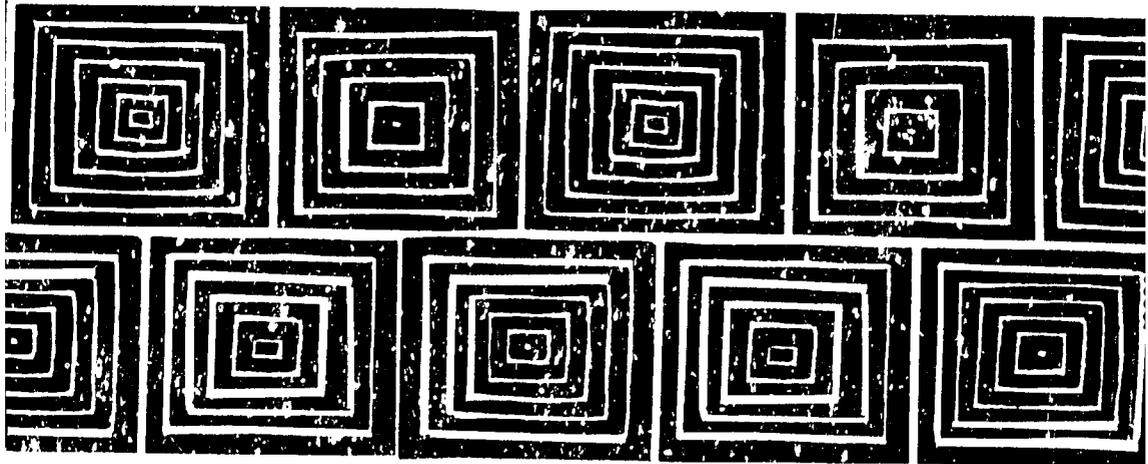


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SCHOOL, WORK AND EQUITY
EDUCATIONAL REFORM IN RWANDA

Susan J. Hoben



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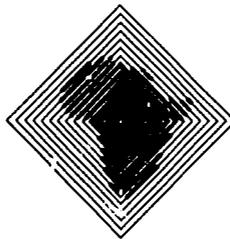
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Nancy Soyring of the African Studies Center prepared the map of Rwanda, and most of the figures; I am grateful for her determination to make them readable.

ACRONYMS AND ABBREVIATIONS USED IN THE TEXT

BP ERAI	Pedagogical Bureau for Primary and Rural/Artisanal Education (Bureau pédagogique de l'enseignement primaire et de l'enseignement rural et artisanal intégré)
BPES	Pedagogical Bureau for Secondary Education (Bureau pédagogique de l'enseignement secondaire)
CCDFP	Communal Center for Development and Permanent Training (Centre communal de développement et de formation permanente)
CERAI	Integrated Rural and Artisanal Training Center (Centre d'enseignement rural et artisanal intégré)
CERAR	Rural and Artisanal Training Center (Centre d'enseignement rural et artisanal)
CFJ	Youth Training Center (Centre de formation de jeunesse)
CRAFOP	Center for Applied Research and Adult Education
ERAI	Integrated Rural and Artisanal Training (Enseignement rural et artisanal intégré)
IAMSEA	Institut africain et mauricien de sciences économiques appliquées
INADES	National Institute for Social and Economic Development
IPN	National Pedagogical Institute
ISAR	Rwandan Institute for Agronomic Sciences
JOC	Catholic Working Youth (Jeunesse ouvrière catholique)
MIJE-JCOOP	Ministry of Youth and Cooperatives (Ministère de jeunesse et de cooperatives)
MINEDUC	Ministry of Education
MINEPRISEC	Ministry of Primary and Secondary Education (Ministère de l'enseignement primaire et secondaire)

MINESUPRES	Ministry of Higher Education and Scientific Research (Ministère de l'enseignement supérieure et de recherche scientifique)
MINIFOP	Ministry of Public Office and Professional Training (Ministère de fonctions publiques et de formation professionnelle)
MININTER	Ministry of the Interior and Communal Development
MINITRAPE	Ministry of Public Works and Energy
RwF	Rwandan Franc (RwF 85 = US\$1 in September 1986)
SESG	(Faculty of) Social and Economic Sciences and Management
UNR	National University of Rwanda (Université nationale de Rwanda)

PRELUDE: A PERSONAL VIEW

By Mujawayo Esther*

"In my day," my grandfather said to me last summer, "when I was your age, there were no schools – at least, not schools like the ones there are now. But there was another kind – the school of life. I learned from my father, my uncles, my brothers, and my friends. I learned how to become a man from everything in my surroundings, so that in the end, I would be worthy of marrying your grandmother, worthy of my fathers, of my people.

"There was no set age at which this training started; I learned every day, at any time, and anywhere I happened to be. That is how I learned to speak and to observe, to herd our cows and then milk them, to care for them properly. I learned to stand guard like a man, to dance with the warriors, to do battle. . . . And I learned to work with my hands, to build our houses and cultivate our fields.

"As I told you, I had many teachers. From your great-grandfather, my father, I learned to summon all our cows by name, to lead them to the best pastures and to water them at the best springs. Afterwards I was proud, because our herd was the finest in the neighborhood. Then, from his brother, my uncle, I learned to speak well. He was a mighty speaker. He knew how to speak like a man. How many times he scolded us when we didn't express ourselves forcefully! But he always said a speaker had to start learning young. He often reminded me that "As the twig is bent, so grows the tree."

"And it was the same for your grandmother," he explained. "Before getting married we made inquiries about her. My aunt assured me that I needn't worry about marrying her, because she knew how to preserve milk and churn it, she could weave mats and make baskets, she kept the house and courtyard immaculate. Working in the fields didn't bother her at all. She was discreet, but she knew her own mind.

"Then I was sure that she would make a good wife. Her mother had trained her well. So had her aunts, cousins, and friends. Her education was complete – she was the product of a fine school. I was pleased; I married her. And we had many children, our cows never ceased calving, our fields never lay fallow, and our families, our relatives, were proud of us.

"The children grew and learned as we ourselves had learned – from us, from their uncles and aunts, their grandparents, their cousins, their friends, among themselves. There was no lack of teachers, you know.

*Translated by the present author from "L'Enseignement au Rwanda, Développement culturel ou déculturation," Mémoire for the Licence degree in Sociology, Université Catholique de Louvain, 1984.

"But that didn't last very long. After a while the whites came along and they wanted to take our children to their school. Because, they claimed, the children didn't know anything at all. And yet my eldest was already beginning to speak like a man. Your father was a champion in leaping. Your aunts understood all the fine points of preparing milk, sowing, and harvesting, even though they were still quite young.

"So I refused to send them and was harassed because of it. Finally I decided to send just two, to this school. Poor children, I knew perfectly well that I was sacrificing them, that they would never become proper men. They had scarcely set foot inside when I saw my worst fears realized. They lost all notion of respect. When we, their elders, were speaking they felt free to interrupt us. They were no longer going to listen to me, I could tell it.

"Later, when they wanted to choose their own wives, my fathers, my brothers, and I could hardly say a word about it. They acted as if their marriage was their own business! As if it were just the two of them who were getting married. . . . Luckily my daughter-in-law, your mother, was a true woman. Anyone could see she had a good mother, a good family. Yes, she came from a proper home. I think that's what saved your father. He is still a real man.

"When your father decided to send you to school, I couldn't stop him. He spoke so highly of the value of schooling that he even insisted on sending you girls to school. I've always been curious to know what you did there. Luckily, now that you're here for the whole summer season, you can tell me a little about it every evening."

Perhaps if my grandfather had asked the question a few years earlier I would have sung the praises of present-day school. But more recently I had begun to have second thoughts about this school, so basic for a Westerner – this place where people learn, where they are educated. After all, what would people be without school, without knowing how to read and write – mere "savages" they consider us.

But what a mistake to say that everyone absolutely must know how to read and write! . . . especially in a world where all wisdom is passed on orally by tales, poems, songs, proverbs; where no one needs to read the name of a street on a street sign, just to know if a place is near a particular river, beyond the eucalyptus forest, and not far from so-and-so's house; where no one has to read the price of something or instructions for its use but bargains or trades instead; and where others enjoy telling you how to prepare this or that!

Yes, what a mistake to think that we could do without training-through-living, to imagine that we could educate people only within the new educational institutions! In these schools there's a lot to learn, we thought. Why, to go there, people have to wear shorts or skirts, not loincloths, because the teacher, that

stranger who "knows," wears pants or dresses, not a loincloth. When the teacher says something, it's sacred, it's true.

And in the end, a graduate becomes "someone," with a car, well cared for, because the whites know everything. They can make fevers vanish in a trice, wounds heal very fast. . . .

But the main mistake – perhaps an inevitable one – was to believe that we were new people, transformed after passing through school.

I thought about it all. I thought about all the sometimes exaggerated imitation of "white" manners. I thought about how we had turned away from our customs and values in nearly every realm of life. That had started a process that needed only to be kept rolling. School has kept it going so well that today we have a gulf between the intellectuals, who think they know everything and are proud to be like the whites, and the others, the peasants, who are almost ashamed to be peasants, never to have gone to school.

I thought it all over. I thought I would talk about all that with my grandfather. The vacation time held promise.

And indeed, every evening we talked, my grandfather and I. We talked about his day and mine, about his school and mine. We discussed many things and at length. . . .

My grandfather lived at a particular moment in time, in a particular context. His type of education, his training took a special form, fitted to his culture and embedded in its context. In another part of the globe, in another context, another culture, there existed another sort of training, of education, appropriate to that context.

When two such cultures meet under the special conditions of colonization, the colonizing country transfers its own complete and legitimate form of training, the school, to the colonized country.

What happens to the previous culture? What will the results of this new mixture be like? Will this phenomenon contribute to "developing" or "underdeveloping" the country? Many questions remain to be answered. . . .

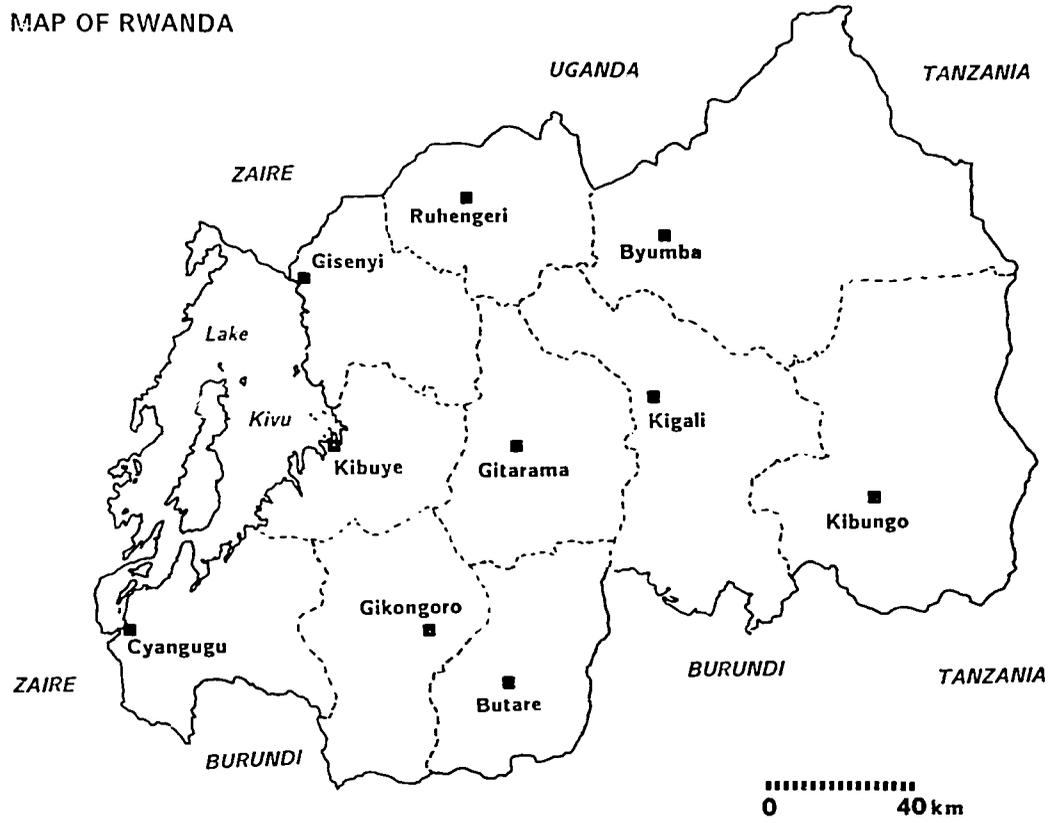
* * * * *

Esther's grandfather has described traditional Tutsi education, training for a life where skill in the competitive games of a warrior, eloquence in speaking, and thorough mastery of herd management and pastoral techniques were the mark of a successful man. Dairying, household crafts, and crop cultivation were the skills of a well-bred woman. This form of education aimed to fit boys and girls for their future occupations and did it well. In contrast, Esther begins to see her own mission-sponsored education raising covert barriers between students and both their own traditions and the world of productive work.

But for all Rwandans the world has changed irrevocably over the last three generations. There can be no return to a grandfather's world of Tutsi pastoral nobility and Hutu peasantry. Rwanda's modern educational reform aims to recapture the relevance of education for work and to foster again a sense of tradition in the modern world of schools, research, and technological advancement. It proposes to make this new education available to all Rwandan children, regardless of ethnic or regional origin.

How has this reform come about? How well has it worked? Is it accomplishing its aims? That is the topic of this study.

MAP OF RWANDA



1/11

P A R T I

**EDUCATION
IN
HISTORICAL
CONTEXT**

Chapter 1

INTRODUCTION

This book examines the role of education in the national development of Rwanda, in Central Africa. Two themes are paramount in its analysis. The first is the fit between schooling and work opportunities, present and future. The second is the question of what "equitable access" means in Rwanda's particular social, cultural, and political conditions, and whether it is being achieved.

The study had its genesis in the summer of 1986 when I spent ten weeks in Rwanda. As one member of a team preparing a background report, a social and institutional profile of the country, for the U.S. Agency for International Development, my task was to write the sections that dealt with the state of educational development and the role for USAID assistance.¹ Though I was interested in educational development in Africa generally and was familiar with its course in several other countries, in Rwanda I was starting afresh.

The results of that summer were tantalizing. Here was a nation that clearly cared about education and had engaged in thorough planning, reshaping an inherited school system to fit national priorities. Rwandan planners had apparently heeded much of the advice of experts in the field. Equalizing chances for schooling and matching education to work opportunities were banners of the reform. The government not only placed education high in the public budget but enlisted support from community, donor, and private sources as well.

But it soon became apparent that a brave start did not guarantee clear sailing. Schools designed to be creative solutions to specific problems were in danger of foundering. Important donors were highly displeased at decisions they considered wasteful and at the Rwandan government's insistence in following its own course. Simple solutions to problems of equity began to seem not so simple, after all. And for the majority of young people at the end of their schooling, there was still no ready route to useful work.

Why did these problems exist? Were the difficulties faced by Rwanda's educational planners temporary or endemic? unique or generalizable? Was expert advice at fault? Were the seeds buried in Rwanda's own historical and educational development? What lessons from Rwanda's experience in educational reform could guide other African countries steering a similar course?

That first report focused on the set of institutions involved in education in Rwanda, their nature and their operation. There was no time to delve into the origins of those institutions, and scarcely enough to reflect on their probable

¹The final report was David Gow et al., *The Rwanda Social and Institutional Profile*, 3 vols. (Washington, D.C., 1986).

2 INTRODUCTION

effects. To shed light on the puzzles Rwanda posed, these institutions needed to be set in a wider context. That is what this book attempts to do.

This study of Rwanda's educational reform places educational development in historical, institutional, and cultural perspective. Doing this helps us understand why things happened as they did and why certain strategies were adopted. It permits us to rethink global observations and prescriptions in light of one country's experience – to discriminate between general trends in the educational development of African nations and the particular circumstances of each. This particular study poses the question of what the goals of equity and human resource development mean in a specific political and cultural context – what we need to consider to decide how those goals can best be met.

Since a basic tenet of this approach is that a country's educational progress cannot be understood in isolation, it is useful to start with an overview of what Rwanda is like physically, economically, administratively, and culturally before we turn to focus on the country's educational development.

Rwanda's Physical Geography

Rwanda is the third smallest country on the African continent, 26,330 square kilometers in area, roughly the size of the state of Maryland. It is land-locked, bordered by Uganda, Tanzania, Burundi, and Zaire, and is the smallest African country without a coastline. Transport links to the coast have been disrupted in the north by turmoil in Uganda, and in the south by animosities with Burundi, making exports and imports expensive.

The capital, Kigali, close to the center of the country, sits in the western portion of a hilly plateau 1300 to 1500 meters above sea level. Its center is an unprepossessing collection of cement buildings bordering a wide, dusty street and a sun-baked open market several blocks wide and deep. Paved roads branching off from this modest hub soon come to hilly suburbs with modern buildings and villas; marshy valleys and mountains can be seen in the blue distance. Along the main routes leading away from town a scattering of ministries, warehouses, and town dwellings soon gives way to hillsides covered with small, canted fields of banana trees, maize, or coffee. In the bottomlands the soil has been ridged for drainage and planted to beans or cabbages. Farmers swing their long-handled hoes, shaping the soil. An occasional cow grazes, tethered precariously on a steeply sloped patch of grass.

To the west the land rises to the north-south ridge of the Zaire-Nile divide, some 2000 to 3000 meters high. From there the hills drop to the shore of Lake Kivu, lying in the Rift valley at the western border. Valley lowlands are marshy, and lakes are common, covering about 5 percent of the surface area of the country. Road and communication links into the interior are still rudimentary, though being improved.

Blessed with adequate rainfall and fertile soils, Rwanda is first and foremost a land of small-scale intensive agriculture. Ninety-five percent of the population live scattered over the countryside in rural communities traditionally referred to as "hills" (*collines*) without central villages. With the collapse of its Belgian-owned tin mining industry, Rwanda's major exports are agricultural products, with coffee and tea in the lead. Still, export crops form only a small part of agricultural production. Most crops – bananas, legumes, grains, and tubers – are grown on small farms for subsistence or internal trade. Average farm size is 1.21 hectares, and 57 percent of households cultivate one hectare or less (Gow et al. 1986: II, 11, 3). With its GNP per capita of \$280, Rwanda is classified by the World Bank as one of the economic group of 19 low-income African countries that are not semi-arid.

Population: Size, Growth, and Structure²

Rwanda is also the most densely populated country in Africa, with 6.3 million people in 1986, fast running out of land for its exploding population. In 1985 UNICEF calculated the natural growth rate of the population at 3.7 percent for the period since 1978, a veritable explosion for a population that had maintained approximately 2 percent rate of increase over the thirty years before 1970. The effect on population density has been dramatic: from 164 per km² of arable land in 1964, in two decades it swelled to 321 per km². As a result, 46 percent of Rwanda's population was under the age of 15 in 1986.

A national census in 1978 and a national fertility survey conducted in 1983 have provided reliable data on the size and structure of Rwanda's population and have documented its growth. Figure 1 shows population growth in Rwanda between 1940 and the year 2000, when the population is projected to be close to 10,000, twice what it was at the time of the 1978 census. Estimates for 1986 placed it at over 6,000,000.

Obvious consequences of this demographic picture for the education system were the need to accommodate the influx of a young and growing population and the need to provide Rwandans with the means of off-farm employment as densities outstripped the agricultural base.³

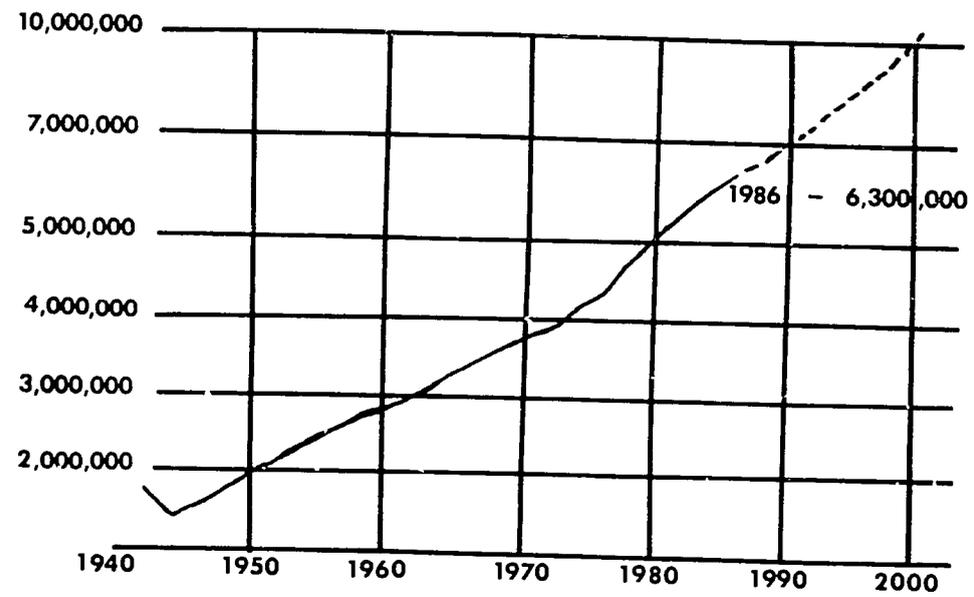
Settlement is relatively evenly dispersed within Rwanda's borders. Population densities were highest in the predominantly Hutu north and northwest, along the northern shores of Lake Kivu, and in the former Tutsi-dominated regions in the south central highlands near Butare, as well as in the vicinity of Kigali and the town of Cyangugu at the southern end of Lake Kivu. The western

²Material for this section is drawn from Gow et al. 1986, I:13-34.

³Although the agricultural sector was still capable of feeding the population at the time of study and had potential for an additional 50 percent growth in productivity, its capacity to absorb additional labor in subsistence agriculture was doubtful. For further discussion of the potential for agricultural intensification, see Gow et al. 1986, I, Ch. 2.

Figure I

POPULATION GROWTH IN RWANDA, 1940 - 2000



Source: Gow et al. 1986 (from UNICEF 1985).

mountain ridges and the drier eastern plateau and savannah were less densely settled but were also less capable of supporting intensive cultivation. Even the urban population of Rwanda is scarcely differentiated from the rural. UNICEF identifies twelve main urban centers. Kigali has over 180,000 residents, but the next largest, Butare, has well under 30,000, and eight of the twelve have less than 15,000. Kibuye, the twelfth, is a quiet little town of less than 3800 perched on the shores of Lake Kivu (Gow et al. 1986:23). The contrast between such towns and the countryside, with a population density estimated in 1984 to be 321 per hectare of arable land, is not remarkable. From a visitor's perspective, parts of Rwanda – particularly the northwest and central portions – appear to be turning into a vast agricultural suburb. Population density is somewhat lower in the eastern savannahs and southeastern marshlands.

Until the last decade or so, Rwanda's resources were ample for its people's needs, but the situation appears bound to change as land becomes ever more scarce. As a result, the balance of resources to population has shifted; the snug self-sufficiency of the country has been pried open by internal pressure as well as by contacts beyond its borders or its control. Already the unemployment of rural youth is recognized as a present and future problem. The potential of formal and informal sector off-farm enterprises to absorb the growing work-force productively, either in rural areas, towns, or outside Rwanda's borders, is clearly a major factor in determining the ultimate usefulness of education for national development.

Administrative Divisions

Administratively, the country as a whole is divided into ten prefectures, each under the direction of a prefect appointed by the ministry of the interior (MININTER). These, in turn, are grouped into 143 communes, each headed by a burgomaster, who is also a MININTER appointee. Communes are the main bottom-level administrative unit for ministry activities. Below them, the basic administrative units, the 1200 sectors, may be composed of one or more collines. Regional representatives of the Ministry of Primary and Secondary Education (MINEPRISEC) are also placed in each prefecture and, below that, in divisions roughly but not completely coterminous with the communes (see Chapter 6).

Ethnicity in Historical Perspective

Underlying these physical, demographic, and administrative characteristics, Rwanda's ethnic make-up and political and social history channel the political currents on which present development rides. Rwanda is one of the handful of monolingual African states; at least 95 percent of the population speaks Kinyarwanda as a first language. Yet the population consists of three distinct ethnic groups. The Hutu, Bantu farmers, are numerically dominant, comprising nearly 90 percent of the population. The Tutsi, originally warrior-pastoralists of

6 INTRODUCTION

Nilotic origin, today constitute just under 10 percent, and the pygmy Twa, numerically, politically, and economically marginal, are about 0.4 percent. Proportions of Hutu and Tutsi vary, from over 18 percent Tutsi in Butare prefecture to 99 percent Hutu in Ruhengeri prefecture. The proportion of Tutsi in the total population was also undoubtedly lower in the 1980s than it was before the Hutu uprising in the late 1950s that shifted hegemony to them from the formerly dominant Tutsi (see Chapter 2) and the Tutsi counterinsurgency and bloody defeat in the early 1970s.

Rwandan government policy perpetuated ethnic distinctions. Every identity document identified the bearer by ethnicity, despite the fact that, as Erny has noted, before independence intermarriage had begun to blur ethnic lines, yielding a group of Rwandans part Tutsi and part Hutu (Erny 1981:175).⁴ All three groups speak the same language, Kinyarwanda, nominally different from, though closely related to, Kirundi, the language spoken by the same three ethnic groups in Burundi.

The issue of what ethnicity or ethnic identity means takes a distinctive turn within Rwanda. Its precolonial history of Tutsi hegemony over Hutu has left present-day Rwandans with a rankling sense of "caste" identity. Chapter 9 will examine the consequences of this situation in the schools.

The fact of having been a Belgian colony, rather than a French or British one, has also left traces on present-day institutions. From the Europeans' viewpoint, Rwanda and Burundi remained colonial backwaters – the hinterland behind Tanganyika during German times, then the relatively resource-poor and politically nettlesome back yard to the Belgian crown colony of the Congo. Both colonial powers preferred to manage the area through indirect rule. In practice, particularly during the half-century of Belgian rule, this meant strengthening and manipulating Tutsi domination over the Hutu peasantry. In a similar vein, the Belgian government were more than willing to let religious missions take on the financial burden of teaching and civilizing the local population. The effects of colonialism on the educational system will be discussed in detail in Chapter 2.

Ethnic tension was exacerbated by political developments in the wake of the Hutu revolution of 1959 (on the eve of independence) and the Tutsi reprisals and consequent persecution in 1973. At the time of this study in 1986, the question of ethnicity, apparently quiescent, was still a force affecting an individual's chances for advancement.

Geographic position, rugged terrain, and historical and social factors all contribute to Rwanda's inward-looking economic and social stance, its enclavement, rather than to an expansionist mentality. In this mountainous, land-locked region, removed from the major trade routes that traversed precolonial Africa, barter and gift were traditionally far more important forms of exchange than commerce and trade. Even in the twentieth century, how a person "gets

⁴Children of mixed marriages are assigned the ethnic identity of their father.

ahead" is colored by long familiarity with the strength and uses of patron-client ties.

It is in this physical and cultural setting that the educational reform that forms the subject of this study has taken place, from plans first set in motion in the latter half of the 1970s to reality in the 1980s. This book is divided into three parts. Part I traces Rwanda's educational development from colonial times through 1986, the time of the field study on which this work is based. Chapter 2 reviews the institutional history of education in Rwanda up to the reform of 1979, and Chapter 3 focuses on the educational reform of 1979.

The next five chapters, in Part II, describe the institutional structure of education in Rwanda. The formal primary and secondary school systems in operation in 1986 are the subjects of Chapters 4 and 5. Chapter 6 discusses other relevant educational institutions, notably the university and the ministries concerned with education. Chapter 7 examines the formal educational institutions just described in terms of their quality. Non-formal education and informal training programs are the topics of Chapter 8.

Part III returns to the themes of educational equity and education for employment, looking at how Rwanda's educational system relates to the country's broader social and economic context. Chapter 9 deals with access to education, looking at regional and social factors as they play themselves out in present-day Rwanda. Chapter 10 reexamines the issues of education for employment and productivity, and Chapter 11 explores the implications of this study for refining our view of educational development.

Chapter 2

EDUCATIONAL INSTITUTIONS IN HISTORICAL PERSPECTIVE

To understand why Rwanda's educational system took the shape it did in 1986 and where it was heading, we need to examine where it came from. History shapes the present in various ways. Some physical infrastructure – buildings, equipment, books, even some staff – represents an already existing investment in education that can be incorporated into the current system. On another level, new initiatives, overtly justified by invoking principles of development, arise and gain support because they fit historically conditioned political realities. The kind of education people have known molds their view of what education is and should be. Concepts like equity have special overtones to an ear attuned to the reverberation of history. To understand why certain educational policies have found favor in Rwanda and others have not, it is useful to trace policies to their origins, to understand the constituencies and interests that have grown over half a century and more in Rwanda.

Some distinctively Rwandan responses to current educational problems have roots reaching into the colonial and precolonial past. The present government's tolerance of private funding for schools harks back to the earliest colonial period, when Belgian colonial administrators extended the principle of indirect rule in Rwanda to encouraging mission schools in place of official public ones. Similarly, government attempts to retain control over privately supported schools have a long history. The tension between providing practical education for the rural population and offering quality education for a select elite echoes two early and contrasting objectives of missions at the beginning of this century: teaching Africans "in the bush" just enough to convert them without changing their lives; and training a select African clergy. Broad-based, low-level schooling with sharply reduced opportunities for continuing on to higher levels recalls Belgian colonial policies of the 1950s. Mission boarding schools are still the archetype for what the select secondary schools ought to be. And finally, the problem of ethnic and regional equity in schooling, as in access to other forms of political and economic opportunity, predates the arrival of the Europeans, though it is influenced by their policies.

This chapter examines the origins of today's educational institutions. It attempts to place enduring aspects of Rwandan education in the context of Rwanda's past.

Historical Overview

Although half a century of colonialism left its imprint on Rwanda's educational institutions, on the whole the colonial impact was comparatively light. The region east of Lakes Kivu and Tanganyika comprising present-day Rwanda and Burundi remained a hinterland to colonies of more immediate interest to European colonial powers.

The political landscape of what is present-day Rwanda into which Germans, then Belgians ventured was composed of a remarkable centralized kingdom in the south and central portions, largely inhabited by Bantu Hutu agriculturalists but ruled by Nilotic Tutsi pastoralists, headed by a king (*mwami*).¹ The northwest quadrant was dominated by a collection of sovereign Hutu chiefdoms.

Unequal relations between Hutu and Tutsi trace back to precolonial social organization. Ties of patronage and clientage, the network holding the political fabric together, took the overt form of cattle loans in return for service and fealty (*ubuhake*) in the south and central portions of the country. In the northwest these contracts took the form of land-lease (*ubukonde*). By the advent of European colonizers, part of the service a loyal follower owed his superior consisted of corvée labor. A form of this still persists, much modified, as *umuganda* – work which Rwandan citizens undertake one day a week for the state. Today all Rwandans are obligated to do *umuganda*; some of this activity has been directed toward school construction and community support for education.

The Germans, first to lay claim to the region, extended their reach westward from Tanganyika. They incorporated the area into German East Africa in 1900, losing it less than two decades later, after their defeat in World War I. Their tenure was characterized by entente and some military support of the Tutsi *mwami* and a very spare administration – only ten German nationals staffed their headquarters in 1914 (Lemarchand 1970:63).

In 1919 the Belgians were awarded the area as a mandated territory by the League of Nations. Only in 1925, however, did the Belgian government officially combine it for administrative purposes with the more lucrative and exploitable crown colony of Congo; until then the administration was skeletal, content in the main with following German precedent. From the mid-1920s onward the Belgian administration played a more active role in Rwanda's political evolution. Until World War II it pushed for centralization of the Tutsi monarchy and its administration, replacing chiefs and nobles likely to oppose colonial policies.

In the aftermath of World War II, when the region known then as Ruanda-Urundi became part of a trusteeship territory under the United Nations, the Belgian administration took measures to move toward more democratic

¹This kingdom in what is now south-central Rwanda contrasted with the pattern of Tutsi hegemony to the south, where Tutsi nobles with more restricted spheres of influence were not so centrally organized.

government in preparation for eventual independence. Ensuing events and internal political movements within Ruanda precipitated Hutu attacks on the Tutsi in 1959, Tutsi counterattacks, and bloody reprisals in the last years of trusteeship and the early years of the First Republic.² The Hutu emerged in command at the time of Rwanda's independence in 1962. The political reins have remained in the hands of Hutu leaders since then. The Second Republic, established in the wake of a military coup in 1972, is even more staunchly committed than its predecessor to redressing the accrued imbalances between Tutsi and Hutu, especially in the realms of education and employment.

The Development of Educational Institutions During The Colonial Period

In the Belgian colonies, educational history is mission history and it is dominated by the Catholic missions.³ In this respect Belgian colonial policy contrasts dramatically with French policy, which transferred the secular metropolitan school system directly to the colonies, allowing the slim minority of Africans able to make the cultural and linguistic leap to advance as far as they were capable. The growth of Rwanda's educational institutions paralleled the region's political development over the course of the twentieth century but was in many ways independent of colonial control. British school policy, though more similar to the Belgian, was never so dominated by a single denomination and consequently proved more malleable.⁴

In the region that is now Rwanda, Catholic missionaries were first on the scene. At the turn of the century the missionary order of White Fathers (Pères Blancs) petitioned the *mwami* at Nyanza for permission to establish a mission with a school at the palace. The court, mistrustful of mission influence on royal youth, craftily granted them a site at Savé, a hill five hours distant, famous for its brigands. Arriving with an armed escort, the White Fathers nevertheless succeeded in founding their mission and established a secular school near the palace at Nyanza for young nobles. Other missions with schools soon followed; by 1918 nearly a dozen were in operation.

Protestants moved into the area later. German Lutherans, first arriving in 1907, found their road thorny even before control passed from Germany to Belgium in 1916. The years from 1919 to 1943 saw successive settlement of Belgian Presbyterians, Seventh Day Adventists, Anglicans, Baptists, Pentecostals, and Methodists. Still, because Belgian policies regarding mission schools favored Belgian missions, Catholic missions retained a pre-eminent role in education.

²For a detailed and enlightening discussion of these events, see Lemarchand 1970, especially pp. 56-286. This capsule summary has been based heavily on that source.

³The following discussion draws largely on Erny (1981), whose thesis is based on extensive review of sources from mission and colonial archives.

⁴See Scallan (1964), esp. Chs. 4-5, for comparable discussions of British and French educational policies.

Missionaries viewed schools as prime tools in their work of conversion. The Belgian colonial administration, like the Germans before them, was far more concerned with political matters than with education and preferred to let missionaries shoulder the financial burden of running educational institutions in their colonies. As a result, early educational policy was essentially Church policy, based on its concepts of the role education plays in creating a Christian African community.

Even before the turn of the century, early Catholic leaders like the Cardinal Lavigerie, founder of the White Fathers, envisioned a Christian Africa resting on two educational bases: simple catechism for the masses and high-level, high-quality education for an elite African clergy. The rural faithful required a basic form of education – just enough schooling to master the catechism and accept the Church's teachings without rejecting their traditional way of life and occupations. To this end, missions quickly built small rural schools teaching a modicum of reading and moral values for a year or two. Elementary instruction in health and hygiene, possibly some notions of simple agricultural improvements, might be included, but all was supposedly geared to the experience of African peasants, avoiding anything that might lure them away from their homes and ordinary lives.

In addition, Lavigerie and later Church fathers advocated training an indigenous clergy to guide their African flocks. They believed that African priests could best bring the Christian message in terms their own people could understand. So a few of the most apt students were to be selected and given good quality advanced training to prepare for ordination. Ideally these select few should come from the "natural leaders" of the population – sons of chiefs, from leading lineages, and from dominant ethnic groups.⁵

In Rwanda, though, the earliest missionaries had to content themselves with training Hutu priests to serve the numerically predominant Hutu population. The Tutsi court recognized that some secular Western-style education could prove useful for its youth. But since the monarchy based its legitimacy on its own religious cult, it initially opposed any religious indoctrination of its youth. Later, as the utility and quality of the education offered by the seminaries became evident, Tutsi leaders relented and sought places for their children. By independence Tutsi filled most of the places in the seminaries, though never all of them.

Even today the remaining *petits séminaires*, training boys for the priesthood, set the highest standard for academic excellence at the secondary level in the country; by no means all of the graduates enter the priesthood. Many members of the small Hutu intelligentsia who became standard-bearers of the revolution and have headed the republican governments that followed are seminary graduates. The Rwandan clergy today, however, is preponderantly Tutsi.

⁵For selected texts and discussion of Lavigerie's views, see Lemarchand 19/0.60-65.

The Belgian colonial administration established four government schools between 1923 and 1925. The colonial government's main educational objective was to train clerks, aides, and technicians to fill low-level posts in the colonial administration – an aim somewhat at variance with mission goals. But by 1929 these schools were closed. They had proved more expensive and lower in quality than the more numerous and flourishing mission establishments.

Instead of setting up a school system in competition with the church institutions, the Belgians concentrated on indirectly controlling the latter by means of various contractual agreements and subsidies. As early as 1924 the Belgian colonial administration for Congo and the mandated territories distinguished between *écoles officielles* (government schools or schools managed by missions under contract with the Belgian government), *écoles libres subsidiées* (Belgian mission schools with government subsidies), and *écoles libres non-subsidiées* (privately funded schools run by foreign missions). (Erny 1970:91-92.) Outstanding among the *écoles officielles* was the Groupe Scolaire of Astrida (now Butare), the outgrowth of the court school of Nyanza, run under contract by the Petits Frères de la Charité de Gand to train Tutsi (and mulatto) youths as clerks, local government officers, or technical aides in such fields as medicine, veterinary medicine, and agriculture. For boys of mixed parentage who failed the academic curriculum, the school also provided workshops in practical crafts, so that they might leave with skills that ensured employment (Erny 1970:105.)

On the eve of World War II, in 1938, the official report of the Belgian colonial administration lent support to educational trends already established.⁶ It supported the policy of mass basic education, the first three years emphasizing manual skills and conducted in the local language. It sought to limit access to higher levels (starting with the second three-year cycle of primary education) which were taught in French, leading to a broader view of the world and frequently to salaried employment.

By 1942 one primary and secondary boarding school with a metropolitan curriculum, the Institut St. Jean, was built for Belgian administrators' children unable to travel home for their education through war-torn Europe. A massive white two-storey building crowning Ruhande hill outside Butare, it later became the first home of the National University.

After the war, when the region became a United Nations trusteeship, its educational development came under UN scrutiny. The United Nations pushed for provision of higher education for Africans and also criticized Belgium's colonial schools for being too much under religious control. The Belgian administration responded to the first charge by founding regional universities first in the Congo, and later in Burundi, as well as by providing scholarships for Africans to study in Belgium. But Belgian administrators remained notoriously reluctant to give their colonized people access to higher education.

⁶The yearly *Rapport sur l'administration belge au Ruanda-Urundi*.

In response to UN pressure for a more secularized school system, Belgium reformed the system of state subsidization of mission schools, imposing more stringent and uniform requirements concerning the qualifications of teachers and the type and quality of teaching materials, as well as instituting a system of inspection no longer entirely in mission hands.

During the course of the 1950s several study teams were commissioned to prepare reports for the government concerning colonial education policy. The first, in 1954, focused on the inadequacies of mission "bush schools" that offered only rudimentary education to rural children and recommended the extension of a secular primary system instead.⁷ Although Belgium could boast that 45 percent of school-age children in its colonies attended school, the team argued that this "bargain education" was of unacceptably poor quality.

Mission authorities rallied to oppose this report, finding support among educated Africans. By this time, because of the form and pervasive influence of mission education, modern Africans were beginning to equate quality schooling with the teaching of moral values and, at the higher levels, with boarding facilities that removed students from their home conditions in order to provide a suitable environment for study, and to allow close moral supervision. The debate centered on the issues of costs, quality, and on the importance of teaching moral standards. In the end the coalition of Africans and mission representatives succeeded in upholding the status quo.

In 1958 the governor-general commissioned a second team, from the University of Liège, to examine the problems of relating education to employment. The team advocated adapting the curriculum to African needs at the lowest school level by stressing oral expression, teaching of manual skills, and "studying the environment . . . [to] . . . awaken thinking skills" (FULREAC report 1958:52-53, cited in Erny 1981:166). For the upper primary grades it recommended creating a two-track system with the possibility of switching students between work training and academic tracks, so that only the most able might continue into secondary schools.

Although the Liège report appeared so late in the colonial period that it had little immediate effect, in retrospect certain of its themes have a familiar ring – notably the emphasis on preparing Africans for life "at home" in the countryside and the stress on limiting access to academic tracks and thus to schooling beyond the primary level.

Educational Institutions in Independent Rwanda

At the time of independence just over 250,000 students were in primary school in Rwanda. The country had 40 secondary schools, including 6 seminaries and 34 *écoles libres subsidiées*. There was at least one secondary school in each prefecture.

⁷This was the Coulon-Dehryn-Renson report, *La réforme de l'enseignement au Congo belge*. See Erny 1981:146 *ff.* for a more complete discussion of it and its effects.

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The most favored prefectures were those in the vicinity of the former Tutsi court – Butare, with a total of nine, including the sections of the Groupe Scolaire de Butare, followed by Gitarama with eight (MINEPRISEC 1986b). The only post-secondary institution was the Grand Séminaire de Nyakibanda, near Butare; the university for the region, founded in 1960 at Bujumbura, was south of the border, in Burundi.

At independence political commitment to expanding educational opportunities and to providing a form of education that embraced Rwandan economic and cultural realities led to a series of reform measures. Educational planners in Rwanda in the 1960s revised and restated the goals of schooling in Rwanda. The Constitution of 1962 and further legal measures in 1964 and 1966 declared that primary education should be free and obligatory and imposed national standards on the six-year primary curriculum.

The new government's priorities were specifically to establish its own national university and more generally to broaden the availability of basic education. It was not much concerned with modifying the curriculum, other than adding some African history. The government was rapidly able to obtain Canadian assistance in support of a university conceived and built under the direction of the Dominican Fathers of Quebec. The Université Nationale du Rwanda (UNR) opened its doors to its first class of 49 students in Butare in 1963.

Objectives still basic to educational reform today – to develop truly productive human resources, to adapt education to Rwanda's cultural context, and to make schooling accessible to all – were elaborated during this period. Some adjustments were made to school curricula, such as rewriting social studies courses, and segmenting the secondary level into a three-year common core curriculum followed by professional, technical, or humanities streams. Alternatives to the formal school system, in the form of community education centers and post-primary training, taught in Kinyarwanda, were introduced and promoted. Double shifts were instituted in the first three or four years of primary school to expand the number of places. But in comparison with the reforms of the late 1970s and 1980s, the earlier changes were ripples, though widening ripples, on the surface of the institutional structure inherited by the new state.

During the first year of independence it was estimated that the primary schools, with enrollments of slightly over 300,000 in a six-year system, accommodated about 60 percent of the school-age population. Very few found places at the secondary level, where total enrollments were only slightly over 4,000 in 1962-63.⁸ School legislation passed in 1966 and 1967 laid down guidelines for schools not very different in nature from those under the colonial system of the 1950s; the main thrust was on increasing enrollments. Double shifts were used

⁸Figures taken from Munyantwali 1984 and Nsengiyumva 1984, rounded.

during the first four years of primary school to allow more children access to schools.

In addition to the formal school system, the ten-year span of the first republic saw a proliferation of communal or specialized educational centers under the aegis of various government ministries, church groups, and outside donors. Agricultural extension services were started, as were nutrition centers, literacy centers, social centers, centers for leisure and sports, and rural training centers, all under the direction of different ministries. Church groups supported a training center for the handicapped, an ambitious experimental radio distance training center, and a congeries of artisanal training centers and schools for boys (CERARs), homemaking schools for women (*Sections familiales*), and scout and other youth groups.

Although the government remained in the hands of Hutus at the highest level, it became increasingly clear over the course of the decade that Tutsi were continuing to staff the administrative bureaucracy. With the advantage of several generations of preferment, the class of technocrats was almost exclusively Tutsi. Moreover, Tutsi children, coming from homes where education was both a tradition and an expectation, still won most of the places in the exclusive secondary schools. One of the precipitating factors leading to the bloodless coup of 1973 and the overthrow of the first republic was a growing suspicion that the Hutu government, having won the battle to overturn Tutsi domination, might yet be losing the war.

If the educational themes of the first republic were expansion and variety, the second republic's educational strategy accents planning and reform. At UNESCO's suggestion, the government of the second republic promptly enlisted a German team of experts, headed by Theodor Hanf, to study the educational picture and make recommendations both for reform and for using donor assistance effectively. The Hanf report appeared in 1974,⁹ and planning for reform began in earnest in 1976, in time to form part of the Second Development Plan 1977-1981. The first steps toward implementation were taken in 1979; the reform is generally referred to as the Reform of 1979.

The Hanf report took up the refrain of training for work, from the primary level upward. It faulted Rwandan education for being too academic, equipping students only for going on to higher levels of study and then to white-collar government jobs. Its recommendations included late entry to primary school (at age nine), four years of general education, and a final two years of practical training, so that primary school graduates, at fifteen, would be old enough to move directly into productive activities. It also advocated a less general, more technical orientation in secondary school. Not all of its specific recommendations were heeded, as the next chapter will show. Still, the notion

⁹Theodor Hanf et al., *Education et développement au Rwanda: Problèmes, Apories, Perspectives* (Munich, 1974).

that each school cycle should be a "terminal" cycle leading directly to the world of work has become a basic tenet of the reform.

Conclusion

Viewing Rwanda's schools as they appeared in 1986 through the lens of history helps to explain what aspects of the country's educational development are recent innovations and which are the product of a long process. Certain characteristics of Rwanda's present-day educational structure are enduring. These include: the tension between a practical focus to schooling and the continuing concern for quality and selectivity beyond primary school; the persistence of a lively private school system, its present legal status, and the form of control over it that the government attempts to exercise; the conviction that agricultural and job-oriented training will lead to a productive workforce; and the political and educational orientation of Hutu leaders who are pushing for the present quota system, in the interests of equity, as well as the possible effects of these quotas.

Later chapters will return to these themes. But it is worth remembering at the outset that conclusions about educational trends in Rwanda today or in the future will be realistic only if they take into account the reasons why things are as they are – how the past has influenced the present, what is easy to alter, and what is anchored deeper by the weight of the past.

Chapter 3

THE EDUCATIONAL REFORM OF 1979

The evolution of Rwanda's educational system, described in Chapter 2, culminated in a comprehensive effort at planned development, generally known as the Reform of 1979. Its plan and strategy form the basis for Rwanda's present educational institutions. Before we examine those institutions in detail, we need to understand the goals and the operation of the reform.

This thorough-going and radical reform of the entire educational system, introduced in the Second Development Plan 1977-1981, was formally launched in 1979. Relevant legislation appeared, in the form of laws and presidential decrees, over the ensuing years. Thirteen years of stable government enabled educational reform to move from the planning board to the schools.

Rwanda's 1979 educational reform focused on the problem of human resource development. Strong vocational and professional training, attuned to Rwandan needs and context, accessible to all – these were the stated goals of the reform. The means adopted to reach them included:

- radical overhaul of the school system;
- rewriting curricula from the first year of primary school upward;
- changing the length of primary and secondary cycles;
- establishing alternative tracks after the primary level; and
- expanding facilities in the primary system and beyond.

This chapter examines the changes wrought by the reform, how well they worked, and what their immediate effects were. It will describe the purposes of the reform and the means adopted to accomplish them, the timetable for implementation, structural consequences, the role of donors in this development effort, and the reform's impact on educational institutions. Later chapters will consider the consequences of the reform in broader perspective – its effects, planned or unplanned on the structure of Rwandan society, and the lessons it offers for other African nations.

Aims and Means

The educational reform of 1979 called for the radical restructuring of educational institutions, from the ministries to the schools, as well as for a complete revision of the curriculum. The stated aims of this reform were:

- To increase access to basic education, compensating for past regional and ethnic inequities and adapting the school program to rural life and work;

- To orient education at all levels toward vocational and professional training, equipping students who leave the school system at the end of each cycle for economically productive work;
- To create a truly Rwandan curriculum, teaching national culture and values and using Kinyarwanda as the language of instruction throughout the primary system; and
- To improve the efficiency of the school system by reducing dropout and repetition rates.

The means for accomplishing these goals involved major change and reorganization at all levels of the system. They originally included:

- Expanding enrollments and automatically promoting students from one year to the next, regardless of their performance, at the primary level;
- Restructuring the primary curriculum to include a seventh and eighth year of practical work training focused on agriculture and manual skills for boys and home-making instruction for girls;
- Increasing access to schooling beyond the primary level by expanding the type of post-primary training – CERARS and *Sections familiales* – through the creation of 1200 *Centres d'enseignement rural et artisanal intégrés* (CERAI) throughout the country;
- Expanding and restructuring the secondary schools, eliminating the three-year core curriculum and concentrating on vocational training tracks to create an immediately employable mid-level workforce of secondary school graduates; and
- Finally, reorganizing and adapting the National University faculties and departments to receive students who were products of this reform and to produce professionally trained graduates with the skills needed to fill high-level posts in Rwanda's government and economy.¹

Over the next seven years there were refinements, elaborations, and modifications of the first broad brush strokes of the educational reform. Some of the changes were embodied in legal definitions. The status of public, private, and subsidized schools was clarified. The national policy of equitable regional and ethnic access to schooling, an important factor in secondary school and university admissions, was defined.

Other changes were pragmatic. The inflated enrollment goals and automatic student promotion of the original plan were quietly laid aside. Ministry planners apparently recognized that expanding the school system faster than

¹Cf. Danière and Meyer 1981, 18-20.

popular demand dictated would create an insupportable financial and logistic burden for the government. At the time of study, current demand did not exceed the number of places in the primary system and the post-primary rural polytechnic CERAs.

At the secondary level, however, the picture was more complex. The public and quasi-public boarding schools provided a good, but exclusive and excessively expensive form of education. At the time, these schools could not accommodate more than 8 percent of primary school graduates, however, and competition for places was fierce. The government of Rwanda adopted a two-pronged strategy for coping with the demand without building more schools than it could support: siphoning off some continuing students into the CERAs at the communal level; and according official recognition under set conditions to private secondary schools, for those parents willing and able to pay for their children's education. This last alternative to public secondary schooling was supposed to be entirely self-financed, creating no budgetary burden for the government. CERAs and private secondary schools will be discussed in detail in Chapters 4 and 5, in relation to present-day educational institutions.

Implementation

Carrying out the objectives of the reform required a mammoth effort. The entire primary and secondary school curricula, texts, and teachers' manuals had to be completely rewritten, the bulk of them in Kinyarwanda for the first time. Books and other teaching materials had to be printed and distributed. Schools had to be built. Teachers had to be trained to teach new agricultural and vocational subjects. Workshops, equipment, and land had to be acquired for the practical courses. Putting all the pieces in place was clearly beyond the means of the country's own resources. Donors had to be found, and their efforts had to be coordinated.²

The timetable for the first five years was originally drawn up as follows:

²For an excellent discussion of the aims of the reform and particularly of donor reaction to them, see Danière and Meyer 1981.

Table 1
TIMETABLE FOR THE REFORM

Year	Primary	ERAI*	Secondary
1979-80	7th year		Creation of voc. ed. teacher training sections
1980-81	8th year		
1981-82	1st year, 2nd year, etc.	1st year	Renovated first year and partial implementation of reform components across grades
1982-83		2nd year	
1983-84		3rd year	

(From Danière and Meyer 1981, slightly modified.)

*Rural and artisanal training (*enseignement rural et artisanal intégré*), particularly as taught in the CERAI's.

In fact, the reform of 1979 was phased in more slowly over the following seven years and was still not entirely in place by 1986.

The first phase of the reform concentrated on modifying the primary school curriculum and structure. During the first two years seventh- and eighth-grade classrooms and workshops were added to existing primary schools, curricula were prepared for these classes, and revised curricula and texts began to be produced for the lower grades. During that time, students who formerly would have moved from the sixth year into secondary school were retained by the primary schools. It was not until 1981, when the first primary school graduates under the new system moved into secondary school, that reform of the secondary school system was formally enacted and the establishment of the parallel system of CERAI's was launched.

Educational reform faced an uphill battle against demographic trends during this period. By 1986 there were close to 800,000 students in primary school. In the 1984-85 school year 16,500 attended 76 secondary schools, nearly four times the number at independence.³ But the population was increasing at close to the same rate. Analysis of the 1978 national census figures for school attendance yielded a national enrollment rate of 47.4 percent of children of primary school age for that year, 50 percent for boys and 45 percent for girls, the year before the enactment of the educational reform (Bureau National de Recensement 1984:VI, 100). In 1986, eight years later, the primary schools were still serving only 55 to 60 percent of the children between the ages of seven and fourteen. The public

³MINEPRISEC 1986c, figures rounded.

secondary system in 1985 still accepted less than 8 percent of primary school graduates, although by then the CERAI's were beginning to offer places to another 20 percent.

The reform was due to reach the university level in 1986-87. University staff and planners at MINESUPRES, the ministry responsible for higher education, were charged with planning university reform during 1986 to prepare for the new breed of entrants. At the time of this study, the process was not very far along. University department heads were compiling their programs, and detailing their staff and resource needs, while the ministry planning staff was still considering what kind of background studies to undertake. The university faculty was not generally eager to make major changes at a time when the whole institution was barely geared up and running. In sum, the interim plan seemed to be business as usual as the process of planning university reform took its course.

Changes in Institutional Structure

The reform of 1979 mandated changes in the structure of the formal primary and secondary school systems. Before the reform the primary school program had been six years long, divided into two cycles of three years each. The first cycle taught basic literacy and numeracy, using Kinyarwanda as a medium of instruction; the second introduced French as a subject and other introductory courses in science, history, and the like. Reformers faulted this second cycle program for being too academically oriented, preparing all students for continuing studies, although only a few would find places in the secondary system waiting for them. They also criticized the primary system for turning out graduates too young to be gainfully employed. The Hanf report had addressed this last issue by suggesting a later age of entry into primary school.

The 1979 reform adopted a different, more costly strategy. Instead of delaying entrance to school, it added two years to the primary schools. These two years concentrated on teaching practical courses – basic agriculture, construction skills, and home-making. They also continued a reduced program of general courses – Kinyarwanda, arithmetic, and a little French. In principle, then, students would graduate at about age fourteen, old enough to work productively on their parents' farms and with some basic skills. At the very least, in those last two years, it was argued, they might pick up farming and home-making techniques they had missed learning from their parents because they had spent so much time in school.

To accommodate the overwhelming majority of primary school graduates unable to get into secondary school, the reform proposed to provide places for them in an expanded system of post-primary rural polytechnical schools, the CERAI's, already piloted in the early 1970s. The CERAI's were the most unusual feature of the reformed school system. These three-year community schools offered terminal courses in practical subjects – agriculture for everyone; cooking,

sewing, child care, or health care for girls; and a choice of tracks including carpentry, masonry, construction, plumbing, welding, electrical wiring, or small engine repair for boys. They also continued to teach some general courses: French, mathematics, civics, and Kinyarwanda. Their graduates, at seventeen, were old enough to enter the job market as farmers or artisans.

For the minority who entered public secondary schools instead of the CERAs, the reform entailed moving from a five-, six-, or seven-year secondary cycle (three years' core curriculum plus two or more years of specialized training) to a six-year program in which specialization started in the first year and general courses were offered along with the vocational ones for the first years. Figures 2 and 3 show the structure of Rwanda's primary and secondary school systems before and after the reform.

The addition of two extra years to the primary school cycles meant that the classes that entered secondary school in 1979 and 1980 and graduated in 1985 and 1986 were unusually small. During the school year of 1986-87 the first class of students who had attended seventh and eighth grade of primary school were in their sixth year of secondary school. As a result, the fifth and sixth year classes still in the secondary schools were larger than they had been since the inception of the reform.

This was problematic for the school system in two ways in 1986. Although planners had hoped to construct enough new facilities to house at least the usual proportion of eighth grade graduates in the secondary schools by that point, in fact the number of places available to incoming students, always scarce in relation to demand, were further reduced. On the other hand, most secondary schools had fewer graduates than usual that year competing for places at the University, leaving the field more open to secondary school graduates of previous years, who are allowed to apply to the university after working for a year or two. According to university planners, however, the 1987-88 school year would be less predictable, for then the new students emerging from the reformed secondary schools would be moving into the halls of the University.

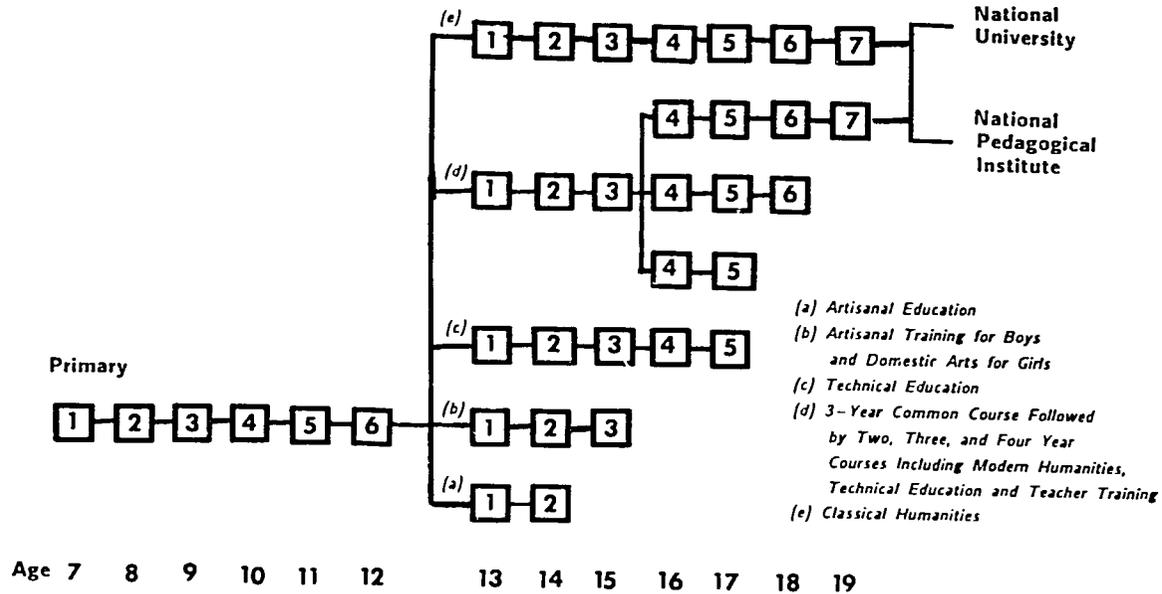
In 1981 institutional changes in the wake of the reform extended to restructuring the Ministry of Education (MINEDUC) itself, splitting it in two – a Ministry of Primary and Secondary Education (MINEPRISEC) and a Ministry of Higher Education and Research (MINESUPRES). Within the MINEPRISEC two curriculum bureaus, one for secondary schools and one for the primary system, operate almost like self-contained agencies, separately housed and funded by different donors.

Curriculum Reform

Rewriting the curriculum was fundamental to the educational reform. Moving from French to Kinyarwanda in the second and third cycles of primary education required a completely new set of texts written in the national language.

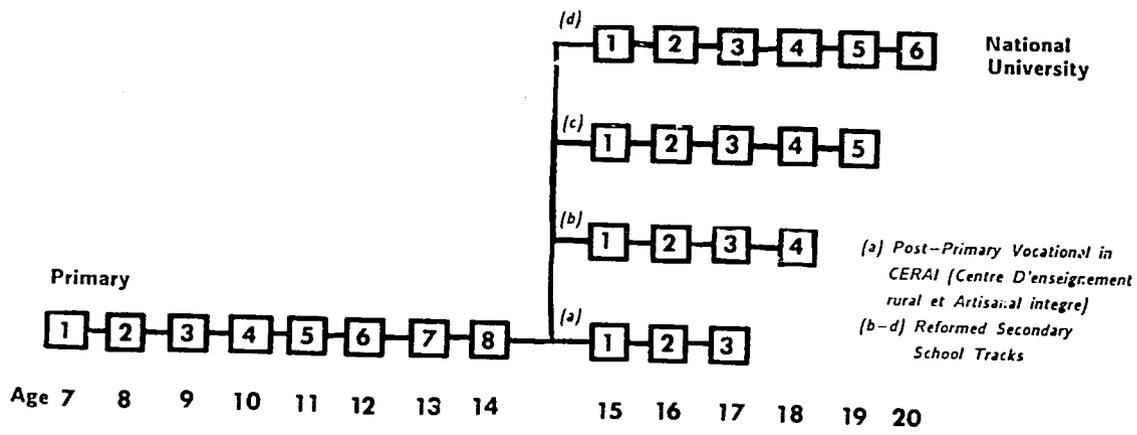
Figure 2

STRUCTURE OF THE PRE-1979 EDUCATIONAL SYSTEM



(Adapted from World Bank 1985.)

Figure 3
 STRUCTURE OF THE REFORMED EDUCATIONAL SYSTEM



(Adapted from World Bank 1985.)

Adapting the course of study to Rwandan culture meant creating curricula and texts for Rwandan and African history and geography. Planning each major cycle in the educational system to lead directly to productive work meant preparing vocational curricula in agriculture and vocational skills for seventh and eighth grades and for the CERAI and emphasizing the professional focus instead of the general core courses in secondary school tracks.

Three organizations within the MINEPRISEC shared the task of moving the reform curriculum from plan to classroom. They are:

- the Bureau pédagogique de l'enseignement primaire et de l'enseignement rural et artisanal intégré (BPERAI), responsible for producing primary and CERAI materials;
- the Bureau pédagogique de l'enseignement secondaire (BPES), which prepares the curricula and texts for the secondary system; and
- the Imprimerie scolaire, the educational printing agency.

To understand the state of the educational reform in 1986 it is essential to see how far along each of these organizations had come in its task and how well it was progressing.

The BPERAI. The BPERAI was faced with preparing texts for eight years of primary school in eight major subjects and a few minor ones. It had divisions for Kinyarwanda, Social Studies, French, Mathematics, Science, Manual Arts, Agriculture and Livestock, and Home Economics, as well as for Language and Tradition, Music and Sports, and Supplementary Educational Activities (which prepared radio programs for in-service teacher training). It received substantial support and technical assistance from the French during the first half of the 1980s. That aid was winding down in 1986.

The bureau made two strategic decisions in approaching its task. One, dictated by the reform, was to concentrate first on preparing curricular materials for the seventh and eighth grades, the two new classes added to the primary cycle, and then to work on the other years' materials, from the first grade up. The second decision was to prepare student texts for Kinyarwanda and mathematics, but to work on teachers' manuals for all other subjects. Seven years after the announcement of the reform, most of the teachers' manuals and first cycle texts in arithmetic and Kinyarwanda were done for the first three years and the seventh and eighth grade curricula and teachers' guides had been mostly completed. Work was focusing on the materials for the middle years, fourth through sixth grades, and some of the courses for the CERAI.

Curriculum revision at this level had distinctive strengths and weaknesses. Despite staff complaints of lack of background materials, considerable thought and care had obviously gone into designing the curriculum and producing well-made, attractively designed books and booklets. The phasing-in of the curriculum,

though slow, was sensibly planned. By the summer of 1986 most of materials that were not yet published were either ready for the printer or were at the proof-reading stage, except for some of the fifth, sixth, and third-year CERAI materials.

On the other hand, bureau personnel lacked facilities for testing preliminary versions of their work in the schools. The initial materials, overly well made, represented such a large initial investment that revisions may be hard to afford. It might been better to move faster and provide the reformed schools with teaching materials sooner.

Second, most of the materials the bureau produced were not meant for students – the bulk of them were not student texts but teacher manuals. Only the math books and language readers would be handed to the students for their use. Although improving supplies of pedagogical materials is currently recognized as a prime way of improving education in Africa (World Bank 1988, 42, 45-46), in this case the path of materials to students was strikingly indirect and promised to remain so.

The BPES. The tasks of the BPES were even more complex than those of the primary school bureau. It was responsible for translating the main directives of the school reform into a set of concrete curricula and texts for the secondary schools. It had received financial and technical support from the Belgians.

One result of Belgian guidance was that all divisions of the Bureau adopted, in principle, a formal method for approaching the problem, based on the work of Louis d'Hainault, *Des Fins aux objectifs*. Hainault's formula for moving from goals to objectives is, first, to develop definitions of the types of trained personnel desired from the educational system, then to specify sets of characteristics expected of graduates and of entrants, and finally to work out a curriculum leading from one to the other.

This approach has the drawback of being rigid and abstract, making it difficult to design a secondary school program that responds promptly and flexibly to changing economic conditions and concomitant changes in workforce needs. In practice, though, it also seemed to have generated so many years of debate and discussion that Bureau staff, in the end, had a pretty clear notion of what needed to be taught at each level in the texts and curricula they wrote, and why.

The BPES also prepared and graded two sets of system-wide tests for the secondary schools. The first was given to all students at the end of their third year. It provided information to the school staff, the administration, and to the BPES about how effectively students were learning the subject matter presented. It did not count for student grades. The other tests were the final examinations at the end of the secondary cycle, the key to admission to the university. Grades on these examinations counted for a quarter of students' final grades.

Lastly the BPES was producing the texts and teachers' guides for the secondary schools. These were written in French, the language of instruction at the secondary level. Like the BPERAI, the BPES was divided into sections by subject. Each division had to prepare a program of courses in its field adapted to each of the eleven major tracks in the secondary school system and sometimes for separate concentrations within a track. In practice, some divisions, like the history division or the French division, simplified their task by preparing an all-purpose set or two of texts and curricula with instructions about which sections of text to use for different school tracks. Like their colleagues at the primary level, staff complained that they had no opportunity to test their work in classroom situations before publication.

The process of moving from plan to printed books was slow, encumbered as it was with theoretical baggage. The 1985-86 year saw a concerted effort to get the sixth year texts out before the first sixth year "reformed" class appeared in the school in September. At the time they were visited in July, many of the BPES staff had proofs of the books in hand and were busily reading copy. At least some of these books would be in print by September; the rest should have found their way into the schools over the course of the year.

To make this big push, many divisions had to put aside the fourth- and fifth-year texts that would otherwise have come next on their agendas, so there were gaps in the series that needed to be filled in the next few years. As was the case in the primary schools, the first graduates of the reformed secondary system had to make it through without benefit of books in many of their classes. The first class to be a true product of the reform is probably the one that still had four more years to go.

The Imprimerie scolaire. The two curriculum bureaus were not the only sources of delay in producing teaching materials for the schools. Some of their staff pointed an accusing finger at the educational printing agency, the *Imprimerie scolaire*. "We get the manuscripts all ready," said staff members, "and then they just sit there for six months or a year. . . ."

Equipment did not appear to be a major constraint; the World Bank, which frequently supports scholastic presses, had been providing aid to this one and was giving more. Instead, according to the newly appointed manager, the main roadblock was the cost and availability of paper. This was not surprising, for throughout Africa local paper production is rare and paper is a bulky, expensive import.

Indeed, at the time of study, changes had recently come to the *Imprimerie*. In the fall of 1985 its management had been put in the hands of an energetic Rwandan director with an MBA from Canada. He found himself running an enterprise with plenty of printing capacity, but a serious shortage of paper for government books. He raised wages to motivate his staff, took on some commercial printing jobs to make fuller use of idle equipment, pushed the notion

of charging a small fee for schoolbooks, and went to Washington to negotiate a World Bank loan for paper. Through these activities he hoped to generate the funding for necessary school book production and to clear the central blockage in the printing agency. His plans for marketing and distributing books and school supplies through the *inspecteurs de secteur*, the communal representatives of the educational system, could cause headaches farther down the line. The end of the 1980s should test whether the new system will work effectively, or whether it will merely transfer the bottleneck from production to distribution.

Curriculum Reform in Comparative Perspective

Rwanda's experience with curriculum reform is by no means unique. Other African countries have faced similar problems in moving from colonial education to an authentically national system. Some, like Somalia in 1973-74, have mobilized nearly all their educational personnel to rewrite texts as rapidly as possible. This has usually resulted in the production of a first set of hasty translations of foreign materials with a few references to national concerns patched onto them.

Other countries, from Niger to Kenya, including Rwanda, have adopted a more gradualist strategy. Rwanda's approach was to manage as well as possible with whatever books were available while a core of curriculum planners and textbook writers prepared properly adapted materials. The logic behind this approach is that doing the job properly in the first place will generate a set of materials that do not need immediate revision. One consequence, however, is that teachers have found themselves facing classes with no books whatsoever in the interim period.

Some problems are endemic to curriculum reform, no matter which approach is taken. Throughout Africa printing is often a serious constraint, either because printing facilities are not up to the sudden demands or because paper is in short supply. The World Bank has assisted a number of African countries, including Rwanda, in the printing and distribution of texts. But even with this aid, it typically takes a number of years to iron out the problems and move books from curriculum bureaus to schools.

The urgency of curricular reform and the limited means at an African country's disposal can also mean that pretesting of teaching materials is limited or non-existent. Even when the slower strategy is adopted, emphasis is often placed on careful curriculum research and planning, which can be done in an office in the capital, rather than on field testing, with its accompanying transportation costs and methodological demands. A frequent result is that the materials prove to be too ambitious and too difficult for the students. This may ultimately be the case in Rwanda.

The Role of Donors

Historically, donors have played an important role in educational development in Rwanda. They were still active partners in the educational reform activities of the 1980s. The government of Rwanda was clearly concerned with attracting and using outside assistance to best advantage and had made a conscious effort to coordinate donor contributions.

Preparing for the Third Development Plan 1982-1987 gave education ministry officials a chance to rethink over-ambitious targets and package their activities as fundable projects. They then conferred with potential donors to match projects with appropriate agencies and line up the resources they could count on before writing the final plan for education. As the planning period drew to its end, the ministries were pleased with the results of coordinating donor activities, rather than just accepting whatever was offered. It had enabled them to come close to the mark in meeting planning goals.⁴

One consequence of planning in this way was that each donor ended up playing a role that was both important and unique in Rwandan educational development. It also meant that there was relatively little overlap; if one donor dropped out of the picture, others were not waiting to pick up the slack. This approach used donor funding efficiently and effectively, but risked losing a link in the chain of educational development if a donor's policy shifted. In the summer of 1986 a minor crisis of this type was threatening the CERAI's because the second phase of a USAID project to upgrade teachers and teaching materials for those schools had not been approved by the home office in Washington.

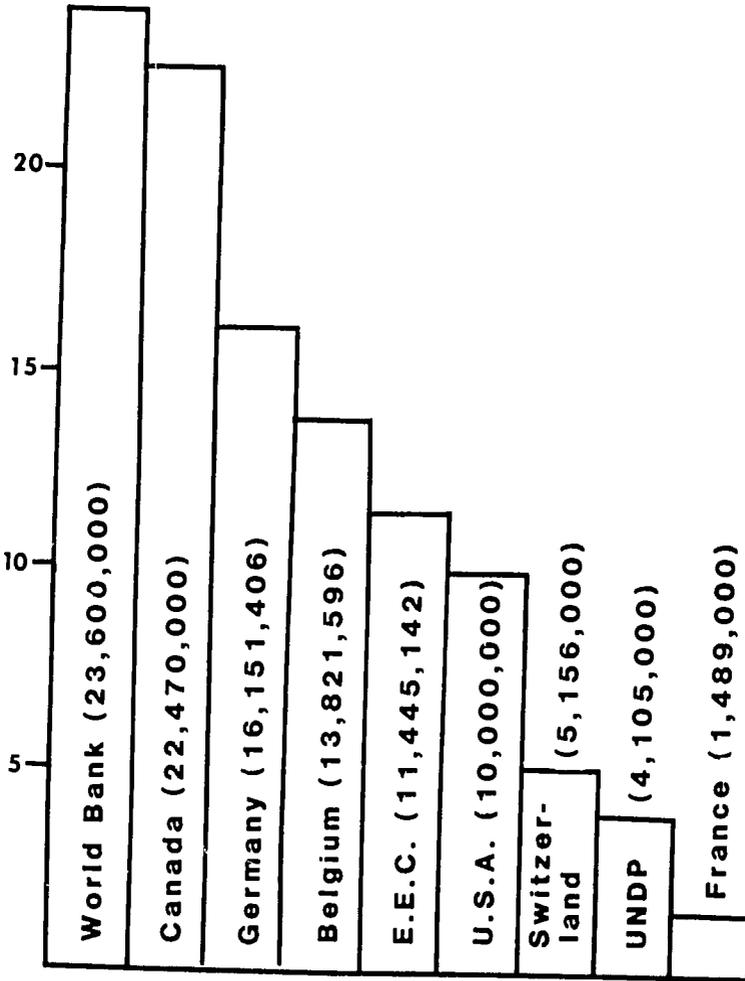
Figure 4 shows donor contributions to the education sector in 1986 in US dollars. The activities they provided included the following:

- The World Bank was active in school construction, primary teacher training, technical secondary school building, health education, and especially in improving the educational printing capacity;
- Canada's major contribution, then phasing down, had been development of the national university;
- German funds went mostly for scholarships for professional training, but among their projects was a mobile in-service training unit for upgrading primary school teachers;

⁴UNESCO had provided funding for the education donors' conference prior to the Third Development Plan. Because of personnel changes in the UNESCO office over the ensuing five years, the organization seemed reluctant to sponsor a similar conference before the educational section for the Fourth Development Plan was formulated, though ministry officials were eager for it. It was not clear at the time of study what the final outcome would be, or whether the timing would affect the allocation of roles to donors over the next five years.

Figure 4

DONORS IN THE EDUCATION SECTOR
(IN MILLIONS OF \$ US)



- Belgium had taken on the secondary school system as its province, giving substantial aid to the curriculum development center for the secondary level and building a number of vocationally oriented secondary schools. It also provides some scholarship funds;
- The European Economic community contributed to higher education as well;
- The US contribution was largely its Agricultural Education Project supporting teacher training and curriculum development for the CERAI's;
- Switzerland was aiding the agro-forestry secondary school at Nyamishaba;
- UNDP had placed a technical advisor in educational planning and had built five CERAI's; and
- France was paying for some secondary school and university professors; it had also built the primary education curriculum bureau and furnished technical assistance, but had completed that project before the summer of 1986.

Rwanda's own budget was almost exclusively reserved for meeting recurrent costs: teachers' salaries, operating expenses, and administrative costs. Its capital contributions to education projects typically took the form of land grants and communal contributions, sometimes in the form of *umuganda* labor. This strategy would permit the country at least to keep things going if donor contributions dried up.

General Observations on the Reform

A number of criticisms have been leveled at Rwanda's educational reform. A prime target is the new seventh- and eighth-year cycle of primary school, creating an academic gap between the general education courses of the primary system and the secondary schools and duplicating the practical course work of the CERAI's.

Critical donors have pointed out that extending primary schooling for two extra years was costly, even if it were not redundant. Educators and parents also claimed that the new eighth graders were often less well qualified for secondary school at graduation than they had been two years earlier, since they had forgotten some of the academic subject matter they had learned in courses in the second primary cycle.

A second issue is whether compartmentalized and focused vocational and professional training is the best path to a trained and competent pool of labor for Rwanda, or whether, on the other hand, a strong general education with emphasis on scientific and technical subjects would not create a more flexible

and adaptable workforce.⁵ Narrowly focused tracking, of the kind imposed on the secondary schools makes sense if a country is able to anticipate its workforce needs fairly accurately at medium or long range – beyond the limits of the next year or two. But this kind of projection is notoriously hard to make unless the economy is strictly planned and controlled. Even then, economic changes beyond a country's borders can throw such planning into disarray. A country as small, populous, and land-locked as Rwanda is the more likely to be at the economic mercy of regional or world markets. Under the circumstances, trying to achieve complete training of its workforce within the formal school system is likely to result in poor coordination between trained workers and the job market.

The advisability of using Kinyarwanda as the language of instruction throughout primary school and the CERAs is also open to question. There are two sides to the issue. The benefits of developing the national language for use in the modern world are that it brings the entire country, rural and urban, into contact and helps to create a sense of national pride and unity. But if the trade-off is losing facility in the country's international language, this policy can mark an increasingly inward orientation of the school system, at a point when the growing population on Rwanda's limited resource base needs to look outward, to explore regional opportunities for employment. In any case, the reform curriculum makes little provision for a gradual change-over from Kinyarwanda to French for the small but important minority of students moving into the secondary schools. As we shall see, this leads to wastage among what should be the cream of the crop of students.

But the reform has had notable strengths and a momentum of its own. There was a powerful, and in many ways positive, political rationale underlying it, and it had involved a great deal of thought and effort. Planners demonstrated a willingness to be flexible when certain aspects of the plan proved unworkable. Educational planning was carefully crafted. Donors were virtually assigned roles that, taken together, kept the enterprise going. On the one hand it is refreshing to find educational planners willing to give educational reform enough time to produce results without veering off course, spilling the wind from the sails. On the other, this steadfastness has sometimes locked Rwanda's reform into increasingly questionable assumptions about the relationship of schooling to preparing a productive work force. The next chapters will examine in greater detail the process and effects of Rwanda's educational reform on its educational institutions, the schools in which plans and goals are translated into day-to-day activities and the governmental institutions that support them.

⁵Cf. World Bank 1980, 43-50; World Bank 1988, 63-65.

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P A R T I I

**EDUCATIONAL
INSTITUTIONS
IN
RWANDA**

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Chapter 4

THE PRIMARY AND POST-PRIMARY SCHOOLS

The next four chapters will describe the government institutions that provide education for Rwanda's people, starting with the formal school system, then turning to other organizations that support or supplement that system with non-formal programs.

Over the long run, the formal school system holds out the best hope of sustaining an educated population for future generations. Social equity and a productive work force are products of stable and permanent institutions, not of a quick educational fix. The formal school system is the easiest element in the panoply of educational institutions for a government to regulate and is thus a prime target for Rwanda's educational planners.

The primary, post-primary, and secondary schools are the basic building blocks of Rwanda's formal school system. The university is its capstone, the main training ground for professional and intellectual leaders. In addition to the public schools, private institutions fill gaps or supplement the public system at all levels and in various domains, subject to government approval and regulation.

Several ministries also play important roles in planning and directing educational activities – MINEPRISEC (the Ministry of Primary and Secondary Education), MINESUPRES (the Ministry of Higher Education and Research), MJEUCOOP (The Ministry of Youth and Cooperatives), MININTER (the Ministry of Internal and Communal Development), and MINIFOP (the Ministry of Public Office and Professional Training) are those most involved in aspects of education and its contribution to Rwandan development.

This chapter will describe the main components of Rwanda's primary and post-primary school system at the time of study in 1986. Chapter 5 focuses on the secondary schools. Chapter 6 will examine institutions for higher education and the ministries responsible for education. Chapter 7 will discuss the issue of educational quality in the formal system. Chapter 8 then turns to a review of the roles non-formal education programs play in the total picture.

A major concern in Rwanda has been creating a national system from the variety of educational institutions and programs already in existence without wasting the resources represented by an inherited infrastructure. The reform measures discussed in the previous chapter have aimed, among other things, at imposing order on these disparate schools and programs.

How good are these schools? This study examines factors that, over the course of time, will determine how effective Rwanda's schools will be in meeting the country's educational needs. The national budget for education, for one thing, is both a measure of the resources available and an indicator of the government's

commitment to education. Next, the program of school cycles and their curricula determine what is taught. School facilities can also enhance or detract from the teaching process. The pattern of school distribution throughout the country indicates whether schooling is actually in reach of the population. The quality of teacher training and teaching is a key element in the transmission of information, attitudes and skills. All these factors affect the quality of education offered; that quality, in turn, affects the demand for schooling and, over the long run, the numbers of people who will be educated.

This chapter examines the enrollments, budgets, programs, facilities, and distribution of the primary schools and CERAI; the following chapter will do the same for secondary schools. The topic of teacher training enters into discussions of secondary and university education in Chapters 5, 6, and 7.

Primary Schools

Enrollments. In Rwanda, the primary school system forms the broad base of the educational pyramid in terms of numbers of schools, size of enrollments, and the amount of the educational budget consecrated to it. This base is broad indeed, compared to higher levels, as Figure 5 shows, even after a quarter-century of independence. In 1986, approximately 1600 primary schools enrolled about 800,000 students. MINEPRISEC figures for 1984-85 show slightly over 790,000 enrolled that year. In fact, these figures represent a marked leveling-off of primary school enrollments in the 1980s after a steady rise: from 251,000 children in primary school in 1960-61 to 404,000 a decade later; 607,00 in the year of the reform of 1979-80; and 743,000 in 1981-82.¹ According to MINEPRISEC, this represented about 68 percent of all seven-year-olds eligible to begin school, and 55 percent of the cohort of children between the ages of seven and fourteen, leaving aside students still in school who are over fourteen (MINEPRISEC 1986e).

Even when enrollments grow, the percent of school-age children in school does not necessarily grow with them. An estimate for 1966-67 put the rate at 58 percent, census results in 1978 yielded a rate of 47.49 percent, and the estimate for 1984-85 put the gross rate of school attendance for seven- to fourteen-year olds at 57.9 percent and the net rate at 55 percent. In any case, the percentage rise in enrollments over the past few years had, at best, merely kept pace with population growth. The swelling population of Rwanda is a challenge to the school system.

Budget. If the ordinary budgets of MINEPRISEC and MINESUPRES combined are taken as the measure of education costs, then education was the largest item in Rwanda's national budget in the mid-1980s. Education expenditures of RwF 5,050 million in 1985, for example, represented 26.9 percent of the ordinary

¹Figures taken from Nsengiyumva 1984, rounded to nearest thousand.

national budget, or 3.7 percent of GNP.² Recurrent expenses of RwF 4,491,300,000 account for 93.5 percent of that amount, or 23.6 percent of the national budget, just to maintain the existing system (MINEPRISEC 1986e, p. 151). Other ministries' ordinary budgets fell considerably below even this percentage – the Ministry of Finance and Economy (MINIFINECO) was next with 16.6 percent.³ In terms of the proportion of the national budget devoted to education, this places Rwanda among the top three or four African nations. In the early 1980s Rwanda led all the others.

In 1985 the budget for primary education and CERAI's represented approximately 70 percent of the national budget for education, or about RwF 3,800 million per year, including recurrent and capital costs. This is an extremely "bottom-heavy" educational spending pattern; according to data compiled by the World Bank, only two of seventy developing countries surveyed, Djibouti and Yemen, devoted a higher proportion of their education budget to primary education. In Rwanda over 90 percent of this money went for salaries; recurrent costs at this level alone represented about 67 percent of the total education budget for the country.

One evident conclusion was that the primary system simply could not afford to take in a larger percentage of the primary school age population over the next few years, especially in the absence of popular pressure for places. This appeared to be the tacit strategy of MINEPRISEC.

Programs. In 1986 the reformed primary schools were providing eight years of schooling, divided into three cycles. The first three years concentrated on literacy and numeracy, with some basic instruction in health and study of the local environment. During this cycle, classes were being run on a double shift in all public schools, increasing the numbers of pupils each school could handle at the price of cutting back on hours of instruction and diminishing the quality of education in the early grades.

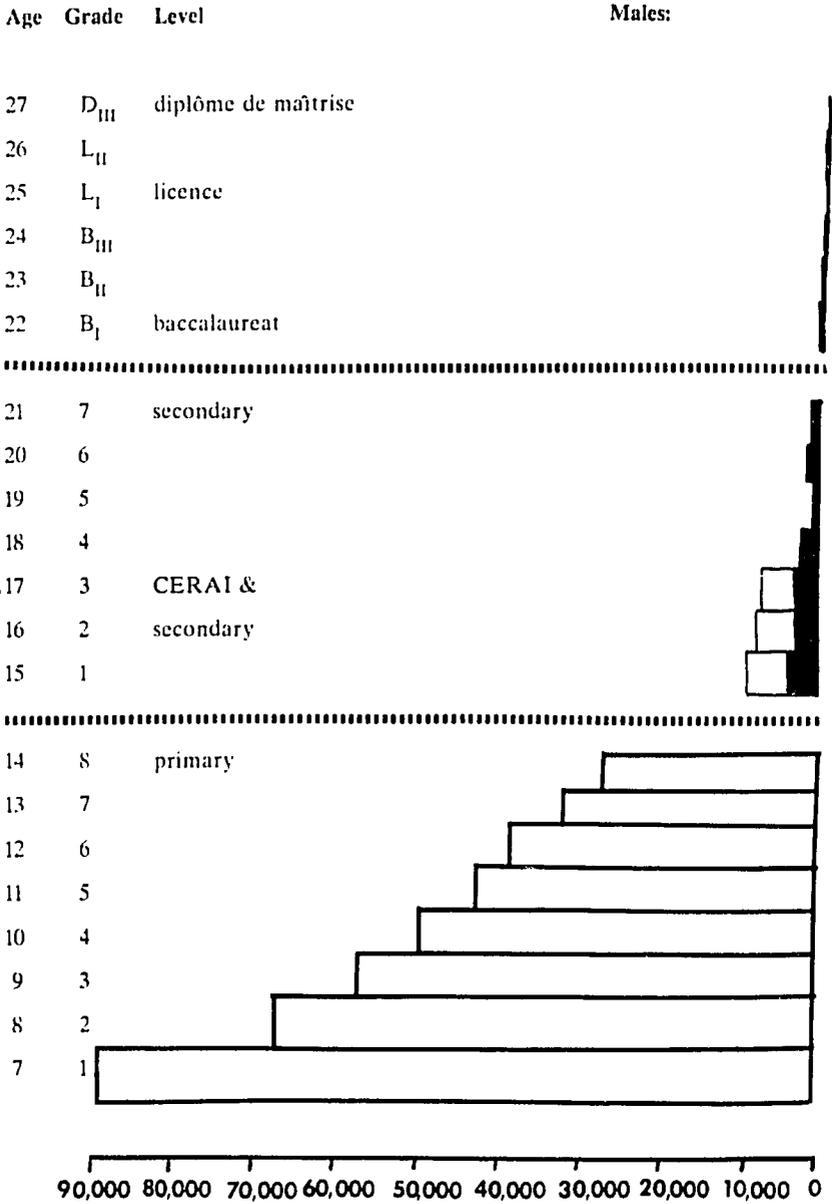
The second three years provided a basic general education, including courses in biology, mathematics, civics, geography, and history. These last three subjects focused on Africa in general and Rwanda in particular.

In keeping with the tenets of the reform of 1979, the seventh- and eighth-year program was designed to prepare students completing primary school for rural life. This added cycle was a key part of the principle of orienting every major school cycle toward the world of work, a principle strongly endorsed by the president himself. The final two years emphasized practical courses in agriculture for everyone, homemaking for girls, and basic crafts, construction and

²The exchange rate as of September 1986 was RwF 85 to the US dollar.

³In 1986, although the total education budget rose somewhat, to RwF 5528 million, its percentage share of the total ordinary budget dropped to 24.3 percent – 21 percent for MINEPRISEC and 5.3 percent for MINESUPRES – while MINIFINECO's budget rose considerably, to 23.9 percent (Gow et al. 1986:53).

Figure 5
THE EDUCATIONAL PYRAMID, 1984-85



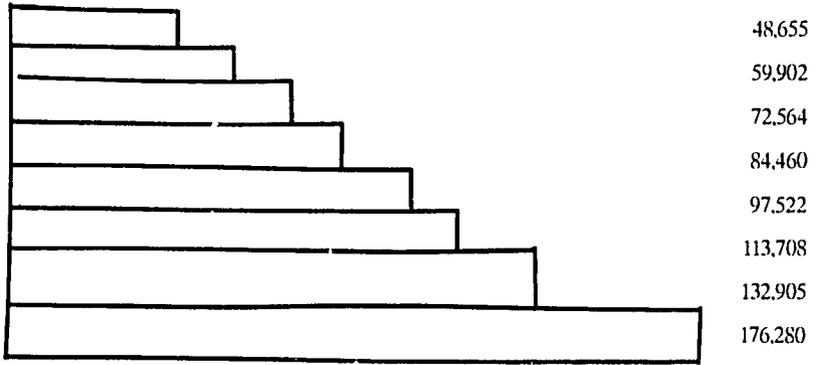
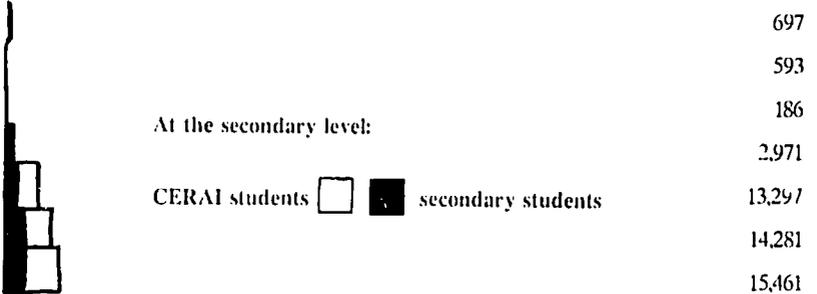
Females:

Totals:



At the secondary level:

CERAI students secondary students



0 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000 90,000

carpentry, for boys. It is doubtful that schools are a good place to offer such training; clearly the equipment and teaching requirements were straining the resources of the complete primary schools in 1986. This cycle, offering little of value, was creating a hiatus between the academic courses of the three middle years and secondary school programs as well. Yet it was not likely to be dropped unless its political importance diminished.

The language of instruction throughout the primary school system was Kinyarwanda. French, introduced as a foreign language subject in the fourth year, was taught for six hours per week throughout the second cycle. This has been the basic requirement since independence, but before 1979 there appears to have been more variability in just how early French instruction started and how many hours a week it was taught. Often it was started earlier or taught more intensively. Under the new curriculum, only four hours per week were devoted to it during the seventh and eighth years. Partly for this reason, and partly for lack of texts, the level of French proficiency among eighth-grade graduates was reputed to be lower, in some cases, than that of sixth graders. For students who continued into secondary schools, which were still taught in French, this was a real handicap.

Before the reform was instituted, when the primary program was only six years long, students intending to continue their studies often took an optional seventh pre-secondary preparatory year that included intensive training in French to ready them for French-medium instruction at the secondary level. After the reform, this option no longer existed. In consequence, despite rigorous selection procedures, entrants to the limited secondary school places proved less well prepared than their pre-reform predecessors.

Facilities. On the whole, the physical quality of buildings for the primary schools has not been an impediment to educational quality in Rwanda, although sometimes their equipment was. The school buildings themselves varied both in quality and in origin. Some were solid older buildings originally constructed by missions, other newer ones had been built by local communities, often partly by *umuganda* labor. These tended to be of brick or adobe blocks, with corrugated iron roofs, less solid than the mission schools but still sturdy. MINEPRISEC records show that in 1985 about 75 percent of the primary school buildings were constructed of "durable materials," which did not include traditional mudwall construction.

Inside the buildings, however, differences were more pronounced. In many schools in 1986, the sole furnishing was a blackboard built into one wall. Children had to sit on log benches or on the packed earth floor, balancing a slate or notebook on their knees – there were no shelves, no seats, no teacher's desk. Asked whether they kept count of chairs, desks, and furnishings, one ministry staff member replied, "But why bother to keep track of what is not there?" Yet many

older schools formerly run by missions still had their stock of eternal wooden desks, complete with inkwells.

Sixty-eight percent of the primary schools in 1985 had eight complete grades; the other 32 percent were either new schools that added one new grade per year as the first entering class advanced or, less frequently, schools that taught only the first cycle, accommodating the youngest children living close by and sending older students to more distant complete primary schools. Incomplete schools were more likely to be ephemeral than full schools, some of them eventually closing because of low enrollments.

As in much of Africa, a dearth of materials seriously hampered teachers and affected teaching quality. Although efforts had been made to work on the seventh and eighth grade teachers' manuals before moving back to those in the second cycle, the last cycle still suffered from a lack of properly equipped workshops. A further result was that texts for the second cycle had been slow to appear. Many subjects at the primary level had no student texts, in any case. Students had texts for French, math, and Kinyarwanda; the rest of the manuals available or in preparation were teachers' guides.

Distribution of schools. The most remarkable feature of school distribution at the primary level in Rwanda in 1986 was its neat correlation with population distribution. Rural areas were slightly better supplied with schools in relation to their population than were towns, but because the existing schools were in closer proximity to their homes, the proportion of urban children entering primary school was higher than that of rural children by perhaps as much as 20 percent, and more managed to graduate, as well.

This pattern was a new one. During the colonial period schools clustered in central and southern regions, particularly in areas adjacent to the Tutsi court or conveniently nearby. Between the two world wars, some spread of school facilities occurred as missions of different creeds carved up the country into parishes, but the southern and central prefectures – Butare, Gitarama, Gikongoro, and Kigali – were still favored areas. Redressing the balance, particularly in favor of the northwest, was high on the present government's political agenda. Population distribution, politics, and demand all entered into the question of the distribution and placement of primary schools in Rwanda.

In the spirit of the reform, the MINEPRISEC had one office assigned to mapping existing schools and overseeing the location of new ones. The Division of School Mapping appeared to be conscientious in its task. New schools were approved only if they were 10 km distant from existing schools or if the existing schools were demonstrably overcrowded. Communities wishing to build a school were supposed to consult the Division before they started. This attempt at regulation was new, however, and many groups of parents were not yet aware of it. The division's staff noted that some communities in remote places did not contact them before building a schoolhouse. The Division had no means of tracking

unauthorized schools, which apparently remained unreported. Not surprisingly, then, the reported distribution of primary schools struck a very good balance between the size of the school age population and population density. This study could not check the actual placement of schools against the Division's records.

In any case, by the mid-1980s, the primary school system was open to virtually all students who presented themselves. In other words, at the time of this study, it appeared that, although the first grade received less than 70 percent of seven-year-olds, the others were not actively seeking places. At the primary level, supply was keeping pace with demand. Eighth grade graduates found far fewer openings on the next rung of the educational ladder – but that is a topic for the next chapter. In 1985 more than 48,000 children completed eighth grade, but only 4,000 could continue in the regular secondary schools. It was partly to ease pressure at this point in the education system that the CERAs were created.

The CERAs

The post-primary rural polytechnic schools known as CERAs were a crucial and innovative component of the reformed school system. Administered as part of the primary system, they could be viewed either as an extension of the primary system or as an alternative to the exclusive secondary schools. Although the primary schools supposedly prepared students for a productive life in their rural homes, CERAs proposed to train youths to become not only farmers but artisans and craftspeople who could contribute to the growth and development of the countryside.

The concept of a three-year post-primary school to prepare primary school graduates for rural life and work predates the 1979 reform. Homemaking classes for girls, known as *Sections familiales*, preceded the artisanal schools (Centres d'éducation rurale et artisanale au Rwanda, or CERARs) for boys. The *Sections familiales* grew out of mission-based boarding schools for girls, offering one year of homemaking skills. During the decade of the 1960s, with support from UNICEF, their program expanded to three years and they became day schools. By 1970-71 there were 55 of them in existence.

CERARs were a newer venture and took longer to start up. The government of the first republic sought support from various donors as well as from mission groups between 1965 and 1968 for rural agricultural and polytechnic schools for boys. The first schools were built in 1970; by 1974-75 twelve were in existence. (Cf. Erny 1981:246-257.)

These pilot schools served as prototypes for the post-primary CERAs of the 1979 reform. The original plan was to expand their numbers to 1200, in order to accommodate 80 percent of the primary school graduates. USAID provided funds for building thirty CERAs, UNICEF paid for twelve. Communes and local groups, it was hoped, would construct others. But building lagged far behind

the pace planned. By 1981 when the program was to start, less than 200 were ready, including 95 mission or community schools already in existence.

The CERAI's ran into predictable start-up problems. Teachers, even trained ones, were not prepared to give the type of courses CERAI's were supposed to offer. As the schools moved from mission to government management, the problem of teaching staff had become even more pressing. By the time of study the teaching staff typically combined teachers trained and credentialed as primary school teachers but without technical training with "qualified workers" who had practical experience in the trades being taught but no teacher training. Both types of teacher needed in-service training.

Partly because of problems in procuring materials and training staff for these new programs, partly because demand for places generally had not yet outstripped supply, the building of new CERAI's had slowed to a handful each year. By 1986 a more modest goal of establishing at least two per commune was within reach. In 1984 there were 310 CERAI's; in 1986 there were 321; and plans were to add about ten per year. Total enrollments in 1985 were around 35,000 and appeared to be holding steady but not increasing as hoped. At that time they offered a basic post-primary education to about 20 percent of the primary school graduates, or approximately 8 percent of the cohort of fourteen-year-olds.

The curricular materials, prepared with French assistance, were general in scope and limited to teachers' manuals for most subjects, particularly for the practical courses. The layout was simple but attractive, with graphics that made it easy to follow instructions for building a rabbit coop or a cold frame, for example. A major shortcoming was that the manuals did not tell teachers how to choose, from among the set of topics in the book, those units that were appropriate for their agricultural zone, or even that it was permissible to concentrate on appropriate activities and skip the others. They told teachers how to do things but not whether to do them.⁴

Results were uneven from one CERAI to the next. Some of the former CERARs and *Sections familiales* had maintained standards and continued to attract more students than they could accommodate, but the first classes of graduates from the newer schools had been poorly trained, and parents and students alike were discouraged. The future of these schools remained doubtful.

⁴Because these manuals, with their instructions in Kinyarwanda, looked comprehensible and useful for students, I asked whether any similar student texts were planned. I was told that there were no such plans, but that on one occasion students were accidentally issued some of the manuals. A secretary, sending in an order for a run of 200 books, had mistakenly added an extra zero and the central office received 2,000. The extra books ended up in the hands of students in some of the schools. The ministry office then began to receive teacher complaints: "We start to explain the next lesson and the students say, 'We already know that - we've read all about it. Teach us something new!'"

The CERAI budget. The budget for the CERAI's tended to be lumped with the rest of the primary education budget. The salaries of teachers constituted the major recurrent cost item in the school budget; the number of teachers employed in CERAI's (1976 in the 1984-85 school year) constituted 14 percent of the total teaching force of 14,394 at the primary level. The fact that MINEPRISEC failed to discriminate between primary and CERAI teachers reflected its practice of reassigning personnel from one type of school to the other, at least in the general courses, if the number of classes and teachers at the sector level warranted it.

Although vocational education usually entails high equipment and maintenance expenses and these were vocationally oriented schools, the predictable costs for tools and materials did not appear to constitute a large item in the MINEPRISEC yearly budget. There may have been several explanations for this. First of all, some of the tools and equipment were granted to the government by donors during the start-up years. Second, the CERAI's and supporting communities were being encouraged to provide equipment at their own expense, and some had done so, either by levying special fees on parents or by putting pressure on school directors and burgomasters⁵ to buy the required materials out of communal funds. In principle, the CERAI's were also expected to generate income from school production to pay for supplies and replacement tools. In practice, however, this was a hope, not a reality. Third, some of the equipment – particularly the tools for farming and masonry construction – was not very costly, especially when an effort was made to adapt training to local conditions. And finally, many of the schools simply were not equipped to teach what they should be teaching.

The Program. Like the last two years of primary school, the CERAI's offered a program that was partly practical and partly academic. Discussions of CERAI courses usually focused on the vocational side because it was the most novel and most problem-ridden. The general courses, however – French, mathematics, Kinyarwanda, and civics – formed a basic educational core that also had potential for expansion. In principle, some training in accounting and management was supposed to be included in this part of the curriculum; in fact, at a series of workshops held in the summer of 1986, directors complained that this part of the curriculum completely lacked materials (MINEPRISEC Sept. 1986).

CERAI's were divided into boys' schools, girls' schools, and mixed schools. Each was designed to enroll 120 students, who were taught by a staff of four teachers plus a school director. The first year focused on general core courses; during the last two years the major part of the school work was devoted to the practical/vocational courses. The tracks being taught included:

⁵The top government official at the commune level.

<i>Girls</i>	<i>Boys</i>
Cooking	Carpentry
Dressmaking	Masonry
Embroidery, knitting	Plumbing
Child care, health	Electricity
Home economics	Small motor repair
	Welding, iron work

In addition, all students studied agriculture and livestock.

It was up to the commune in which a school was located to choose, from this menu, the track or tracks to be offered in a particular CERAI. From a list of two dozen possible options, communes had chosen only about half as tracks for their local schools. In 1986 the overwhelming occupational choices were carpentry and masonry for boys (56.7 percent) and the domestic skills of dressmaking, embroidery, knitting, crocheting and cooking for girls (59.5 percent) (MINEPRISEC 1985h:98).

Students had texts only for the general language and math courses. Teaching was done in Kinyarwanda, with French continuing as a school subject.⁶ The teachers' manuals were the same for all parts of the country. Staff members of AID's Agricultural Education Project, which provided technical assistance for CERAI's from 1984 through September 1986 through workshops and in-service training, emphasized the need to help teachers adapt programs to local needs and resources.

Behind these curricula lie clear presuppositions about how today's youth will make a living – girls as homemakers, boys as the wage-earners, and most young people as farmers. In fact, the girls' courses especially, using cooking ingredients rarely found in the countryside or turning out embroidered napkins, were geared toward producing helpmeets accomplished in Westernized ways of homemaking, while the female students were far more interested in learning income-producing skills. Anecdotes circulated in the educational establishment about the few female graduates who found employment as *monagris*, agricultural extension workers; in actuality most girls found little use for their "practical skills." Chapter 10 will return to the theme of the applicability of CERAI education for employment.

A serious concern of parents and students was whether the nature and quality of CERAI training would permit graduates to find work. As the first class graduated, having passed through the CERAI's before the curriculum was really in place, many were disappointed. Others still in school were dropping out, discouraged.

⁶Another frequent suggestion from the 1986 summer workshops for CERAI directors was that more courses be taught in French, so that CERAI graduates would be better prepared to enroll in technical courses afterward (MINEPRISEC Sept. 1986).

Facilities. Most of the CERAI s were either in buildings originally constructed by missions or were relatively new. The government had built about half of them, a few communes had built their own, and donors had built 67. In 1986 many of the schools were, if anything, too well built, made of imported materials that might prove hard to repair and maintain. Each was supposed to have four classrooms and a workshop, as well as a sufficiently large school ground to permit classes to practice cultivation. The original requirement that schools be granted four hectares proved impractical, both in terms of finding a school field large enough and in terms of adapting techniques to what students could actually hope to use in farming their own smaller plots afterward.

Though the buildings were adequate, equipping workshops and obtaining supplies such as lumber, cloth, thread, and cooking materials was a major problem in 1986. In principle, sales of the objects produced were supposed to generate funds to keep the school supplied. In practice, the school directors found themselves with stocks of expensive, mediocre products on hand – chairs or embroidered tablecloths – for which there was no local demand and which they did not know how to market.

Distribution and access. By 1985, all but fourteen communes of the 143 in the country had at least two CERAI s. Every prefecture had at least twice as many CERAI s as it had communes, and they were generally more numerous in areas of highest population density. Some, undoubtedly, were poorly placed in relation to areas of demand, but without surveying the entire country it was not possible to pinpoint problem areas.

An official in Ruhengeri pointed out that the girls' CERAI in town, excellently run by nuns, had more interested students than it could accommodate, while another, off in a remote area (at the base of the volcanoes along the Zaire and Uganda borders), had a poorer program and low enrollment. He thought the latter might do better if it were converted from a girls' to a mixed school, since boys' CERAI s attracted students more easily. These observations – older religious schools running well, boys' schools more popular than girls', uneven success – appeared to be typical throughout the country.

In contrast to the public secondary schools, CERAI s were open to virtually any primary school graduate on a first-come/first-served basis. Their geographical distribution took care of regional equity. Ethnic quotas, important for admission to secondary and higher schools (see Chapters 5 and 9) were not used as selection criteria; in 1986, with few exceptions, there was room enough for all applicants.

Since the CERAI s were day schools, the nearest one might be too far away for some interested students to attend, but their cost was not an insurmountable barrier. Fees were RwF 500 per trimester, RwF 1500 per year. Some schools levied additional user fees to underwrite costs of equipment and supplies. One observer pointed out that this RwF 500 tuition was equivalent to the value

of banana beer produced by 12 trees per trimester, or 36 trees per student, since the trees yield once in 18 months (Ferrier, personal communication). While it might be hard for poor families with numerous children to obtain this amount, it was certainly more affordable than secondary boarding schools, which cost nearly five times as much.

Future directions. The educational strategy that grew out of the Reform of 1979 funneled the bulk of educational resources into the primary system and generated high hopes that it would pay off in increased equity and productivity. In one sense, this tactic could be viewed as a continuation of the broad but shallow education inherited from colonial times. It was also bolstered by findings of educational economists in the 1970s and 1980s, who demonstrated that, generally, investments in primary education brought greater social benefits than investments in secondary or higher education (cf. Psacharopoulos and Woodhall, 1985, 54-60).

Seven years into the reform, some of the results, positive as well as negative, were only beginning to become apparent. The reform of the academic curriculum for the first two cycles of primary school, not yet completely in place, held great promise. For history, geography, and social studies, curriculum developers were producing the first genuinely Rwandan courses. Parents as well as planners expressed considerable pride about honing Kinyarwanda for modern topics and teaching schoolchildren to use their native tongue with skill and art. The dearth of student schoolbooks to complement the curriculum was still a serious drawback to implementing it effectively; lack of pre-testing and feedback for revision was another.

In terms of enhancing the productive activities of the current generation of schoolchildren, though, planners seemed to be looking backward, not forward. At a time when demographic pressure seemed inexorably to be pushing Rwandan youth off their family farms and, often, out of their natal area, pupils were being trained in the rural occupations that might have suited their parents splendidly. The heavy emphasis on agricultural skills was no drawing card for farmers' families, caught in the vise of land fragmentation and numerous children.

An even more fundamental question is whether schools are the right places to teach practical skills. Although public schools are good targets for controlled, long-range planning, other nonformal institutions may be more appropriate for specific training tasks. Still, since a bureaucracy exists readymade for running the school system, for passing along and implementing policy directives, it is easy to try to shoehorn policy initiatives and changes into the schools, whether or not they are the institutions best adapted to implement those policies. We will return to this question in Part III of this book.

Unlike the rest of the educational system, the primary schools could and did accept all comers without regard to social class, ethnic or geographic origin, or sex. A number of signals suggested applying brakes to expansion. Demand for

primary schooling was not growing. Instead it was probably shrinking, since demand for places apparently was steady, although the school age population was growing. This, in turn, suggested a popular perception that primary school education would not lead to a better, more productive life for schoolchildren, despite the proclaimed policy of education for work.

The problems confronting the primary schools were major hurdles for the CERAI's. In 1986 the CERAI's were at a critical juncture in their development. Would they survive to become a worthwhile part of the educational system of Rwanda? What would their role be within the system as a whole?

Despite their birth pains, CERAI's addressed a pressing need in the school system. The secondary schools, restricted by their own history, could not embrace the numbers of primary school graduates who wanted to continue their education. CERAI's could. For this reason alone the CERAI option was worth retaining.

But the CERAI's could not continue without change, and they were changing. They were being forced to modify their programs in order to turn out employable graduates. The question was how to do it. One option might be to place more emphasis on the general courses, turning CERAI's into second-class secondary schools with a strong practical focus, giving some accounting and business management courses and possibly some general science and mechanics along with basic vocational skills. Then graduates would be prepared for much shorter training courses or in-service training to learn the specific techniques of the trade they enter. This was certainly not the official conception of CERAI's, but parents and teachers appeared to be pressing for changes in that direction (MINEPRISEC 1985h, 1986d).

If they were to retain their role as training grounds for practical skills, CERAI's also needed to diversify and expand the vocational tracks they offered. Rwanda, after all, can only absorb so many carpenters and masons. The problem of employing CERAI graduates was exacerbated by restrictions on internal relocation, particularly to urban areas. No school can afford to retool for multiple tracks or for different ones from year to year. These schools might need to explore the possibility of moving to a system of internships or apprenticeships in order to provide students with hands-on experience in different trades without high overhead costs to the schools.

Choosing the right tracks for local needs was a problem. Although each community chose the tracks for its own school, in fact its members had no sound basis for making that decision, other than looking around to see who was making a living from a trade or a craft in the area. A ministry official with long experience with these schools suggested that the process should start by helping community members make a study of potential economic opportunities in the area, examining the impact of projected road-building, electric power lines, and development activities on economic growth. These community economic studies would serve two purposes. They would help each community to make informed choices

about its school's tracks. They would also alert everyone concerned to the kinds of support young graduates would need to set themselves up in a trade or craft – credit for start-up costs, equipment, and access to customers or markets.⁷

But students and their families often expected something quite different from the schools. For them, the prize was not just a useful primary education but a job in the modern sector, in government or at least in town. The key to that prize was a place in secondary school, possibly leading to the university. This was still an elusive goal for the majority of students.

⁷A recent study of commercialization of agriculture and rural employment in northwestern Rwanda demonstrates that the main sources of off-farm wage income in the study area are development projects (accounting for about a third of off-farm employment), two tea factories (another 30 percent), and several public works projects (Von Braun et al. 1988, 53, 106-123)

Chapter 5

SECONDARY SCHOOLS

Unlike many other African countries, Rwanda has opted to uphold the high educational standards of pre-independence secondary institutions, limiting expansion to what it can afford to support without lowering quality. The price of this strategy has been that, in normal years, the secondary school system admitted only 8 percent of primary school graduates, or well under 2.5 percent of the cohort of children of that age. Even the government's stated goal was remarkably restrained: to raise admissions of primary school graduates to 10 percent. As a result, a recent World Bank study found that, of thirty-nine sub-Saharan African countries surveyed, Rwanda accepted the lowest proportion of primary school graduates – and the smallest percentage of its secondary-school age population – into its schools.¹

From the point of view of students and their families, the most urgent problem in Rwandan education is competition for the drastically limited places in public secondary education. Selection of students takes place from among graduating eighth graders over spring and summer. The MINEPRISEC gives the secondary school entrance tests in May, allots students to the various secondary schools over the summer, and announces the results in September, just before the start of the school year.

This strategy raises two major issues: whether such a restrictive policy can be implemented in a way that guarantees equitable access to all segments of the population, and whether such a select system will meet Rwanda's human resource needs. This chapter examines the operation of the public and private academic secondary schools to shed light on those issues.

The system of boarding all secondary school students significantly limits secondary school enrollments. It is boarding facilities, not teachers or classrooms, that limits the number of students schools could accept, and expanding boarding facilities would be very costly. Yet the principle of boarding secondary students was still staunchly upheld. Two powerful forces stood behind this. According to ministry officials, some of the missions and religious congregations, who, after all, contributed funding and staff to long-established schools, considered this a condition for their continued support. Boarding facilities were also important to the government's "national policy" of regional and ethnic equity, discussed below and in Chapter 9, because, within each school, places for boarders could be

¹The gross secondary enrollment ratio was 2 and the progression rate from primary to secondary school was 4 in 1983, according to World Bank statistics (World Bank 1988:171).

apportioned in accordance with regional and ethnic quotas, regardless of the actual location of the schools.

As escape-valves for the pressure at this point in the system, the government provided two outlets. The three-year post-primary CERAI, discussed in the preceding chapter, were the first, accommodating 20 percent of the primary school graduates in 1985 and capable of expansion. But this form of education, still experimental and of questionable value, did not satisfy the demand.

The government offered a second option by explicitly recognizing, under specified conditions, the status and the diplomas of private secondary schools, a disparate collection of institutions backed by religious congregations or private groups. Accreditation of these schools was in part an attempt to bring order and coherence to a heterogeneous system by imposing national standards as a condition for according their graduates the same status as those of the prestigious public secondary schools. It also encouraged families with the means to do so to provide their children with secondary school education at their own expense, without straining government resources.

Private religious schools were usually boarding schools; occasionally they mixed day and boarding students. Secular private schools were generally day schools, set up by parents in a particular community for their own children. To people who saw the boarding system as a serious handicap to developing a viable secondary education system, these private day schools were a promising alternative.

Rwandan law still preserved the old tripartite distinction between *écoles publiques*, *écoles libres subsidiées*, and *écoles privées*, particularly in respect to secondary schools, although the terms and their definitions had shifted somewhat (Loi Organique 1985). Public schools were administered directly by the state and supported by it or by a donor. Subsidized schools were generally built, managed, and maintained by a private organization, most often a church or mission, but received a subsidy from the government, usually for teaching staff. These schools all followed the government-approved curricula and granted recognized diplomas. They formed part of the public school system in 1986, although they had some private support.

Private schools, run by churches or communities, received no state financial support. In fact the line between religious and secular schools was blurred. Some of the community parent organizations that established schools were groups of parishioners who had enlisted some support from their church in getting started. The more secular forms of private secondary school were popularly referred to as *écoles des parents*, a term coined in 1954, when the head of the Catholic Church suggested that parent groups found and finance their own schools. Those first "parents' schools" were proscribed after 1959, but in the mid-1980s the concept had been revived.

In 1986, *écoles des parents* had the same legal status as church-supported private schools. Both were considered *écoles privées*, private schools. Such schools

could be primary schools, secondary schools, or both combined, but, while they constituted a miniscule proportion of the primary schools, they figured more prominently in the much smaller secondary system.

If private schools followed the state-approved curriculum, they could be officially recognized by the state; if they demonstrated that they had qualified teaching staff and adequate facilities, they could have their diplomas accredited (*homologués*) on a par with those of state schools. The procedure for applying for diploma accreditation had been set up less than two years prior to the time of study. In the summer of 1986 only ten of the thirty-one state-recognized private schools had been accorded diploma equivalence. For the most part, these were long-established schools. In addition to the thirty-one schools on MINEPRISEC's list (Table 2), other as yet unrecognized private schools were springing up, some only to wither quickly.

Table 2

GEOGRAPHICAL DISTRIBUTION OF PRIVATE SCHOOLS

Prefecture	Number	Percent
Butare	3	9.7
Byumba	—	—
Cyangugu	—	—
Gikongoro	—	—
Gisenyi	4	12.9
Gitarama	6	19.4
Kibungo	1	3.2
Kibuye	2	6.4
Kigali	13	42.0
Ruhengeri	2	6.4
Total	31	100.0

Source: MINEPRISEC (1986).

Enrollments

MINEPRISEC enrollment figures for secondary schools in 1986 included enrollment in sixty-five public schools and in nine long-established private schools that gave diplomas recognized as homologous with public degrees. In these schools there was a total of 16,543 students in 1985, some 4,060 of them first-year students, representing about 8 percent of the eighth grade graduates. The nine private schools included accounted for a little over one-ninth of the new students, 477 in

all. Slightly over one-third of secondary school students, about 34 percent, were girls.

In addition to these schools, ten other private schools (most of which were started in 1981 or later) had gained official recognition. None had had a graduating class, so they had not yet had their degrees accredited. (One of them, apparently, had still not opened.) Eleven more had received provisional authorization and were functioning. The ministry had also compiled a list, probably incomplete, of eleven other schools that had opened without even provisional recognition. No figures were available for school enrollments in these categories of private school.

Table 2 lists thirty-one private schools by prefecture. According to this MINEPRISEC list, the new schools clustered in Kigali and Gitarama, and to a lesser extent in Gisenyi and Butare, already home to a large number of public schools. By contrast, none were listed at all for the prefectures of Byumba, Cyangugu, or Gikongoro. Although this was the ministry's official list, there is no guarantee that it was a complete list.

Ministry officials were quick to point out that they had no information about differences between these schools – whether, for instance, these were mostly schools with adequate resources and management that educated or well-off families set up for their children or whether some of them were commune or community schools, barely scraping by without trained administration. The big unanswered question was whether government and donor support for these schools would contribute to equitable access to secondary education for all of Rwanda's population, or whether it would further widen the breach that was beginning to appear between middle-class urban technocrats and the rural population. The policy of donors like the World Bank and USAID was to encourage private investment in education, but it was by no means clear in this case what the social consequences would be.

According to the World Bank, dropout rates for the first year of secondary school were high, at 12 percent of the entering class, but low thereafter (World Bank, 1985:vii). Actual rates are difficult to calculate because they are obscured by "reclassification" – admission of private school students who apply for transfers to the public system after a year or two of study. Some of the failing public school students, on the other hand, find their way into the private schools.

The Budget

The secondary school budget, RwF 770,847,000 in 1985, accounted for 18 percent of the total primary and secondary school budget. In contrast to the amount spent on primary education, the proportion of the budget destined for the secondary schools was low for an African country. Of course this does not reflect the private funds that, in Rwanda, represented a significant part of the support of the

secondary system; nevertheless, the secondary schools formed a major bottleneck in the system.

The two major expenses were for personnel (67 percent) and for boarding costs (21.5 percent). The state thus paid an average of F.wF 46,600 per student per year (roughly \$540). In addition, parents had to pay R.wF 7,200 tuition per year, bringing the total cost to about R.wF 53,800 (approximately US \$630) for each student. These costs were high by African standards because of low student/teacher ratios (about 14 to 1) and boarding costs. Indications were that some of the private schools were more cost-effective, since many were day schools and so could have higher student/teacher ratios.

Secondary School Programs

It was at the secondary level that the problem of coordinating a highly diverse school system was most acute. The situation in the mid-1980s seemed to reflect a compromise between control and acceptance of existing programs. The curriculum bureau charged with reforming and standardizing the secondary curriculum had prepared separate schedules for twelve main tracks: agriculture and veterinary science; education; sciences; letters; social welfare; commerce and economics; law and administration; health sciences; nursing; nutrition; technical studies; and art. Ten of these tracks were divided into sections with different concentrations, making thirty-seven separate courses of study in all (BPES 1983).²

A major criticism of the curriculum reform was that the three-year common core of general studies had been eliminated. Instead, general courses were integrated into the program for at least five years in all full six-year tracks. The result was that students who got into secondary school were assigned to a professional training program at the age of fourteen or fifteen. If they found themselves ill-placed, it was difficult to be reassigned, and if they did change tracks they had to repeat a year. This problem, along with the adjustment to French as the language of instruction, were the principal causes blamed for dropout or repetition in the first year or two of public secondary schools.

In general, the public schools were more prestigious than the private ones; they included most of the well-known, long-established schools and were reputed to give higher quality education. Private schools were the second choice, the fall-back option, for students who could not get into or make the grade in the public schools. This, of course, was mainly true for children from the emerging class of modern-sector, salaried technocrats and administrators who expected to send their children to secondary school and beyond.

The greatest diversity of courses was offered in the public institutions — some tracks, like fine arts, agricultural sciences, or social welfare, were only

²Activities of the secondary school curriculum bureau, the BPES, have been discussed in Chapter 3, above.

available in the public system. Teacher training tracks were the most numerous of the programs offered. In 1985, 43 of a total of 136 tracks listed by MINEPRISEC were for teacher training, 25 of these for primary teachers, the rest for mid-level or technical teachers. Clearly a major concern of the public system was supplying personnel for itself. On the other hand, it also trained categories of needed technical personnel that did not interest privately subsidized institutions.

The nine recognized degree-granting private schools included:

- the country's six *petits séminaires*, supported by the Catholic Church, all of which had Latin/science and Latin/modern languages tracks;
- one nursing school; and
- two Protestant institutions that offered teacher training, including one with a math/physics track.

On the whole, the *petits séminaires*, originally established to train clergy, were still recognized as giving an outstanding education. They offered general academic courses in science or humanities, rather than professionally oriented courses, and prepared students mainly to continue their studies. University personnel found their graduates the best prepared, even in the most demanding faculties.

Of the 21 new schools recognized provisionally or officially, 13 were partly or exclusively commercial track schools. Five of the ten officially recognized schools were teacher-training institutions, while none of the provisionally recognized ones were. There are two possible explanations for the popularity of business schools: first, that school founders and students' parents think there will be attractive job possibilities for graduates trained in commerce; and second, that providing facilities for teaching commercial courses is less expensive for the sponsors than equipping the schools with other, equally appealing options.

In a system resting so heavily on the assumption that manpower needs can be forecast and used as a basis for establishing secondary school tracks, the tilt of private schools toward commercial tracks raises the question of whether public projections or private demand are better predictors of future needs. These schools were in their infancy; it will be worth watching to see whether they are accurate bellwethers of economic needs or whether some will be forced to change direction or to close.

Physical Facilities

Although it was not possible to survey all schools, in general the quality of buildings of the public secondary schools and degree-granting private schools was good by African standards. This was primarily because most had been created and supported by missions or major donors with considerable outside resources.

There were complaints about the lack of texts and books for teachers and students, in large part because the reform had dictated major reorientations for which the materials were still in production. For technical tracks, tools and raw materials were in short supply. Several directors noted that boarding facilities for incoming firstyear students would be a problem in fall 1986, because that was the first year to have full-size classes in all six years, after the small classes occasioned by the addition of two extra primary grades had passed through. It is common to have problems with text preparation and distribution, or with physical accommodations in the first years of a major shift; maintaining supplies of teaching materials, especially for technical tracks, is more likely to present an endemic problem.

The physical facilities of the new private schools could not be investigated in any detail within the scope of this study. Several of these schools which were visited are well housed, thanks to outside support from church groups or wealthy backers; others were said to be less fortunate. In some, parents themselves were building new classrooms, generally at the rate of one or two a year, to accommodate the first class moving through.

Geographic Distribution

The geographic distribution of schools and the geographic recruitment of students are two separate issues; in Rwanda in 1986 the distinction was well-established. Secondary schools were not evenly distributed, but recruitment was. As long as the system of boarding students remained in effect, the geographical placement of schools was, in principle, irrelevant. As pressures to admit day students mount, however, the least-favored prefectures may suddenly find themselves in a more difficult situation in terms of secondary school access for their children.

Table 3 shows the distribution of public and recognized private secondary schools by prefecture from 1960 to 1986. Over the entire period, Butare maintained its place as the prefecture with the greatest concentration of secondary institutions. After independence Kigali became a magnet for secondary schools, putting Butare in second place by 1986, closely followed by Gisenyi prefecture. Throughout the twenty-five-year period Byumba, Gikongoro, and Ruhengeri prefectures remained at the bottom of the scale. In part the placement of these schools reflects colonial and mission policies favoring access for Tutsi in the south over Hutu in the north.

While some of the older and reputable schools founded by missions are located in rural areas – and may well have to remain boarding schools, since their locality cannot supply or accommodate day students – most of the newer public schools, and certainly the private schools, were being created in urban areas. Of thirty-one private schools censused by MINEPRISEC, thirteen had

Table 3

GEOGRAPHICAL DISTRIBUTION OF SECONDARY SCHOOLS 1965-1986

Prefecture	Public Schools & Subsidized Schools	Officially Recognized Private Schools	Total
----- 1965 -----			
Butare	9	4	13
Byumba	1	2	3
Cyangugu	3	1	4
Gikongoro	1	—	1
Gisenyi	5	1	6
Gitarama	6	1	7
Kibungo	5	1	6
Kibuye	5	—	5
Kigali	6	1	7
Ruhengeri	2	—	2
Total	43	11	54
----- 1975 -----			
Butare	11	3	14
Byumba	2	2	4
Cyangugu	4	—	4
Gikongoro	3	—	3
Gisenyi	6	1	7
Gitarama	6	2	8
Kibungo	5	1	6
Kibuye	7	1	8
Kigali	10	1	11
Ruhengeri	2	—	2
Total	56	11	67
----- 1986 -----			
Butare	12	1	13
Byumba	4	1	5
Cyangugu	6	1	7
Gikongoro	3	—	3
Gisenyi	9	1	10
Gitarama	6	2	8
Kibungo	6	1	7
Kibuye	7	1	8
Kigali	9	2	11
Ruhengeri	2	—	2
Total	66	10	76

Source: MINEPRISEC

been established in Kigali alone. Encouraging private school building may well amount to favoring urban students' access to school over the long run.

In sum, educational planners are faced with either maintaining an exclusive, expensive boarding system or shouldering high building costs to reorient a school distribution pattern now highly skewed in politically unacceptable ways.

Access to Secondary Education

The narrowness of the gate to secondary education invites restrictive admission standards. The question is whether these admission standards are fair. MINEPRISEC had the responsibility of assigning students to the places available in the public secondary schools and in the *écoles libres subsidiées*. Because the places available for secondary students were so limited, the selection criteria assumed major importance.

At the end of primary school all students sat for a national examination in French, Kinyarwanda, and other academic subjects. The practical training that figured so largely in the seventh- and eighth-year curriculum of primary school was irrelevant to the tests. Results on this examination were one factor in deciding the future of the students, but by no means the only one.

In addition to examination results and grade records in primary school, the regional origin and ethnic classification of students were considered in determining who would be admitted to the public secondary schools, including *écoles libres subsidiées*. This "national policy" attempted to balance access to schooling by establishing quotas mirroring the proportion of the population coming from each prefecture and the proportion of Hutu and Tutsi in the total population. Twa were also included in the calculus, but they comprised only one percent of the population and less than that, 0.8 percent, of the secondary school population. Chapter 9 will examine the consequences of this policy in more detail.

Matching student preferences to the places available in the different school tracks was the final step. As a result of balancing all these factors, it was not necessarily the top students on the examinations who found their way into the public secondary schools, although the best students within each quota group were probably chosen.

Private schools had greater control over student admissions, since the government was not picking up any of the costs. The prime reason for founding a private school – to cater to the children of an interested group of parents or a religious congregation – would be subverted if the founders could not accept their own. If the school wished the government to recognize the diploma it granted, however, the government could and did require, in return, that it accept some students outside the pool of the founders' families to achieve a better-balanced student body. Of course, the school also had to agree to teach an official curriculum if it wanted to grant an officially recognized degree. As a result, gov-

ernment played a delicate game of negotiation with sponsors, each maneuvering to gain a satisfactory degree of control over private schools.

Because of the quota system, government statistics concerning access to the secondary schools, like those at the primary level, show a remarkably equitable balance of geographic and ethnic origins for the incoming students (MINEPRISEC 1986b).³ Increasing the number of places available in secondary schools would undoubtedly remove some of the obstacles that prevent worthy students from continuing their education. The problem was how to do this within the compass of fiscal and political realities and without loss of educational quality.

The Future for Graduates

The graduates of the secondary system numbered well under 2,000 per year – it is difficult to give exact figures because before the reform had reached the sixth year of secondary school the course of study for different tracks had differed in length. Several paths were open to these different degree-holders. They could move directly into jobs. In general, there was adequate demand for personnel with secondary school diplomas, although the fields might not exactly match the training of the graduates in a given year. MINEPRISEC acted first to fill its slots for teachers from the roster of graduates as soon as they got their degrees. The rest could apply for work. In principle they did this by submitting their dossiers to MINIFOP, the ministry in charge of matching their qualifications to available posts. Some found private sector jobs directly through an employer and regularized their position with MINIFOP afterward. Others could apply for admission to the university, either immediately or after working for a few years.

The Character of the School System

The task of this chapter and the previous one has been to describe the school system of Rwanda as it looked in 1986. The picture that emerges is of a system with a very broad base at the primary level, narrowing sharply at the secondary level, reminiscent of Belgian colonial education in its concentration on the lowest level of schooling. In fact, the primary system, which included a sizeable number of three-year "post-primary" rural polytechnic schools, reached up to the age group usually classified as the secondary school population. The institutions managed by MINEPRISEC could be thought of as consisting of eight-year primary schools, followed by first-class and second-class secondary ones.

In contrast to the colonial regime, government commitment to education has been very high since independence. It is not unusual for African governments to dedicate a sixth or a fifth of their national budget to education, but, by

³We shall postpone questioning the reality behind these figures until Chapter 9, which returns to this topic.

devoting nearly a quarter of the budget to education, Rwanda ranked among the three or four highest spenders. In addition to budget evidence, the head of MINEPRISEC in 1986 was an important political figure, generally ranked second only to the president.

Educational reform programs to adapt schools linguistically and culturally to local conditions are also widespread in Africa. So is the attempt to extend school facilities more widely and equitably, an attempt that seldom manages to meet the goals initially promised but that often does succeed in putting a somewhat diluted version of primary schooling within reach of much of the population. Rwanda's reform was unusual in the narrowness of its focus on training for employment. Though other countries have been concerned with vocational and technical training, few have extended it so single-mindedly down to the primary level or so pervasively through the secondary system.

The government's continued tolerance and even encouragement of private schools as a way of extending educational facilities was unusual for an African nation, particularly in view of its efforts to reform the system and to coordinate the curricula. Clearly Belgian colonial policies regarding education had left their imprint on Rwandan views concerning the relationship of private and public schools and the definition of high-quality schooling.

The consequences for the system of secondary schools were, first, that the schools managed to maintain high standards for quality education even during curriculum reform because they remained select institutions, accessible to an extraordinarily small proportion of primary school graduates. Second, their exclusiveness invited politically informed standards for student selection, which, in Rwanda, took the form of rigid ethnic and regional quotas in conformity with the principle of equitable access. As a result, government statistics showed remarkable equity of access to this limited system. It is far more difficult to know whether equity extended across emerging socio-economic class lines, since those were unmeasured and uncounted.

Third, the secondary schools were unquestionably expensive by African standards, in large part because of boarding costs at all public schools. Even so, they received a relatively small proportion of the education budget, especially in comparison with the primary system. In principle, it would appear that, with some relatively modest changes the number of places could be substantially increased. Certainly, at the time, the country was under-producing graduates in relation to demand in the workplace, although it would be hard to predict how long that situation would hold. But below the surface, school expansion seemed to face serious political constraints. The encouragement of private schools appeared to be one attempt to siphon off the most potentially disruptive pent-up demand for secondary places.

Finally, the wisdom of espousing six-year-long vocational and technical tracking was questionable at best. It was far too early to gauge the effects of such compartmentalized training over time, but the underlying assumption that a

country like Rwanda can precisely predict its manpower needs six years and more in advance is obviously shaky. The risk is that, unless curricula are modified and made more general, the system will produce more and more square pegs for round holes as time goes on.

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Chapter 6

OTHER FORMAL INSTITUTIONS:

HIGHER EDUCATION AND THE MINISTRIES

This chapter turns to an examination of two types of institutions at the pinnacle of the educational system: the schools of higher education that provide the few highly skilled people who set the course for productive activity, public or private; and the ministries that direct and plan formal education in Rwanda.

Institutions of Higher Education

Higher education is the distant goal to which studious Rwandan youth aspire, the ticket to a comfortable life, guaranteeing salaried and secure jobs. Few attain it – far fewer than the labor market can presently absorb, hence the certainty of employment.

Although Rwanda permits, even welcomes, private post-secondary schools and universities, as well as providing a public university, all are small. Total enrollment in public and private institutions is unlikely to rise beyond about 2,500 unless something changes dramatically. In 1986 the total was closer to 2,000. Another 600 to 800 Rwandans study abroad at a variety of levels, ranging from technical training to advanced degrees.

With so few degree-holders and university places so limited, it is important to ask, again, whether access to this level of education selects well-qualified students impartially and whether graduates' training matches the country's present and future needs. Although Rwanda has so far avoided the common African problem of creating a class of over-educated under-employed job-seekers, the nation has practiced prudence to such a degree that it risks choking off its supply of needed professionals and researchers.

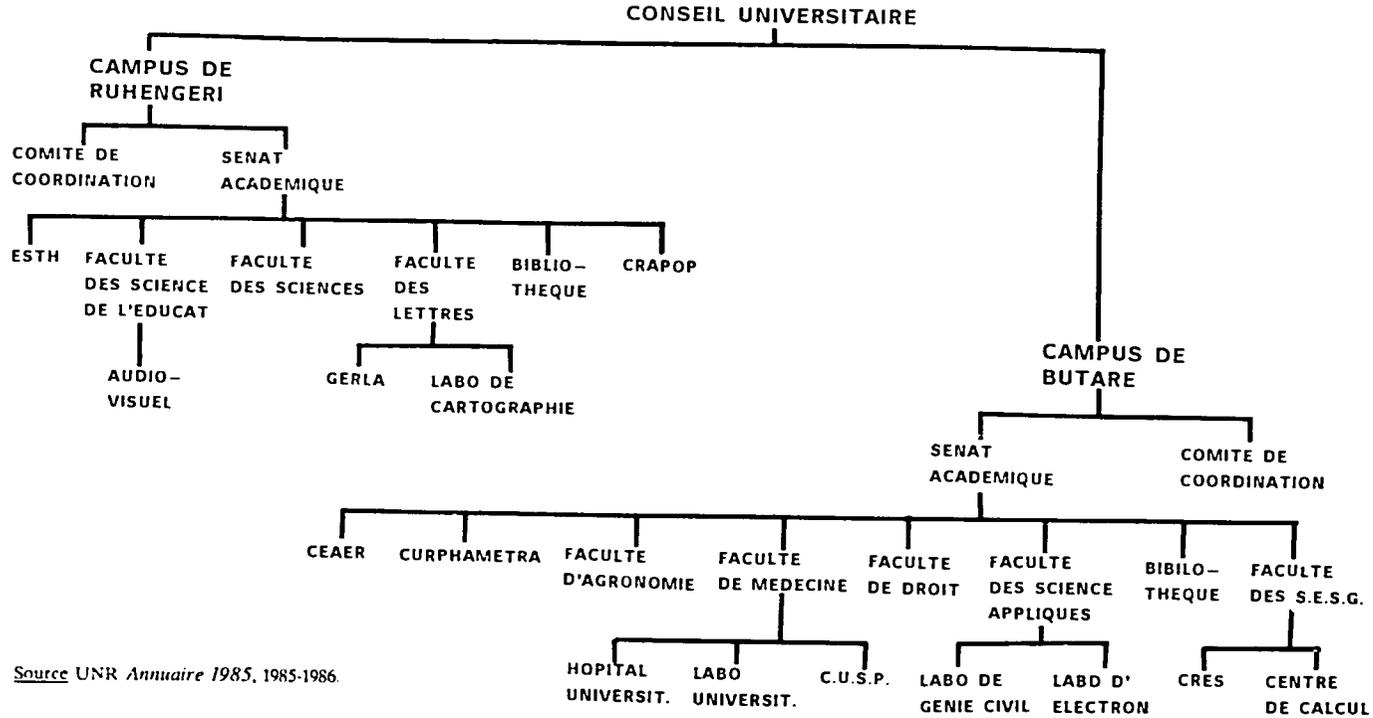
The National University

Established shortly after independence in 1963, the National University of Rwanda (UNR) was the only public institution of higher education in Rwanda. Modelled on European universities by the French Canadian Dominican Fathers who founded it, the university had grown to include nine schools or faculties, three research centers, and several libraries by 1986. Figure 6 shows the organizational structure of these components.

In some ways the European university model, consisting of specialized faculties training students in a single field like medicine, law, or agriculture, or for a specific career like secondary school teaching, is consonant with the aims

Figure 6

STRUCTURE OF THE UNIVERSITE NATIONALE DE RWANDA



Source UNR Annuaire 1985, 1985-1986.

of the 1979 educational reform. Since the establishment of the university predated the reform, however, the curriculum was not explicitly adapted to the changes wrought throughout the entire school system. In 1986 the reform was scheduled to reach the university. The UNR and the ministry overseeing it, MINESUPRES, were charged with planning in detail for the necessary changes, a charge they appeared to shoulder with some reluctance.

To lay the groundwork for reform at this level, the UNDP commissioned a study in 1984 by Le Thanh Khoi and S. Ziarati. Their report, "Université et Développement au Rwanda," is an excellent study of the history and the state of the institution at that time, as well as of its role in fostering national development. Although some of their recommendations were controversial, their discussion of the university and its shortcomings reviewed its history, enrollments, costs, facilities, and academic quality more thoroughly than this study can.

Physical facilities. The UNR is not a large university. In 1986 it had a total enrollment of slightly over 1,600 students and some 150 professors. Nonetheless, the university officially had at least two campuses – three actually, if the two different campus locations in Butare are counted separately. The original site was at Butare; a second one was opened in 1981, at Nyakinama, near Ruhengeri. The arrangement of faculties by campus shown on Figure 5 did not, however, correspond exactly to their geographical location. Only the Faculty of Letters and the Ruhengeri library were in place in Ruhengeri, or, to be more precise, on the campus at Nyakinama – the distinction is not unimportant.

In 1986 the rest of the university faculties and centers were at Butare. The main campus housed the Faculties of Agronomy, Medicine, Applied Sciences (engineering), Social and Economic Sciences and Management (S.E.S.G.), and the Faculty of Science on a hill about three kilometers outside the town, originally the site of the Institut St. Jean. The Faculty of Science was administered as part of the Ruhengeri branch because it was originally scheduled to move there, but in the early 1980s it had been moved into new facilities built on the main campus, funded and equipped by Canadian aid. The laboratories in particular, with their heavy acid-proof tables and sophisticated equipment, would have been prohibitively expensive to move.

A smaller, in-town campus held the Faculty of Educational Science, the School of Modern Technology (home economics), the Center for Applied Research and Adult Education (CRAFOP), and a small library for the "Ruhengeri Campus at Butare," along with the main administrative offices. This had formerly been the campus of the National Pedagogical Institute (IPN), a teacher training college created in 1966 and merged with the university in 1981. These two faculties and the center were slated to move north eventually; it was not clear when the move would take place.

The Faculty of Law, part of the Butare branch of the UNR, was moving to Kigali during the summer of 1986, to be housed in the buildings formerly occupied by IAMSEA.¹ The Law Library, a separate collection within the Butare library, was being moved along with the Faculty. This seemed a reasonable move, putting the Law School close to the seat of national government.

The Ruhengeri campus at Nyakinama was still under construction in 1986. Library and classrooms were completed for the Faculty of Letters, as well as houses for the faculty, but not all the dormitories were ready – the 291 Faculty of Letters students were crowded into cramped quarters, some camped in space designed for other uses. The next faculty slated to make the move was the Faculty of Educational Science, but chances of housing its 250 students seemed remote (Uwibambe 1936).

Worse yet was the location of the new campus, five kilometers away from the town of Ruhengeri along a dusty, rutted road once famous for its bandits and too far to walk. The last five years had seen improvement in access to the campus: there was regular, if not frequent, taxi service; a telephone had been installed in the administrative offices (though nowhere else); and the main route from Kigali to Ruhengeri was paved in 1985, so one could drive to Kigali or Butare in three and a half hours. But for several years while the road was being built, the only way to go back and forth was to fly to Ruhengeri and then radio the campus for transportation.

The main justification for establishing a second campus for a university with a total enrollment of less than 1,700 must have been political: to move resources from the southern former Tutsi stronghold to the northern part of the country. At the time the northern campus was planned the university had outgrown its facilities at Butare, but since then the Butare campus had been enlarged and could easily have been expanded to accommodate the whole university, were academic needs the only consideration.

Library resources suffered particularly from the split, which made it necessary to maintain a university library in two locations. Professors in the north noted that collections relevant to their disciplines (which, in some cases, they had helped to build) were kept in Butare. Their students, they said, had none of the basic references in Ruhengeri, apart from a few new acquisitions. English language books, for instance, were in Butare, but the English department was in Ruhengeri. On the other hand, it appeared that most of the library funds were going to build up the Ruhengeri collection. The Butare library did not have enough foreign currency funds in 1985 to keep up its subscriptions to professional journals for 1986.

Access and enrollment. A university in a small country can achieve social and regional balance by its admissions policy, rather than by its physical location. It

¹IAMSEA is the Institut Africain et Mauricien de sciences économiques appliquées, discussed below.

is hardly surprising that, as Le Thanh Khoi notes, UNR enrollments are well balanced regionally and ethnically. The Le Thanh Khoi report uses this as a counterargument to the policy of enhancing equity by building a northern campus.

It was MINEPRISEC, not a university office, that determined who would be admitted to the university, because the ministry administered the nation-wide secondary school-leaving examinations. The national policy of regional and ethnic balance that MINEPRISEC applied to secondary school admissions also operated at the university level; the same quotas applied, matching admission slots to regional and ethnic population distribution. As in secondary school selection, ethnic and regional balance was achieved at times at the expense of academic criteria. Nor was the policy proof against favoring students from families of high socio-economic status. The consequences of this policy will be explored further in Chapter 9.

University students constituted well under half a percent of their age cohort in Rwanda, and the demand for graduates clearly outdistanced supply. Table 4 gives university enrollments by faculty for the early 1980s.

Table 4

STUDENTS ENROLLED IN THE UNIVERSITY BY FACULTY, 1981-1985

Faculty	81-82	82-83	83-84	84-85	85-86
Agriculture	135	133	123	120	120
Law	74	117	129	117	144
Econ. & Mgmt.	252	279	297	364	292
Applied Science	53	72	65	81	98
Medicine	156	151	144	127	115
Pharmacy	25	42	22	20	18
Sciences	143	119	148	198	242
Education	90	113	146	175	186
Home Ec. Textiles	58	72	62	64	64
Letters	225	219	231	291	291
Total	1,211	1,317	1,367	1,567	1,571
Rwandans	1,144	1,277	1,331	1,533	1,535
Foreigners	67	40	36	34	36

Source: MINESUPRES.

In 1985 there were nearly 1,500 applicants for university places, some of them secondary school graduates from earlier years who had gone to work after getting their diplomas. The 1985 entering class numbered 549. The proportion of applicants to available places in 1985 was unusually low, however, because the most recent graduating classes had been abnormally small. The addition of two years' primary school in 1979 had occasioned unusually small entering classes to secondary schools in 1980 and 1981; the first of these classes had just graduated. The situation in 1986 would be similar. The first full-sized "reformed" class would be knocking at the door of the university in 1987.

The university programs. Like European universities, UNR faculties were generally professionally focused. Most faculties at the UNR offered a three-year course of study leading to a *baccalauréat* degree. A few, like Law or Pharmacy, accepted students from other faculties, starting in the third year of the baccalaureate cycle for a two-year program. Beyond the baccalaureate, a number of faculties offered one or two years' graduate study for a *licence*, a degree roughly corresponding to a masters' degree in the United States. Students preparing a *licence* are required to write an original research paper, a *mémoire de licence*.

MINEPRISEC hired close to half the university's graduates as secondary school teachers. Obviously, many of them had earned their degrees in a field other than education, often from the Faculty of Letters instead. So about half of each year's new crop of secondary school teachers were trained in their subject but not in teaching methods; the other half were trained in methods more than in subject matter. This is why university planners felt that locating the Faculty of Letters and the Faculty of Education on the same campus would be useful, to allow for some cross-registration.

The need for professionals in fields such as medicine and agricultural research far outstripped the number of graduates from UNR (Cf. Gow et al. 1986, II: 45). About one-fourth of the graduates continued their studies for an advanced degree; the others had a choice of positions open to them. A study undertaken in 1982 found 72 percent of these working in the public sector (Le Thanh Khoi 1985:59).

The Le Thanh Koi report criticizes the UNR for becoming an "ivory tower" – removing students from their environment, subjecting them to a study schedule that kept them in the classroom and out of contact with Rwandan realities, and housing them in dormitories that provided a standard of living out of keeping with Rwandan conditions. There was certainly some truth in these observations. Nevertheless, faculty and students were trying to make their work respond to Rwandan needs, particularly in the choice of topics for *mémoires de licence*. These studies were recognized as a valuable source of information about the country in several fields.

The Le Thanh Khoi report also takes the university faculty to task for insisting on an encyclopedic approach to learning and for equating teaching with lectures and the regurgitation of memorized facts. Professors observed, however, that because texts were often scarce and the library woefully inadequate, they felt impelled to lecture, practically to dictate, the information that in happier circumstances they would expect students to read on their own.

The cost of university education. Since demand for university graduates was high and their numbers few, the question arises whether they were being efficiently produced. Could the UNR train more people without spending more? Four factors must be taken into consideration:

- student/teacher ratios, which affected the cost of teaching the students;
- government scholarship costs for supporting students in school;
- administrative costs of running the university; and
- student failure and repetition rates.

The university's budget for 1986 was RwF 395,593,300, making the annual cost per student \$2,700. This approached the annual cost per student in France, or about half the average annual cost per student in the United States. But, according to Le Thanh Khoi, while these expenses represented about one-third the average income of a French inhabitant, they equaled nearly twelve times the average income of Rwandans. For a poor country these costs were unduly high.

Student/teacher ratios of seven to one in past years made the cost per student in terms of teacher salaries a major factor in the high cost of education at the UNR. Department heads pointed out that a certain critical mass of faculty is necessary to offer a complete program of courses, no matter how many students are enrolled. Increasing efficiency in terms of student/teacher ratios would best be achieved by increasing the size of the student body.

A second cost factor was the government's policy concerning scholarships. Up to the time of study, all Rwandan students had been admitted to the UNR with full government scholarships. In fact, in giving statistics on applications, one government publication automatically equated application for a scholarship with application for admission (MINEPRISEC 1986b:79-80). The scholarship cost of housing and feeding a student and providing money for books and a few incidentals was RwF 9,000 per month, or RwF 99,000 per student per year. Le Thanh Khoi advocated reducing the scholarships to 6,000 per month. It was not clear that such a reduction was feasible, since boarding costs were hard to alter and left only a modest sum for books and incidentals. More likely, it would be possible to reduce these costs by granting either partial or full scholarships in accordance with financial need, by permitting day students to attend, and by expecting some parents to arrange for their children's room and board off-campus or even to pay part or all of their tuition.

Administrative costs were unquestionably inflated because of the double structure for the two campuses and the additional costs of maintaining a separate ministry of higher education. Because the Ruhengeri faculties were only half moved, its administrators needed to commute between the two campuses, raising those costs still higher. Then, too, MINESUPRES was created to control the activities of a total of 3,000 people, including the university students. The reasons for this top-heavy administration appeared to be primarily political; they carried a high price tag.

Failure and repetition rates, which determine how many students must be in school and for how long to produce one graduate, also raised the cost per graduate. For the university faculties of Butare campus as a whole, the failure rate in 1985 was 17 percent, while 18 percent of the students were forced to repeat a year. Rates by faculty varied from 36 percent for S.E.S.G. (Economics and Management) to 6 percent for Law and 8 percent for Engineering. The majority of failures and repeaters were first-year students. The S.E.S.G. faculty, for example, had 92 failures and 69 repetitions to 53 promotions in its first-year classes in 1985 (UNR 1985:173-175). Other faculties typically had about twice as many promotions as failures in their first-year classes, with repetitions falling somewhere in between. Roughly a third of entering students, then, did not make it to their second year, while another third took four years to finish a three-year course of study. While rates like this might seem normal for a large university with relatively open admissions that then weeds out first-year students, for so small and selective a school they seemed wastefully high.

The Le Thanh Khoi report suggests various reasons for failure and repetition: overly heavy course loads, incompetent teaching, inadequate preparation for examinations, and poor assignment of students to the various faculties. A sample of records for failed students showed about 20 percent to be due to poor assignment, the rest corresponding to mediocre secondary school grades. Several factors appear to be at work. Weaker students were sometimes selected over stronger ones in the interests of regional and ethnic balance. The arbitrary assignment of students to different disciplines may also have been a more pervasive problem than it appeared, because the initial assignment was occurring at entry to secondary school, where transfer to a more congenial track had become more difficult once there was no longer a three-year core curriculum before specialization.

Potential development. Despite its growing pains, the UNR assumed an important role as the main institution of higher education and research in the country. The Faculty of Pharmacy was engaged in investigation of the properties of traditional medicines. The *mémoires de licence* were already valuable studies of local issues and could be even more useful as a basis for national development if they were linked to the research component of development projects.

University facilities and staff also held potential for advanced training in various fields, especially in summer, when buildings stand empty. The Faculty of Agriculture had already had experience in running nine-month courses for retraining extension agents. Other faculties had not yet followed suit, although it seemed likely that a school like S.E.S.G. might offer training in highly marketable skills.

The university was concerned with upgrading its own teaching staff. In 1986 some 50 of the 120 professors on the Butare campus had Ph.Ds or the equivalent. The rector had prepared a program of releases permitting ten professors per year to go abroad for doctoral study if scholarships for the candidates could be found. The process had apparently been slowed down, however, by the extra bureaucratic layer that MINESUPRES constituted in the approval process.

Private Schools of Higher Education

In addition to the national university, the government encouraged the establishment of private institutions for post-secondary education by approving land rental or sale and other benefits. There were five such schools in the country in 1986. Two had been in existence for a number of years; MINESUPRES kept their records along with those of the UNR. They were:

- the Grand séminaire de Nyakibanda, which offered a six-year course, two years of philosophy followed by four years of theology for graduates of the *petits séminaires* who were preparing for the priesthood. This school had been in existence since before independence and remained small. In 1984-85 its total enrollment was 148, including an abnormally high entering class of 56.
- the Ecole Supérieure Militaire which trained about the same number of students for high-level military posts.

The other three were institutions of much more recent origin and recruited students from beyond Rwanda as well as from within it. They were:

- the Institut africain et mauricien de sciences économiques appliquées (IAMSEA). This international school, established in its current form in 1978 in Kigali, took African students from a number of francophone countries. It offered courses in administration and management. About twenty Rwandan students were enrolled.
- the Université adventiste d'Afrique centrale in Mudende accepted its first class of 69 students in 1984-85; 103 students in two classes were enrolled in 1985-85. The school expected eventually to be able to accommodate about 550 students in a four-year baccalaureat program. It offered courses in general education, religion,

industrial arts, agriculture, typing and computer training. A strong work ethic underlies its requirement that at least 20 percent of the annual tuition of \$1,200 be earned in work-study, including construction work on campus. Eight nationalities were represented in its francophone African student body; the largest group were Zaireans, followed closely by Rwandans. The others included a handful of students from Madagascar and West Africa. Although the American director was concerned with adapting the program to Rwandan standards (and was wholeheartedly in favor of the president's education-for-employment policy), the atmosphere evoked a miniature U.S. land grant university. It was generously endowed by the Seventh Day Adventist Church.

- The Ecole St. Fidèle in Gisenyi. This school of management and computer science was located a stone's throw from the Zaire border. It had its first class of 50 students, about one-third of them women, in 1985-86. Admission was by examination; however 20 of the first year's class were repeating in the next year, and two had failed. Three tracks were offered: management, secretarial, and computer science. The second year of the two-year curriculum included in-service training. Tuition was RwF 150,000 per year for Rwandans and RwF 200,000 for foreigners. The Rwandan government provided twenty scholarships to Rwandan students in 1985. The first year's class had had no difficulty finding appropriate and remunerative summer jobs. In addition to its four full-time teachers, St. Fidèle had seven visiting instructors the first year and counted on supplementing its staff with part-time professors moonlighting from Ruhengeri. Seven personal computers were already in place in July 1986; four more were being added over the summer. The school was obviously well-supported and equipped and was filling a niche for which there was growing demand. With strategic backing, the school expected to turn a profit over the long run. The mood, in the summer of 1986, was one of expansive optimism.

A sixth school, the Institut supérieur catholique de pédagogie appliquée (ISCPA), was due to open in September 1986, to train teachers for the *petits séminaires*.

Altogether, private institutions of higher education provided places for about 400 Rwandan students in 1986. When the three new ones are fully operational, the five schools may be able to accommodate a total of nearly 700 students. Even when these are added to the 1,700 at the university, the number of graduates falls well below national needs.

Table 5

NUMBER OF RWANDAN STUDENTS STUDYING
ABROAD FOR HIGHER DEGREES, 1981-1985

Country of Study	81-82	82-83	83-84	84-85	85-86
Africa:					
Algeria	—	14	27	42	61
Benin	—	5	3	3	3
Burundi	—	—	—	11	17
Cameroon	1	2	2	1	1
Cent. Afr. Rep.	1	1	1	1	1
Congo	—	1	2	2	11
Egypt	2	2	2	2	—
Ivory Coast	—	2	4	5	9
Kenya	8	11	—	—	3
Libya	—	15	15	4	7
Niger	—	6	6	4	—
Senegal	38	37	29	24	19
Tanzania	23	18	11	10	9
Tunisia	2	2	2	2	—
Zaire	12	14	24	22	4
Europe:					
Austria	—	—	11	21	26
Belgium	118	86	63	77	75
Bulgaria	—	2	4	6	8
Czechoslovakia	—	—	—	2	4
Dem. Rep. Germany	—	—	—	—	2
England	—	—	1	1	1
France	61	84	66	55	39
Fed. Rep. Germany	45	55	68	70	57
Holland	—	—	1	1	1
Ireland	—	—	2	2	2
Italy	3	—	22	21	15
Poland	—	—	1	3	5
Rumania	20	12	10	6	3
Switzerland	9	9	6	6	8
Yugoslavia	—	—	1	2	3
Other Countries:					
Canada	34	41	35	40	37
China	5	7	16	25	35
Saudi Arabia	2	2	2	2	2
Syria	1	1	1	1	1
USA	8	12	18	22	28
USSR	140	158	181	207	269
Total	533	599	637	703	766

Source: MINESUPRES

Small as they are, the existence of these private schools nevertheless contributes to national educational development. They are a barometer both of government willingness to sanction a range of private education initiatives and of the kinds of demand for higher education or training in the country and the broader region.

Study Abroad

The highest level of trained manpower for Rwanda came from students who went abroad for graduate study, since the UNR did not grant doctoral degrees. Table 5 shows the number and distribution of students studying abroad from 1981 through 1985. The level of study is not indicated, so these figures include some students earning lower-level degrees as well as all Rwandans who were earning a master's degree or a doctorate.

Belgium and Germany, the two former colonial powers, continued to draw sizeable numbers of Rwandan students. The contribution of Canada and France to building the UNR included accepting students in their universities for advanced degrees. The Soviet Union was offering Rwanda fifty scholarships per year. Although not all of the scholarships were accepted, over a third of the Rwandans studying abroad were in the USSR.

The United States provided fewer long-term scholarships, some of which sent Rwandans to Third World countries, partly because their orientation was appropriate to Rwanda's problems and partly because of the language problem. The U.S. often sponsored short-term technical training. Although these short courses could enrich a trainee, they did not have the multiplier effect of longer courses because the returnees lacked a degree recognized as a credential for teaching others.

The Ministries Concerned with Education and Employment

Behind the institutional structure of schools and centers that make up the educational system stand the ministries charged with directing and managing education. Well-organized, effective ministries can keep the whole educational machine running smoothly; poor ones can impede it.

Primary and secondary education and the CERAI were the province of MINEPRISEC, the Ministère de l'enseignement primaire et secondaire. Higher education and research institutions were under MINESUPRES, the Ministère de l'enseignement supérieur et de la recherche.

Three other ministries also played roles in managing the relationship between education and the world of work:

- MINIFOP, the Ministère de la fonction publique et de la formation permanente, could be considered a national employment agency; it had the task of gathering the dossiers of all secondary and college graduates, along with descriptions of all available

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vacant posts in government or outside, and assigning job applicants to the open positions. It also ran courses for pre-service training or vocational upgrading.

- MIJEUCOOP, the Ministère de jeunesse et de cooperatives, ran communal *Centres de formation de la jeunesse* (CFJ), which provided training for out-of-school youth to prepare them to find work or to set up joint workshops or cooperatives for students who had a trade or skill but no job.
- Finally, MININTER, the Ministère de l'intérieur, oversaw a set of continuing education centers, the CCDFPs (*Centres communales de développement et de la formation permanente*). These provided development training for selected rural leaders, who were then supposed to spread the messages to groups in their home areas, as well as offering various literacy, health and family planning, artisanal, and other continuing education courses for adults.

The different ministries responsible for these activities were by no means equal politically, fiscally, or institutionally. Their positions in terms of budget allocations were telling. In 1985 MINEPRISEC topped the list, garnering 23 percent of the national government's ordinary budget. The others were far behind. MINESUPRES was next, tenth on the list of the eighteen ministries and services, with nearly 4 percent of the national budget at its disposal. MININTER and MIJEUCOOP were twelfth and thirteenth, with 2 percent and a little over 1 percent of the total budget, respectively.

MINIFOP was seventeenth, with a total budget of under RwF 100,000,000, less than half a percent. It was seriously underendowed for its assigned tasks. The World Bank was planning to provide some support under their Third Education Project in the form of technical assistance and the establishment of a vocational training center. But without more adequate staffing and equipment, it was not clear how the ministry would be able to manage yet another responsibility.

MINEPRISEC and the Inspectorate. In addition to having fiscal resources, MINEPRISEC was in a politically central position. Its minister, Col. Aloys Nsekalije, was considered second in position after the president; he expected efficiency and order in the operations he headed. The ministry staff, from directors general on down, were active, businesslike, and knowledgeable about their area of responsibility. There seemed to be no empty positions, at least not at middle levels or higher.

MINEPRISEC was relatively well equipped. The central ministry had computers for its statistical analysis - the 1984-85 statistical yearbook was the first to be compiled and printed by computer - and its statistical division operated smoothly. The ministry was also able to allocate vehicles to its representatives at the prefectural level, the *inspecteurs d'arrondissement*, and

motorecycles to the communal representatives, the *inspecteurs de secteur*. Not all of the machines were in working order, out in the communes, but they were certainly there.

Figure 7 is a schematized organizational chart of the MINEPRISEC (World Bank 1986:37). The activities of the Directorates General for Pedagogy, Primary Education, and Secondary Education and of IMPRESCO, the Imprimerie Scolaire, have been discussed. A word should be added about the system of inspection, the branch of the ministry that reached out to the prefectures and communes.

The ten *inspecteurs d'arrondissement* in the offices of the prefectures served as a conduit between the central ministry and the lower-level inspectors. They were supposed to transmit messages and goods from Kigali to the communes, coordinate meetings and training programs for lower-level personnel, approve teacher assignments, and check the situation in the schools, monitored by the communal inspectors. They were obliged to visit each school in their prefecture once a year and were provided with vehicles to do so. They also bore information from the school directors and communal inspectors back to the ministry.

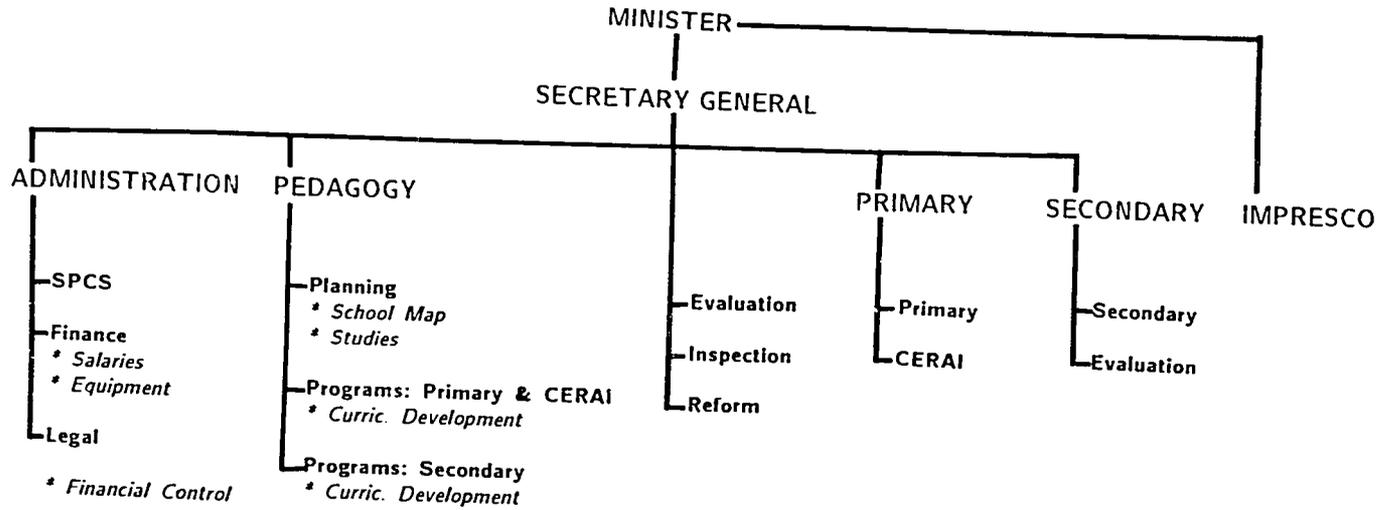
The 122 *inspecteurs de secteur* were in charge of territories corresponding roughly to communes but not entirely coterminous. Some were placed over two communes, rather than just one. As the ministry representatives who dealt directly with schools, directors and staff, they faced the real problems of running the system. They gathered the annual statistics on schools, teachers, and enrollments, evidently without much difficulty. They were also the people who received the cash for teachers' pay and school expenses and had to account for all expenditures or pay from their own pockets. It was they who juggled teachers' petitions for different placements. They were expected to put in two days in the office each week and three on field visits on average. The thought of adding the distribution and sale of textbooks, with all the attendant accounting, to the rest of their duties held no great appeal for them.

The Inspectorate was also in charge of in-service training for teachers, but usually administrative duties came first with the inspectors, overwhelming any training responsibilities. It appeared that the in-service training of teachers was generally being done by foreign donor projects or not at all.²

Characteristically, the vast majority of MINEPRISEC personnel had risen through the system from first jobs as teachers. They were trained as educators, not administrators, as are most ministry of education personnel in developing countries. Some of them noted their own need for in-service training in administration, management, and development planning.

²A recent Ph.D. dissertation by a Rwandan scholar (Ndagijimana 1985) is devoted to an analysis of the roles and functions of the inspectorate.

Figure 7
ORGANIGRAM OF MINEPRISEC



Source: World Bank 1986.

MINESUPRES. MINESUPRES was a new ministry. Before 1981 it formed part of the Ministry of Education (MINEDUC) with MINEPRISEC; at the time of the division of MINEDUC, MINEPRISEC took over the bulk of the resources. Figure 8 shows the structure of MINESUPRES.

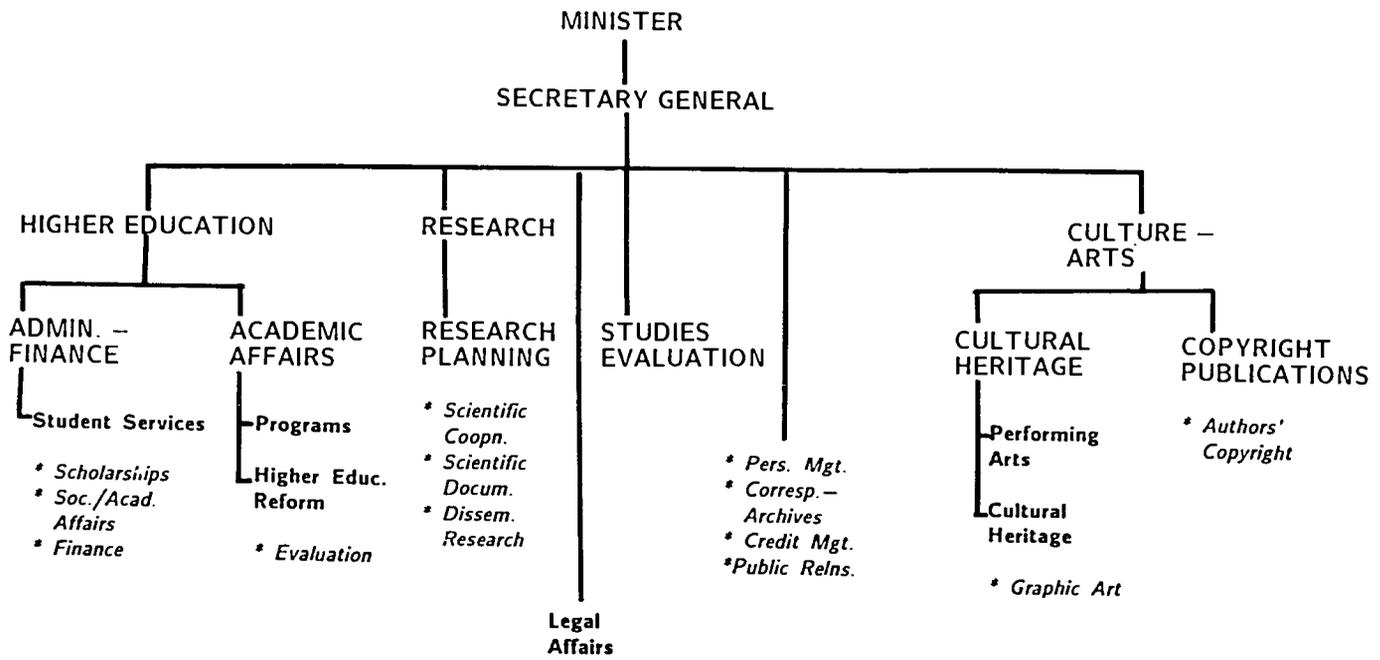
Although both ministries were housed in the same building, MINESUPRES lacked both the equipment and the atmosphere of orderly coordination of its fellow ministry. Offices were crowded, and the staff apologetic. Despite the fact that the MINEPRISEC computers were located just down the hall from the MINESUPRES statistics office, MINESUPRES stored its statistical information in file drawers, not electronically. Its data were hard to retrieve, let alone manipulate, even for ministry staff. During the summer of 1986 the staff were in the early stages of planning for university reform in a fairly pedantic way, with a series of analytic studies, unlikely to result in a concrete plan in any timely fashion. In fact, ministry and university planners decided at an August 1986 meeting to postpone the reform due to be formulated by March 1987 for a year because planning was bogged down in excruciating preliminary study. The delay may have suited most of those concerned better than reform would have done. The UNR faculty generally considered the ministry an impediment, not an asset, in directing the university. MINESUPRES had to approve university decisions and activities but had a reputation for never being able to reach a decision itself. Perhaps it was intended to serve as a cap on potential ferment; in any case, it seemed more a roadblock than a help.

Summary: The Strengths and Weaknesses of Educational Institutions

Rwandan authors of the 1979 educational reform benefitted from a relatively stable decade in which to translate plans into action. When necessary, they scaled back goals and took the time to execute plans step by step. In 1986 the Rwandan commitment to education was still high, as investments in that sector showed. Educational planners were concerned with maintaining the high quality of the system they had inherited, but, at the same time, were concerned with meeting the expenses of keeping what they had operating. Capital costs were either assigned to outsiders or to local communities. Government contributions to educational projects frequently took the form of grants of land and local labor, not francs.

Problems with the system were also evident. The most obvious was the tremendous weight of the primary system, which was yielding low-level, barely trained manpower beyond what the country's economy could absorb. Linked to this were the choked channels to secondary and higher education levels, which could produce the technicians and professionals the country needed. The high cost per student of secondary and higher education in Rwanda was also a brake to needed expansion.

Figure 8
ORGANIGRAM OF MINESUPRES



Source: MINESUPRES, February 1985.

The decision to focus education narrowly at all levels on vocational and professional training was a potential source of difficulty. Chapter 9 will return to this topic. Equitable access to the limited opportunities for education beyond the primary level, the subject of Chapter 10, was another troublesome issue.

Part II will return to these questions. Before that, to complete the picture of educational institutions in Rwanda, we must examine more closely the indicators of educational quality in these schools, then turn to a review of the non-formal education programs that operate alongside the formal school system.

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Chapter 7

SCHOOL QUALITY IN THE PUBLIC SYSTEM

The discussion of educational institutions and educational reform in Rwanda in the preceding chapters has been largely descriptive. It has tried to answer the question "What kinds of schools and educational facilities does Rwanda have?" This chapter will briefly discuss school quality in Rwanda in terms of some standard indicators: the quality of buildings and materials, the quality of the teaching corps and teacher training, and information concerning dropout and repetition rates that reflects the effectiveness of the learning process going on in the schools.

The quality of education depends on both physical and human resources. Judgments about school quality are bound to be somewhat speculative, but certain indicators – quality of the physical plants, availability of teaching materials, teacher credentials, dropout and repetition rates – provide a general basis for conclusions and comparisons. It is not always possible to get satisfactory data for these indicators in an African country, especially in a short study. Because of time limitations it was also not possible to supplement recorded indicators of school quality with the kind of in-depth observations or extensive surveys that could verify the quality of education. Other useful comparative indicators were not to be had; we were unable, for example to obtain test results that might allow comparison over time or between Rwanda and other countries, particularly since within the scope of this quick study we had to rely on data already gathered by the education ministries. Sometimes, indeed, indicators paper over basic questions rather than addressing them, since an indicator is only a gauge, a proxy for reality. But it may be the best gauge we have.

Buildings and Teaching Materials

The quality of buildings housing Rwanda's schools was generally adequate. Though the physical plants were not likely to detract from the learning going on in them, lack of teaching materials within them did.

As Chapter 4 has indicated, three-quarters of the buildings for primary schools were constructed of durable materials – brick, stone, or concrete, but in 1986 the ministry did not gather information on equipment. Many of the newer elementary schools in particular were said to be ill-equipped. Equipment for the seventh and eighth grade workshops and the CERAI's was reported to be spotty at best.

Moving up the educational ladder, the physical situation improved. Many of the old private and formerly private secondary schools were pleasant, com-

fortably equipped places to study, often with libraries and pleasant grounds. New secondary schools, simpler in form, were still more than adequate. Outside donors had supplied funding for building virtually all "government" schools. On the outskirts of Kigali, an *école des parents*, growing at the rate of one new classroom a year, paid for and built by the parents themselves, took the form of solidly built bungalow-type rooms, with standard glass windows and wood doors, lining two sides of an open courtyard. The university was new and handsome.

Problems concerning production of textbooks and teaching materials have already been discussed in Chapter 4. As a result of the slow pace of production, students at best had their own books only for mathematics, French, and Kinyarwanda in the schools at the primary level.¹ Texts and most teachers' manuals for the middle cycle of elementary school and the fourth and fifth years of secondary school were not yet available at all in 1986, seven years into the school reform. At the secondary level the general curricula were outlined and teachers were given suggested bibliographical references to tide them over – assuming they had access to the sources in question. At the primary level, the strain and frustration of being forced to face classes each day with no books and often no guide, was taking its toll on teachers' morale. The slow pace of production had meant that texts had been trickling into the schools over five or six years. For some subjects like history or agriculture, teachers were, at last, about to get their books, but none were planned for students' use. At the university, although the use of French alleviated the problem of translation, French texts were not always available, and the libraries were suffering from the two-campus division and lack of foreign exchange.

In sum, school buildings and physical facilities in Rwanda in 1986 were better than average for Africa. Texts and didactic materials were the immediate problem and promised to remain so over the next few years. A recent World Bank policy study (World Bank 1988) suggests that, in trying to maintain educational quality, Rwanda would have been better off had the situation been reversed. The question is whether this represented a temporary situation or an endemic problem.

Teachers and Teachers' Training

The capability of the teaching force is an essential factor in maintaining educational quality. Formal training and qualification, experience, and job satisfaction all make a difference in the effectiveness of teachers, but not all of these factors are easy to measure.

Nearly 58 percent of the 14,400 teachers in the primary school system in 1985 were considered academically qualified. The curriculum of the seventh and

¹Eisemon et al. (1988) report a very similar pattern in Burundi, where students have texts only for "language arts subjects" – presumably both in Kirundi and French, and detailed lesson guides are supplied to teachers for the other subjects in the curriculum.

eighth grades and of the CERAI system, however, distorted the picture. Some of the teachers recruited to teach the practical courses at these levels were "qualified workers," rather than credentialed teachers, so their presence lowered the proportion of teachers with academic qualification. Observers familiar with the CERAI system pointed out that possession of a credential was not necessarily a guarantee of high teaching quality – some of the less "qualified" but more experienced teachers and some of the qualified workers actually did a better teaching job than raw recruits with brand-new credentials.

At the secondary level 62 percent of the nearly 1200 teachers employed in 1984-85 had college training or a technical degree. Foreigners, including other Africans, made up nearly 30 percent of the personnel; about two-thirds of these had proper qualifications.

Teacher training for primary school was provided by the secondary schools or school tracks known as *écoles normales*. The twenty-five secondary schools with teacher training tracks for primary school appeared to be producing a sufficient number of graduates to keep the primary system adequately supplied with new teachers for replacement and growth at the current rate of expansion. The schools with mid-level and technical teacher training programs produced specialized teachers, particularly for the higher grades. With the increased demands for technically specialized teachers occasioned by the new seventh and eighth grades and CERAI, this type of teacher was in short supply. It was not clear, in view of the newness and uncertain growth of the upper primary system, how long this situation would continue.

The two curriculum development bureaus, the BPERAI and the BPES, along with the Inspectorate, were charged with providing in-service training for teachers to help them adjust to the reformed curriculum, but all were hampered by lack of funds for moving around the country outside of Kigali. A new in-service training center was being constructed to house seminars for teachers during school breaks and short training courses during the school year. In addition, German assistance was providing the BPERAI with mobile in-service training units for the primary schools.

A program of in-service training for CERAI teachers had been established with support from the AID Agricultural Education Project, which was phasing out in August 1986 after three years' activity. During the school year, trainers made nationwide circuits of CERAI to give half-day seminars to teachers. During the summer they held five-week workshops of short courses for CERAI teachers at the Adventist University and some of the secondary schools throughout the country.

Teachers for the secondary level were trained in the Faculty of Education at the national university, which was turning out over 40 students with bachelor's degrees per year, and about 20 more with *licences*. That number of baccalaureates was about enough to fill empty posts in the secondary school system at the time. If more teachers were needed in a given year, the ministry recruited the others

from among the Faculty of Letters graduates. These last, of course, had had good preparation in their subjects but none in teaching techniques. If the Faculty of Education moves to the Ruhengeri campus, it should be possible to offer some applied pedagogy courses to Faculty of Letters students, so that they would be better prepared for teaching careers.

In addition to the public teacher training schools, the new private Catholic teacher training institute, ISCPA,² opened in September 1986, offering a university degree for future teachers for the *petits séminaires*.

At the university level, over 40 percent of the faculty had a Ph.D. or the equivalent. As pointed out in Chapter 6, the administration had prepared a plan for upgrading faculty members with only a master's degree (or *licence*), pending MINESUPRES approval.

At the time, however, given the gradual rate of growth of the school system, the major problem for recruiting qualified teaching staff appeared to be the budget for salaries, not the availability of training facilities. Given the budgetary constraints, demand and supply were relatively well-balanced.

In addition to official credentials, teacher morale is an important factor in effective teaching. Class loads, in-service support and training, salaries, and classroom equipment and conditions all affect teacher morale.

Matching the educational pyramid, class loads were heaviest in the first grades of primary school and fell away sharply at secondary and university levels. Double shifting in the first three years of primary school placed a double load (approaching 90:1) on teachers for the entry grades. In the middle and upper primary grades the load dropped to an average of around 50:1. This is relatively high, even for an African school system. For the continent as a whole the median student/teacher ratio is 39:1. Rwanda's ratio places it in the highest quarter of sub-Saharan African countries (World Bank 1988, 40). In secondary and university classes, on the other hand, the teacher/student ratios of 14:1 and 7:1 were remarkably low.

Lack of texts, manuals, and teaching materials, as mentioned above, contributed to low morale among teachers. The pervasive problem of changing posts was one sign of dissatisfaction among primary school teachers. Local MINEPRISEC representatives, the *inspecteurs de secteur*, had to deal with a stream of teachers coming to ask for a shift from one school to another, to find a place closer to town or closer to their own home. Government controls on job placement made it difficult to quit a teaching job, but a teacher could always hope to find a better situation. The switches were reportedly creating problems for continuity during the course of a school year.

MINEPRISEC had decided in the early 1980s to raise teachers' salaries above the level of other, similarly qualified government employees in order to provide incentives for entering the profession and for staying in it. By the time

²This institute is mentioned in Chapter 6, above.

the proposal made its way into the educational budget, however, the bonus amounted to only RwF 1000 (about \$12) a month, not much of an incentive to put up with work conditions in the isolated areas where some schools were located. Although it represented a raise over government salaries, teachers' monthly take-home pay, about RwF 14,000 for someone with seven years of secondary school to RwF 21,000 per month for a teacher with a *licence*, was still considerably lower than salaries in the private sector.

At the other end of the spectrum, university teachers were high on the government pay scale. Though they often earned less than they could have, had they taken positions for international agencies or abroad, they made a comfortable and secure living. Housing was provided for all professors at Ruhengeri and for the higher ranking ones at Butare, generally in the form of single-family modern houses in a university-owned subdivision. Junior professors at Butare faced a tight housing market on a lower salary.

On the whole, in the summer of 1986, the supply of teachers was more or less keeping pace with demand, and pay scales were reasonable in comparison with other public sector positions and with the cost of living. The main source of dissatisfaction among teachers was working conditions at the primary level.

Dropout and Repetition Rates

Dropout and repetition rates are internal indicators of the quality of education in the schools, though exogenous factors such as the cost of schooling, the economic worth of education, and students' employment alternatives can also affect them.³ Table 6 shows dropout and repetition rates in the primary schools for 1983-84. Weaker students were evidently making an effort to continue their schooling through the first cycle, even if they had to repeat a year. After the first cycle incentives to stay in school apparently diminished. The high repetition rates in the first years may well be due to the double shift system in the first three grades, which doubled teachers' loads and reduced students' time in school, to the detriment of educational quality.

On average, repetition rates for primary schooling in Rwanda were very close to the average for all Africa; rates for secondary school were notably lower. World Bank tables show that, at the primary level, repeaters constituted 12 percent of total enrollment in Rwanda in 1983, compared to a weighted mean of 14 percent for sub-Saharan Africa as a whole. The primary school dropout rate, also for 1983, was somewhat higher than the continent average: per thousand students, 412 reached the final grade of primary school in Rwanda, compared to 607 for Africa as a whole or 489 for other low-income, non-arid African countries. These figures may reflect, in part, the fact that the school reform had lengthened the

³They also can be used to calculate the cost of producing a student trained to particular levels within the system, by taking into account the wastage of a percentage of entering students.

primary cycle so that it was already two years longer than that of most countries with which Rwanda was compared. Female dropout was considerably higher than average. Only 376 female students per thousand were reaching the end of primary school, compared with 509 for countries in the same economic bracket or 599 for the continent (World Bank 1988:136).

Table 6

**DROPOUT AND REPETITION RATES BY GRADE IN SCHOOL
FOR 1983-84, AS NOTED AT THE BEGINNING OF 1984-85**

Year in School	Promotion Rate	Repetition Rate	Dropout Rate
1	—	20.4	9.9
2	69.7	13.4	7.6
3	79.0	11.4	8.4
4	80.0	9.8	10.5
5	79.8	8.2	10.8
6	81.0	7.5	12.7
7	79.8	7.2	12.3
8	80.5	—	—

Source: MINEPRISEC, Statistiques . . . 1984-85:6.

Dropout rates in secondary school and at the university have been discussed in Chapters 5 and 6. Although repetition rates have been lower than the average for Africa in secondary school, the high failure rate at the end of the first year of each of these levels raises the question of whether poor preparation at the preceding level, the quality of the teaching, or the quality of the entering students was to blame.

On the whole, the quality of education in Rwanda appeared to be unexceptional within the range found on the African continent, judging from the state of its physical resources, teacher characteristics, and promotion rates. The major constraint on quality at all levels in the system was the lack of texts and pedagogical materials. Some of this was undoubtedly due to temporary difficulties of preparing and provisioning schools with new curricular materials in the wake of reform, but the decision to concentrate on producing teachers', not students', texts could prolong the problem. At the primary level student:teacher ratios were high enough to present another impediment to maintenance of good quality education, while at secondary and tertiary levels they were low.

What was distinctive about Rwanda was the maintenance of limited, high quality secondary and higher education, with less well-endowed, lower quality but

much more broadly accessible primary schools at the base. Quality and access were in complementary distribution; most students were shut out just at the point where schooling improved. For Rwanda, the important question was not so much how good education was but who could get the best and the most of it. We will return to that issue in Chapter 9, after examining the alternatives to formal education available in Rwanda.

Chapter 8

NON-FORMAL EDUCATION

Although sustained educational development from generation to generation depends on having a stable and healthy school system, out-of-school courses and training programs form an important bridge between schooling and the world of work. Non-formal education programs serve both people interested in improving their lives while pursuing their traditional occupations and those who seek jobs in the modern sector economy. Compared to formal schooling, courses in these programs are short, focused, and far less disruptive of the students' daily life and work. In many cases, the costs of such training are borne not by government but by private agencies or private sector employers. For all these reasons, programs of this sort tend to be highly cost-effective and not burdensome for government budgets.

Even in countries where virtually everyone has gone to school, programs of non-formal education play a pivotal role in preparing people for specific jobs, rather than for general occupations, and in retooling workers to meet changing needs and opportunities in an evolving economy. In the rapidly changing labor markets of developing nations with lower proportions of formally educated citizens, they can be a vital channel for access to productive work.

In Rwanda the schools have shouldered some of this burden of preparation for work. The question is whether non-formal resources exist with a similar mission. This chapter reviews those that were available and operating at the time of study.

A variety of out-of-school centers and courses were sponsored by the same range of organizations – state, religious and private – that concerned themselves with schools. Communal centers housed government educational programs. Even these were diverse because they were sponsored by different ministries or services. Private and religious organizations offered other programs through their own institutions in towns and in the countryside. A correspondence course program was firmly established. Radio education was just beginning to realize its potential. And in addition to these organized courses, on-the-job training and apprenticeships still provided ways for some people to learn to make a living. A survey of Rwanda's educational institutions would not be complete without examining these resources.

Communal and Religious Centers

During the first administration of Rwanda after independence, a major concern in educational planning was to encourage development of centers for non-formal

education. As a result, listing the educational centers that existed singly or side by side in the communes in 1986 amounted to reviewing the social and governmental institutions active in the countryside. Some education programs focused on health issues, others on occupational training, yet others on rural development. In 1986 several ministries were vying to establish their own new centers at the communal level. Each type of center was trying to keep its identity distinct from the others, but there was considerable redundancy among them. In a world of scarce resources, it was doubtful that all of them would or should survive.

Communal centers with educational programs included health centers (*centres de santé*), nutrition centers (*centres nutritionnels*), adult education and development centers (CCDFP), and youth training centers (CFJ). The sort of training each provided varied with the purposes each served.

Centres de santé. Health centers often gave free lectures for the people who were waiting for health services. These covered a variety of topics, from disease prevention and vaccination, to maternal and child health, family planning, nutrition, sanitation, and the like.

Centres nutritionnels. Nutrition centers provided food aid and treatment for children suffering from nutritional deficiencies. Mothers with children who needed this service had to register with the center and bring their child for care on a regular basis. Each time they came with the child, they attended an educational session. The classes covered nutritional needs, raising vegetables and livestock, and food preparation. Some of these centers were combined with health centers, but about thirty remained separate.

CCDFP (Centres communaux de développement et de la formation permanente). These adult education centers were under the direction of MININTER, the Ministry of the Interior and Communal Development. They combined the programs of several earlier types of centers – Literacy Centers, Centers of Social Development (mostly offering home and crafts courses for women), and Social Workshops. They were planning to offer a menu of courses ranging from agriculture and practical technology to health, nutrition, family planning and hygiene; literacy; accounting and cooperative management; or civics, understanding the law, and social relations.

To expand the impact of these courses, the CCDFPs encouraged interest groups of eight to twelve participants to organize throughout the commune, each choosing one representative to come to the center for training and return to instruct his or her "team." By April 1986, 51 such centers had been built, and 12 more were under construction. Eventually one was planned for each commune, with a prefectural center (CPDFP) coordinating the activities of the centers within its jurisdiction.

In 1986 Rwanda's literacy program was operating mostly through the CCDFPs, strictly on a local level, with virtually no funding. Teachers contributed their services. Materials might be either the INADES-Alpha Caritas course or first-grade primers borrowed from a schoolroom after hours. The established method for literacy teaching was based on class discussions serving as a basis for lessons, and syllable recognition as a means of building fluency. Classes met twice a week, for an hour at a time. In addition to the CCDFPs, the Catholic church had always taught literacy as part of the catechism, and some Protestant groups offered literacy training.

On the whole, literacy programs in Rwanda were very low-key. Priority was given to teaching literacy through the public schools. Out-of-school classes were free to any adults who sought them but were not actively promoted. Occasionally school-age children also turned up in adult literacy classes, partly to avoid primary school fees and partly because the classes, which met only twice a week, took up much less of their time than primary school, leaving them more free time to work. It may be that parents and children alike found the essential lessons of primary school could be learned as well in the two hours a week that a literacy class met as in the crowded, half-day early primary grades.

Although the concept of these centers was promising, the program suffered for lack of resources. CCDFPs had to inveigle teachers and other qualified personnel to offer free courses by negotiating with the burgomaster (the government official in charge of each commune) to release them from *umuganda* or tax levies. Course materials were also pieced together from other programs.

CFJ (Centres de formation des jeunes). CFJs were organized by MJEUCOOP, the Ministry of Youth and Cooperatives. These centers were giving courses in practical skills and cooperative organization to out-of-school youth, in an effort to launch them into productive jobs. Although the target population was somewhat different from that of the CCDFP – young people, not adults – many of the things they were teaching overlapped with both the CCDFPs and the CERAI. Their major focus on connecting training with job placement or job creation distinguished them from other centers.

Critics of the CERAI sometimes claimed that the CFJs, doing their job better and more efficiently, made the postprimary schools unnecessary. This argument assumes a narrow focus to the CERAI, emphasizing preparation for employment and overlooking their potential for providing more general training for primary school graduates. The students, too, were somewhat different. CFJs were training school dropouts, often somewhat older than CERAI students, more diverse in educational background, and generally male.

The vast majority of the participants in the nutrition center courses particularly and in the health center ones as well were women. The CCDFPs offered courses of interest to both men and women. Many of the rural teams that sent a representative for training were mixed groups of men and women. Women, how-

ever, were more likely to come to their CCDFP in person for literacy, hygiene, or home crafts courses. The CFJs addressed themselves primarily to young men, although in principle their courses were open to youth of both sexes.

There was an even broader range of centers for training youths and adults in the churches and parishes that dot the Rwandan countryside – centers for the handicapped, and handicrafts centers of various sorts. It would be hard to make a list of them all, since Catholic priests, nuns, monks, and Protestant pastors and missionaries would engage in teaching activities or found local workshops and cooperatives in response to the particular needs of their flock. One organization with a religious base and national coverage can serve as an example of a type of center that paralleled some of the activities of the CFJ but carried the approach considerably farther.

JOC (Jeunesse ouvrière catholique). These centers were first established in Rwanda in 1958, based on an organization founded by Cardinal Joseph Cardijn in Belgium in 1924. Their objective was to help young Catholic workers organize self-help cooperatives or unions in order to improve their working and living conditions. The first Rwandan Centres de JOC were placed in rural areas to help young men and women improve agricultural practices and artisanal skills, such as carpentry or needlework.

In 1978 the first urban JOC centers were started. The one in Kigali was helping to organize young workers in the many entry-level urban trades: porters, car washers, woodworkers, tire repair men, secretaries, seamstresses. By 1986 it was helping urban migrants obtain residence permits once they had found themselves a job; offering courses in literacy, crafts, secretarial skills, and foreign language; organizing savings and mutual aid groups; and even offering some reasonably priced lodgings for young Catholic workers. In sum, it combined Christian morality and the work ethic with a practical approach to improving the lot of aspiring young workers.

Distance Education in Rwanda

The educational programs just described all required participants to come to local centers for instruction. There were two other forms of long-distance teaching in Rwanda that had great potential: a correspondence course series, well-launched and already influential; and radio education, which has had a rockier history. A third adult education organization, the University Extension Service in Butare, was basically a local facility, but it used mobile audio-visual equipment for outreach programs.

Correspondence. INADES-Formation-Rwanda was an organization that prepared correspondence courses for rural development. In 1986 their choice of programs included materials on soil management, cultivation of specific crops, raising live-

stock, accounting, and literacy – this last in cooperation with Alpha-Caritas, which had prepared the course materials.

The parent organization for INADES, the international INADES-Formation association, was located in Abidjan, Ivory Coast, and had branches in nine francophone West African countries. It was backed by the Catholic church and offered some financial support to the Rwandan association. The pedagogical methods – preliminary field investigations and promotional trips, preparation of texts, preliminary trials, revisions and dissemination, and follow-up field visits – were common to local and international INADES.

A great strength of INADES-Rwanda was that it had developed the capacity to produce practical and appropriate teaching materials in Kinyarwanda and had made the enterprise, if not self-supporting, at least cost-effective. Unlike INADES West Africa, which distributes materials in French, the Rwandan organization always translated the final version of its course booklets into Kinyarwanda. It had a few French-language materials from the parent organization available for distribution, but they were not in great demand.

A year's course from INADES consisted of a series of nine booklets, each treating a specific topic within the general course. Subscribers interested in agricultural courses, for example, could choose nine booklets from a larger series, tailoring the course to their interests. Each booklet contained a homework sheet which the subscribing student or group would fill out and mail back. INADES staff would correct and grade the homework and send out the next booklet in the series. About 60 booklets were available in 1986, ranging from "How to Cultivate" to "Savings and Credit," and including booklets on specific crops and animals. In addition to these, courses in literacy, health, and community action were of interest to women, and courses on nutrition and clean water were in preparation. INADES staff made site visits in rural areas both for publicizing course offerings and for evaluation of course materials.

Students subscribed either as individuals (for RwF 100 a year) or, more commonly, in study groups of seven to ten students, one acting as leader. The group members split the cost of the subscription. Some organizations, communal or religious groups, or government agencies, became subscribing partners, paying RwF 7,500 per year.

The size of INADES's program was modest. In 1985 INADES had a total of 2,175 subscribers to their agriculture and rural development courses. These included 1,044 new subscribers, although the total number of subscribers was relatively constant from year to year. It had dipped to 2,027 in 1984 from 2,066 a year earlier. About half the subscribers in 1985 were farmers; another third were rural extension workers, including a handful of teachers. INADES's own statistics showed that only 16 percent of its subscribers were women, down from 21 percent the year before. Staff pointed out, however, that the actual percentage of women participants was probably much higher, hidden by its data collection methods since it noted only the sex of the registered subscriber or group leader. Because

women rarely took individual subscriptions, this meant that any woman who was subscribed generally represented seven to ten other female students as well. Mixed groups of men and women generally chose a man as their leader and were thus counted as a male subscription. Women made up 49 percent of the participants at introductory promotion sessions.

The subscribers appeared to be in large part from rural areas. Ruhengeri, Byumba, and Gisenyi had the highest number of new subscribers (19, 19, and 15 percent, respectively), followed by Butare, with 13 percent, and then Kigali, down to 11 percent from an earlier 14 percent. INADES had not penetrated the more remote prefectures, Cyangugu and Kibungo for example, to as great an extent. Some nutrition centers, a few other communal centers, and prisons in many parts of the country had INADES subscriptions.

Officials in charge of government educational programs were aware of INADES's activities and often relied on their work or collaborated with them to the extent possible. The main adult literacy course in the country was the one prepared by Alpha Caritas and distributed by INADES. Some CCDFPs were using INADES course materials, but, as a MININTER official pointed out, they were not free, and often the CCDFP budget was so tight that it could not cover purchase of extra INADES materials.

The government had granted INADES franking privileges for mailing out its booklets. Return postage for homework sheets was RwF 10. INADES staff claimed that the postal system worked very well in moving materials back and forth, even in remote areas. A local organization, the parish, or the commune would receive materials for the subscriber in its postal box at a regional center and pass them along.

Radio. ORINFOR, the State Information Organization, ran the national press service and Radio Rwanda, which broadcast on FM and shortwave frequencies. The official newspaper in Kinyarwanda was a twelve-page weekly, *Imvaho*, which sold for RwF 20 an issue in shops, in the Kigali market, in communal offices, or by subscription elsewhere in the country. The Catholic Church sponsored a private weekly paper, *Kinyamateka*, and distributed it. Newspaper circulation outside Kigali was thus restricted mainly to readers who had close ties with communal government or the Church. Papers were not generally available for sale in village shops and country markets, where they might lend support to literacy efforts in rural areas. In 1986 little material besides school books was in circulation in Kinyarwanda outside Kigali.

During the summer of 1986 Radio Rwanda broadcast from 5:00 to 8:00 a.m., was silent until 11:00 a.m., came on the air again until 2:00 p.m. and then had evening programming from 4:30 to 10:00 p.m. Twice a week during the 1985 school year, on Wednesday and Friday afternoons, there had been an educational program for teachers of French broadcast from 2:00 to 3:00 p.m. A half-hour evening program was devoted to rural development, another half-hour to cultural topics,

and, at 6:30 every evening, announcements of all sorts were read over the air – meetings and reunions of all sorts, new policies, even family messages were broadcast.

In a country where everyone speaks the same language, there is obvious potential for educational broadcasting. In the early years of independence a highly ambitious education project, l'Université Radiophonique de Gitarama (URG), had tried to capitalize on that potential. Between 1964 and 1974 this project, supported by German, French, and EEC funding and by the Church, used radio broadcasting in basic education programs for adults and in supporting a network of audiovisual centers for primary education within a 50-kilometer radius of Gitarama.

The URG centers used a panoply of modern devices as teaching aids: slides and slide projectors, tape recorders and cassettes, classrooms with projection screens and room-darkening curtains, and generators to provide electricity for the equipment. In place of textbooks the URG produced stencilled teachers' guides and student worksheets to supplement the slides. It also made use of a movie-bus. Because of the cost of the technical inputs most centers consisted of a single classroom. As a result, the number of students this pilot project served was far too limited for anyone to assume the financial burden, once the outside donors withdrew (Erny 1981:279-283).

A dozen years later, interest in radio teaching seemed low. The reasons given for not doing more were multiple: people should work, not listen to the radio, during daytime hours; there was not enough staff to prepare programs properly; the transmitters were old and would wear out more quickly if used all day long; German assistance to Radio Rwanda was phasing out. In fact, programs for out-of-work rural youth were being planned by a committee composed of members from MINAGRI, MINISAPASO, MIJEUCOOP, ONAPO, and the MRND; presumably the unemployed would not be less productive if they listened to the radio between 2:00 and 3:30 in the afternoon.

Then, in September 1986, radio and television programming in Rwanda became the vehicle for a national AIDS education campaign. The programs, prepared under the auspices of the Rwandan Red Cross in partnership with the Norwegian Red Cross, were considered by international agencies to be the outstanding AIDS education campaign up to that time. The effects of these and future AIDS education programs on public opinion and awareness in Rwanda are being checked through periodic surveys (Panos 1986:27-28).

In sum, the media are slowly finding useful roles as an educational conduit in the Rwandan context. Rwanda's approach to radio education in the mid-1980s appeared to be cautious if not downright ambivalent. Trying to replace ordinary school classroom teaching with audio-visual gadgetry had proved as impractical and extravagant in Rwanda as it has elsewhere. But in this monolingual country, as the AIDS campaign demonstrated, radio and television could be low-cost, powerfully effective educational tools.

The University Extension Service. Despite its name, the University Extension Service in Butare is unrelated to the National University. An adult education program catering mainly to adults who have finished primary and often secondary schooling, it gave evening courses in English, French, Swahili, stenography, and accounting, for a yearly tuition of RwF 2,500 to 3,000 per course. The language courses were offered at three levels: beginning, mid-level, and advanced, each lasting a year. In addition the Extension Service had a lending library. Its 300 subscribers could borrow one book at a time for a one-year fee of RwF 100, or two books at a time for RwF 200, and so on, depending on their wishes and the amount they cared to pay. The Extension Service also had a bookmobile and facilities for taking films and other visual aids out to communal centers for instructional programs, bringing along an electric generator if necessary. In 1986 it showed few signs of expansion. As a model for adult education it appeared more oriented to the 1950s than the 1990s.

On-the-Job Training

In addition to out-of-school courses provided by government or private agencies, another form of non-formal education is in-service or on-the-job training. Some government agencies and private companies provided courses to train their own personnel. MINITRAPE (the Ministry of Public Works and Energy), the Post and Telecommunications Service, and MINIFOP all ran training schools or courses for their own employees. The Meridien Hotel had organized English lessons for some of its staff, and the American Embassy gave courses in English as well. Private courses for salaried and white-collar workers could also be found in Kigali and Butare. In addition to the JOC courses, some of which fell into this category, various types of French language lessons were given at the French Cultural Center, the Belgian Embassy, or by private tutors. Other private lessons and courses were available as well. This study could not cover them all.

Beyond this array of courses and training programs, non-formal, on-the-job training still offered a viable way to learn a trade or a craft. Here as elsewhere, young Rwandans often started out by becoming assistants to someone already working in the trade they wanted to enter, learning the job by practice or observation.

Migration to Kigali was tightly controlled by the government, but once in Kigali young people could find a variety of entry-level jobs. They could become porters (*karani ngufu*), cobblers, tire repairers, car washers, tailors, market sellers, woodworkers, iron workers, bicycle mechanics – the list goes on. No good studies were available to describe how these people learned their trades, but a half-day's inquiries in the Kigali market made it clear that on-the-job training was an important way of learning practical skills in Rwanda.

The sampling included the market tailors, used clothes salesmen, and vegetable sellers. Tailors generally learned to sew either from a relative or by

becoming a tailor's assistant. A few women among their number had learned their trade in school, in a *Section familiale*. Once a young tailor had put enough money aside to invest in a treadle sewing machine – there was no electricity in the market – he or she applied to the "councillor" of the tailors' section of the market for a place in the area. The councillor, elected by the other tailors from among themselves, knew the special skills of each of the tailors working there. If a customer came with a piece of work but without a particular tailor in mind, it was the councillor who would point out which tailors would be good for the job in hand. In the tailors' center there were also two zigzag sewing machines that could do hems. Tailors would run up the seams on their own machines and then apply to the councillor for a turn on the zigzag machines to finish the hemming.

Sellers of used clothing and of fresh vegetables generally started small and built up their trade through observation and experience. Although they did not usually think of it as training, vegetable sellers would reach a point of bulking in their trade when they found it necessary to employ a boy or girl to guard their stock against pilferers during transport and in the market. Then they only had to worry about whether their helper was doing the pilfering.

A survey conducted in Kigali in 1985 among the various member groups of KORA, the Confederation of Kigali Artisans, indicated that they were more inclined to admit apprentices than they were new members. More than two-thirds of the groups, with an average membership of sixteen, had at least one apprentice – for a grand total of sixty-four. According to the last census, however, there were only 128 apprentices for the whole of Kigali in 1978 (Voyer and Maldonado 1986:32-33).

The significance of on-the-job training in the spectrum of educational possibilities in Rwanda is that it is a potential resource for improving the kind of practical skills training being developed in the last years of primary school and the CERAs. Apprenticeships can teach students a craft with the very tools and techniques used by successful tradesmen; acquaint students with the methods of managing and running the kind of business they want, as well as with the whole range of technical skills they need; train small numbers of youngsters in a variety of locally needed trades without having to buy equipment that would only serve for a few years or be used by only a few students; and sometimes lead directly to a paying job. It would require careful investigation and planning to integrate a program of in-service training into a school curriculum, but the benefits might be worth the attempt.

Summary

Continuing education centers at the commune level complemented the school system in several important ways. These centers played a dual role: the temporary role of allowing people to make up for lack of schooling; and the permanent function of retraining people whose earlier education did not give them the skills

they need for work today or tomorrow. Religious organizations also continued to contribute significantly to education in similar ways. The role of radio, small at the time, had potential for future expansion. Correspondence courses were proving a practical mode of delivering instruction for youth and adults. And, beyond all these identifiable institutions, apprenticeships still provided a training ground, largely unstudied, for small-scale artisans and entrepreneurs.

Rwanda was well-endowed with institutions for non-formal education and the training of youth and adults. Even in countries where virtually all of the population goes to school, such continuing education programs are a crucial resource for retooling workers as conditions change in the workplace. These programs can respond quickly to new needs, turning out trained personnel in a matter of months, not years. To do this most effectively, though, they must take in students who already have a solid basic education and can build on it to acquire new skills.

In a country like Rwanda, where not everyone has had access to school, programs and institutions like those described in this chapter are often expected to do more, to fill the educational gaps for the over-school-age population. But particularly in Rwanda's reformed education system, expressly designed to prepare students for productive work, these programs might also supply potential resources or models for the formal school system. Could the CERAI's or the secondary schools use apprenticeships or internships for their students in order to avoid soaring equipment and teacher training costs and to tailor education to work realities? How could it be done? What would the implications be for what must be taught within the schools and what should be reserved for out-of-school training?

P A R T I I I

EDUCATION
IN ITS
SOCIO-ECONOMIC
CONTEXT

Chapter 9

ACCESS TO SCHOOLING IN RWANDA

The description of Rwanda's educational institutions in Part II has touched on several themes – access to education and its usefulness in preparing students for the world of work – without exploring them in depth. This final section proposes to examine those themes more closely. Now that details of the historical and institutional picture have been drawn, it is useful to stand back and look at the whole composition – to ask how Rwanda's attempt at social and economic change through education is working; and to see who can get an education, of what kind and how much, and how useful that education proves to be, both for the individual and for the development of the country.

During the 1970s many African countries undertook to reform their educational systems, eliminating the elitist baggage of inherited colonial schools. Goals of increasing access, equity, and cultural and occupational relevance were widespread throughout Africa, though the way they were realized depended on each country's unique conditions. Rwanda was by no means unique in embarking on educational reform.

Two aspects of Rwanda's reform, however, take on a distinctive character, given the country's particular ethnic composition and the density of its predominantly rural population. The first is its explicit attempt at social engineering, in order to regress earlier Tutsi favoritism in favor of the majority Hutu, embodied in the "national policy" discussed below, that applies to school access and job placement within government and the government-supervised modern sector. The second is its single-minded focus on relating all education to subsequent employment, expressed in the principle: "every educational cycle a terminal cycle." Gauging how fairly and how usefully the schools serve a country's population is harder than describing the structure of a school system. Hardest of all is predicting whether the jobs of the future will mesh with school preparation today. Yet the world over, and in Rwanda certainly, these are crucial issues.

Patterns of access to schooling at the elementary and higher levels mold social classes and social policy, maintaining or changing the shape of a society. This is a dynamic process; to probe it we must look at access to schooling over time. Demographic patterns form the backdrop for this picture, and access to schooling must be understood in relation to composition of a country's population: its age structure, its rate of growth, and the significant ethnic and social groups it comprises. Past history has determined the distribution and levels of schooling in the present national population. Current demand and current policies for allocating places will have consequences for the future.

This chapter will look at access to schooling first in terms of the distribution of education within the total population – by age, sex, geographic distribution, ethnicity, social class, and costs to the poor; and, second, in terms of what educational economists call demand – the entrance criteria for each level embodied in the “national policy,” pressure for places in school, and the social consequences of regulation of access. The fit between school and work will be the topic of Chapter 10.

Distribution of Schooling

The size, growth rate, and age structure of Rwanda's population are major determinants of the projected need for school places and have indirect implications for the relation of schooling to employment. Chapter 1 has described the 3.7 percent growth spurt in recent years in Rwanda's population of over six million, as well as the proportions of Hutu to Tutsi in regional populations, amounting to nearly 90 percent Hutu and 10 percent Tutsi nationwide. Given this population profile, who, in Rwanda, had access to schooling? There are several ways to try to answer this question.

The national census of 1978 has provided information on literacy and on the level of schooling attained by males and females of different ages. These data give a rough notion of the spread of education in the past. Information on the regional distribution of schools and of students and ethnicity of students was also available for the 1970s, prior to the reform, as a base line against which to compare the fairness of regional and ethnic distribution over time. The census and subsequent surveys have also shown what percent of the current school-age population was then in school. The two education ministries recorded male and female enrollments yearly for all levels in the system, and MINEPRISEC kept careful track of geographic distribution and establishment of primary schools, as well as of the regional and ethnic provenance of all post-primary school students.

Drawing on these sources, we will first examine the amount of literacy and levels of schooling attained by the population of Rwanda as a whole, then look at the distribution of schools, the percent of school-age population actually in school, male and female ratios among students, and the costs of schooling to students and their families. Finally we will return to geographic, ethnic, and social class factors that affect access and to the puzzle of equity in the educational system of Rwanda.

Literacy and Incidence of Schooling by Age Groups

Literacy is not only a measure of schooling but a key to sustaining an individual's educational growth. The literacy rate in Rwanda in 1986 was a little under 40 percent. This figure hid a marked difference in the rate for men, about 53 percent, and for women, only a third of whom were literate. Compared with other

countries in Africa, Rwanda fell in a middle range – not an impressive showing for this linguistically unified country where the problems of teaching literacy are far simpler than in all but a very few nations of Africa.¹ As indicated in Chapter 8, Rwanda's literacy program was providing classes for adult illiterates, particularly women, through the CCDFP centers but was operating on a minimal budget under the aegis of MININTER, the Ministry of the Interior, not under MINEPRISEC. In 1986 literacy programs per se ranked low among educational priorities. Older literates who had not gone to school may well have learned to read through catechism classes or other basic religious training.

Figure 9 shows the proportion of males and females in the total population, by age groups who were illiterate, literate outside of school, or who had had a primary or secondary education at the time of the census in 1978 (Présidence, 1978, VI:102). It is hardly surprising that younger age groups had had increased access to school. Slightly over half the men 40 years or younger, however, had had at least some schooling, while it was only among women 20 years and younger that half had been to school.

Although these figures do not record literacy or schooling by ethnic group for recent years, at the time of independence there were marked disparities between Tutsi and Hutu. Among the Tutsi of Butare 46 percent had had more than five years of education; a mere 17 percent were illiterate. For the Hutu, 56 percent could not read and only 13 percent had completed five years of school (D'Hertefeldt 1965).

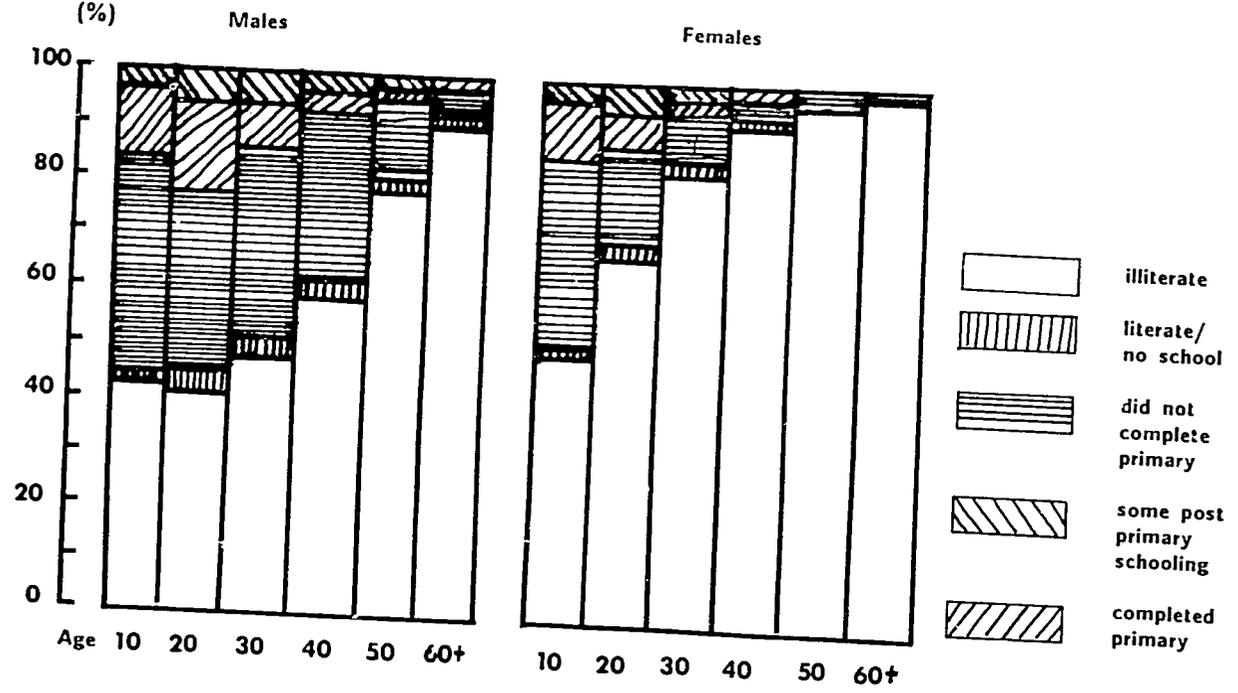
Distribution of School Facilities

At the primary level the number and placement of schools were the main determining factor in regional balance. In 1986 MINEPRISEC maps of primary school and CERAI locations mirrored population distribution maps to a remarkable degree. It was not possible, within the compass of this study, to check their accuracy for unrecorded or unused schools, or to see whether, in relatively sparsely settled regions, the schools were in reach of the majority of the school-age children. Differences by prefecture in the percentage of school-age children in school ranged between 50 and 65 percent with no clearly discernable pattern. Nevertheless, on the whole, the Ministry was clearly aiming for a high degree of regional equity and appeared to be achieving it.

Since the CERAI's tended to be new institutions, their establishment was being carefully planned to serve the entire country evenly. The policy of establishing at least two CERAI's per commune should assure a relatively equitable geographic distribution of those facilities.

¹Figures from Government of Rwanda census updates for 1985. The World Bank (1988) gives a somewhat higher figure for 1985: 46.6 percent literacy for the adult population. In any case, Rwanda is not far from the median for Africa of 41.8 nor for that of other low-income, non-arid countries of 40.7, according to the World Bank source.

Figure 9
 DISTRIBUTION OF THE POPULATION OF RWANDA ACCORDING TO SEX AND
 THE LEVEL OF EDUCATION IN EACH TEN-YEAR AGE GROUP (1978)



Source: Recensement 1984.

With the secondary schools, the picture was quite different. As Table 3 has shown, they clustered around Butare and Gitarama in the south, Kigali, and the Gisenyi-Kibuye area on the shores of Lake Kivu. As long as these remained primarily boarding schools, the actual location of the institutions had little bearing on regional or urban/rural access. But should some of them be converted partly or fully to day schools in the future, their location would enhance opportunities for urban children at the expense of those in the hills.

Chapter 6 has discussed the official policy of creating two campuses for one small university in a country in which no border is more than half a day's road trip away. The justification offered for this was that the university facilities would be regionally distributed in an equitable manner.

Percent of Population in School

Schooled adults can be said to represent the current stock of human capital, school children the resources of the future. As Chapters 3 and 4 have indicated, the percentage rise in enrollments in the early 1980s, at best, merely kept pace with population growth.

Figure 5 in Chapter 4 shows the educational pyramid for the school year 1984-1985. Although over 68 percent of the seven-year-olds in the country were enrolled in the first year of school, the sides of the pyramid were steep. About one-quarter of the school entrants were making it to the eighth grade. Beyond that point the pyramid rapidly became a spire. It should be noted that the fourth year of secondary school on Figure 5 represents the first "reformed" class to reach secondary school. The class above was abnormally small because primary school students were held back that year for the two-year terminal cycle. Thus it appears that secondary school enrollments may have been growing slightly, with CERA1 enrollments adding at least twice as many more students in school in the first three post-primary years, but the pattern was still one that created an educated elite. Getting to the university still meant passing through the eye of the needle.

Male/Female Student Ratios

Figure 5 also indicates enrollments for males and females at each level of the school system. At the primary school level, girls' enrollments nearly equalled those of the boys. Girls constituted nearly 49 percent of the school population at the primary level. The proportion dropped rapidly at the secondary school level, however. Only one-third of the students enrolled in the public and officially recognized private secondary schools were girls, a proportion typical of Africa as a whole and of African countries in Rwanda's economic bracket as well. At the university level, the percent of women students had risen slightly, from about 10 percent throughout the decade of the 1970s to 12 percent in 1981-82, 14 percent the

following year, 17 percent in the years 1983-84 and 1984-85, dipping slightly to 15 percent in 1985-86 (MINESUPRES). This is somewhat low for Africa; on average about one-fifth of university students are women (World Bank 1988, 128).

In the CERAI enrollments of boys and girls were very close to half and half, the females slightly under and the males a shade above. This actually represented a change in proportion in favor of the males because before the reform there were more *Sections familiales* than there were CERARs. Since enrollments in both expanded considerably after the educational reform established the CERAI, the change may not be significant. A hidden bias in CERAI education for males and females was that the tracks for males were geared toward preparing them for income-generating trades, while most girls' tracks still reflected the image of women as skilled homemakers. But, as Chapter 4 has argued, the aspirations of female students, like those of their male classmates, were to earn cash incomes in jobs outside the home.

At the secondary level, the issue of sexual balance had not been resolved by the mid-1980s, even though the MRND, the state political party, had identified such a balance as an important criterion; either more girls' schools would have to be created or some boys' schools would have to become mixed to achieve a true balance.

Increasing female access to school in Rwanda was important not only for reasons of equity but because, as in many other countries, educated women limited their families more than their unschooled sisters. A document outlining the main directions of the Fourth Five Year Plan stated explicitly that increased access to schooling and improved status had to be accorded to women as part of the strategy for limiting population growth (MINIPLAN 1986:14). MINEPRISEC's policies, though, which determined actual enrollments, appeared to take the form of relatively benign affirmative action rather than enforcing quotas when it came to female enrollments. This may have been due, in part, to the higher dropout rate of girls by the end of primary school, leaving fewer to compete for places higher up. In any case, being female did not guarantee placement in secondary school or at the university.

School Fees and Other Costs to Parents

The cost of schooling introduces bias in favor of better-off families and against the very poor. School costs influence parents' decisions about whether to send their children to school and how long to keep them there. In principle, primary school in Rwanda was free, but in fact parents had to pay a RwF 100 fee for a school uniform as well as purchasing a slate or copybooks, which cost between RwF 10 and 50 apiece. If schoolbooks are sold, rather than lent, this would raise the cost of primary schooling even more. Although these costs may not seem high, in a country with an average income of \$280 per capita, for parents in rural areas with large families the total cost of school for their children per year could

prove exorbitant and the benefit uncertain, particularly when balanced against the usefulness of the child's labor to help support the family.

CERAI fees were Rwf 1,500 per year. Parents were often asked to pay an extra fee for materials, tools, or upkeep of the school if the director was strapped for funds. Many families were beginning to ask themselves if the education provided for their children was worth the cost. Public secondary schools charged a yearly fee of Rwf 7,200. Although this could be very steep for rural families, the economic benefits of a secondary school education to the student and family were clear – and chances of a poor family having several children in secondary school at once were not high. If a child managed to get a place in a public school, even poor parents tried, and often managed, to scrape together the fee by borrowing or getting help from family, community, or friends. For the fortunate few who were admitted to university, education was free.

Some private secondary schools cost less than the public schools, particularly day schools or those that received help from a church. Private universities, on the other hand, were extremely expensive for students without government scholarships. Tuition at the Adventist University was Rwf 100,000 in cash, plus student labor worth Rwf 20,000, putting the fees out of reach of all but a wealthy few. Tuition at St. Fidèle was 50 percent higher yet. The Adventist university did accept some scholarship students, and the Rwandan government had provided several scholarships to St. Fidèle.

School costs were undoubtedly a screening factor, making schooling more accessible and attractive for better-off families with some cash income, but they did not appear to be a major barrier. More likely, they were just high enough, particularly in the primary system, to make parents think twice about the pay-off and, sometimes, to decide that their money and their children's time might be more profitably spent elsewhere. Far more significant in controlling access to the coveted places in secondary school and beyond was the "national policy."

The "National Policy": Regional and Ethnic Balance

An explicit policy of equitable access to schooling like Rwanda's "national policy" begins by recognizing social variables – regional, urban/rural, ethnic, or socioeconomic origins and sex – that affect access to the schools and then compensates, if need be, for unequal access. Measures of success use these variables as a yardstick. Rwanda's policy was remarkable for using ethnic, rural/urban, and regional origins of students as the basis of an elaborate quota system for admission to schooling beyond the primary level. It did not record indicators of emerging socioeconomic class distinctions, nor attempt to add them to the equation for access. The questions are whether such a quota system can achieve true equity and whether this system takes all relevant social factors into account. To answer these questions, we must look first at how the policy was formulated, then at how and where it was applied.

Because procedures for assigning students to school places in Rwanda deliberately emphasized regional and ethnic balance, some outside consultants analyzing Rwanda's educational system in recent years have noted with approval that access to schooling appears unusually equitable and have tended to dismiss it as not problematic (e.g. Danière and Meyer 1981, Le Thanh Khoi 1985). On the contrary, the "national policy" was a vital issue at the time of this study. It was a primary tenet of government policy, an important form of social engineering. MINEPRISEC had just published a bulky two-volume justification of the national policy (MINEPRISEC 1986a, 1986b), teachers and educators commented on it, and parents concerned with their children's chances discussed strategies to deal with it.

At the primary level, virtually the only method for assuring equitable access was MINEPRISEC's attempt to control school implantation, supporting new schools in underserved regions and rural areas but limiting the number of schools in urban areas and better supplied areas. No records were kept of the ethnic identity of students or the proportion of Tutsi to Hutu in either primary schools or CERAI's.

At the secondary and university levels, the national policy strictly regulated access to assure regional and ethnic balance. The Fourth Congress of the MRND established five specific selection criteria used for determining secondary school admissions, as follows:

- school records and national examination scores, to which all other elements are subordinated;
- ethnic equilibrium, based on quotas established on the basis of the proportion of each ethnic group's representation in the entire population of the country;
- a regional balance that *corrects the accumulated disequilibrium of opportunities for schooling in certain regions to the detriment of others* and permits equitable distribution of admissions to secondary school in all prefectures;
- sexual balance, based on demographic distribution of males and females; and
- *the rectification of anomalies by a correction of 5 percent of school places reserved for distribution by the Ministry* (MINEPRISEC 1986b:88; translation by the author, italics added).

Judging from comments of Rwandan educators, both policy-makers and receiving teachers, and parents, it was by no means clear that school records and examination scores did override other considerations.

Table 7 shows how MINEPRISEC calculated ethnic disparities in secondary school enrollments from 1960 to 1986. According to the official policy statement, the criteria of regional and ethnic balance applied not just to the entering class but to the entire population of educated people (MINEPRISEC,

1986b:87-94). To redress the imbalances created by educational policies dating back to the colonial era, quotas for entering students tilted slightly in favor of formerly disadvantaged regions at the expense of those located near the seat of the Mwami's court. In practice, this meant concentrating on the north, particularly around Gisenyi and Ruhengeri, areas that were once the seat of independent Hutu kingdoms and not reliably within the sphere of Belgian/Tutsi influence. Gisenyi also happens to be the homeland of President Habyarimana. The areas around Butare, Gikongoro, and Gitarama were those discriminated against under the policy.

Table 7

**ETHNIC DISPARITIES IN SECONDARY SCHOOL ADMISSIONS
FROM 1960 TO 1985, EXPRESSED IN PERCENT***

	Accumulated % Disparity 1960-1980	81/82	82/83	83/84	84/85	85/86	Accumulated % 1960-85
Hutu	-78.6	-2.6	-2.4	+1.5	+1.5	+3.1	-77.5
Tutsi	+76.3	+2.7	+2.6	-1.3	-1.3	-2.7	+76.3
Twa	-9.94	-0.1	-0.2	-0.2	-0.2	-0.4	-11.04
Others	+12.4						+12.24

**The coefficients for weighting the population by ethnicity have been calculated for the 1980-1985 period on the basis of demographic data collected in the general census of 1978.

Source: MINEPRISEC, 1986b:67.

At the time of study, the national policy was not applied to primary schools and CERAI's because problems of equity and access were not major issues at the primary level. Within the primary system, including the CERAI's, places were generally not scarce with respect to demand. Enough had been available to accommodate any boy or girl interested enough to come to school and able to keep abreast. Balancing the proportions of Hutu and Tutsi students was not an issue, since all applicants were accepted. A few well-established and reputable CERAI's had waiting lists; apparently they accepted students on a first-come, first-served basis.

The dropout and attrition rates discussed in Chapter 7 and shown in Table 6 do not appear to result from deliberately winnowing students in the primary grades. The main constraints to access at this level were whether there was a school within walking distance of a child's home, the quality of the educa-

tion offered, and whether rural families saw school as worthwhile. These issues have already been discussed at some length in that chapter.

The primary school leaving examination marked a watershed in a student's school career. Access to secondary school was drastically restricted, as it had always been – far more limited than the demand for places. At this level, the "national policy" strictly allocated school places in proportion to population distribution on a regional and ethnic basis. In many countries it might be relevant to scrutinize the entrance examination for bias; in Rwanda in 1986 the examination was only one of several screens and not necessarily the most important. Matching applicants' preferences to the secondary school tracks was a further consideration, sometimes honored in the breach. Secondary school location was not an important issue, for virtually all government-supported schools were boarding schools. When secondary school placements were made according to this system, students with the highest examination grades were by no means guaranteed places. Indeed, teachers grumbled, the most able students were sometimes weeded out.

A similar process occurred at the end of secondary school. MINEPRISEC prepared both primary and secondary school leaving examinations and controlled the selection of both secondary and university students, applying the same criteria.

Access to school was probably biased toward the urban population at both primary and secondary levels, particularly the latter, more than the statistics would indicate. Even though there were fewer schools per thousand school-age children in urban areas, primary schools were more accessible to a large part of the population in towns than they were in the hills, simply because schools and people were located closer together. Over two-thirds of urban children went to school for at least the first three years, and more of them stayed in school longer than their country age-mates.

At the secondary level, urban/rural disparities were partly hidden by the practice of urban parents' registering their offspring in their own prefecture of origin, thereby increasing their chances of getting into secondary school under regional quotas. As a result, some of the better students awarded secondary school slots for outlying regions were children who, in fact, were born and educated in towns like Kigali or Butare. These hidden biases probably also favored the children of mid- and high-level bureaucrats from the higher socioeconomic strata, who knew how to deal with the quota system.

As one Rwandan educator noted, there may also have been some regional or urban bias in the upper grades of secondary school simply because children from areas like Butare that traditionally had a better developed primary school system did not flunk out, while children from areas less well served were more likely to do so (Ndengejeho, personal communication).

It is extremely difficult for an outsider to judge this strict quota system fairly. It intentionally discriminates against groups of people who have the high-

est expectations for the education of their sons and daughters – people from areas that had the highest standards of education during the colonial era generally, and Tutsi in particular. It can be faulted for wasting intellectual potential because it can easily promote mediocre students over the best and brightest. In private a range of people voiced different complaints about it. Teachers claimed that poorer students got places denied the brightest ones in secondary schools or at the university. Tutsi objected to being pushed aside. Hutu accused Tutsi of managing somehow to get reclassified as Hutu.² Bureaucrats in Kigali and professors in Butare sometimes registered their children in the provinces their families came from to get them into school under those quotas.

Finally, as Erny has noted, the criteria for access, regional and ethnic, were not socioeconomic. None of the information gathered by MINEPRISEC revealed the socioeconomic position of the families of secondary school students or university entrants, and the new "leading class" had more chance of working the system to its advantage than had the peasant family of a bright country child (Erny 1981:510ff). Still, the political rationale for the quota system, given the historical circumstances, was compelling and could not be dismissed.

For educators, certain assumptions underlie the concern for equitable access to educational opportunity. Most basic is that, by recognizing and developing children's physical and intellectual capacities and aptitudes, education serves to prepare young people for useful economic and social roles. In other words, prospective students should be admitted and placed according to their capabilities, as best they can be judged, rather than by other criteria. Ideally, to develop the full human potential, the human resources of a given population, a system should draw on the innate abilities of everyone, rich and poor, urban and rural, favored or struggling.

The question we must ask of Rwanda's rigorous prescription for equity in its schools is: will it prepare the nation's human resources to reach their full potential in dealing with the social and economic tasks ahead?

²This may, for instance, be possible for "Tutsi" of mixed parentage.

Chapter 10

EDUCATION, EMPLOYMENT, AND ECONOMIC GROWTH

In the span of two generations, the global economic race, coupled with demographic expansion, has radically altered the kinds of work and workers African nations and populations must plan to have. Under the circumstances, the education system in a country like Rwanda has an obvious role to play in preparing today's and tomorrow's labor force.

It takes time to train the young for productive adult life, yet the currents and eddies of the world economy that interrupt or alter the course of African nations' economies can appear suddenly in the flow of development. How can an educational system respond to these uncertainties?

Because of its limited agricultural and natural resource base on the one hand and growing population on the other, the government of Rwanda needs to develop a modern work force. Over time, a trained population may well be the nation's most valuable resource. But who should be trained for what? Government educational planning has focused on three primary economic goals: first, that the peasantry should become enlightened farmers, remaining in their home areas; second, that schools should produce artisans needed locally in the countryside; and third, that the system must also train mid-level modern technicians, teachers, and managers. To these objectives, some outside observers add: that the country should also become self-sufficient in training the professionals, administrators, researchers and scholars it needs to develop appropriately and to run as a modern nation; and that the trained work force should be employable either at home or abroad.

One aim can be to train people to be productive in their home environment. That is the stated aim of the Rwandan government. But education, unlike agricultural development, can look farther afield, can prepare people to move, to exploit opportunities elsewhere if local resources are limited. For Rwanda the issue is which of these goals are desirable and achievable.

As we have already seen, a major thrust of Rwanda's educational reform has been preparing students for the world of work. Its planners have proclaimed "every cycle a terminal cycle" in the sense that each is supposed to prepare its graduates for appropriate employment. The specific objectives are:

- primary students are to become literate, numerate farmers who will return to cultivate their own fields and maintain their own houses and farms in their home area;
- CERAI graduates are expected to become either modern farmers or local artisans in their place of origin;

- the secondary schools have been reoriented to produce technically skilled mid-level professionals to fill slots in Rwanda's still small modern sector; and
- the university is expected to produce the intellectual and professional leaders for Rwanda.

Are these aims appropriate to Rwanda's present and future circumstances? Are school graduates actually learning the skills that they need? Are the numbers of graduates in each of these categories well matched to Rwanda's work force requirements? These are the questions that must be addressed in determining whether Rwanda's school system can meet its employment goals.

Each question can be posed in two ways:

- Are the schools responding to long-range human resource needs; and
- Are the present graduates and school-leavers emerging adequately trained to find productive work in Rwanda today?

Meeting future needs may be the more solid goal over the long run, but it is also far harder to gauge. The fate of today's students immediately affects the attitude and commitment of children, parents, and communities toward the schools. This chapter will first consider the usefulness of reformed programs in the schools in long-range perspective, then review the outlook for students finishing their schooling at the time of study.

Education and Economic Progress

Over the last decade donor agencies and development planners have argued that educational development is a good investment for promoting economic growth. Using comparative international data, educational economists have explored the linkages between education, human resource development, and economic advancement.

Turning to the specific case of Rwanda, we must ask to what extent it is following the dictates of presently accepted expert wisdom and, more broadly, whether conclusions drawn from global analyses fit the particular circumstances in which Rwanda finds itself. To do this, we must briefly review methods of analyzing the economic value of education, their assumptions and conclusions, and then see how they are applied in Rwanda.

Several ways of calculating the links between educational and economic development are in general use. For example, **cost-benefit analyses** balance educational costs, direct and indirect, against increased earnings of graduates to compute the rate of return to educational investment for society as a whole or for individuals, they have implications for how much and at what level to spend resources on the educational system and for the type of financing appropriate for each level. **Manpower needs assessments** rely on employment forecasting and have implications for the type of training that should be offered. **Analyses of**

social and private demand for education expand the cost-benefit equation to include consideration of demographic, political, and socio-economic factors. These factors create pressure for schooling at various levels and so have implications for the number of school places needed at each level within the various educational institutions.¹

Each type of analysis presupposes that certain types of data can be obtained with some reliability. Each type of analysis also underlies certain aspects of Rwanda's educational planning for the future employment and productivity of graduates. This study, a social analysis of education in Rwanda, does not pretend to undertake an economic analysis of that system. But to evaluate the probable effectiveness of educational planning for building Rwanda's economy, we need to examine analytic assumptions, on the one hand, and their repercussions in the school system, on the other.

Cost-benefit Analysis

Cost-benefit analyses, commonly used in weighing the relative merits of alternative economic development activities, are less straightforward in the field of education than in more "purely economic" ventures. Factors that enter into the computation of costs include government education budgets, direct and indirect costs to local communities and families, and the value of wages or labor foregone while a student is in school. Aside from government budget figures, the rest of these often are hard to assess with much precision.

Benefits are usually defined as the increase in lifetime earnings that educated persons can expect over what they would have earned, had they not gone to school. For want of a crystal ball, these are frequently calculated on the basis of current wage scales for workers with various levels of schooling at the different stages of their careers. In agricultural areas, benefits often include some measure of the increased productivity of farmers who have gone to school.

Despite some imprecision due to working with estimates, cost-benefit analyses are useful for indicating where investments will yield the best economic returns. Economists have generally concluded that the greatest increment in national income per government expenditure comes from investment in the primary school system. For individuals, on the other hand, the greatest advance in personal income comes from finishing secondary school. The reason that investment in secondary schools may prove less worthwhile for a nation as a whole is that costs per student at that level are much higher than at the primary level and counterbalance the increased earnings of the graduates.²

¹ For detailed discussion of these three types of analysis, see Psacharopoulos and Woodhall 1985, especially Chs. 3.5

² For further discussion of issues concerning cost-benefit analysis in education and the returns to primary education, see Coleclough 1980, Coombs 1985 (esp. Chapter 6), and Psacharopoulos and Woodhall 1985.

In general, two conclusions have been drawn from these analyses. First is that, when funds are limited, investing in the primary schools should get highest priority. Next, since the students and their families stand to reap the main benefits at the secondary level, they should be asked to shoulder more of those costs. So private investment in secondary and higher education should be encouraged (World Bank 1988: 22, 61). Rwanda's educational planners have clearly heeded these messages. With nearly 70 percent of the education budget pouring into the primary system and strong government pressure to persuade private groups or communities to build and maintain their own secondary schools, even post-secondary technical schools or universities, the issue is only whether these policies are appropriate in this country at its current stage of development.

An economic analysis confuting or supporting this strategy is outside the scope of this study – and the competence of the author – but there are drawbacks to applying these policies uncritically to the Rwandan context. First of all, Rwanda already has a very bottom-heavy school system, a situation that stretches far back into its Belgian colonial history. Further wholesale investment in primary education cannot bring the same increased returns per graduate in a country that has already concentrated its resources at this level for roughly fifty years. Findings from a case study of rates of return to primary and secondary education in Kenya suggest that the balance is shifting there too, as the number of primary school graduates grows, forcing recent completers into less remunerative jobs (World Bank 1988: 23).

Second, as the previous chapter has pointed out, increasing the proportion of secondary education that is privately funded without increasing access to public secondary schools risks perpetuating, even increasing social inequality. Admittedly, the public secondary boarding schools in operation in 1986 were over-expensive per student, but pushing the burden off onto parents who can afford to pay their children's schooling is not the only solution. To an outside observer, one alternative that springs to mind is establishing public day-schools, particularly in populous areas. In Rwanda, however, this may not be immediately practicable, since some politically important interested groups – missionaries, some of the current intelligentsia, possibly the political elite – tend to oppose the unbridled expansion of secondary schools on moral, intellectual, and socio-economic grounds.

Still, in 1986, the main pool of "educated unemployed" in Rwanda consisted not of secondary school leavers or graduates, as it does in some other parts of Africa, but of primary school (and CERAI) graduates – most of them living in rural areas without land of their own to cultivate, since their parents' small farms could not be further fragmented.³ The situation of secondary school graduates was by no means so difficult. The employment picture for these last could

³At the time of study, 57 percent of the households farmed one hectare or less; for this group the average farm size was a mere .53 hectares (Gow et al. 1986, II:3).

change, of course; prospects for the rural primary school graduates, though, seemed likely only to worsen over the next few years. Under the circumstances, continuing to concentrate investment in the primary school system, at the expense of higher levels, seems unlikely to yield the promised benefits to society.

Manpower Analysis

Manpower analysis approaches educational planning issues from quite a different angle. Underlying this approach is the assumption that, through training the right numbers of semi-skilled or skilled workers, technicians, and professionals with the right mix of skills for a nation's present and future work force needs, educational investments yield the returns noted in cost-benefit analyses. It follows that a first step would be to ascertain human resource needs; then educational programs could be designed to meet them. This sounds very much like the strategy suggested by Hainault's program on which the secondary education curriculum bureau, the BPES, was basing its activity.

There are two main problems in applying this approach. The first is that assessing work force composition and needs is often difficult, even over a short time span and in countries with good baseline data and surveys. It is harder in developing countries without good censuses or data bases, economically at the mercy of global economic trends. It is even less certain when projections must be made over ten years or more, the minimum time period needed to put educational machinery in motion in the formal school system and to produce trained graduates. Various strategies come into play to cope with these obstacles: tallying presently empty or projected positions in the public sector; calculating health and other service needs from population growth projections; sample surveys of established businesses; or formulating comprehensive, government-controlled economic development plans.

The second, closely related problem is that, since the human resource approach to educational planning usually assumes an orderly internal development without perturbations from outside, the resulting plans for formal education often lack flexibility to deal with change. They are not usually adapted to dealing with the unforeseen impact of new technologies, like the microelectronic revolution, or global or local crises – world market shifts, collapses, or scarcities; drought, famine, or disease. At the very least, building an educational plan that meets human resource needs under conditions of uncertainty means providing a more general training through the school system, then relying on short in-service or pre-service courses to fill quotas for engineers, agricultural specialists, teachers, managers, and the like, in response to immediate or short-term needs.

Rwanda's educational reform, with its emphasis on training for employment through the formal school system, responded to assumptions about the country's human resource needs that were implicit at some levels, explicit at others. As they operated in 1986, primary and post-primary CERAI school

programs assumed that non-urban areas within the country would continue to absorb all local youth as schooled, semi-skilled farmers and artisans. Agricultural experts generally concurred that the agricultural areas still held some potential for increased productivity through a mixture of regional specialization, increased marketing, improved plant varieties, and improved fertilization and field management (cf. Gow et al. 1986, II). But even the most optimistic estimates did not suggest that extra labor was needed or, indeed, could be absorbed in the type of small-scale subsistence agriculture taught in the primary school system. Justification for the heavy dose of agricultural training in the seventh and eighth grades and the CERAI appeared weak.

CERAI were intended to respond to human resource needs in more nuanced fashion, but in 1986 the results were disappointing. These post-primary rural polytechnic schools were supposed to train local youth to become the farmers, artisans, craftspeople, and small-scale business owners in their home areas. Looking at the strategy adopted for CERAI programming and the problems it engendered reveals some pitfalls worth watching.

In designing programs for the CERAI, educational planners recognized, first, that different localities would need different types and numbers of tradespeople. Second, they knew that they lacked the resources to assess the job markets throughout the country. Their solution, which had some merit, was to pass the decision along to the communities served by the schools, and to supply the menu of course options discussed in Chapter 4 for communities to choose from.

Three basic flaws to this solution were becoming apparent by 1986. For one, each community was also being asked to help pay the costs of equipping its CERAI for the tracks it chose, a consideration that virtually doomed expensive tracks like welding, plumbing, or electrical repair to oblivion, no matter how useful they might be. For another, communities had had no experience in making manpower assessments or forecasts. Consequently the local councils often made choices based on the usefulness and success of their present complement of craftsmen (typically carpenters and masons), not stopping to reflect on the consequences of swelling the ranks of those trades. Finally, government policies restricting the movements of new graduates did not help to disperse growing pools of youth with similar training out of areas that could support only one or two. While these flaws were not insurmountable, they undoubtedly contributed to low morale among students and their families.

The secondary school programs confronted human resource requirements in a much more explicit, academic, and self-conscious manner. In consultation with MINIFOP and other sources, the BPES personnel had attempted to suggest the types of training tracks that secondary schools should provide, listing the skills required, and estimating numbers. The resulting curricula made tacit allowance for some highly regarded pre-existing secondary school programs, like the humanities and science tracks of the *petits séminaires*. Aside from that,

however, they focused narrowly on training veterinarians, for example, in the science of animal care, forestry experts in botany and related sciences, medical assistants for work in clinics. The core courses formerly taught in the first three years of secondary school were either integrated into the technically oriented tracks throughout the six-year programs or dropped. A secondary school graduate emerging from such a program to find his or her profession already fully staffed would be less adaptable or retrainable than one with a more general education.

Though vocational and technical education was much touted in the decade of the 1970s, in recent years many education experts have concluded that forcing the formal school system to carry the main burden of vocational preparation is a mistake. Other institutions – pre-service training courses, apprenticeships and in-service training, or extension services – are more suitable for meeting immediate work force needs and more adaptable as conditions change in the workplace (cf. Coombs 1985, Hershbach 1985, Psacharopoulos and Woodhall 1985, World Bank 1980). In this respect Rwanda in 1986 was still pursuing an outdated policy in its secondary school programs. Some of the MINEPRISEC staff, too, felt that the reform had pushed too far in the direction of strict vocational tracking, but altering policy had political implications and could not be undertaken lightly.

On the other hand, as detailed in Chapter 8, some alternative institutions better adapted to providing young graduates or out-of-school youth with short-term work skills training had already made an appearance in Rwanda – public community centers and private, mission-sponsored, or commercial programs. Some of these were seen as being in competition with the CERAI's. To an observer in 1986, the whole set of formal and non-formal institutions comprising the education system had not yet found its final form and settled into complementary roles; its amorphous aspect was particularly evident when it came to training Rwanda's work force.

Social and Private Demand

Analysis of social and private demand for education examines characteristics of the present and future school population: the rate of population growth, particularly as it affects the school-age cohort; popular demand for school places; proportions of boys and girls in school; regional disparities in access; and social groups, ethnic and socioeconomic, with their varying expectations for schooling and capacities to bear the costs of it. This last type of analysis looks at the costs of putting anticipated numbers of students through school, the benefits that will accrue to different social groups, and the impacts, economic and otherwise, on society at large. It is also the most political of economic analyses.

At the time of this study, social and private demand for education in Rwanda might be characterized as forces wrestling with the school system, rather than as a basis for school recruitment. Some factors that often enter into social

and private demand were not particularly problematic in the Rwandan case. Gender and regional differences in access to schooling, although they existed, were neither dramatic nor pressing. The difficult factors to deal with were the population growth rate, popular demand, and the tangled knot of ethnicity, social class, and schooling expectations.

Official policy concerning the primary system, including CERAs, was somewhat at odds with both the population picture and with popular demand, which offset each other. At the time of the 1979 reform, the announced goal was universal primary education. But, up to the mid-1980s, popular scepticism about the usefulness of primary education had dampened demand for places in primary school, and educational planners, bowing to reality, were willing enough to build only what was wanted at the time. At all events, in 1986, students were not being turned away from primary school if they cared to enroll. Should demand for places build much beyond the 50 to 60 percent of the school age population seeking entrance, it is hard to see where Rwanda could turn to pay the costs.

Access to secondary school places, discussed in the last chapter, was a different story. Popular demand far outstripped the number of places the government was able or willing to make available. Ethnic labels had become a veil covering two contesting social classes that were battering at the doors of the public secondary schools – and the university, at one remove. The first was the old Tutsi administrators, educated families who expected the same opportunities for their children that they had enjoyed but who were being much frustrated in seeking them. The second was the new urban Hutu elite, equally keen on secondary and higher education for their sons and daughters. They were somewhat more successful in bending the system to suit them, since regional quotas were the main hurdle they faced, but a hurdle that could be circumvented.

Would pressures from these higher socio-economic groups to find secondary school places squeeze out poorer, rural students? Rwandan planners were willing to meet this private demand for school places by allowing private investment in secondary schools – a strategy that placed most of the financial burden on those who stood most to benefit. But over the long run such a tactic was also likely to benefit those who could pay and so to increase socio-economic disparities in Rwandan society.

The conclusion to which these observations point is that continuing the high level of spending on primary education rather than shifting resources toward expanding access to some form of secondary education will continue to constrain equity and will not optimize economic returns to education. This does not match general World Bank prescriptions for African education, but Rwanda furnishes an example of a case that diverges radically in this respect from the typical African pattern. While, on the average, African countries spend between 12 and 15 percent of their total government budget on education, Rwanda was spending between 20 and 25 percent. Moreover, although the average proportion of the education budget allocated to primary education in Africa was well under

half (a weighted mean of 41 percent for Africa as a whole and of 48 percent for other countries in Rwanda's economic bracket in 1983), Rwanda had far and away the most bottom-heavy pattern, spending 74 percent of the education budget on primary schooling (World Bank 1988: 140).

The Outlook for Graduates

Another way to examine the fit between education and employment is to look at what is happening to today's graduates. A comparison of the education pyramid with the job market is telling. The problem of matching education with jobs becomes not so much one of providing the right skills but of providing the right numbers and institutions to employ them. If one objective is not to raise expectations beyond the absorptive capacity of the job market, the emphasis on giving all Rwandans access to education but only at the primary level is certainly keeping the numbers of higher level graduates low enough for the country to absorb. But the pendulum has swung too far in that direction: the results no longer correspond with the country's present work force needs. Let us turn to a review of the employment picture for graduates of the primary schools, CERAI, secondary schools, and university.

Primary schools, CERAI, and agricultural education. At the primary and CERAI levels particularly, government planners have assumed that a large proportion of the students would return to their family lands to become farmers. In evaluating this assumption, we must ask two questions: Did those students actually become farmers, or something else, and was the agricultural training they got suited to their needs?

In 1986 there were no studies available showing what became of eighth-grade graduates who did not continue on in the CERAI. An indirect indication came from a recent survey of JOC members in Kigali. Of the 752 recorded responses to a question concerning their level of schooling, one quarter were illiterate and unschooled. One third of the others, whose schooling ranged from one year of primary school to six years of post-primary education, had had exactly six years of primary school, the full amount under the old system. Clearly the end of primary school marked the right time for some young people to move away from home into unskilled or semi-skilled trades. The JOC survey, however, accounts for only a minute proportion of primary school graduates, a proportion kept small by restrictive internal migration policies. At most it hints at the popular norm for what should happen, not what has happened, to primary school completers. Many undoubtedly were swelling the ranks of youth, a few farming, others unemployed, in the countryside.

In the mid-1980s, the situation for CERAI graduates was still unclear but not encouraging. Graduates of the few pre-reform CERARs had good employment opportunities, and many of them still were doing well. Although the scope

of rural and artisanal training had changed from pilot project to nation-wide, in some of the long-established schools the teaching quality had not. As the system expanded, though, it was beginning to turn out too many similar artisans too poorly trained to find work. The problem was further complicated by the fact that CCDFPs and CFJs offered a very similar type of training, though they did not require the same school background of their trainees.

Because the grade schools and CERAI were supposed to produce a rural work force, agriculture figured prominently in the educational curriculum, particularly in the last two years of primary school and throughout the three years of CERAI. Beyond these levels, there were four secondary schools that prepared agricultural technicians – three for boys at Kabutare, Nyamishaba, and Kibisabo, and one for girls at Nyagahanga. At the university the Faculty of Agriculture trained professionals for research and teaching.

How well did the teaching of agriculture in Rwanda fit the country's agricultural conditions and its manpower needs?

In a purely technical sense, the agricultural curricula in the primary schools and the CERAI were as well-suited to Rwanda as current research permitted. The staff responsible for the curriculum at both the BPERAI and the BPES were agricultural specialists themselves, and they worked hand in hand with ISAR, the Rwandan Institute for Agronomic Sciences, the major institution responsible for agricultural research in the country.

Translating a scientifically sound curriculum into effective teaching posed two types of pedagogical problems, though, which the curriculum developers were less well equipped to meet. First is the issue of adapting a "national" curriculum to local agricultural conditions. Agricultural teaching cannot be standardized for an entire country, even one as small as Rwanda. Soil conditions, climate, and the crop mix vary from region to region and from hilltop to valley. Someone, somewhere along the line, must adapt the teaching materials to the local area in which each school is located. Either the teachers must be trained to do this, or the materials they receive should force the choices upon them. The decision in the curriculum bureaus was to prepare a general, comprehensive teacher's manual and to leave it to others to guide teachers in its use.

The teachers' manuals presented a series of lessons clearly, with easy-to-follow illustrations: constructing a seed-bed, raising small livestock, cultivation techniques for various crops. Many ill-trained teachers tried to cover the entire syllabus. There was no preface or teacher's guide, however, to suggest that instructors might wish to skip certain sections and emphasize only those appropriate to the local area. As a result, much of the teaching in the schools was poor or ill-suited to students' needs. Two one-shot donor projects were providing in-service teacher training during the school year and summer vacations. Clearly, better, more permanent teacher guidance was needed. The INADES approach, which forced leaders of the non-formal INADES courses to choose those topics appropriate to their locality, was an example of another possible device for tai-

loring the curriculum to local conditions. By sending out not one text but a list of booklets, INADES imposed a choice on its subscribers, one they presumably made by picking the course elements they thought would be appropriate for their home area.

A second issue was the lack of integration of agricultural courses with the rest of the curriculum, particularly science studies, in the primary and post-primary schools. A recent paper by Eisemon and Schwille (1988) contrasts agricultural studies in the primary schools of Kenya with the practical agriculture (*travaux pratiques agricoles*) taught in Burundi in the six-year primary schools. In Burundi, as in Rwanda, agricultural training mainly takes the form of undertaking set tasks on the school farm plot, using recommended improved cultivation techniques with local implements but with little explanation of their scientific basis. The main difference is that this training occupies a far larger place in the Rwandan curriculum.

There is little to distinguish this type of training from that offered by agricultural extension. By linking science and agriculture courses and using school farm gardens as experimental plots, rather than production gardens, the Kenyan approach to agricultural education appears to promote a clearer understanding of the scientific basis of modern farming technology than does the Burundian approach. The fact that agriculture is one of the papers included on the examination leading to the primary school certificate and access to secondary school in Kenya but is not included on the national entrance examinations to secondary school in Burundi and Rwanda probably reinforces the difference in impact of agricultural training noted by Eisemon and Schwille.

Were the kinds of agricultural courses at all levels in the curriculum providing the right number and kinds of farmers, technicians, and professionals needed by the country? Briefly, there were too many farmers and agents at the primary level; enough, or nearly enough technicians at the secondary level, and not nearly enough researchers at the university level and beyond. In this respect, the situation in Rwanda mirrors that of the continent in general (World Bank 1988: 70). Of agricultural experts we shall say more later; at this point we will look at the prospects for graduates of the primary system.

Though planners' expectations were that CERAI graduates would become farmer-artisans in the countryside, the hopes of students and their families were quite different. In a survey of 772 CERAI students and 660 of their parents, only 12 percent of the boys and 8 percent of the girls were interested in practicing agriculture. Among the boys, the level of interest in farming was still higher than their expectation that they would actually have land to farm. Over half of them anticipated working somewhere other than in their own commune. Three-quarters of the boys and over 90 percent of the girls hoped to earn money after leaving school. Parents' expectations that their children would be farmers were considerably lower than the students'; only 2 percent expressed such a hope. Most expected that a CERAI education would help their son or daughter to get a job

away from home. Because the program was so new, the purpose of the course of study was not always clear to them and so did not always fit their expectations (Ferrier 1985:151-157).

Some CERAI graduates were being taken into training programs for agricultural extension agents (*monagris*) or for personnel for other development projects. Anecdotes circulated about communes that had employed others on construction projects, but on the whole the employment situation was looking grim. The first students emerging were unevenly trained, mostly as masons or carpenters, in greater numbers than the countryside could absorb, and they had less notion of how to set themselves up in business than they had of their trade, since there were no materials for teaching the management and accounting courses listed in the CERAI curriculum (MINEPRISEC 1986d).

If the problem was serious for boys, it was worse for girls, who were leaving the CERAI trained to cook dishes with ingredients unavailable in the countryside, to sew, or to embroider. Although female CERAI students expressed the hope that their education would fit them to earn money, the curriculum offered them remained much as the missionary educators had first envisioned it. Morale among parents and students was at low ebb.

Secondary School Graduates in the Modern Sector

Employment opportunities for secondary school graduates were another story. The graduates of the secondary system numbered well under 2,000 per year – it was difficult to give exact figures because up to 1986 the course of study for different tracks had differed in length. Several paths were open to these new degree-holders. They might move directly into jobs, primarily in the public sector, since private sector firms were few and mostly family-run. Or they could apply for admission to the university, either immediately or after working for a few years.

Most graduates with technical skills were able to find mid-level administrative posts quite quickly. In general, there was adequate demand for personnel with secondary school diplomas, although the fields in which there were openings might not exactly match the training of the graduates in a given year. The vast majority of graduates found places in the public sector. The process of selecting new teachers from among graduates and applying for other jobs through MINIFOP has already been described in Chapter 5.

Delays in finding employment may have been due more to MINIFOP, which handled the dossiers, than to market demand. It was said that some of the humanities graduates had a harder time finding work if they were unable to go on to the university. But the waiting time for job placement, according to MINIFOP officials, rarely exceeded six months, not a long period by the standards of other African countries. Since MINIFOP, too, operated within the guidelines of the "national policy," Tutsi graduates claimed that, for them, the wait could

stretch far longer, despite the fact that they knew of open positions requiring their skills.⁴

University Graduates

A university graduate, as a trained professional, had a choice of jobs: secondary school teacher, high-level government employee, or professional in a technical specialty. Unlike some other African countries, in Rwanda many such positions were still open and readily available. Some graduates were drafted as commune officials, even burgomasters. Although the job market was considerably larger than the number of qualified applicants, not all graduates found jobs in their field of specialization. In some cases institutions and infrastructure to support their skills were lacking – although the country needed doctors, for instance, there were not enough hospitals to absorb graduates in any numbers. Taking a lesson from neighboring countries, university planners were concerned not to expand to meet current demand and risk future overproduction. Still, in the 1980s, a university degree guaranteed employment.

Since the university granted low-level post-graduate degrees, the *licences*, as well as the three-year baccalaureate, it had made a first small step toward producing a body of research and a corps of researchers oriented toward national problems. But at the levels of operation in the mid-1980s this could only be considered embryonic. The need for such people was pressing, however, as it is elsewhere in Africa (cf. World Bank 1988:72-73, 78). ISAR, the main agricultural research center in Rwanda, for instance, with a staff of 28 researchers, needed an increment of 52 researchers and 68 technicians, according to a World Bank study mission in the early 1980s (Gow et al. 1986, II:36).

Fitting Education to Rwanda's Needs

The relationship of education to employment raises questions that cannot be answered merely by examining the educational system.

What are the strengths of the national economy? If the agricultural base continues to employ anything like 95 percent of the nation's population, it is unlikely that it will be in subsistence farming. It is far more likely to be in cash crop production, marketing, processing, and support services (Gow et al., 1986, II). In 1986 the agricultural base of the economy could not employ all the people living in rural areas. Some people would need learn non-agricultural skills to find jobs even in the countryside. They might have to go to other regions of the country, perhaps along the growing network of roads or in towns, or they might want to leave Rwanda if employment looked more attractive in neighboring countries.

⁴One result was that many qualified Tutsi found positions on the staff of non-government agencies or in the local offices of foreign donor missions and diplomatic representatives. Because of this, it is easy for foreign visitors and researchers unwittingly to pick up a Tutsi bias.

Rwanda's bottom-heavy educational pyramid with its emphasis on an extension-type of agricultural training within the schools appeared to be a poor match for these needs.

Next we must ask to what extent it is possible to predict human resource needs for low-level, mid-level, and university-trained workers both within Rwanda and in the surrounding region. Rwandan educators have been proceeding as if the future were clear, as if its population could surely find productive work "at home," and as if the formal school system were the main place to prepare its people for employment. Even in the technologically advanced countries of Europe and North America, human resource forecasting is full of uncertainties. Rwanda could hardly hope to be impervious to global market shifts beyond its borders. Moreover, in Rwanda the task of making employment projections was relegated to MINIFOP, an understaffed and underfunded ministry, hardly up to such a sophisticated task.

The economic picture, then, was much less certain than planners assumed it to be. Under the circumstances, narrow compartmentalization of the curriculum into vocational and professional tracks might well be forcing people into molds too narrow to adapt to evolving needs and jobs. A good argument can be made for moving to a broader and more general technically oriented education that would prepare people for short-term vocational skills training – or retraining – without insisting on turning out workers with specific occupations.

The experience of both primary school completers and secondary school graduates suggested that the system was not yet in equilibrium with the job market. The schools were already in danger of distorting their curricula in response to immediate, rather than long-term, unforeseeable needs. Even in 1986 they were turning out people with poor or unneeded skills in the "wrong" numbers.

In fact, the connection between people and outside job opportunities often came through other institutions – communal or regional centers that linked youth to labor markets. A number of these centers have been described: CCDFPs, Centres de JOC, and the like. Their job training and job placement activities could contribute to the strength and value of the education given by the schools. But in 1986 no one had tackled the task of integrating the formal school system with non-formal short-term job training.

In sum, although the schools were intended to address and solve the problem of producing an employable work force for economic advancement, continued buildup of the primary system, with its emphasis on rural education, threatened to churn out far too many workers with too low and limited a level of education. The secondary schools were becoming so narrowly tracked that retraining graduates to meet new needs ten or fifteen years down the road might prove longer and harder than teaching job skills to new graduates through short programs or apprenticeships outside the formal school system. In trying to shoulder the whole burden of training for work, the schools risked falling further and further out of step with human resource needs.

Chapter II

LEARNING FROM RWANDA'S REFORM

The preceding chapters have traced Rwanda's educational development through its colonial and post-colonial history. They have described the institutions through which education was being delivered in 1986, the time of this study. The last two chapters have focused on issues central to Rwanda's educational reform: equity and employment.

What does a case study like this tell us that is of general importance? How much of Rwanda's experience is similar to that of other newly independent nations, especially those in Africa? What part of it is unique to Rwanda? What problems does it present for us to consider? And what lessons does it offer us for future educational development?

General Features and Unique Characteristics

Rwanda's experience in educational planning and educational development is typical in many ways of that of its fellow African nations in its timetable, its aims, and even the setbacks it has encountered. The decade of the 1970s ushered in educational reforms throughout the continent. Rwanda's reform conformed to Africa-wide patterns in originally mandating universal primary education, in stressing linguistic and cultural adaptation, equity of access regardless of ethnic or local origin or sex, and preparation for work. Reforms in countries as diverse as Nigeria, Kenya, and Somalia held out similar promises. Typically, too, a spurt in population growth, especially in the cohort of those under the age of 15, has overstrained the very institutions meant to educate the nation's youth.

The linguistic and cultural changes entailed in curricular reform were less complex in Rwanda, with its single national African language, than in most other nations on the continent. Still, in Rwanda, as elsewhere, the time and effort needed to prepare new materials was protracted and expensive. Predictably, too, one result was an apparent dip in competence in French, the country's language for higher-level education and external contact, offset by considerable national pride in honing and using Kinyarwanda to draw the entire population into participating in the life of the modern nation. Still, the policy clearly reflected an inward-looking orientation in educational planning.

Rwanda is a particularly interesting example of African educational development over the past quarter-century because its government has demonstrated a consistently high commitment to education and has enjoyed a long period of stability during which to see plans through to action. On the whole, it

has heeded the advice of experts in the field of educational development.¹ It invested heavily in the primary level, which, according to educational economists, was likely to yield the highest social returns. It stressed rendering education relevant to the world of work, loading each level in the system with curricula that emphasize vocational and technical training – a constricting strategy that donors and their expert advisors have since disavowed. At secondary and tertiary levels, points where access remains severely limited, the ministry responsible for student placement worked out a rigorous formula for equitable selection. So it provides a useful test of the results of commonly offered recommendations in the field of education.

But Rwanda is not just a typical case of African educational development. Several unusual aspects of its educational heritage and its current policies have affected the course of its reform.

First, the educational institutions it inherited at independence were already heavily skewed toward primary education. This pattern is shared only by its neighboring former Belgian colonies, Zaire and Burundi. Donor encouragement for investment in primary schooling, based on outside analyses, appears to have struck a resonant chord with the political and cultural inclinations of Rwandan planners in the 1970s. But even foreign donors balked at the lengthening of the primary cycle, which has necessitated even more spending on two final "useless" years in order to make it, like higher levels, a terminal cycle.

Likewise, the post-independence maintenance of high-quality, exclusionary secondary and higher-level institutions in Rwanda contrasts with the more usual African pattern of heavy investment in expanding secondary schools in the years following independence.

Second, the way a vocational and especially agricultural emphasis permeates the reformed school system is atypical. Other African countries advocate education for productive employment but are less literal in translating it into reality. Introducing agricultural activities in primary school has been practiced elsewhere. Some countries though, Kenya for example, have redesigned primary-school academic courses in science to better educate future farmers (Eisemon and Schwille 1988) instead of putting students to work producing crops for sale on school garden plots. Vocational and technical secondary schools enjoyed a vogue throughout the continent, with donor support, in the 1970s. But usually these adjustments are either adjuncts or alternate tracks to academically oriented programs. It is more usual to fault curricula for still being too academic. At the primary and secondary levels Rwanda's curricula look too narrowly vocational.

Rwanda's narrow, rigorous, and single-minded focus on work or job-training at all levels risks falling out of step with the country's needs for work force skills as the economy evolves. Agricultural education at the primary level, for

¹The glaring exception was its planners' insistence on tacking an extra two years of agricultural and basic crafts training onto the end of the six-year primary cycle, to the outspoken dismay of various donors.

example, appears to hark back historically to mission emphasis on basic education for a peasantry destined to remain on their ancestral land. It is backward, not forward-looking.

Third, promotion of private investment to support or supplement the public school system, an idea now being advocated by educational economists, is engrained in Rwanda's experience and accepted as a normal part of educational planning. For Rwanda the issue is not whether to allow private investment but how best to integrate it with national educational policies. While private secondary schools and even university-level institutions are part of the institutional landscape, less consideration has been given to attracting private spending to support public institutions – charging families able to pay part or all of the costs for university room and board or even tuition, for example. Since educational economists are now suggesting shifting costs to private and community resources, Rwanda looks as if it is running ahead of the pack, although there are strong historical reasons for its stance. Its current efforts to coordinate and control private education will be worth observing as a guide to other nations considering similar fiscal solutions.

Fourth, every African country is unique in the particular constellation of ethnic groups it encompasses and in the types of tensions, coalitions, and political forces that result. For Rwanda, the legacy of ethnic rivalry between Hutu and Tutsi has led to a kind of reverse affirmative action in the form of quotas for access to secondary school places, university places, and jobs in the formal sector. This is an unusual solution to the problem of equity. It deserves attention more far-reaching than a cursory acceptance of the government's elegantly balanced statistics, for it can conceal other, unreported socioeconomic biases.

Finally, the stability of Rwanda's government since the 1979 reform was first proposed in 1976, along with its tenacity in sticking to a long-term plan for education, is distinctive. In this respect it contrasts with other African countries, like Nigeria or Somalia, that have introduced new plans with new regimes or shifted strategies to suit whatever donor came courting, without giving earlier plans a chance to be fully implemented.

Problems and Consequences

The positive features of Rwanda's educational reform are notable. The commitment, consistency, and patience Rwandans have shown in carrying out reform measures are rare and needed if one hopes to see results in education. Curriculum reform has been thorough, thoughtful, and culturally and linguistically appropriate. Education at the secondary level and upwards has not been debased in quality.

Some of the emergent problems are the obverse of the strengths of the reform. In some ways Rwanda's reform looks "stuck in time," following tenets that were the wisdom of the 1970s, considered less viable for the 1980s. The rigid

vocational focus of the reform and the concentration of resources on the primary school system are prime examples.

No one denies the importance of education for developing a productive work force, but the conflation of education for work with narrow agricultural, vocational, or professional tracking is an artifact of the 1970s. More recently scholars and observers have reexamined the respective roles of schools and out-of-school programs in preparing a trainable work force, on the one hand, and training for actual jobs, on the other. Within the spectrum of training institutions, schools are judged best suited to providing a generally educated population with a solid background in science, math, and communication skills – a population that can react flexibly to new demands and new opportunities. Detailed skills training, on the other hand, is best left to short pre-service or in-service programs with close ties to the workplace that respond quickly to immediate and changing employment needs.

The agricultural training that looms so large in the last two years of primary school and in the CERAs provides instruction assigned to agricultural extension agents elsewhere in the world – when it is running as planned. Rwanda's experience gives us no reason to think that extension workers cannot do this job better and more efficiently than the schools, bringing up-to-date information to just those farmers who are actually in need of it.

With commitment come costs. Rwanda devoted a hefty proportion of the national budget to education over the first half of the 1980s. But there have been some fiscal sinkholes in the educational system. Although investment in the primary school system has been shown, on the basis of world-wide data, to yield the highest return to society in relation to costs, as primary schooling expands the returns diminish. Evidence from Kenya suggests that, under these circumstances, investment in secondary education is at least as profitable as investment in more basic levels (World Bank 1988:23). In the limiting cases, like Rwanda, where the primary system is already expanded and the secondary and higher systems are small and exclusive, continuing to concentrate resources at the primary level becomes hard to justify. Under-employment in the rural areas is further evidence of declining returns to investments in an education intended to fit people to be farmers. Cutting the final two years of primary school might be an obvious way to cut costs if it were politically acceptable to do so.

In the public secondary schools, boarding costs are a major expense, even though a small proportion of these costs are charged to the students' families. The indirect effect of accepting only boarding students is probably at least as expensive as the direct costs; boarding facilities place strict limits on the number of students a school can accommodate and consequently on the size of classes in it. Alternatives – private secondary day schools or reorienting the CERAs to become second-class secondary schools – have been discussed in earlier chapters. A major consideration is what the effects of these choices would be on equitable access to secondary schooling. The answer is by no means simple.

As in other African countries, the national university remained too small to be cost-effective. The establishment of a second campus for a university with a total enrollment of 1,700 students was exacerbating the problem. On the other hand, university faculties were training at least a few graduate-level researchers and were focusing on research projects of immediate and practical interest to the nation. The country was still short of mid-level technicians, professionals, and trained leaders. It faced the dilemma of how quickly its university should reduce the gap between needs and available human resources without over-building, overshooting the mark, creating permanent institutions that would eventually turn out more graduates than the country could absorb.

Although the quality of secondary and university education was apparently being maintained – at a hefty price – the quality of primary education was slipping. Signs of this were the stagnation of demand for places and low teacher morale. In part the problems were due to lack of teaching materials and lack of guidance in the immediate wake of educational reform, a situation that is virtually predictable and often temporary at such a time. In fact, promising curricula and teachers' guides were close to completion at the time of study. The decision to produce teacher manuals instead of student texts for most of the subjects, though, may have more long term negative effects on educational quality; it was too early to determine the consequences of this strategy before the curricula were completely in place.

Within the primary system, the problems of the seventh- and eighth-year program and the CERAI's were particularly pressing at the time of study. Not only were materials and curricula rare, there was considerable overlap between the last two years of primary school and the CERAI's and mounting evidence that both were out of pace with actual work opportunities for their graduates.

Finally the Rwandan case forces us to take a long, hard look at the problem of equal opportunity for schooling. What are the political forces pushing for equity? What are the political constraints? Do the ethnic and regional quotas simply skew access in favor of an emerging socioeconomic elite or do they indeed redress a long-standing inequality of opportunity? Is equity on paper the same as equity in fact? What factors matter: ethnicity? regional origins? urban or rural residence? gender? social class? family income? If some of these factors count for access to school places but others are ignored, what will the consequences be? Can equity be achieved without opening the doors to secondary schools and universities wider than the crack Rwanda allowed? Can quota systems serve the cause of equity? Will encouragement of private investment widen opportunities or merely widen the socioeconomic gap between the educated and the excluded?

Conclusions

Educational development at any particular time and in any particular place is rooted in the historical and social context in which it is occurring. That is the justification for case studies to supplement comparative studies of educational development. A case study allows us to see how educational institutions and initiatives have taken form and grown in the past and to reflect on how general prescriptions need to be modified or adapted in light of a country's particular social composition, political tensions, historical evolution, and resource endowments to pave the way for future growth.

A number of widely accepted tenets of educational development, such as expansion of primary education, equitable access to schools, and education for a productive work force have had a prominent place in Rwanda's educational planning. In Rwanda, these general principles have taken on a particular cast, supporting political and social agendas that are distinctively Rwandan.

Rwanda's enthusiasm for equity, for example, embodied in its national policy of quotas that guarantee statistical balance in the student body as elsewhere, must be examined in light of the country's political history. It can be questioned in terms of hidden factors not registered in the quotas. It should be related to the encouragement of private schools. Will these increase equitable access by increasing the number of scarce places, or will they drive an economic wedge into the concept of equity?

Not all of the "best" advice was best for Rwanda. Because of its already extensive primary school system and recent heavy investment at that level, Rwanda appeared to be a clear exception to the rule about the relative returns to investment in primary compared to secondary schooling.

Rwanda's form of education for work also had taken on a distinctive character, based on assumptions about the ability of the agricultural base to absorb labor and an inward-looking policy of self-sufficiency. The school system by itself cannot guarantee future employment for graduates. That depends largely on the economic development of the country as a whole, the infrastructure that exists outside the schools. For a country as small and land-locked as Rwanda, control over its own economy is bound to remain incomplete, subject to global market forces and technological innovation from outside its borders. Nor are schools necessarily the best place to train workers for modern-day employment. Short-term or on-the-job training, using the current tools of production in the work environment, is likely to be more cost-effective in fine-tuning a worker's skills just when and as needed. But for a centralized government, schools are simpler to control.

A case study is, in the end, an invitation to reflect on what the role of outside expertise should be in channeling educational development. Training abroad of Rwandan educators and planners has certainly informed and helped educational planning, as this book's bibliography shows. The major thrusts of the

reform bear the imprint of advice solicited and adopted. But outsiders are not privy to all the nuances of history, politics, and their impact on nation-building. Rwandan planners know what they want. They are willing to say no to outside manipulation, even backed by money. And, in the end, the results are their responsibility.

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