mode. Evidence from other parts of Africa suggests that such centers can tap nongovernmental funds and that they can play an important role in providing both employment and self-employment skills to school leavers.

In 1988, these debates about postschool training were just beginning. The principle concern in this paper is with existing mechanisms -- their operation, strengths, and weaknesses. The underlying theme is that industry is hiring relatively small numbers of skilled workers. Training in the apprentice mode has several possible alternatives, some of which are organized entirely within enterprises. Certainly, the state will find that significantly raising the numbers in skilled manual apprenticeships will be difficult. The same end -- the provision of more skills to more people -- may be reached in several ways, however. Many less conventional methods may be needed if the training is to reach clienteles, both men and women, in growth centers and in the informal sector.

HISTORY OF IN-SERVICE TRAINING 1/

In a country that was so recently run on the basis of European skill and African semiskill, in-service training is at the centre of many debates and political initiatives. High-status in-service training was available in colonial Rhodesia, but it was disproportionately provided for European workers. Rhodesia's dependence on a very significant cadre of immigrants with fully formed skills undermined any major national planning of upgrading, professional development, or worker improvement. Quite suddenly in 1980, with

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independence, the terms of the discussion changed. European skills and knowledge left the country at every level, from apprentice to journeyman, supervisor, and junior manager. This affected very directly the world of production, and it also removed whole segments of skill and experience from the public service. Vacancies in the public sector were filled quite rapidly, often with candidates having very considerable educational qualifications but inevitably very little working experience. How industry made good its losses of skill has received virtually no attention, but it clearly followed a very different path from the public sector. At the lower levels, it sought to upgrade and promote many of those who had been semiskilled (with strong encouragement from the government); at higher levels, recruitment was much less rapid, although industry and commerce benefited from a second hemorrhaging of high-level skills and knowledge from the public service just a few years after independence. This internal migration from public- to private-sector employment included both Europeans and Africans -- the former with years of experience in administration and the latter with at least several years of responsibility in the exercise of authority. Although this migration did not compensate industry's losses of technological, engineering, and management skill, it did allow industry to profit in a small way from skills and experience it had not supplied through training. The public service, of course, sustained a double shock, losing significant numbers of those who had just begun to offer it some continuity.

These movements very directly affected the main instruments by which government had provided in-service training -- the technical colleges. They also affected the government departments and sections responsible for planning and executing many measures touching on in-service training. Just when the government decided to stake out a much greater area of policy responsibility for providing in-service training, it had to acknowledge its very real difficulties in delivering effective teaching, supervision, and control.

Discussion of in-service training is much more than a technical or a pedagogical matter. The school system, which has been directly in the hands of the state, local communities, and voluntary agencies could expand
dramatically in line with popular aspirations. The training system, however, had traditionally been very closely linked to the production system; the technical colleges had very few students who were not directly sponsored by firms, and apprenticeship traditionally depended on the needs and the sponsorship of employers. Government found itself confronted by a training system that was continuing to contract while the education system was expanding at almost exponential rates.

Even though the decline in available training could reflect the serious recession in industry, this close linking of training positions to the fortunes of the private sector only served to confirm the view that national manpower development policies could not afford to be so dependent on the interests of (primarily foreign) private capital. Two approaches developed from this viewpoint. First, the state pursued a much more interventionist policy toward apprenticeship and searched for other instruments to encourage industry to provide in-service training. Second, realizing that such measures seemed unlikely to increase dramatically the numbers receiving training, it determined to develop new and imaginative preservice policies. The government could control such initiatives much more directly and would therefore potentially have greater freedom of manoeuvre than under policies that depended on the goodwill of the private sector.

This policy shift from in-service to preservice training is fueled by the much larger political issue of unemployment among the educated. The sheer arithmetic of form 4 (96,000 in 1986) has made many policy makers examine the transition from education to training. No less than 110,000 young people applied for apprenticeships in 1986, and just over 1,000 were accepted, for what has traditionally been seen as the main form of in-service training in Zimbabwe. Other initiatives still number only in hundreds of trainees.

These pressures have made the Ministry of Labour examine preservice institutional training in the technical colleges and in other settings. Also, the Ministry of Education has recently become aware that if the numerous products of the secondary schools are to fare better in their transition from
schooling to employment, then the schools should seek to anticipate some of the skills of industry and commerce demand. Both ministries have been actively exploring various options and models for pre-employment, preservice, and prevocational education and training.

The state's decision to be responsible for an expanded programme of pre-employment vocational training (and education) may appear to be conceptually distant from a study of in-service education and training; in reality the two are intimately connected. Employers, presented with an abundant supply of both apprentice applicants and vocational school/college trainees of various sorts, may choose the latter because their training costs fall upon the government or parents. In that situation, in-service training in the form of apprenticeship may continue to decline.

From a policy perspective, if employment opportunities in industry at a skilled-artisan or skilled-worker level are finite and growing very slowly, then apprentice applicants are likely to be in direct competition with applicants from vocational schools or prevocational training. The same ministry may be offering industry two rather different forms of form 4 leavers -- apprentices and institutionally trained young workers -- and allowing industry to decide which it prefers. When the Ministry of Education brings its own versions of prevocationalization on stream, the choice will be even wider because both the apprentice applicants and those institutionally trained by the Ministry of Labour will have had some additional practical orientation.

Industry and commerce are also seeking alternatives to the apprenticeship system. Some industry sectors appear to be exceedingly active in developing their own training capacities. They have made very significant investments in training managers, training systems, and training centers, although the scale of these developments is not easy to quantify. The government has difficulty in following and understanding the dynamics of these changes because of the demands of its own emergent systems.
At issue is the extent to which industry's contribution complements the government's effort or is an attempt to provide a substitute that is completely within the control of industry itself. Government is frequently characterized as desiring to control all vocational preparation, classifying and registering all workers according to a national system of categories. The historical justification for this was the need to break the bond between skill and race and to reclassify those cadres that were downgraded during the late colonial period. Nevertheless, many employers continue to believe that the government is determined to take under its control and regulation more areas of training than it can possibly oversee. On the other side, some sections of government still fundamentally distrust the training policies and activities of the private sector. Industry is conceived as deliberately obstructing the expansion of apprenticeship, partly by refusing to take on more than a few candidates and partly by developing alternative systems of skill development. Lecturers that once were staffing the technical colleges of the public sector or even administering parts of the Ministry of Labour are seen to be running the private sector's training centers or managing its companies. In the absence of serious research on this trend, it only takes a handful of well-known cases to support an image. (On the general issue of the internal brain drain in Zimbabwe, see footnote 1.)

In summary, both industry and government lack adequate understanding of the other's motives. To some extent, the technical colleges illustrate aspects of this distrust. To be sufficiently responsive to industrial and commercial needs, colleges in Zimbabwe, as in other mixed economies, must have an intimate sense of their clienteles -- in the hotel, electronics, building, automotive, and engineering industries, as well as in business, banking, accounting, and other professions. Industry and commerce should be frequently and routinely represented on curriculum planning committees, and the mechanisms for encouraging new courses and getting reimbursement for their costs must be open and well understood. The opinion is widely held that the only problem with the colleges is that the salaries they pay are insufficient to attract or retain staff. This is certainly true, but behind this obvious
cause is the deeper question of who the colleges should serve and who should be consulted on their development.

A third crucial factor in in-service training and education -- apart from government and industry -- is the individual client, the student or aspiring trainee. Zimbabwe has a quite extraordinary tradition of interest in professional and educational improvement. Part-time students range from the very highest office holders down to the operators of hand-made machinery in the informal economy of Mbare and Magaba on the outskirts of Central Harare. Along with one of the most rapid and comprehensive extensions of formal primary and secondary education in the third world, Zimbabwe has a tradition of self-improvement through education and training, which survives and is possibly getting even stronger. The great majority of the tens of thousands who are pursuing part-time professional development are also working as employees or on their own account. The institutions that satisfy these educational and professional aspirations are the correspondence colleges and the independent education and training centers, which offer direct tuition. These networks are almost as extraordinary a tradition in Zimbabwe as the aspirations of their clients. Several of the better known have enrolled thousands of indigenous Zimbabweans for examinations that the stratified schooling of colonial Rhodesia made inaccessible, as well as for vocational qualifications that allow some progress in the workplace. They now offer a wide range of professional qualifications and serve a wide range of clients.

Here too, however, the college and the government have been suspicious of each other's intentions. The colleges are sometimes characterized as preying on the gullible, while the government is perceived sometimes to be more concerned with control and regulation than with understanding the population the colleges are serving. In the heart of this matter lie some very powerful policy issues, not the least of which is educational financing. Private and community initiatives have been crucial to the expansion of basic education in Zimbabwe, as have NGOs to the whole realm of nonformal skill training. The private tutorial and correspondence colleges
offer services that government cannot provide without putting further burdens on its strained education and training budgets.

GOVERNMENT INITIATIVES IN IN-SERVICE TRAINING, 1980-1987

The National Manpower Survey 1981\(^2\) describes most of the instruments in the government armory for intervention in vocational preparation. These include the centralization of apprentice recruitment, the bonding of apprentices, the development of (regional) vocational training centers, the upgrading system and the trade testing of those classified officially as semiskilled, the interest in regulating private-sector training institutions, the development of (pre-employment) institutional training, and the notion of a national grading system, comprising within it a new category for skilled workers. The government has also proposed a new National Manpower Council (NAMACO) and has consolidated the existing levy system on employers, raising the rate to 1 percent of the wage bill.

The National Manpower Survey (NMS) is a remarkable document, essential reading for anyone wishing to understand the original basis of the state's concern with vocational preparation. The agencies charged with implementing some of the policies charted in the NMS, however, do not necessarily share its explicitly socialist and political economy analysis of labor and capital. In some instances, the concern of the NMS arguably lies more with extending the role and regulatory functions of the state than with altering the relations of production. Implicit in the NMS is an anxiety that vocational training (including in-service training) predicated upon the Africanization of the existing relations of production will eventually reproduce a pattern of employment, salaries, and wages that will not differ dramatically from the colonial dispensation. For example, in the public service, the ratio between the salaries of the highest paid employee (the

Permanent Secretary) and the lowest paid (the messenger) is 75 to 1. By implication, a different form of in-service training would challenge the existing wage differentials.

Some of these larger issues raised by the NMS are of particular interest to historians and social scientists. First, what particular elements in the larger scheme of national manpower development did the government actually implement? Also, do some of the state's new roles and responsibilities in vocational preparation basically reflect a vision of socialist transformation?

The Apprenticeship Mode

The apprenticeship system has been one of the priority areas for the Ministry of Labour. Historically, apprenticeship was predominantly European in most of the seven designated trades. Moreover, because of the tight linkage between apprenticeship and college attendance, the technical wings of the existing colleges were also European. Apprenticeship seemed the obvious gateway to skilled manpower development and beyond. The measures mentioned in the NMS reflect this origin. Some, for example, were designed to ensure that young people did not avail themselves of Zimbabwe's limited facilities for in-service training, only to leave and work in another country. Apprentices are bonded for four years after the termination of their four years of training. Another concern was to try and break the exclusive right of employers to choose their apprentices, which had resulted in the predominantly European apprentice profile. As a matter of historical fact, organized labour more than the employers was responsible for these particular patterns of recruitment. In a number of industries, employers in the colonial period may actually have sought to weaken the strange hold of these European unions by encouraging Africans to enter fragmented skill positions, although their motive was not so much manpower development as it was profit. A possible parallel with this colonial trend appears in the post-independence period.


4/ These seven trades are listed in the table on page 20.
The Manpower Planning and Development Act of 1984 enacted a number of the measures anticipated in the NMS. Apprentice recruitment was centralized; in the future, applicants would apply to the registrar of apprentices. That agency would screen applications and then send preselected groups to interested employers for final selection. Initially, this measure may have been designed to break the color line in apprentice recruitment; in fact, by the time it was implemented, the ratio of Europeans to Africans had already changed dramatically -- by 1982, there were five African apprentices to one European. If the racial issue was no longer the dominant factor, centralization was justified on other criteria. Urban dwellers, particularly those living near the major industries taking apprentices, appeared to have an undue advantage over young people in the rural areas. Traditionally, for example, many employers in steel towns -- whether in Scotland, the United States, or Zimbabwe -- have preferred to apprentice the sons of fathers who have worked in steel. Government could characterize this practice as nepotism, but from the point of view of industry, it brings into the workplace someone who is socially conditioned to industrial life.

The state believed the centralization of recruitment might make apprenticeship a more universal opportunity by sending employers young people from rural areas and girls. Employers still had the right of refusal. The practice was to send interested employers at least twice as many candidates as there were places, and often large numbers of them were rejected. This made for poor relations between government and employers, especially when employers in some cases insisted on testing the candidates the ministry had already screened.

In its apprenticeship program, the state took on an extraordinarily complex task to deal with just a small part of the formal economy. Of the approximately 1 million people in the formal sector in the mid-1980s, new apprentices across the entire country (population, 8 million) numbered just about 1,000. For these 1,000 places, the registrar of apprentices received no less than 110,000 applications to screen (1986). To sort out applicants
manually (no computers were involved), according to rural origin, sex, excellence, and other criteria was an enormous task. Very large numbers of applications simply could not be processed at all.

One reason for the shrinkage in apprentice numbers, from about 2,000 new entrants in 1981 and 1982 to about 1,000 by 1986, was the decline in the number of firms involved in this form of in-service training. The main seven designated trades offering apprenticeship are as follows:

<table>
<thead>
<tr>
<th>Establishments Taking on New Apprentices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
</tr>
<tr>
<td>Printing</td>
</tr>
<tr>
<td>Hairdressing</td>
</tr>
<tr>
<td>Building</td>
</tr>
<tr>
<td>Automotive</td>
</tr>
<tr>
<td>Electrical</td>
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<tr>
<td>Mechanical</td>
</tr>
<tr>
<td>Aircraft</td>
</tr>
<tr>
<td>Total firms</td>
</tr>
<tr>
<td>Total new apprentices in these firms</td>
</tr>
</tbody>
</table>

Source: Annual Registers of new apprentices, Directorate of Industrial Training.

The actual apprentice numbers are more complex than what is suggested here. In colonial Rhodesia, the Apprenticeship Authority sought to expand numbers, but in fact other pressures (from white unions) kept them down to often less than 1,000. Numbers did move up significantly at independence, but by the mid-1980s they were down to not much above the older Rhodesian figures.
The apparent total of firms taking new apprentices is misleading because some are double counted. A significant number of establishments take apprentices in the automotive, electrical, and mechanical trades. This is particularly the case for firms using electrical and mechanical apprentices. Hence, the actual number of firms taking apprentices is well below the apparent totals shown above.

Within most of the designated trades, a very small number of establishments is responsible for a large number of the apprentices. For instance, within electrical trades, during the 1984-86 period, just six firms took on more than half of all new apprentices; these six establishments are all public or quasi public -- Zisco Steel, Zimbabwe Electrical Supply Authority (ZESA), National Railways of Zimbabwe (NRZ), Harare City Council, the Army, and finally the Registrar of Apprentices itself. In the automotive trades, one institution, the Central Mechanical and Equipment Department CMED, took on a third of the entire new apprentice body in this three-year period. Three institutions -- NRZ, ZISCO, and the Registrar of Apprentices -- took more than a third of the entire new intake of mechanical apprentices. In the building trades, just three institutions were responsible for 184 of the 225 apprentices taken on in this period; these institutions were NRZ, the Registrar of Apprentices, and the Ministry of Public Construction and National Housing. In the most recent year for which figures are available (1986), the pattern is even clearer. Just four public or parastatal establishments took on half of all apprentices; these four are CMED, ZISCO, the National Railways, and the Registrar of Apprenticeship. The Registrar of Apprentices alone took on 216 new apprentices in 1986.

What these numbers imply is that, given the continuing shrinkage of apprentice numbers, the state itself has taken on the employers' role and is registering apprentices in the expectation that they can be placed after training. In other words, with the reluctance of regular employers to recruit (especially given the recession of recent years), the state has felt it should
intervene to continue the production of skilled labour in anticipation of a later recovery of demand.

In this process, the older pattern of in-service training is shifting to something much nearer a version of preservice training. This pattern has been clear in the building trades for quite some time -- in 1985 and 1986, the Registrar took almost three-fourths of the new recruits. The National Railways Training School of NRZ took more than 500 apprentices between 1984 and 1986, gradually shifting from training exclusively for NRZ's own needs towards a form of training for the nation. The Railways Training School is now formally an annex of Bulawayo Technical College, and with this development, it is really becoming a new kind of vocational training centre. It is taking on apprentices that are clearly surplus to the requirements of the railways and is exposing them during their training period to a much wider range of skilled trades than could be found in many other small establishments.

Just how these arrangements work out in practice has not been examined, although monitoring this form of training would be useful. The close association to a working enterprise could benefit trainees in a way that an ordinary vocational training centre might not. On the negative side, however, in institutions taking on a very large number of apprentices, such as the Railways and the CMED, the ratio of artisan (or master) to trainee is likely to be significantly diluted, with deleterious consequences for on-the-job learning.

The apprenticeship mode of in-service training is meant to include release to the technical colleges, ideally during the first year. The staffing difficulties that have continued to plague these colleges since the early 1980s in many cases have prevented them from accommodating and teaching the apprentices off the job. Sometimes, apprentices are offered their related period of theoretical training at a college two or three years late. Some have even finished their training before they can enter a college.
A number of trends are pulling apprenticeship in different directions. From the government side, a great deal of thought (and much legislation) has gone into an attempt to secure this form of training, change its composition, and bolster the numbers of young people who get an opportunity to enter. Even though rebates from the levy fund are automatically available to cover the first two years of training, the numbers of apprentices are still about half of what they were in the early 1980s; if the Registrar of Apprentices had not taken on almost a fifth of the entire cohort in 1986, the numbers would have sunk well below 1,000. The completely private sector is only taking on something like 500 new apprentices a year, and its retreat from apprenticeship appears to be continuing. Several firms have stopped taking apprentices and others are contemplating doing so.

The major issues are the complexity and long duration of the recruitment process, and the unavailability of college space for the related training. The question perhaps is whether the situation could be improved if the government abandoned the centralized recruitment system or perhaps modified it to primarily monitor the training being offered in industry rather than attempt both to recruit and to monitor. With the staff available to the Registrar, it would have difficulty in doing both effectively. On the other hand, experience from other countries (including industrialized countries) suggests that once the state has begun to intervene and take trainees under its own wing, employers may be content to let it do so, selecting those they want at the end of the training period.

Upgrade Training of Skilled Workers

Another model of in-service training for industry also has its origins in the National Manpower Survey. Because of the obstruction of European-dominated trade unions, employers had encouraged Africans to undertake a number of fragmented-skill tasks. This trend became more widespread during the war years at the end of the 1970s, when Europeans were called up for military service. A case could be made for a system that would allow for recategorization of some semiskilled workers. The government
developed a new set of skilled worker grades, and people could apply to be trade-tested and, if successful, graded on a scale from skilled worker grade 4 to skilled worker grade 1. The highest grade (class 1) was deemed the equivalent of successful completion of an apprenticeship. This trade-testing and upgrading system came into operation in late 1982 and has continued to play a role in recategorizing some 2,500 workers each year. Initially, a relatively high proportion of those applying (55 percent in 1982) were actually awarded class 1, which possibly testifies to the accuracy of the NMS analysis indicating the existence of this group. Since then, however, the numbers reaching class 1 by trade-testing alone have progressively fallen, and in 1986, only 13 percent of the applicants were awarded this class.

Trade-testing and on-site assessment, which has also been implemented, may encourage training, but they clearly are not by themselves in-service training. At a certain point, however, a connection was made between the grading system and the notion that the grading might be taken as a starting point for in-service training that could carry a worker up to a higher grade.

The motor industry had started training operators (at skilled and semiskilled levels) in 1981 at two sites, Msasa in Harare and Westgate in Bulawayo. These efforts were taken over in 1983 to become the focus of the in-service training component of the upgrade programme -- the vocational training centers (VTCs). The VTCs then branched out into other trades, greatly assisted by French and German bilateral cooperation. Within a five-year period, the concept of in-service training of employed workers expanded from an industry initiative designed to meet skill shortages to a much broader orientation towards multiskilled training.

In its first incarnation, the motor industry's concept was linked to its own grading system for semiskilled operators (grades 5, 4, 3) and skilled operators (grades 2, 1), all of which were below the journeyman level. In an attempt to accommodate the government's four skilled-worker classes, grade 5 was converted into a workshop hand, the motor trades grade 1 into a skilled
worker class 1, and the others were squeezed in between. The conversion also involved lengthening the training cycles. The old semiskilled operator grade 4 had received one week of training; the training manuals for the new skilled worker grade 4 required four weeks. Bilateral co-operation further lengthened and systematized training. Each training year comprised two training cycles, and increasingly, centre-based training was viewed as part of a more general understanding with employers about what kinds of experience workers needed to acquire on the job.

Once it had been acknowledged that trade-testing by itself, while useful, would not develop skills, upgrade training soon turned into a scheme that would carry a worker from class 4 right up to class 1 over a period of four or more years. In other words, the original VTC model developed into a dual system in which workers identified as capable of profiting from the scheme routinely stay with their projects until they reach class 1. During classes 4 and 3, trainees spend two blocks of six weeks in the VTC, and during classes 2 and 1, two blocks of twelve weeks. Inevitably, this schedule requires an understanding with the employer -- employees are to undergo major in-service training stretching over four to five years, not just a week or two of upgrading. This fundamental difference has prompted discussion of formalizing the whole process through a series of "traineeship contracts." This would ensure that employers are aware of their side of the bargain.

Both the VTC mode and the apprenticeship mode were born in a somewhat adversarial relationship with the employers, the one centralizes recruitment and the other encourages individual workers to get themselves trade-tested, regardless of the wish of their employers. In the latter case, however, upgrade training cannot continue through the full cycle without the active commitment of employers. In effect, employers have a great deal more say in the VTC mode than in the apprenticeship mode. Of course, employees cannot go to the VTC without first being trade-tested or assessed on site and then registering with the Ministry of Labour. As employers get a sense of the quality of the VTC training, however, they will probably try to get their own candidates accepted for VTC training.
Unlike the pool of applicants for apprenticeship, the size of the group who would like to attend VTC upgrade training is unknown. About 2,500 people are tested and assessed each year, but this number probably reflects the manpower and facilities available for testing rather than the real demand from industry. How many of those tested actually want to proceed for upgrade training is also unknown. The clientele of the VTC system appears to be becoming younger. As upgrade training moves towards a coherent scheme of traineeship contracts, the same young people will be attending the centre for at least a three-year period, with obvious consequences for the size of the total throughput. What this implies for the VTC system nationally is that two institutions will be able to cope with only a small element of the potential market. A precedent has been set, however, for reducing the regulation period of attendance to just one year.

Pre-employment Training in the VTC Mode

Just when the upgrade training model was finding its feet in its new Msasa premises (it had moved from the old motor trade location), yet another model of VTC was being born. On the same site as the headquarters of the Directorate of Industrial Training at Belvedere in Harare, a new form of direct-entry (straight from School) training was scheduled to start in early September 1988. The students had been selected, the premises were ready, only the instructors have been hard to acquire. The shift from an in-service to a pre-service mode has tended in Zimbabwe (as in other countries) to be driven by the politics of youth unemployment. This new direct-entry program is not dependent on employers, whether public, parastatal, or private, in the way that apprenticeship and upgrade training are.

In reality, the government has made a very serious attempt to conceptualize direct-entry training in a way that accords with the principles
being hammered out in the Msasa VTC. This is certainly facilitated by having the same bilateral agency -- the West Germans -- involved with both. This direct-entry model consists of a compulsory training phase lasting one and a half years which can lead directly into the labor market via a reduced apprenticeship contract or into a four-year (in all) training process that will accomplish the same goal as the apprenticeship or the upgrade training system -- certification as a class 1 skilled worker. The four-year system is probably considered the ideal option because it marries the initial institutional training to two periods of work on the job with release for advanced training in the second and the last years. Like all institutional training, however, it places a much heavier burden on the institution to locate work placements in industry and to ensure that the initial training carries industry along with it.

With this new version available, employers can choose from among three versions of vocational preparation, all under the authority of the Directorate of Industrial Training. All will require the cooperation of employers to become viable, but two of the systems offer a rather free hand to employers in approval and selection, while the other, older system (apprenticeship) is still surrounded by the complexities of the centralized arrangements. Employers will most likely be encouraged to recruit freely from the direct-entry system.

The sheer novelty and diversity of options implies a great deal of dissemination to employers and active consultation on curriculum, placements, rotation, and other aspects of these programmes. As systems proliferate, knowing which specific training patterns employers are involved with becomes increasingly important. For example, in the automotive industry, a single establishment, CMED, has been taking on a third of all new apprentices; some 70 different firms take the rest. In the VTC Msasa, by contrast, a sample of about 160 different automotive trainees suggests that almost ninety firms have

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5/ Functional Planning for NVTDC Harare Training Sections in Msasa and Belvedere (Harare, July 1983) and Training of school leavers at NVTDC Harare: Course structure (Harare, 1987.)
been able to tap into a somewhat different part of the labor market than apprenticeship. For in-service training schemes to flourish, the organizers and the instructors must be aware of the needs and interests of particular employers; even more important, the instructors themselves must earn the respect and confidence of employers. Just as the scarcity of instructors in the technical colleges has threatened the very framework of apprenticeship, the same could easily happen with upgrade and direct-entry VTCs. Thus, finding instructors is the most vital single component of the whole exercise.

Other Versions of Institutional Training

Beyond these three models, some additional versions of vocational preparation are in operation. These illustrate something of the delicate balance that exists between the preservice and in-service modes of vocational preparation. They also exemplify some of the issues and problems involved in developing a multi-level and multi-institutional form of vocational preparation that still retains a degree of unity and coherence.

One of these other models is a vocational training school (as opposed to a VTC). St. Peter's Kubatana, just outside Harare is the flagship of what was expected to develop into a series of vocational training schools. In the original blueprint, this kind of institution was conceived of as a kind of postschool training system that would offer some of the many drop outs at the end of form 2 an alternative education system with a practical bias. It would provide pupils with a foundation for progressing up the technical training ladder to artisan, technician, and professional levels.\footnote{Ministry of Manpower Planning and Development: Model Vocational Training School: Proposal (n.d.) p. 1.}

The Catholic Church conceived and established St. Peter's in the late 1970s as a three-year, full-time training centre. The concept was later overtaken by the dramatic expansion of four-year secondary education. By the time the Ministry of Labour identified it in 1984 as a "model vocational training school," it was facing a different pattern of educational aspirations.
and was, in effect, offering skill training in two years, part time. The participants were no longer school leavers but form 3 and form 4 youngsters who were also trying to pursue their "O" levels. The speed with which events overtake institutions is perhaps inevitable in situations in which educational access is being democratized on the scale it is in Zimbabwe. A skill-training centre may well have to rethink its clientele, curriculum, and connection with national certification as often as three times within a decade.

St. Peter's has been endowed (by Misereor in West Germany) with the kind of equipment trainees need for thorough grounding in vocational and industrial skills. It also has a level of instruction (and a level of instructor commitment) that could ensure the transfer of such competence. Because students spend only a third of their time directly using these facilities, the technological capacity of the available plant seems underutilized. Perhaps St. Peter's could serve the needs of the high-density areas around it more directly at the form 4 leavers' level. The quality of plant and instructors at St. Peter's will not be common-place at the school level in Zimbabwe for some time to come, but this model does at least raise the question of whether vocational training schools ought not to be following very closely the curricular and linkage developments underway in Belvedere and Msasa.

Whether a network of such institutions will gradually develop around the country is still too early to say. At least one other is in operation (in Honde Valley), also linked to the church. Much depends on whether the VTS model shifts upwards to post-form 4 or whether it remains at the school level, running in parallel with "O"-level classes. Of course, the latest set of events to overtake the possible future planning of any network of vocational training schools is the national initiative to vocationally orient all secondary education.

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"Altogether three other potential VTS schemes (all church related) were planned to become VTSS in 1987: Marist Brothers in Dete; St. Columba's Bulawayo; and Ziva Zano in Honde Valley (to which we refer in the text)."
Another model of institutional training is at Mutare Technical College. This too, like St. Peters and all the other technical colleges, is under the Directorate of Institutional Training, as opposed to the Directorate of Industrial Training, which oversees the in-service and upgrade models. What makes Mutare important in any discussion of the balance between in-service and preservice modes of vocational preparation is that it provides direct-entry craft-level training, such as is shortly to start at Belvedere. After one year of solidly college-based training (in 1986, when the scheme started), the students have different options. They can try for apprenticeship, enter technician classes, or continue their artisan training in the college interspersed with, ideally, long tours of work experience in industry. It has not been possible to visit this new model to assess how the crucially important links with local industry have developed and what pattern of options has finally emerged. Because it does constitute another version of direct-entry training, however, it should be conceptualized within the same framework of vocational preparation as the other options.

The tensions between the in-service and preservice use of technical college facilities are going to take some time to settle down. Plant that has been built at considerable expense (whether with local or external funds) will be under pressure to fill up classes and make use of scarce lecturers, especially if the college is new and industry is not sensitized to its use. In colleges other than Mutare, small classes of sponsored students have been joined by "in-fill" students not sponsored by any employers. In this situation, both preservice and in-service students are being taught at the same time, but one group has guaranteed access to an industry setting, while the other may have to find a location itself or with the help of the college.

In this shifting balance between preservice and in-service training, the quantities of students involved and the new patterns of access to industry or commerce that they manage to develop should be monitored. Also to be anticipated (whether at the craft level in Mutare or at the graduate level) is the need to involve potential employers in a major consultative exercise across the whole range of new pilot courses. The rate of development of new
initiatives in vocational preparation has been so rapid that national employment councils of the various industries may not be aware of the implications for their membership of such developments as the emerging patterns of functional, upgrade training at Msasa (and Westgate); the start-ups of direct-entry training at Mutare (1986) and at Belvedere; the shrinkage in apprentice numbers (outside the public and parastatal sectors); and the distinctive quality of the St. Peter's Kubatana vocational training school.

The Status of Vocational Training

The history of vocational training systems indicates that time-honored methods of training in different kinds of industries are slow to change. Also gradual is the process whereby different approaches get digested and absorbed into something that is recognizably a national system of vocational preparation. In the case of Zimbabwe, the various modes of vocational training, with the exception of apprenticeship, are very recent; even apprenticeship has been so altered in some respects that it appears to be a different form from that known in the pre-independence period. Apprenticeship, upgrade, direct-entry, and vocational school do not really constitute a system. Rather, they have been separate initiatives taken to deal with particular parts of a larger problem. In effect, they are subsystems in transition.

The principles that have catalyzed these separate initiatives are important. Of the two in-service approaches (apprenticeship and upgrade training) state intervention has been much greater with the first; yet, the second appears to have increased in popularity, while apprenticeship has almost certainly declined. This comparison is in some ways unfair, however, because the two training opportunities have been very different. Apprenticeship has been seen as a four-year commitment, with reduced employer responsibility for recruitment; upgrade training has appealed to employers because it appears to be responsive to a specific need, for example to raise a person's skill level by a certain margin. The upgrade system is attractive to some employers because it can be stopped and started depending on the firm's
skill needs; apprenticeship runs for four years regardless. In addition, employers are aware that off-the-job training in upgrade centers is very closely monitored and that at least one of the centers offers a very strong technical assistance component. In contrast, polytechnic and technical college to which the craft apprentices are released has had a history of inadequate staffing and management. The apprentices acquisition of related theory and their exposure to the new national craft courses has been bedeviled for years. So apprenticeship is at some considerable competitive disadvantage with respect to upgrade training.

The other two subsystems are even more in transition. Very little information is available on direct-entry training into one of the technical colleges, even though the trainees are in their third year. Direct-entry training into the National Vocational Training and Development Centre at Belvedere has been delayed for a year and a half by lack of instructors. It was scheduled to start in September 1988. The status of the vocational training schools was also very uncertain, as of mid-1988. They are involved in something of a double transition. As vocational training schools, they were part of the Ministry of Higher Education in 1988, but they are clearly relevant to the intended reform of secondary schooling towards greater vocationalization. If they are to be seen as the flagship of the new vocationalism, then they are less appropriately located in Higher Education than in the Ministry of Primary and Secondary Education.

By July 1988, the government had identified a pilot group of fifteen vocationally oriented secondary school and was holding meetings to determine whether a thoroughly vocational element in the curriculum, like the Zimbabwe National Craft Certificate (ZNCC), was compatible with reducing the number of "O" levels. A number of predictable tensions have emerged from these discussions, for example, coupling a full craft course with a good complement of "O" levels may encounter parental opposition. A more important issue relates to the idea that a certificate originally designed for an apprentice to follow in college can be taken in school. The ZNCC is really an in-service certificate for young people who are being exposed to a trade on the job but
are temporarily on release to the college. The training on the job and the experience of regular work are crucial elements behind the ZNCC. But when such a certificate is transferred to a preservice environment, however, it is no longer the same course. The issue is not just insuring that the hours assigned in school parallel those for the college, it is how to compensate for the lack of an industrial base for the certificate.

These pilot schools are not likely to become a model for the rest of the secondary school system. For these are pilot schools in a special sense of the word "pilot." They are some of the only schools in the Harare region that already have sufficient equipment to be considered vocational. They have not been given a package of equipment; they are endowed with equipment from their previous existence. Thus, they do not pilot the cost of equipping other schools in a similar fashion. Indeed, other secondary schools can probably only afford a much more barefoot approach to vocationalization. These pilots, therefore, may not be charting a course that other secondary schools can follow.

The transition of these four different modes of vocational preparation into the new education ministries is certain to alter the balance between in-service and preservice approaches. On the positive side, location within a ministry of education might make for more continuity between education and training functions. Countries (possibly the majority) with one ministry responsible for education and another for vocational training, often have a complete disjunction between schooling and training places. Once one ministry is responsible for the whole operation, post-school training opportunities for young people may begin to receive greater attention.

Compared with the numbers of students in form 4, the size of the formal vocational training system is minuscule. Upgrade training and vocational schools are not, of course, open to young people leaving school. For a school system with an estimated form 4 output of one-quarter million young people in 1988, the provision of only about 1,100 training places would suggest a major disjunction between education and training.
In point of fact, education and training are still partly in two ministries. The massive school cohorts are under the Ministry of Primary and Secondary Education and the vocational and technical training places are under Higher Education. The political pressure to democratize secondary education, however, is likely to extend to the democratization of training. The shape of any such expansion has been little discussed, but increasingly it would appear not to depend upon formal industrial apprenticeship. The first five-year national development plan (1986-1990) mentions that the output of vocational training centers will increase six-fold, with four new VTCs being built. What is not mentioned is whether direct entry to any such new facilities will be possible. The description is noncommittal:

Initially, training was provided only to persons who were already employed in the trade in which the training was required. Belvedere will now offer training to four-year secondary school leavers who will be trained to be self-reliant and for subsequent employment. (First Five-Year National Development Plan 1986-1990, vol. II, 1988, p. 51.)

As pressure grows for something like a training entitlement for the large majority of secondary school leavers who effectively fail their "O" levels, new centers probably will be dedicated to the direct-entry (preservice) mode. As the enormity of the task becomes clearer, some of the mechanisms, such as community self-help, that were used to expand secondary education may begin to be applied to the training sphere. Without the use of such financing strategies, the postschool training sector may continue to be marked by very heavy dependence on external donors. High-cost, low-access training centers, assisted by external finance, are likely to continue to be oriented towards the formal sector of the economy. They will be able to accommodate only very small numbers of aspiring trainees. Others will have to find and even pay for their own training through the private colleges, the
correspondence colleges, and any other kind of training opportunity, whether on the job or through less formal schemes such as the Youth Training Centers.

Concern about the political impact of a quarter of a million new school leavers reaching the labour market each year in the late 1980s will produce a readiness to consider radical alternatives to existing schemes. Already, the Confederation of Zimbabwe Industry (CZI) has been raising such possibilities in its discussion of employment creation at the July 1988 Congress:

While it is desirable that any system of vocational or technical training should produce manpower of the required standard under a formal and regulated system, it is equally desirable that a less formal system should be allowed to operate side by side to cater for those who cannot be absorbed into the formal system. This affords an alternative way of preparing for future permanent employment. Such a system could be a novel in-house, on-the-job training scheme designed for school leavers for a fixed period with the intention of offering the school leaver permanent employment elsewhere. (CZI, 1988, p. 4.)

The young people pouring out of school cannot afford the luxury of waiting for a unified system of vocational preparation. They will do what they can to acquire some kind of training or work experience.

The Zimbabwe Manpower Development Fund (ZIMDEF)

Although employers paid a small levy in the late colonial period, the National Manpower Survey and the new activities of the (then) Ministry of Manpower Planning and Development brought in the notion of expanding the levy to 1 percent of the wage bill to provide funds to be used as an added incentive for private-sector firms to undertake "progressive training programmes." This became effective in January 1983. By 1986, this levy
applied across 13,000 establishments, was bringing into ZIMDEF a levy income of just over Z$24 million a year.²/

The impact of this rather large source of funds has not yet been seriously evaluated. Is it possible to detect patterns of progressive training programmes in industries that have received rebates, as the National Manpower Survey anticipated? Has the ZIMDEF levy had any direct effect on apprentice numbers? Has Zimbabwe managed to be any more successful than several other countries in which levy funds have accumulated, either because employers have chosen to regard it as a tax or because the procedures to get the money back are simply too complicated? Some indications of trends are perhaps detectable from what data can be found.

Rebatable Training. Certain categories of training enjoy something approaching a standing obligation to reimburse. For a whole series of other courses, however, the ZIMDEF "list of approved training eligible for rebates," which is issued each year, appears to be used more as a manpower planning instrument.¹⁰/ Thus, apprenticeship and upgrade training are now automatically reimbursed without the need for the employer to make much more than notification of the fact that workers are at Msasa or Westgate. The fact that all apprentices and upgrade trainees are already registered with the directorate of industrial training doubtless facilitates this procedure.

By far, the largest part of the money that is actually paid out goes to reimburse employers for first and second year apprentice costs. The assumption is that during this time, apprentices are learning to be productive. In 1986, the first and second year apprentices (approximately 2,500) cost the fund Z$11.2 million. Whether the intention is eventually to cover the costs of other kinds of direct-entry recruits, such as those at Belvedere (in 1988) or even those doing craft training in Mutare, is unknown.

²/ All dollar figures are in Zimbabwean dollars.

¹⁰/ See the memoranda from the Zimbabwe Manpower Development Fund of 1984, 1985-6, and 1986-7, on rebates.
Perhaps the 25 percent of the 1986 apprentices who have no employer but are under the umbrella of the Registrar of Apprentices should receive the same benefits as those young people who are direct-entry recruits.

Is there a rationale for some direct-entry, craft-level trainees paying their own fees, while another group is charged to ZIMDEF at approximately Z$4,400 each? With the possibility that direct-entry training, initially unlinked to employers, could rapidly expand, this question is worth raising. For instance, two years of direct entry at Belvedere and at Mutare could come close to 2,000 students, which reimbursed at the same rate, would take the bulk of the available moneys.

A crucial component of the answer to this question is the extent to which the ZIMDEF money is covering many of the other forms of training in industry and commerce, whether company training schemes, supervisor training, development of junior management, or whatever. Data on employers who applied for training rebates other than for VTCs and apprenticeship are available for 1984 to 1986, although the categorization for 1984 was insufficiently precise to make any judgment. The picture for 1985 and 1986 is a good deal clearer, however.

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<td>640</td>
<td>663</td>
</tr>
</tbody>
</table>

Source: Register of trainees, ZIMDEF.

Of about 15,000 employers, the number that applied for any category other than those that are almost automatic (VTCs and apprenticeship) was fairly steady, and relatively small, during this three-year period. In earlier years, more employers may have applied than finally were successful, but if the 1986 applications are typical, then the total may not have been much greater.
The reluctance of employers to apply for rebates for non-VTC and non-apprentice trainees must relate to the details of approved training and to employer's experience to earlier years. The broad categories that were intended to attract rebates for in-service training during 1984 and 1985 included:

1. Ex-combatants and ex-refugees engaged in apprenticeship training

2. Regular apprentices (handled automatically)

3. Recognized training to acquire a professional qualification in management courses offered by the following institutions/associations. (Here followed a list of 20 professional institutes, societies, and associations; also one line mentioned government institutions -- National Intermediate Diploma, National Diploma, and Higher National Diploma, and a further line mentioned any other courses with the approval of the Ministry of Labour.)

4. Postqualifying practical training necessary to acquire a professional qualification or membership of a professional institute registered or recognized in Zimbabwe. (Here followed: Engineering Cadets (Society of Engineers); Pharmaceutical Cadets; Institute of the Motor Industry; City Guilds of London Institute; Learner Miners; and any other technical training approved by the Ministry of Labour.)

5. Training given in the following trades and professions. (Here followed a list of four technicians: dental, laboratory, survey, and pharmacy; three mechanics: agricultural, typewriter, and cash register; shoe designers and dress designers; electronic engineers, flight engineers, pilots, horticulturalists, and opticians; and watch repairers, loom
tuners and sewing machine mechanics, and well-sinkers [at least 60 feet].)

Some further notes added in the 1985/86 edition may have affected applications for that year. These notes stated that for a training programme to be considered, it should meet at least one of the following criteria:

Have a clearly structured training schedule -- showing both theory and practical content, organized preferably on a competency-based training programme

Culminate in an acceptable assessment and accreditation system reflecting both practical and theory aptitude level

Have clearly stated and realistical set time period of training logically proportioned between the practical and theory training

Be administered by qualified trainers.\footnote{11}

Several messages come across from this set of guidelines. First, it strongly supports the notion of a full professional qualification and for the induction necessary to lead to membership of a professional institute. Second, it does not emphasize government institutions, though it does mention their diplomas. Thirdly, the Ministry might agree to rebates for other courses meeting the approved conditions.

The great bulk of successful applications for support of non-VTC, non-apprentice training in 1985 were those pursuing induction or examination for professional bodies and institutes.

\footnote{11} Memorandum on Approved Training Eligible for Rebates, 1985-1986 (Zimbabwe Manpower Development Fund).
Their numbers were distributed as follows: Six professional associations and three more technical categories accounted for 574 of the 640 successful applicants in 1985.

Applicants Accepted (1985)

Professional:
- Chartered Accountants (CAs) 177
- Chartered Institute of Secretaries and Administrators (CIS) 82
- Zimbabwe Association of Accounting Technicians (ZAAT) 53
- Institute of Administration and Commerce 31
- Institute of Bankers (IOB) 23
- Chartered Institute of Insurance (CII) 21

Technical:
- Learner miners 152
- Engineering cadets 24
- Assayers 11

In addition to these, some fifteen other professional institutes had from one to seven successful applications, but there were only two additional technician applicants. Just ten firms and establishments were responsible for 277 of the 387 successful applications in the professional field, while only four mining companies, along with the National Railways, accounted for virtually all the technical applications. In other words, like the pattern of apprenticeship sponsorship, some two-thirds of all successful applications were drawn from about fourteen individual companies.

In terms of the ability of the ZIMDEF levy to permit and encourage certain activities and discourage others, this admittedly rather thin data set provides some insights. First, the sheer act of specifying by name the twenty professional institutes was obviously influential in getting the training managers or personnel managers of companies supporting such activities to apply. Conversely, however, the absence of any specific reference to particular courses in the government's technical colleges was possibly a
negative influence. In addition, the absence of any specific examples of rebatable in-plant training may have discouraged training managers from trying to make a case for their training centers. Doubtless they would have been further discouraged by the very heavy emphasis on long-term courses and professional qualifications. In point of fact, several firms did apply in both 1985 and 1986 for all kinds of short-term (one-day to one-week) training courses, but in general these were disallowed.

Possibly learning from the pattern of applications from 1985, the 1986/87 approved rebated regulations were very much more specific. Instead of a one-line reference to government institutions and their diplomas, the 1986/87 regulations contain almost two full pages of very specific courses: seven at the National Certificate level, nineteen each at the National Intermediate Diploma and the National Diploma levels, and three at the National Higher Diploma level. The list of courses offered by professional institutes and societies shrank from twenty to ten. The clear thrust of this very major shift in specificity must be an attempt to encourage attendance at national training institutions. The success of this endeavor cannot be measured until later data become available, however.

The experience of previous years also indicated that industry and commerce may still prefer that short management courses be diverted into the Management Training Bureau (MTB), which is run by the Ministry of Labour. The whole array of tailor-made short courses offered by the private and voluntary sector have not attracted rebates presumably because of their brevity and alleged high cost. The following note in the 1986/87 guidelines is perhaps indicative of encouragement for the private sector to use public-sector courses:

N.B. MTB courses have not been listed for rebate because they are in fact heavily subsidized by both State and ZIMDEF hence the very low fees, and are for short durations, to minimize many hours lost to the employing organizations while addressing specific management problems to improve the efficiency and effectiveness of the
The adversarial quality of private-sector discussion of centralized apprenticeship surfaces in connection with ZIMDEF support. The private sector prefers the management courses run by the Zimbabwe Institute of Management, the Institute of Personnel Management, and many other bodies -- both profit-making and nonprofit -- but such courses are generally not rebatable. ZIMDEF funds (from the private and parastatal sector) were used for the Management Training Bureau, however, in the hope that it would attract clients from both the public and private sectors. The key issue, apparently, is not the length of the courses (to judge from the above note) but their sponsorship. This polarization seems unfortunate as it affects in-service training of junior and senior management, which many would argue is actually a higher priority in the private and public sectors than the vocational preparation of skilled workers. The longer courses possibly create less of a problem, because the rebate regulations suggest the management courses in the technical colleges, as well as the diplomas of the Institutes of Marketing Management, Industrial Management, and Cost and Management Accountants.

**Influence of ZIMDEF.** A number of summary points emerge about the present impact of the levy/grant system on in-service training and education:

1. The scheme has achieved some stability in apprenticeships and VTC upgrading. In combination, in 1987, these two forms probably accounted for almost half of the levy monies raised (an expected Z$24 million). Other direct-entry schemes are going to pose policy dilemmas for government, however, as their numbers conceivably rise to challenge apprentice numbers.

2. The take-up by employers for management and induction training has been constrained to a minute fraction of the potential clientele. According to the most recent accounting (1985/86) of grants for these areas, approximately Z$884,000 was paid
out. Arguably, the take-up has been inhibited by the lack of clarity about what could be rebated and at what levels. The impression that only professional courses leading to recognized qualifications are likely to be funded is widespread -- and to some extent justified by the only available data.

3. The most recent years' regulations appear to strongly encourage use of national training institutions such as the technical colleges and the MTB. The chronic shortages of qualified staff at these government training institutions have been widely publicized, however, and so long as the government cannot guarantee block or year-long release for apprentices and other trainees, industry will continue to be tempted to make its own training arrangements. The speed with which much of industry has appointed training managers is in marked contrast with the instructor vacancies in the public sector.

4. ZIMDEF funds have been very significantly in surplus since the inception of the scheme. Prior to the 1987 additions (of approximately Z$24 million), ZIMDEF held Z$50 million in surplus. Most of this had been theoretically allocated to building programmes in the technical colleges for the 1986/87 period, industrialists and policymakers concerned with the quality of training regard the recruitment and retention of instructors and lecturers at national institutions as being one of the first calls on ZIMDEF funds.

5. The ZIMDEF fund has in many ways had the result of souring relations between government and the private sector. Consultation on the rules and regulations for rebates has been minimal. The National Manpower Advisory Council would be one obvious focus for such discussion, but that body just began to meet in a regular way in late 1986; its specialist industry committees, who could well be charged with detailed advice on
courses and training within particular trades, were only in the formation stage. Thus, something of a policy vacuum has existed, with very little routine consultation among government, employers, and unions on the most urgent training needs by sector. In the absence of such mechanisms, the use of ZIMDEF funds has been the subject of wild speculation, much of it quite irresponsible.

**ZIMDEF in transition.** Some changes in emphasis affected ZIMDEF during the 1987-88 period. This was the year when the management of the funds was transferred, along with the technical colleges and the vocational training centers, to the new Ministry of Higher Education. As the administrative changes were only really beginning to have effect in July 1988, the direct influence of the new ministry was not yet apparent. Some date are available up to the point of transition that indicate whether the trends evident in the period from 1984 to 1986 continued and perhaps may indicate whether the regulations of the fund do have an effect on private enterprise training.

Approximate figures bearing on the size of the clientele making use of the funds and the patterns of expenditure are now available up to July 1987. They are somewhat different from the patterns in the previous years, but this is less because the firms changed their training behavior than because the regulations changed. During 1987, the regulations that were to govern what would be reimbursed for 1986/87 were issued just two or three months prior to the closing date, too late for firms to alter their training schemes to accommodate the new regulations. The same thing happened for the June 1987 to July 1988 training period. The regulations were issued as late as March 1988, when the period they were to govern had almost finished; applications were due by the end of June 1988. Obviously, the ZIMDEF fund could not expect to influence employers' training patterns in advance.

If the fund wishes to influence training for the period 1988/89, then it should have issued its regulations in July-August 1988, especially if the regulations are going to continue to change as the fund makes the
transition from Labour to Higher Education. Sudden shifts in rebatable courses from year to year make planning very difficult. In the absence of explanation of the rationale for the changes, managers cannot even be certain that courses associated with professional bodies are a ZIMDEF priority. The shift in the professional rebates is one of the principal reasons why rebates for formal courses fell from Z$844,000 in 1985/86 to Z$196,000 in 1986/87.

To persuade more employers to use the polytechnic and technical colleges at different levels of the national diploma, ZIMDEF listed large numbers of such courses in its 1986/87 regulations, but it listed them too late to have affected the 1986/87 training pattern. Whether the employers who submitted their claims for 1987/88 made much use of the college courses is not known, although the number of employers who applied for these formal and professional course rebates for 1987/88 is known to be about the same as in the previous period. The composition of that number changed, however -- of those who applied for 1987/88, just over half were different from the year before. Perhaps not too much should be attached to this: the tiny number of total applicants is more significant than the fact that half of the previous year's group were either not entitled or did not bother to reapply.

The very low employer response, even of those who have applied before, is not the result of very large numbers of employers applying and being disqualified. Rather, the very small numbers of employers applying are in many cases receiving very small proportions of their total claims. No calculations have been done on such data, but the evidence indicates that total claims are much more extensive than the few items that are rewarded by rebate. The preparation of claims is time-consuming, and quite possibly one of the major reasons why some of the employers who know about the fund fail to reapply is that the return does not justify their investment of time in making the claim.

This situation could be greatly improved if the fund would announce details of the actual rates of reimbursement in advance. For example, prospective applicants do not know that the average paid back to someone
applying for a course or professional institute preparation was approximately Z$600 (though much lower for some and higher for others). Nor do they know that the rate awarded for articled clerks (in law and accountancy) and miners and engineering cadets is worked out as a quarter of their approximate salary, or a rebate of Z$2,000 -- roughly three times more than those applying for course and professional preparation rebates.

Several different sets of principles operate across this very small rebate universe. In the case of apprentices in their first two years (four years for "special scheme" apprentices), the assumption is that the fund will pay the entire cost, including wages in the firm and time and expenses at college. This comes to as much as Z$4,000 a year -- less for hairdressing and building. The next highest category includes indentured or articled cadets. These are essentially learning on the job but receive basically a quarter of their salary, or roughly Z$2,000. Then comes the group recompensed for the actual cost of particular courses and exam fees while they are learning on the job; they receive an average of Z$600. The fourth group comprises those who go for skilled-worker training are only paid for the time they are actually away from their jobs.

In very approximate figures, the cost to the ZIMDEF fund of these four different categories during the rebate period 1986/87 was as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentices (1st two years and special scheme)</td>
<td>Z$10,691,000</td>
</tr>
<tr>
<td>Skilled workers (to Msasa and Westgate)</td>
<td>678,637</td>
</tr>
<tr>
<td>Industrial and professional induction</td>
<td>726,000</td>
</tr>
<tr>
<td>Formal and professional courses and examinations</td>
<td>196,452</td>
</tr>
</tbody>
</table>

Exactly how many employers applied for rebates in these various categories is not known. The 385 ZIMDEF rebates do not mean that 385 employers applied, for some firms applied in all four categories. The last two categories, taken together, so far have attracted only about 70 employers a year. The number of employers taking apprentices is difficult to calculate, but it is probably not higher than 200 and perhaps is much less. The number
of employers using the upgrade system is growing, although it is currently constrained by the fact that only two centers are operating. For the motor trade alone, for the first six months of 1988, 115 employers sent workers to Msasa. Information on employer applications in all four groups would be valuable to the different employers associations, to trade unions, and to those planning the rebate system for the next years.

How influential has ZIMDEF been in advancing vocational training? The answer is almost certainly "not very" or perhaps "not of all." Of course, apprentice numbers might have fallen farther without this form of state support. The rebates may have played a small part in support of upgrade training, but the reputation of the training itself has probably been as influential. The rebate system may be almost entirely without influence in the other two categories. The few firms that applied were in most cases doing a good deal of training anyway, on which they have sought more or less successfully to get some money back. They have almost certainly continued their training patterns, regardless of whether they recouped the levy. The majority of companies, especially small and local firms, simply do not know about the fund; for them, the levy is just another tax.

Can ZIMDEF realistically expect to have more influence on vocational training, and how? In the new policy regime, under the Ministry of Higher Education, the fund may be able to play a part in a somewhat more collaborative training environment. Expecting the fund to fine tune the manpower needed for the economy is unrealistic, however. And monitoring a large volume of requests for particular training schemes and assessing them for rebate is certainly beyond the capacity of those associated with the fund. The only feasible way of handling the political necessity to include many more firms in the scheme is to involve the professional, commercial, and industrial associations in determining training priorities for their particular branch of industry.

A decision to move from a few officers in government deciding what is worthy of rebate to a dialogue with the parties most intimately concerned
opens several options. One would be for each subgroup of industry and commerce -- banking, hotels, construction, and so forth -- to determine its own training priorities and to present these to NAMACO for discussion. The major part of the money levied from that sector could then be open for reimbursement within that same sector. Some such method would make each particular industry much more accountable for its own training priorities. The state would need to accept that, in this option, most of the money it collects from a sector would go back into that sector, paying particular attention to incentives for small firms to invest in training. Any such industry-specific accountability for training has one major disadvantage from the point of view of government: it removes the government's freedom to invest the levy surplus in national training facilities. On the other hand, it would improve the private sector's current negative attitude toward national training.

Obviously, a lot of intermediate positions are possible between industry-specific training boards and the view of the levy as a tax to be used for supplementing national training institutions. Awakening more private-sector interest in ZIMDEF would clearly be of value. This might require a public relations exercise to inform employers and trade union organisations of past patterns, to announce the rules of the game a year in advance, and also to clarify with employers the decisions about investing the surplus of the previous several years.

PRIVATE AND PARASTATAL INITIATIVES

One of the private sector's most common complaints is that since independence it has done a great deal of training, but very little of this effort has attracted any recognition, let alone rebate, from government. In the eyes of government, however, many of these private-sector initiatives have been in competition with national schemes or have even been designed to subvert or circumvent government training programmes. Industry, on its side, may well feel that it cannot afford to wait year after year for the government to put its training house in order.
A number of broad issues underlie these contentions. These issues deserve notice, although the research base for some of these observations is slender. Only a relatively small number of industry-based training schemes, centers, and schools have been visited; on the government side visits have been restricted to Harare. The views of employer associations and confederations have been sought, but the position of the unions on training policy has not been satisfactorily reviewed. Nevertheless, the tendencies and trends that shape these major issues would profit from closer examination and further research.

In the present economic climate of industry in Zimbabwe, many industrialists perceive skills and manpower issues as being one of the least important factors responsible for constraining output. Foreign exchange, materials, and spares parts are much more important constraints than skills -- whether managerial or technical. This may be too simplistic a way of stating relative priorities, however. The scarcity of spare parts and foreign exchange has wreaked dramatically more havoc in organizations with an already weakened repair and maintenance capability.

The four-volume management study of the Central Mechanical Equipment Department provides vivid testimony to the negative interaction of these two factors. A very fragile repair and maintenance facility can be devastated by the need to switch from a replacement mentality to the need for preventive maintenance. A preventive maintenance regime has major implications for staffing at every level from management to accountant to skilled worker. Although, the sanctions imposed on the UDI economy had accustomed much of industry to "thinking local" in terms of technological adaptation, use of

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materials, and so forth. Zimbabwe lost a great deal of this hard-won "tradition" after independence.

In-service Training of Unskilled Workers

One of the paradoxes of Rhodesian and Zimbabwean history is that both regimes may have paid too much attention to skilled workers -- for different reasons, but with the same effect. Journeyman skill was in deliberately short supply in the colonial period, with the result that employers actively began to circumvent the need for European skills by using fragmented African semiskill. With independence, the new government naturally regarded the Africanization of apprenticeship as one of its first priorities. It has paid almost as much attention to controlling this particular tiny cadre as did quite different forces in the colonial era, and it has continued the tendency to use fragmented labour. European journeyman unions were the thorn in the flesh of the colonial employer; the regulations surrounding predominantly African apprenticeship is a thorn in the flesh of the Zimbabwean employer. Accordingly, the attractions of other forms of labour became clear.

The Africanization of skill led to the development of four skilled-worker classes, to the notion of upgrade training, and to a national labour-grading system. The national dissemination of skilled-worker categories has only affected the composition of the modern labour force at the margins, however. The reclassification and trade-testing process has encompassed between 10,000 and 12,000 workers since independence out of the 176,000 semiskilled and half a million unskilled formal-sector employees in 1981 (as enumerated in the National Manpower Survey). The numbers in the agricultural and informal economy are much larger.

Some industries have made progress in accommodating traditional industry-specific job categories to the new order, although analysis of this process is rare. The motor trade, for example, sought to squeeze most, though not all, of its existing categories into the new grades. The classification process has not been finished, but so far it has identified a few more than
1,000 journeymen (employers and employees), some 700 in the band that might correspond to the new classes 2 and 3 and about 10,000 in the lowest categories, which would include the new class 4 -- the unclassified workshop hands, garage attendants, and other low-skilled workers.

The process in the building industry has been quite different. It has retained the traditional worker grades, running from 1 up to 4; then comes a category of workers allowed to do certain elements of skilled work; finally, it has the government's four skilled-worker classes. These groups of workers have quite different job pyramids: the worker category has a huge base (10,600) and a small top (600), while the skilled-worker category has a tiny base (250) and a large top (2,200). Indeed, among the skilled workers, all the classes except class 1 number 400 or less. About 2,000 workers are in the group between the unskilled and skilled classifications.

These two industries illustrate very diverse approaches to the process of recategorization, and they underline the fact that classification cannot be separated from the existing relations of production. Reclassifying skilled operators (or operatives) as skilled workers in no way alters the nature of the work, but it can be done in a way that emphasizes new career tracks and upgrading possibilities. On the other hand, the exercise requires paying considerable attention to pay levels, existing technology in the industry, and the education and skill levels of those already in post.

The engineering industry is characterized by considerable skill fragmentation, and the skilled-worker and graded job categories are reinforced by collective bargaining agreements. This industry was one of the earliest to apply the Paterson job evaluation scheme to the whole system. The Paterson system which was developed by Professor Paterson of Strathclyde University, Scotland, was first applied in Zimbabwe by Anglo-American and is now in wide use there. It breaks all jobs down into six bands of decision making: policymaking, programming, interpretive, routine or process, automatic or operative, and defined. The bands are classed alphabetically -- the defined
and automatic bands are labeled A and B, respectively, progressing through the alphabet to F, the policymakers.\textsuperscript{14/}

The 1985 collective bargaining agreement for this industry brings together eighty pages of job categories spread across the A and B grades with a scattering of Cs.\textsuperscript{15/} The government's concerns and preoccupations with skilled labour status may have reduced its attention to the classification of other workers. An in-service training system predicated on a fragmented skill base is likely to be rather different from one that examines anew the processes of job mobility within job categories.

Because any job evaluation system works by judging the skill or decision-making content of jobs as they exist, applying the Paterson system did not change the long-standing skill fragmentation that reigned in the colonial period. It merely reinforced and solidified the existing relations of production, although these are, of course, also powerfully affected by technology.

\textbf{In-Service Training in the Private and Parastatal Sectors}

In-plant training systems in Zimbabwe range from extensive programs that at Anglo-American, which estimates its "training man days" cost Z$4.5 million a year, to groups with purpose-built training complexes (ZESA with French technical assistance), to systems that offer virtually no off-the-job training at all. Some trends among these programs are important for NAMACO and other training policy groups.

One of these has been the realization that the educational level of the workforce can now progressively rise, as increasingly the ordinary

\textsuperscript{14/} Adaptation of the Paterson Manual can be found in several private-sector training centers.

applicant for work will have a form 4 education. Some of the more training-conscious firms are currently developing training systems that bring young people directly into the company from school and expose them, on a contract basis, to the rough and tumble of unskilled work on the shop floor before choosing whom to employ on a regular basis. Those who survive after one or two contract periods are then introduced to training courses which in many cases have been given a great deal of thought.

These systems are quite different from both the old practices of learning on the job and the apprentice system. They involve a high degree of learner self-direction. Trainees work their way through course maps and follow career tracks, guided by purpose-built manuals. The process requires a relatively high degree of literacy and self-pacing, adjusted to the intelligence and motivation of the trainee. One example of this type of training is the learner-directed training schemes, which are now running in parallel with the apprenticeship system in one or two sites. This genre would also include criterion referenced instruction (CRI), which originated in the United States (Mager Associates Arizona), reached Zimbabwe via some of the mining companies and is now spreading into other industry sectors.16/

The strength and attraction of the CRI system for in-service training are that it seeks to work backwards from precisely what a particular job requires in knowledge and performance to a specification of the exact ways to define and test for those desired behaviors. CRI is not concerned with frills (the "nice-to-knows"), only with the exact requirement of the job at hand, and the skills needed to ensure satisfactory performance in that job. The system includes a whole series of graduated performance checks designed to ensure that a particular operation is done to perfection. It has some important implications for training officers who are beset with problems of slipshod work, inadequate maintenance schedules, or youngsters who are overtrained or undertrained. It offers a vision of a world in which the maintenance mechanic for a particular subsystem will have mastered all that


- 52 -
needs to be known and done in order to operate that subsystem perfectly -- and nothing more.

CRI and similar mastery-learning systems are necessarily very restrictive but they obviously could be applied to higher levels of performance, including apprentice skills. Their peculiar attraction however is in the ideal of mastery, accuracy, and cost efficiency. Why bother spending four years learning ten times more than can be applied on the shopfloor?

These systems deserve serious attention from agencies like NAMACO and its eventual specialist trade committees. They seriously address the learning needs of workers at many levels. The Directorate of Industrial Training has approved CRI in principle as qualifying for rebate. This could be an important precedent for several of the other in-service training systems that are coming on the market. Many of these offer operators or semiskilled workers a better deal than they now have. The training policy committees should discuss such schemes to determine how they do and do not intersect with the apprenticeship training system and with the VTC system. This kind of discussion should occur on an industry-by-industry basis, which makes it even more crucial that the representational and consultative mechanisms attached to NAMACO get off the ground.

In-Service Training in Small-Scale Firms

These newer training systems tend to be restricted to the larger firms, more commonly among those that are multinational. Large firms can move developments in training approaches from one branch to another without having to develop the system from scratch each time. Also, the larger firms have the financial capacity to justify a training establishment. Nevertheless, unless these large firms are under international pressure to develop training according to particular norms, they tend to approach training pragmatically.
Some quite large companies in Zimbabwe do not have an explicit company training policy, covering different levels of workers and types of courses. Such firms treat training in an ad hoc manner -- when they have a conspicuous need for training, it will be organized; but when this need has passed, the training facility will not necessarily be maintained. In one case, after independence, a firm developed a technical training centre to help fill the vacuum created by the emigration of large numbers of whites. Suddenly, semiskilled workers were given some pre-apprentice training. When the need passed, however (and perhaps also because the firm's apprentices could no longer legally be picked from these preliminary training courses), the firm abandoned its newly created training facility. Unlike many of the multinational firms, such companies do not yet have any institutionalized commitment to training. They may take apprentices or they may not, but these decisions will tend not be part of a training strategy as such. One firm admitted that although it takes apprentices, its general tendency was still to train by the time-honored method of "sitting next to Nellie."

The smaller local firms, in sectors like engineering and building, usually have even less of a training policy. Some allege that when they did train apprentices, they were unable to hold on to them. The practice in many small firms is to take on relatively unskilled workers -- literally "off the streets" -- and expose the most promising of them to specific skills such as welding. The contract system of labour recruitment allows small employers to keep new workers on probation until they need someone permanently. Some employers count on always having more workers to choose from if some prove unsuitable. This sense of security in a labour surplus is not conducive to major investments in in-service training.

To discourage this attitude, government policy since independence has sought to promote security of tenure for labour, to reduce the use of casual workers, and to use the levy/grant mechanism to encourage worker training. More detailed research is needed to analyze the impact of these policies on smaller firms. For example, a small firm with only fifty employees may have no apprentices, make no use of upgrade training, and just
send an occasional employee for a one-week welding course. In addition, it may be using systems of labour recruitment that allow it to keep permanently only a certain proportion of the workers it recruits. The same firm may be paying a training levy of some Z$40,000 a year, but it has no system for recuperating any of these funds.

Apparently, the government's policy instruments are not making this kind of firm more training-conscious. It has not shown any greater commitment to in-service training over the years. The levy was not designed, however, to force all firms to provide training, but rather to increase the pool of trained people. Even if these small firms are not among the very few companies that apply for rebates, the levy system may meet their needs indirectly if it helps develop elsewhere the skills these firms need. This rationale for imposing the levy on small firms is not without problems however.

Many of the smaller firms may still operate on the formula of white expertise (in design, in engineering, in management, and in sales) and black semiskill. The white apprentices may have vanished, but with their disappearance, the bridge between shop-floor skill and design work may have also gone. The white apprentice in Rhodesia, as in the United Kingdom in earlier days, could have moved on from apprenticeship to design work, through night school, and then to management. With independence may have come a reordering of the job hierarchies, with job fragmentation on the shop-floor and a greater concentration of expertise in the management team. A common complaint is that management has to work "ten times as hard as before" and that black line supervisors are very hard to find. These comments point to a possible realignment of semiskill, skill, and management, which is still very inadequately understood. Extended case study work on local firms is needed to make explicit these realignments of skill and knowledge in order to clarify the role of in-service education and in-service training.

The small firms have correctly identified the impossibility of their being able in the near future to train and retain African apprentices,
draftsmen, or junior engineers of a standard comparable to the Europeans. They have judged that the available supply is simply too small for this to be a feasible strategy. In this respect, perhaps the small firms have a similar problem to that of the polytechnic and technical colleges—an inability to attract and hold on to highly qualified technical staff. The authorities have decided that the college problem can only be solved by "situation training" of technical instructors and by better conditions. In the small-firm sector, production necessities cannot wait for the education and training system to prepare large numbers of skilled manpower. Hence, small companies have probably made other arrangements to adjust to the absence of traditional categories of skilled (white) manpower. When the education and training system finally gets around to producing large numbers of trained youngsters, the relationships within production may have altered so much that they can no longer accommodate these newcomers.

The government intentions regarding training may have had virtually no impact on small firms, although they have possibly hastened some realignments of traditional practices. A much closer analysis of current patterns of training in small firms would be valuable in exploring ways to develop a wider spectrum of skill. The diversity of skill and expertise in manufacturing is much richer in Zimbabwe than in many other independent African countries. The challenge for in-service education and training is to ensure that this expertise progressively becomes indigenised. To this end, the smaller firms' voice must be heard more than at present in the various manpower advisory councils.

In-Service Training in the Service Sector

As in manufacturing, the tertiary (service) sector has a number of major distinctions between large and small, and multinational and local firms. These differences inevitably affect patterns of in-service training. In many ways, however, the whole discussion about training has an entirely different flavour to it in the services sector than in production. To some extent, these differences reflect the very different history and tradition of training
for service jobs. The roles of the state and of services employers in training employees also differ from that of manufacturing employers. In many countries, the division of responsibility for training in craft skills for industry has received much discussion. Some of this debate can be traced to the influence of guilds and trade unions in the protection of skill. In several countries, the shape of apprentice training is the result of a long history of negotiation among workers, employers, the education authorities, and the government over shared responsibilities. Clearly, one reason apprentice training has been problematic in some developing countries is that the relationships among these four bodies have been very different in the motherland than in the country to which the system was exported. Equally obvious is that these relationships differed significantly in a colonial, white-minority regime from those in an independent African government.

In the industrial sector, the apprenticeship training mode was considered the touchstone of "real training," and thus the reduction in apprentice numbers was construed as a diminution in the quality of vocational preparation. No such loaded debate takes place over the preparation of bank clerks, insurance clerks, hotel waiters, trainee accountants, and other service providers. To a much greater extent than with industry, the assumption is that service firms will organize the training of their workforces so that they can conduct business effectively. This attitude has a considerable bearing on the issue of in-service training.

The several different modes of craft training have received much discussion, but no such discussion has occurred in respect of training for banking or insurance, hotel-keeping or accountancy. Nor has government made any attempt to ensure that all new recruits for these sectors be centralized and selected from a pool as with apprentices. Rightly or wrongly, therefore, the impression is that these sectors need not be so carefully "policed." The major banks and the principal insurance companies take training seriously, however, as do the major hotels. Several of these institutions are helped by their wider connections outside Zimbabwe in developing training packages and
approaches. The banks tend to have established training schools, as does the largest of the insurance companies.

In-house training in services is highly specific to the particular industry and even to the particular firm within an industry. The relationship between this training and the more formal preparation for membership in a professional organization (when such exists) is quite complex. Some firms strongly encourage employees to pursue external as well as internal qualification. For example, when junior officers in one bank sign their articles, they commit themselves to passing the first stage of their professional examinations by the age of 25; this bank also attaches an honorarium to the completion of the examinations for the Institute of Bankers of Zimbabwe.

With the current levy/grant situation, training costs can only be reimbursed for external professional examinations. The policy question is, what should the relationship be between the amount that an institution pays to organize its own in-house training and the amount that it pays to the ZIMDEF fund? Banks, for example, may spend significant amounts on employee training as well as paying the levy on all employees. In 1986/87, the banks who had applied for training rebates from ZIMDEF received a total of Z$23,507 for seventy nine individuals, or about Z$300 for each trainee--but only for those who were training for examinations for the Institute of Bankers.

In this situation, institutions appear to be paying twice for training, once on their own account and once to the state. The ZIMDEF authorities face a dilemma about reimbursing for systematic in-house training. If firms with a coherent training system can deduct the cost of that system from their levy total, many of the larger firms could show that their training costs are much higher than their levy and hence pay no levy at all. Many of the larger, often multinational, firms effectively would be exempt from the levy.
The solution, so far, has been not to recognize in-house training programs run by service firms. Compromise is possible, however. The system might, for example, reimburse up to a half of the levied amount for the organization of thorough in-house training; ZIMDEF could retain the other half for the distribution and encouragement of other forms of training.

Of course, the real difficulty with in-house training is the extreme complexity of evaluating it. In NAMACO, there has apparently been some discussion of whether to reimburse in-house training if it is deemed to be of a national character -- not too specialized and local. Also, in a state concerned with equity, in-house training could properly be reviewed for gender bias. Some of the crucial questions to be asked about in-house training are most difficult to answer. For instance, a firm may provide a great deal of short-term training of, say, bank tellers, insurance clerks, or waiters, but the career lines for some of these occupations may terminate very abruptly, so effectively their careers never advance.

The basic problem for analysis, whether in services or manufacturing, in Zimbabwe or the United Kingdom, is that any serious attempt to explore the nature of and assumptions embedded in in-house training would require a great deal of effort -- and very considerable analytical skills. This is why Zimbabwe has focused on easily measured formal certification.

ZIMDEF could resolve its dilemma by encouraging the different trade and professional associations to come forward with their own recommendations for approved in-house training and for how that training should relate to certification. These matters cannot be generalized across different industrial and commercial groups, nor can they be left to the large employers to sort out. The many smaller firms need to be involved. One of the obvious reasons so few firms apply to ZIMDEF must be that they are not clear about the "rules of the game," and have little or no part in determining the procedures whereby their applications are judged.
The involvement of the different industries in the analysis of their training situations could constitute a basis for a much more informed dialogue than at present. The diversity of training systems that different industries are currently developing makes the whole process of judging, accrediting and monitoring too complex for government to undertake alone. Increasingly, it must also involve employers and workers representatives (which have so far been conspicuous by their absence from many of the debates about training).

The adversarial dimension of government and industry training philosophies is probably accentuated by the absence of a document that looks coolly and steadfastly across the entire training policy domain. Such a document (which might be the product of a high-level Commission on the Vocational Preparation of Young People) should look at the complementarities of government and industry initiatives in training, as well as at the rationales for particular industries developing virtually self-reliant training systems. This kind of consultative document would also be able to examine the scope for some of the major training centers, both public and private, becoming resources for surplus capacity training in the manner of the Railways Training School in Bulawayo.

CORRESPONDENCE, PRIVATE COLLEGE, AND TRAINING CONSULTANCY ORGANISATIONS.

Correspondence Colleges.

One of the more remarkable features of in-service education and training in Zimbabwe is the existence of a relatively sophisticated configuration of distance education and face-to-face instruction through private colleges. In the preindependence era, four correspondence colleges were operating, the earliest of these being the Central African Correspondence College (1954), followed by Rapid Results College and the International Correspondence Schools, also in the 1950s. The principal demand at that time was for some opportunity to continue basic education up to the junior secondary level, because the availability of postprimary education for Africans was particularly limited. From the early 1960s, the correspondence
medium could be supplemented by attendance at study groups, meeting to work through correspondence materials in a learning environment controlled by a mentor. These correspondence study groups, which were closely associated with the Central African Correspondence College and with some of the churches, served the needs of preservice candidates as well as those who were already at work and wished to improve their formal qualifications. Precise data on the distribution of preservice and in-service clients of the correspondence schools are hard to come by, but in general these schools presumably attract a high proportion of students who are already working, whether in the formal or informal sectors of the economy; of course, they are particularly attractive to students located far from opportunities for face-to-face education.

The five colleges currently offering correspondence courses are the Central African Correspondence College, Rapid Results, International Correspondence Schools, Zimbabwe Distance Education College, and Transworld Education College (which also offers ICS courses). Total enrollments in these institutions are about 200,000. The majority of students are in academic fields, but in a number of the colleges, very significant minorities are now in commercial, technical, and professional fields. The five colleges combined now have almost 140 years of experience in delivering correspondence education and training. Some of this expertise could be made available to other countries. The World Bank, in its Sub-Saharan Africa policy paper on education, strongly promoted the virtues of distance education, and Zimbabwe seems well placed to illustrate how to develop a correspondence system.

From the mid-1950s to the late 1980s, the pattern of correspondence education altered significantly. The early emphasis upon upper primary and junior secondary levels shifted towards tutoring for the form 4 examinations; then, as the government proceeded massively to expand secondary education after the early 1980s, the colleges added more vocational and professional courses. With the very rapid Africanisation of the civil service, and the enormous need for every level of clerical, secretarial, and commercial competence with the emigration of Europeans at independence, the colleges found themselves responding to a growing demand to improve the skills of those
already employed, especially as the school system was dramatically raising the numbers of young people entering the workforce. The speed with which possession of a number of "O" levels became something rather ordinary meant that higher vocational qualification became necessary not only for those aspiring for jobs but also for those who wished to protect an existing job against the higher academic qualifications of younger entrants.

The comparative advantage of correspondence colleges is often assumed to be in the fields not requiring skills that have immediate practical application. To an extent this is correct. They still emphasize clerical, secretarial, and bookkeeping skills, but they are shifting toward technical, vocational and even agricultural fields.

Currently, one of the most obvious in-service strengths of the correspondence colleges is preparation for the professional institutions. A very wide array of these is available, some international, some now with Zimbabwe branches. For some, the examinations are still entirely external; for others, examinations are now given locally and monitored internationally. Qualifying for membership in these professional institutes and associations has become an increasingly important element in the spectrum of in-service training; quite different from the specialized in-plant or in-firm training associated with particular products, services, and methods. The exact relationship between these two rather distinct forms of in-service training (firm-specific and profession-specific) differs from occupation to occupation. Ideally, external professional qualification should reinforce the narrower on-the-job training, but in practice, success in professional examinations is usually not directly related to promotion, whether by a private company, a parastatal organization, or a part of a public-sector ministry. In some fields, however, such as banking, external professional success is tied closely to recognition within the particular bank.

More than 500 mature students are pursuing examinations for the Institute of Bankers of Zimbabwe through Rapid Results College. ZIMDEF offers rebates for the examination and tuition fees of successful candidates; for
1987, rebates totaling about Z$23,500 were available to seventy-nine in-service students.

Among the many other professional societies for which the correspondence colleges variously offer support services are the following:

Zimbabwe Association of Accounting Technicians (ZAAT)
The Institute of Chartered Secretaries and Administrators in Zimbabwe (CIS)
Zimbabwe Institute of Management (ZIM)
The Building Societies Institute
The Institute of Personnel Management
The Chartered Institute of Management Accountants
The Institute of Administration and Commerce
The Chartered Institute of Transport
The Institute of Credit Management
The Institute of Certified Bookkeepers
The Institute of Marketing Management
The Institute of Salesmanship
The Institution of Industrial Managers
The Institute of Travel Management
The Society of Engineers.

This is by no means an exhaustive listing, but it indicates the range of professional qualifications that can be taken by correspondence (a large number of them through Rapid Results). One of the most popular of all has been the examinations leading to the CIS. The numbers currently registered with the Institute are rising toward the 3,000 mark, of which well over 2,000 are pursuing courses by correspondence, much more than those taking face-to-face courses with the private colleges.

The scale of participation in these professional qualifications, and the extent to which they are being catered for by the correspondence institutions located in Zimbabwe are unknown. The information available from
the ZIMDEF fund is too sparse to allow a calculation to be made with any certainty about which students are pursuing professional examinations and which are pursuing the similarly named qualifications at the polytechnic and technical colleges (at intermediate diploma, diploma, and higher diploma levels). ZIMDEF regulations have tended to shift emphasis away from the examinations of the professional institutions towards the national certification available through the technical colleges. The number of rebateable courses linked directly to professional institutions and associations shrank from twenty in 1985/86 to five in 1987/88. The remaining five included the Leather Institute of Zimbabwe, the Institute of Bankers, CIS, ZAAT, and the Institute of Auctioneers.

These very rapid changes in the rebate regulations make planning difficult for the correspondence institutions, particularly because mounting one of these professional courses requires considerable investment in course development. This is probably not presently a major issue, however, because so few firms either apply or successfully recover funds from ZIMDEF. During the 1987/88 period, only about seventy firms applied for rebates. Data on how many of these applications were successful are not yet available for 1987/88, but figures for the previous year suggest that only about 150 individuals got rebates for their participation in examinations of the Chartered Institute of Insurance, the Chartered Institute of Transport, the Institute of Administration and Commerce, the Institute of Bankers, and ZAAT. How many of these pursued their courses by correspondence is unknown, but undoubtedly a significant number of them did so. A very much larger number than 150 were pursuing all manner of professional in-service qualifications in Zimbabwe. Indeed the two professional institutions for which correspondence figures are available (for just one college) have some 3,000 working students. Many of these must be employed by firms that have not applied for rebates. Also, a number of them must be in the public sector, which is not allowed to apply for ZIMDEF rebates.
The relationship of the correspondence institutions with the professional institutions and associations and with ZIMDEF raises a number of points:

- To make any kind of policy decision about reimbursing training in pursuit of professional qualifications, data are needed on the population so involved and on the mode (correspondence or face-to-face) such students are using to pursue their studies.

- Given that both for students and for the correspondence colleges the decision to invest in a course is a relatively long-term commitment, some collaborative mechanism is needed among the ZIMDEF fund, the professional institutions and the tutorial bodies so that much longer term agreements can replace the apparent arbitrariness of the ZIMDEF regulations.

- The notorious unreliability of manpower planning does not suggest any very elaborate mechanism for estimating total numbers required in any of these professions.

The correspondence institutions offer their own diplomas as well as in-service training for the professional institution examinations. These are available for much the same vocational subjects as those linked to the professional institutions, as well as for a good number that are much narrower and more specific -- for example, supervision, storekeeping, public relations, salesmanship, advertising, personnel management, marketing, "running your own business," secretarial practice, bookkeeping, and accountancy and business management. The cost of such courses varies a great deal depending on whether the course is entirely locally produced, on local paper, or whether it is imported from one of the international systems with a branch in Zimbabwe. The length of courses also varies markedly from ten or twelve booklets to twenty-eight or more. These differences translate into total course fees that range from Z$40 to Z$70 at the low end to Z$300 to Z$500 at the higher end. For the money, students receive a great deal of work material. The tests, which are
built into every lecture or module in the courses, are a control on the achievement of the students, as indeed is the installment system that many of the students use.

The fact that the only diploma or certification many of these courses carry is that of the correspondence school does not seem to dampen interest in the courses. In several cases, the reputation of the school is itself of some weight with employers. For instance two of the larger hotel chains are paying for about seventy Zimbabwean students to follow the hotel and catering management course offered by International Correspondence Schools. Whether any of those training costs of approximately Z$400 a student are rebatable from ZIMDEF is doubtful, because the levy regulations specify hotelkeeping and catering as offered at the intermediate, national, and higher national diplomas of the technical college system.

Recently, correspondence institutions have moved into technical fields, including electronic engineering, electrical engineering, radio, audio and TV servicing, automobile engineering, comprehensive building, as well as elementary workshop engineering, elementary motor engineering, dressmaking, garage management, animal husbandry, crop husbandry, and farm management and planning. A common assumption is that such technical subjects cannot be effectively taught by correspondence, but in fact, the world over, millions of people engage in technical activities instructed by the printed word alone.

In Zimbabwe, where more people have access to some measure of secondary education than have opportunity to pursue academic education, widespread interest in seeking additional vocational qualification is not surprising. In July 1988, for example, one of the correspondence colleges advertised by mail about twenty-four separate courses, all of which were vocational except GCE, English language, and hobbies. Every single course, with the exception of hobbies, received a positive response; among the more popular were agriculture, bookkeeping, English language, dressmaking, and electrical engineering. In another college, the average Zimbabwe enrollments during the past three years have been as follows in these particular technical
subjects: introduction to workshop engineering, 58; elementary technical
drawing, 109; elementary motor engineering, 196; and electrical (theory) 96.
These particular numbers may seem small, but they are representative of the
thousands who are taking some form of technical course from all the
correspondence colleges together.

This is as yet an almost entirely unresearched constituency. Almost
certainly, the majority of correspondence students are paying their own way.
Some are located in micro-enterprises in the informal economy, some in small
firms, many are situated outside Harare, out of reach of the few formal
training institutions -- even if such institutions had space. Exploring in
more depth the character and education/work profile of this particular
clientele would be of considerable value. What, for example, is the
contribution of relevant theory, trouble-shooting suggestions, and diagnostic
advice to someone who is already experienced?

Partly to gain some preliminary leverage on this kind of question,
we discussed a number of the theoretical manuals borrowed from the Harare
correspondence colleges with small groups of mechanics who were operating in
the most rudimentary conditions in the informal sector. The mechanics were in
the midst of adapting piston rings from one make of car to fit another
(genuine spare parts being almost unobtainable) and had the whole engine
perched on a tree stump for a workbench. The motor mechanics modules did not
phase them at all. The consensus of opinion was that, although they knew
perfectly well how to strip an engine, they were sometimes at a loss for a
particular technical term. Their view, in short, was that the materials
looked relevant and interesting. Although their precise usefulness was not
determined, they were perceived to be of value, even outside the formal sector
of the economy, where mastering them might be rewarded by some sort of
promotion.

The conversations raised a number of issues for future exploration.
Several of the mechanics mentioned that exposure to practical studies in their
secondary school had influenced them to pursue this interest. Somewhat
paradoxically, they are skeptical of the young people who leave school and enter car mechanics courses in some of the private colleges, on the grounds that courses that do not deal with the repair and maintenance of cars that actually work are likely to be useless.

The mechanics are aware of the value of apprenticeship or upgrade training in raising their skill levels even though they are already very skilled. On the other hand, they regard themselves as more creative and innovative than some of their counterparts in the specialized car agencies, because those mechanics merely replace parts on a single make of car, whereas they often have to make adaptations, buying secondhand parts and working out how much life is left in them. In their situation -- lacking adequate tools, spare parts, space to work, and electricity -- relevant trade theory is bound to come rather low down the priority listing. Nevertheless, they appeared quite interested in having access to further knowledge.

One of things the state has found most difficult to provide is evening and part-time access to technical training through the technical college network. Given that the formal technical training sector finds it problematic covering the needs of the relatively small number of formal trainees, upgrading or technical improvement is unlikely to be available in the near future to those not situated in companies that are responsive to formal training. Consequently, others interested in skill development will continue to find what they can through other routes, including correspondence.

The profile of the correspondence student motivated enough to take self-instruction in a technical field must remain a mystery until perhaps a questionnaire can go out with the correspondence materials and until some of the students can be visited on site. Such a task might well be a high priority for the Correspondence College Council, interested in demonstrating the nature of its contribution to in-service training in Zimbabwe.
Another important institution for in-service education and training is the large group of independent or private colleges. Between forty and fifty such colleges are in operation, and new ones are starting each year. Many of the better known of this group are members of the Zimbabwe Association of Self-supported Training and Education Centers (ZASTEC). All but one college seeks to be profit-making. The mix of subjects differs significantly from college to college, but many have large academic divisions, offering variations of form 1 to form 6 schooling. Like the correspondence colleges, the face-to-face colleges are increasingly moving into commercial and technical fields offering both long and short courses.

The demand for the more popular of these commercial and technical courses is high enough to support "hot-seating," in which one class takes the place of the previous class every hour on the hour. In the extreme versions of this mode, some twelve classes can get access to typewriting between 7:30 am and 7:30 pm. In the main, however, the throughput is a good deal more leisurely because the private colleges are often significantly more expensive than either the government technical colleges or the correspondence institutions. Generally, those attending the longer day courses tend to be preservice trainees, and those attending evening classes tend to be employed. In contrast to the correspondence colleges, the bulk of private college students are in the preservice rather than in-service mode. Nevertheless, evening students still constitute significant numbers in the private colleges, probably several thousand out of a very rough estimate of 12,000 to 15,000 in the private-college sector as a whole.

The private colleges place a good deal less emphasis than correspondence schools on examinations leading to membership of professional institutions and associations. A small number of colleges offer some face-to-face tuition for CIS and one or two other institutions. A good deal of the work concentrates on secretarial and commercial careers at different levels. In the eyes of many students, the Pitmans and other international...
certification for such courses is still more highly regarded than the new localized certification associated with the polytechnic and technical colleges. This situation is likely to continue until the national certificates get a name for themselves, but in the short term, it produces a few anomalies such as students pursuing their classes at the polytechnic but taking their examinations a second time through the private system.

A small number of private colleges offer more technical and vocational courses. The best known in the Harare region are the branch of Speciss College at Magaba and the much older Monomotapa Technical. The latter concentrates on what it terms pre-apprenticeship motor vehicle, while the former covers motor maintenance (diesel and petrol), radio service, TV, auto-electrics, refrigeration, tailoring and dressmaking, and pattern cutting and designing. Although these courses do not offer certification, they remain very popular; the largest numbers are enrolled in motor maintenance (diesel and petrol), with 400 to 500 students in 1988. The cost of such courses depends a great deal on the number of hours, but a 13- to 14-month course will cost about Z$500. The existence of evening classes and weekend classes at Speciss is testimony to the demand by working adults for classes out of normal hours. The development of new colleges in 1988 indicates that this demand is far from satisfied. For instance, the correspondence college, ZDECO, has started a new face-to-face facility, the Zimbabwe Technical and Commercial College.

Some of the most significant evidence of demand for in-service courses comes from Harare Polytechnic itself. Although the polytechnic is not a private college, it has one very thriving division - Adult Education -- that operates on a cost-recovery basis. This division has 600 to 700 students. Like the self-supporting feature of the ZASTEC group, this section of the polytechnic only runs courses that can cover the cost or their lectures and consumables, plus a profit of 20 percent to contribute to the amenities fund of the polytechnic. Under this dispensation, polytechnic has run a whole series of evening courses in such subjects as machine shop engineering, electrical engineering, mechanical engineering, the motor industry, printing
and mechanical engineering. Most of these are national (or international) certificate courses. It also offers a whole series of courses in carpentry, pattern cutting, motor mechanics, and cookery. These are not certifiable, but they draw in significant numbers. Unlike the regular day courses for national certification, these cost-covering courses pay their lecturers at rates not very different from the better colleges in the private sector.

Some important policy issues are raised by what would appear to be two systems operating within the polytechnic at the same time. Evening students in the adult education options are paying fees that are two or three times higher than the subsidized regular day courses. Approximately half of those in the national certificate courses pay their own fees, while the other half are reimbursed by employers. The higher cost and lack of certification discourage employers from sponsoring evening students.

Polytechnic's evening classes have partially solved one of the longest standing problems of the technical colleges: paying lecturers at a rate that attracts good staff. An added advantage is that evening students get access to the same high quality engineering equipment and facilities as day students; the private vocational colleges would find it impossible to replicate this standard of equipment.

A number of the private colleges have recently moved into very short, tailor-made courses aimed at improved business and commercial practice. Speciss offers the most developed of these through its training services division, which offers about thirty different very short (one-to five-day) courses on such topics as PAYE calculation, supervisory skills, export procedures, and telephone selling. Almost by definition, the people who enroll in these courses are already working, and they are sponsored by their employers. Costs range from Z$90 to Z$260 for one- to three-day courses, which are very intensive. More than a thousand students attend such courses in a year, and they are drawn from about 350 different firms that have used these courses on more than one occasion. This reaffirms the existence of a
market for very specific skills, tailored to the business climate of Zimbabwe. These very short courses are not rebatable from ZIMDEF.

In some quarters, the private colleges are seen as profiting from the disarray in the public-sector institutions. With the transfer of the technical colleges to the Ministry of Higher Education in mid-1988, some evidence indicates that the problem of raising lecturers' salaries is being taken seriously. This is a first step, but the technical colleges and the polytechnic still have much ground to make up if they are to operate in the intensive day and evening routine that the adult education and business studies departments have shown to be possible. Of particular importance to potential in-service trainees nationally is that the colleges become known for providing first-rate evening and day courses. From a longer term perspective, it will be more politically acceptable for the private colleges to compete with a strong national technical college system than with one that is regarded as cheaper but much less effective.

In-service Management Training and Consultancy Operations

The main Harare newspaper, The Herald, constantly features advertising by the correspondence colleges, the private colleges, and a number of the training consultancies. The first two are by far the most numerous and are highly competitive -- a single paper carried more than forty advertisements in a two-week period. This has the effect of making the private-sector training a good deal more visible to the public than is the government sector. These advertisements stress the salary, leadership, and competitive advantage results of the courses: "Profitable Farming," "The Quick Economical Way to Success," "Learn to Earn," "Train at Home for a Better Career," "Will You be One of Tomorrow's Leaders?" are just samples.

The papers also carry a significant number of advertisements from organisations such as the Zimbabwe Institute of Management (ZIM), the National Commercial Employers' Association of Zimbabwe (NCEAZ), the Zimbabwe Institute of Engineers, Management and Skills Training (MAST), and C.F. Tulley (the
computer company). Others advertise more through the journals dedicated to management, personnel, trade, and industry. In total, a large number of organisations are offering various types of in-service training.

Typical of the professional institutions and associations offering courses are ZIM and NCEAZ. They tend to offer short courses on some of the very topics as the Speciss Training Services do -- effective supervision, selling on the telephone, receptionist skills, and industrial relations, for example. ZIM also offers courses on supervision, but its comparative advantage is clearly across the whole management spectrum. In this sphere, it offers very short courses, as well as courses that span a much longer period but occupy only one day a month, with assignments. The Zimbabwe Institute of Engineers has also just entered this management market.

Another group of training arrangements are those associated with a particular company and linked to that company's product. Thus, computer franchise houses put on courses on word processing, systems analysis, programming, and other computer-related skills. C.F. Tulley is just one example of a firm that offers short courses for its own clients, as well as for other sectors.

A slightly different model is one in which the original firm-specific training has spilled out from the confines of the company and is on offer to other interested firms. The Delta group of companies now has a fully developed vocational training center, which not only serves the needs of the group but is taking in trainees for other firms. Still within Delta, the Mandel Training Center is an example of a centre that serves its own group's employees, acts as a training consultancy for other firms, and also offers its premises for other organisations to carry out training functions. Mandel emphasizes the supervisory and management aspects of training and also deals in particular packages, such as 6M, for the work force in general. Although some of these courses overlap the kinds of courses Speciss offers, a wider variety of management courses is available. Courses are typically two to four days in length and cover such specific topics as time management, workers'
committee effectiveness, performance appraisal, job evaluation, 6M simulation, and effective recruiting.

A variation on this same kind of spill-over training can be seen in the training consultancies associated with the major firms of chartered accountants, such as Coopers and Lybrand, Price Waterhouse, and Deloitte, Haskins and Sells. These firms have moved beyond auditing, accounting, and finance to enter the more general fields of management training and human resources development. Price Waterhouse now has in its human resources consultancy framework a stake in the MAST Organization (Management and Skills Training), which is headquartered in London, as well as in the PE Consulting Group, which specializes in production management; it had also developed a training relationship with the Confederation of Zimbabwe Industries. The current listing of Price Waterhouse training courses and facilities includes management and leadership skills; finance, audit, tax, and computers; production engineering, including maintenance management; personnel management and training; and marketing skills. Within these broad fields, the firm offers many very short courses, as well as human resources consulting services. The clients for such services appear to be drawn from both parastatal and private sectors.

A number of other firms similarly are involved in management training at different levels. One of the fast-growth firms is M.B.B. (Manpower Builds Business), which has made a particular inroad into video-based supervision training, as well as a series of videos teaching very specific skills (for example, double-entry bookkeeping, and balance sheets) and more general management-development techniques. In late July 1988, Organizational Training for Development, the new training arm of the Anglo American Corporation, arrived on the training consultant scene; it is also a spillover from existing in-house training extended to offering training to outside companies.

Is this proliferation of management organisations a manifestation of the same thirst for management training as we have identified in many other
levels of training? This phenomenon of management training suggests a number of issues that might be worth exploring. First, and most obviously, management seems to be the next frontier for African advancement. With the Africanisation of the public sector, the management levels of the private sector remain a very attractive objective for many Africans. This undoubtedly is a source of pressure to attend courses that directly relate to management skills. At the same time, as Zimbabwe at independence emerged from relatively isolated Rhodesian white management, it gained international access, an opportunity to become updated on many of the techniques that had become commonplace in North America and Europe. It also had a sudden need to switch from the protected market of UDI to a much wider export orientation.

This flowering of management training opportunities probably has more complex aspects, however. At some levels, the aspirants seem to be driving the "product," in that young, upwardly mobile Africans are demanding management training. Also, in the current climate of wage restraint, to be sent on a short course, which may cost several hundred dollars, is seen as a "perk." Another possible explanation of this flurry of specialized short courses is that the management task has been fragmented in a way parallel to the fragmentation of skilled work. If this is the case, the course work might be explained in terms of a defensive strategy by existing management.

Some of the more thoughtful analysts of the management training situation in Zimbabwe consider many of the courses out of step with the in-service training needs of particular companies. Frequently, participants take such courses even when they have not been marked out by companies for exposure to new techniques; their companies may not even have a management training plan. Thus, the participants may often be certificate-driven, studying situations they have not yet experienced directly in the firm. Although Zimbabwe currently seems to be particularly rich in in-service training opportunities, what is driving the system and how effective is the product still lack adequate explanation.
The growth of private management training like that of the private colleges must have some relationship to what the public sector is attempting. The Management Training Bureau (MTB) courses, which are heavily subsidized by the state and by ZIMDEF, are meant to appeal to the parastatal and private sectors. Yet they seldom figure in any current discussion of private-sector management training. In addition to the MTB mandate, the Parastatals Commission apparently intends to develop a unit dedicated to the particular problems of parastatal management. How this will work out and relate to the parastatals' current utilization of private management consultancies is not clear, but as with the polytechnic courses, preventing a glaring gap between the image of public and private-sector management will be important.

IN-SERVICE TRAINING AND EDUCATION IN THE INFORMAL ECONOMY

People who are not situated in a major company with a whole apparatus of training officers, training manuals, and ongoing training programmes may shortly constitute the bulk of all form 4 leavers, only a small proportion of whom will have access to some of the training systems discussed so far. This group must also include the growing numbers of young people currently working in the informal economy, who have no formalized access to in-service training or education. Because most males have access to work in the formal economy, this other client group probably includes a large number of young women.

The school system, since its virtual universalization at the secondary level, has been apprised of the likely fate of its students reaching form 4 and leaving to face a variety of uncertain futures. The absence of in-service training facilities for those who are not in jobs has prompted the Ministry of Education to see that the schools help their pupils at least in some measure, to anticipate the demands of a world without ready access to jobs or work experience. Accordingly, the new structure and content of education is committed to offering in the preservice mode some orientation to
a world in which 100,000 young people will be competing for 1,000 apprenticeship slots.\textsuperscript{11/}

This particular equation has no easy solutions. Therefore, the schools should not follow only one model of prevocational preparation. The education policy community is already familiar with a number of models: the Education with Production innovations of the ZIMFEP schools; the practical subjects presented in the theoretical Cambridge mode; emphasis on design technology, with which several teachers are now conversant; and the many vocational experiments in schools, following the St. Peters model, in which the Ministry of Labour was interested. In addition, low-cost distance education models using technical kits, in the manner of ZIMSCI, are well known.

This quite new education situation clearly allows no room (and indeed provides no evidence) to judge any of these models, in advance, to be vocational school fallacies. The planners need consciously to remind themselves, however, that they cannot just prepare all school children for the sake of the handful who will get apprenticeships. Their image of life after school must also include those form 4 pupils that enter firms as contract workers at the very lowest levels and need the opportunity to prove themselves. The question here is not negotiating remission of anything; it is getting a chance to start at the bottom and enter some of the company training programmes. The vision of work after form 4 must also include, realistically, the work situation and training options of those in the informal economy, whether in cities or in smaller towns.

No work at all has been done on the pattern of in-service training and education of those who are currently engaged in self-employment or wage labour in Zimbabwe's informal economy. Nor has any significant attention been given to other workers in both private and public sector who are very far from being considered candidates for ZIMDEF rebates as articled clerks, learner miners, or whatever.

\textsuperscript{11/} D.B. Mutumbuka, "The structure and content of education" seminar, Belvedere Teachers College, 29 July 1986.
Large numbers of ordinary workers, or the working poor, are very dedicated to self-improvement. A random sample of some fifty young people working in the informal economy with their families, in cooperatives, or on their own account, included a significant minority engaged in professional development. Some had been to Oxyco, to the Welding Skills Centre; others were planning to attend Mbare's various vocational training centers; still others were enrolled in small business courses with some of the many correspondence colleges and tutorial colleges. Some had heard of Belvedere and Msasa and were wondering how to get access. In the main, they had already developed a map of in-service training opportunities that could be updated to their very full working schedules (usually six or seven days a week).

The aspirations of informal-sector mechanics, fabricators, and car breakers in the Harare locations of Magaba, Mbare, and Gazaland are not very different from those of their counterparts entering the formal economy. Both groups participate in the "culture of self-improvement" and are therefore aware of opportunities for further training and education. Of course, to some extent, the rapid move of recent form 4 school leavers into self-employment in some urban locations has widened the discussion of education and training issues among workers within the informal sector.

Little quantitative work on education levels has been carried out since the Informal Sector Study Seminar in September 1983 and the ILO-SATEP study of the following year. Certainly, however, the education level of recent entrants to the informal sector has risen. Those who have attained two or three "O" levels probably feel that not very much academically separates them from those who had access to some form of further education and training. This explains the widespread interest in further study through correspondence.

No system of informal apprenticeship has yet developed, however. This is not to say that young people are not learning on the job, but the tendency is still apparently to teach relatives rather than those who are not
kin. A preliminary survey discovered no examples of young people paying for skill acquisition, as happens elsewhere in Africa. Some discussions with owners suggest that such arrangements would be difficult, given the public knowledge about labour legislation. For the same reason, employers hesitate to take on employees and pay them much less than the minimum wage. Instead, when the work load mounts, employers will contract with an additional person for that task only. If this is indeed the pattern in the informal sector, it would be an interesting example of both the formal and informal sectors hiring contract workers for particular tasks to avoid the constraints of labour legislation.

The specific needs for in-service training within the informal sector are very hard to disentangle from wider infrastructural concerns. Large numbers of owners work on small plots or stands that have been allocated within a walled compound in Mbare, but there they lack many basic amenities such as power, light, space, and shelter. Certainly, these conditions affect the quality of the products or services sold in the compound. The informal sector's lack of basic tools is also affecting product quality.

For example, the machines used in the informal sector for twisting wire into the shapes required for fencing had been made in the formal industrial sector but are now manufactured by informal sector fabricators. The new versions lack the electric motors with which the formal-sector products are fitted. Though most of these machines do the job for which they were designed, they are crudely put together. One of the fabricators expressed interest in getting an attachment to the firm that made the proper machines, acquiring a competency certificate from it, and then coming back to make higher quality machines. This aspiration underlines the difficulty of in-service training in the informal sector: the formal factory would almost certainly have equipment that is partly responsible for the greater accuracy of the machines made there. So, the in-service training could mean exposure to an environment that is technologically not reproducible in a small stand in the informal sector. Lacking appropriate tools, accurate measurement, and a workshop setting, the informal-sector mechanics are in-serviced in such skills
as extemporizing, making do, and fixing things up. Nevertheless, many of them do have an interest in pursuing in some way a scheme of further education and training.

In some ways, the characteristics of this map of in-service training and education are very different from the models described earlier in this paper. Its principal features are that in-service training or education must take place outside working hours; that the client not the institution must control the pace of the training and that clients may need to depend on self-learning rather than direct instruction. Paradoxically, that which public-sector institutions currently find hardest to deliver -- tuition in the evenings or on weekends -- is the very thing that the private vocational training centers and the correspondence schools often find easiest to provide. In the current crisis of instructors at the technical colleges, the hardest slots to fill are those for the evening classes.

As the schools begin to sharpen up the meanings of preservice preparation for later patterns of continuing education and training, they could analyze what several thousands of form 4 leavers are actually studying and learning off the job (and without jobs) in Zimbabwe in 1988. They could ask themselves whether the schools could anticipate some of this and thus ease the transition from full-time study to part-time study.

In the job-scarce economy of Zimbabwe, the schools will be very ill-advised to nail their colors to a particular mast, a particular vocational syllabus approved by only a single authority. Their obligation, rather, may be to orient young people to the opportunity structure that really awaits them after form 4. What is a VTC? What is their possibility of apprenticeship? What is the work and study pattern of the DDF centers? What are the names of approved correspondence colleges? How can one take Pitmans while still at school? In one way, the most effective vocational preparation of young people would be an absolutely first-rate text, annually revised, that showed who went where after school and how many people applied for what options. That could be more vocational than the struggle to buy one lathe.
Schools also should expect to help children orient themselves to the practical, to the mechanical, to the exploratory, and to the technological. Industry's criticisms of youngsters as insufficiently conditioned to technology must contain some truth. Familiarity with the technical need not be attempted only via technical subjects as conventionally conceived. It as readily could be acquired by "tinkering" during the whole four years of secondary on a single project in applied science or design technology. If youngsters in school were exposed to a critical examination of informal-sector technology, through work experience visits or through group projects, they could well acquire a perspective on technological adaptation that would be very different from trying to follow vocational curriculum in a nonvocational setting.

The informal sector's potential clientele for in-service education is much larger and more diverse than the small numbers getting the full advantage of the rebate system at the country's national institutions. Thus, situating the analysis of the national provision of in-service training and education within this user perspective is important. This potential clientele may be able to afford only a few months or days of instruction. Hence, in accrediting and monitoring the many private, community, and NGO training centers, the Ministries of Education and Labour must remember that the present system is serving the in-service needs of tens of thousands of people. The state urgently needs to develop its own apparatus of evening courses in all its major teaching institutions, from university to college to VTC. Many thousands of students would turn to such facilities once they become going concerns. As it establishes these, however, the state can learn from the present pattern of low-cost, user-oriented in-service training and education that is available through the welter of small and large colleges.

The following quotation is taken from the first page of the Annual Report of the Apprenticeship Training and Skilled Manpower Development Authority for year-end 1976:
Meanwhile the Authority is becoming increasingly convinced that there is a need for centralized coordinated control of all training efforts throughout the country. There are many well-meaning organisations entering the training field but some appear to have inadequate objectives, with consequent dissipation of finance and effort. Lack of coordination and overall direction is leading to duplication of effort and individuals are being tantalized by training which in many cases will not fit them for the employment which they seek.

Twelve years ago, the Apprenticeship Authority was apparently frustrated at how much training was going on outside its control. In many ways, its lack of control over so many of the independent training initiatives was fortuitous, because precious little training was available through the formal channels. Today, of course, things are very different, although fully subsidized vocational training is still for the few rather than the many. For the foreseeable future, the state is unlikely to be able to afford to organize in-service training for the many. As its own capacity increases, however, its awareness of the totality of in-service training and education offered by different bodies and its ability to sensitively examine and plan for complementarities will become increasingly important.
BIBLIOGRAPHY


