

AN ABSTRACT OF THE THESIS OF

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The educational system in the Yemen Arab Republic (YAR) is in desperate need of reform to accommodate recent changes in the structure of the economy and society of the YAR. At present, there is only one university, the University of Sana'a, within the country. In this study, the organization of a system of local community colleges is considered. In response to the problem of how these systems should be structured, organizational alternatives developed within the American community college movement are considered to the degree that the American experience may be applied to the problem of educational reform in the YAR. Examples given particular consideration include the structure of community college organizations in the states of Connecticut, Florida, Oklahoma, Illinois, Pennsylvania, and New York.

It is determined that the best model for application to the situation in the YAR would be a system in which authority is shared between the central government Ministry of Higher Education and the governors of each local governance, the level of authority immediately beneath the national level in the governing structure of the YAR. The implementation of such a community college model in each governance would be structured in terms of local needs and directly administered through a board of trustees. This progressive step would serve to introduce a new era in education in the YAR. More students would be encouraged to enroll in institutions of higher education since they could attend a postsecondary institution for an additional two years while remaining in their local communities. In addition, the organization of institutions of higher education at the local level would clearly be of benefit to local citizens and their communities. The implementation of a community college movement, and in particular special systems for tutoring and counseling students in a psychologically healthy atmosphere, will serve as a positive contribution to all generations of the population of the Yemen Arab Republic.

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AN ORGANIZATIONAL MODEL FOR
COMMUNITY COLLEGES IN YEMEN

CHAPTER I

INTRODUCTION

Statement of the Problem

The Yemen Arab Republic (YAR) faces serious challenges in meeting the current and future educational needs of its people. A chief concern is the choice of which solutions constitute the best approaches to address educational problems. An abundant array of conventional options are available from educational models throughout the world. One possible approach would be to use the community college as the nexus of higher education reform. American community college systems provide a number of organizational possibilities which could be of benefit to Yemen. The question, then, is which community college model can best serve the higher educational needs of Yemen, in light of the social, political, and economic conditions within Yemen?

Purpose of the Study

The purpose of this study is to explore various organizational alternatives within American community college system in order to construct a community college organizational model best suited for educational reform in Yemen. This problem is approached through an analysis of alternative community college governance structures for the purpose of:

- 1) Analyzing selected American community college governance alternatives; and
- 2) Designing an appropriate system of governance for the development of a community college model for the Yemen Arab Republic.

Rationale for the Study

The rationale for this study is based on the education needs of the Yemen Arab Republic, discussed in the following sections.

Vocational Education Needs in Yemen

The Yemen Arab Republic is in immediate need of the expansion of its vocational education system. At present a relatively unorganized scattering of vocational institutions exists throughout the country. The problem is to systemically organize and expand this

system, articulating it with the needs of the parts of the country which are not currently served. The strategy may be termed "*Mallakh potit*" (El Mallakh, 1986), or the diversification of the existing secondary education system with the addition of technical and vocational education in the areas of commerce, agriculture, and technical studies. Statistics indicate that the Yemen Arab Republic falls into the category of a developing country in which university graduates outnumber the graduates of technical institutes.

One means of increasing participation in vocation and technical training is through the improvement of the image of current technical institutions. El-Mallakh's (1986) strategy directs the efforts of counselors to create an awareness of skilled manpower needs within the Republic, while introducing students to the active role they can play in the future development of the country.

A recent World Bank study on education has emphasized in-service training (World Bank, 1983). The achievement of a degree of integration between the educational system and development planning requires the ability to offer flexible specialized programs within an atmosphere of relaxed educational requirements that

will attract increased participation in adult vocational education.

High Illiteracy Rate in Yemen

A workshop report has stated that the illiteracy rate in the Yemen Arab Republic is extremely high, with about 75 percent of the adult population being illiterate (Johnson, 1983). In response to this problem, the government of Yemen is determined to expand accessibility to its educational institutions to every Yemeni citizen.

Under the direction of the Yemen Ministry of Education, advances in the struggle against illiteracy have been achieved, but it is still obvious that much more remains to be done in order to provide a substantially more literate population. One means of reducing the pressures placed upon the Ministry of Education is to place illiteracy as the principal responsibility of community colleges, given their open-door admissions policies. A second reason for attributing this mission to community colleges is that the Ministry currently faces immense tasks in administering a basic four level education system, including primary, preparatory, and secondary education, as well as higher education. At present, 1,555,745 students are enrolled in the basic system (with 2,356,255 graduates at these levels) and

21,000 students are enrolled in institutions of higher education (Ministry of Education, 1988).

Relieve Pressure on the University System

Sanaa University is the only institution of higher education in Yemen (Zabarah, 1982). In 1971, the enrollment was only 61 students in four departments, including those of the *Sharia*, law, science, and art. By 1974, this enrollment grew to 1,150 students and less than 20 years later (1990), enrollment expanded to 25,000 students (Focus--The Yemen, 1990).

This pressure on the higher education system has continued to increase. Between 1981 and 1986, enrollment increases at all levels of public education were as follows: primary education, 68 percent; preparatory education, 126 percent; secondary education, 78 percent; technical and commercial secondary education, 156 percent; agricultural secondary education, 577 percent; and industrial secondary education, 43 percent. The overall factor of enrollment expansion was 86 percent (El Mallakh, 1986). The university system has had great difficulty in absorbing these increases and it is obvious that an expanded community college system would serve to relieve some of the pressure of the system of higher education.

Communities Remain Unserved

The best means to serve the educational needs of outlying communities is through the open-door admissions policy of the community college system. Demographic patterns in Yemen indicate that most of the population resides in rural areas which are predominantly dependent on agricultural production as the basis for local economies (Nyrop, 1985). While these rural farmers are knowledgeable with regard to the care of livestock or the cultivation of crops, they are still scientifically unskilled and inexperienced. These farmers cannot easily adapt to the techniques of modern agricultural practices and a great deal of time and energy is wasted in the achievement of only marginal rates of agricultural productivity. In effect, this population is directed toward self-sufficiency, rather than adapted toward a market orientation (World Bank, 1983). Obviously, the expansion of the community college technical and agricultural educational system into rural areas would be one means to confront both illiteracy and the problem of low agricultural productivity. Moreover, in this setting the community colleges could serve as focal points of community activity in developmental planning projects and other similar and progressive community functions.

Continuing Education

At present, a continuing education system for those who have terminated their education at primary or secondary levels, but who would still like to improve their technical and vocational capacities, does not exist in Yemen. These are the types of students who should be the focus of the community college (Johnson, 1983; Schmida & Kennum, 1983).

There are many reasons why students either leave school following primary education or after completion of secondary schooling. Some students simply do not like school, some quit school in order to work and help their families, and some marry early and face the need of earning a living. Once they drop out it is difficult to return to a primary level as an older student and in effect, at each stage of the educational system, only one-half of the students continue on to the next level at the completion of any one cycle (Schmida & Kennum, 1983). It may be supposed that substantial numbers from this population would in subsequent years appreciate the opportunities afforded them by community college and vocational education.

Lack of Developmental Education

At present, there is no developmental education system in Yemen. Human development may be viewed

through two different perspectives, those of individual and national objective. However, these are interrelated perspectives and the government of Yemen is conscious of the immediate need to provide a more adequate public education system than currently exists.

Diversification of Higher Education

As previously stated, there is presently only one university system in the Yemen Arab Republic, the University of Sanaa, located in the capital. This university was funded and constructed under the direction of the state of Kuwait, based upon the policy of establishing all fields of major study under one institution. According to the 1983 World Bank report, the University of Sanaa has concentrated upon theoretical education, as opposed to more practical directions. In addition, university graduates from rural areas remain low in number and nearly all graduates lack practical working experiences. This situation serves to lower the productive capacities of these graduates during the early years of their working lives. Moreover, those Yemenites who have been educated abroad are seldom initially qualified for field work in such positions as business management, accounting, or public administration or occupations relevant to modern public services.

In the one university city at Sanaa, living costs in comparison to those of rural areas are very expensive, thus making it even more difficult for students from rural areas to leave their village communities to relocate at the capital. So far as the availability of part-time work is concerned, it is very difficult to obtain and neither is this an answer to the problem of lack of diversification in higher education.

An additional factor is that prior to the republican revolution, women were denied the right to an education, thereby cutting the rolls of the educated by one-half. This means that housewives and mothers were denied even a basic education and were largely illiterate, bearing a possible relationship to continuing rates of high fertility and infant mortality. Beyond these considerations, family health on the whole can be affected by the lack of education for women since current values dictate that a sick female cannot be cared for by a male doctor. A broader course of education for women could be used to overcome these cultural barriers, allowing at least the daughters of families to be the first educated females in some families.

Shortages of Qualified Personnel

Yemen suffers from a severe shortage of qualified personnel throughout all urban professional and occupa-

tional levels. As of 1970, only one percent of the entire public employee pool consisted of college graduates (World Bank, 1983). By 1975, the comparative figure has grown to 2.2 percent, but 58.9 percent of the male population still lacked formal education training and 16.5 percent were illiterate. This critical shortage of trained personnel is reflected in public administration in a number of ways. More than 8,000 jobs in the public serves remained vacant, a number constituting nearly 20 percent of all approved positions in this sector (World Bank, 1983). The most affected areas of employment are with the technical departments of public administration. Community colleges could serve to devise special programs to fulfill an obvious need.

Education for the Masses

Beyond the issue of qualified personnel, the government of Yemen, in order to reconstruct the economy to meet future needs, must recognize that educational priorities should be aimed at education for the mass of the population as a national goal, given that 75 percent of the population remains illiterate. Presently, there are 57,432 males and 6,598 females enrollment in secondary schools, a ratio of almost 7:1.

Summary

There are obvious and compelling needs for several educational reform measures in the Yemen Arab Republic. The government, to increase both public and private resources, must direct its policies toward educational diversity in order to expand the diversification of its economic resources. The most important issue confronting the problems of modern development is to respond to the high illiteracy rate. This is the necessary first step in increasing national skills levels in order to enhance the overall welfare of Yemeni society. An increased rate of literacy and the provision of education for all will enable the population to participate more actively in community affairs, increase their political awareness, and strengthen the political cohesiveness of the nation.

The government of the Yemen Arab Republic is aware of this basic human need and has vigorously pursued the objectives of universal literacy and education. However, at this point it is still far from reaching its ultimate goals as 75 of every 100 adults remain illiterate, and only 1 of 4 children in the primary-age group are enrolled in public education. Adults literacy programs have been used to provide elementary education to 6,000 people age 15 and older; however, this

is only about 1 in 500 people within the adult population (El Mallakh, 1986).

In addition, Yemen is not richly endowed in agricultural resources. Out of a total land area of approximately 20 million hectares, only 1.5 million hectares are regularly cultivated. As much as an additional two million hectares can be cultivated during high rainfall years. Beyond this consideration, there is an extreme shortage of professionals and technicians qualified to staff agricultural institutions, a shortage which will persist in the foreseeable future (World Bank Report, 1983). Currently, institutions serving agricultural production have only a limited number of branches throughout the country and fail to adequately serve the existing needs of the predominantly rural and agricultural population. Therefore, agricultural expansion is constrained by a number of human and institutional or physical limitations.

Parallel to rural development, industry in Yemen is at an early stage of development and though efforts have been instituted to build a number of medium-size industries, their effect upon the expansion of employment and economic resources has been marginal. Once again, the shortage of qualified personnel places limits upon industrial growth and the expansion of voca-

tional and technical education can only have a positive impact upon the economy and resources of Yemen.

Educational institutions and possibilities have been expanding throughout the world and it is clear that the most educated countries suffer less during periods of economic decline. For Yemen, the only possible solution is to expand public education for the mass of the population. This is the necessary framework for the construction of the economic infrastructure that will benefit both the country and its people. The institution of a broadly diversified community college system in Yemen will contribute to these goals. The expansion of the American community college system during the past few decades, a process which is still ongoing, provides an excellent example and pattern upon which other countries can build.

CHAPTER II

THE YEMEN ARAB REPUBLIC

Historical Background

Civilization in Yemen is historically known for its ability to control the age-old trade routes between Africa, the Middle East and even Europe. For more than 3,000 years, the Yemenites have had a well developed culture, which has taken advantage of the monsoon winds to import and trade in products as diverse as Chinese silks, Indian spices, Ethiopian gold, and African feathers (Nyrop, 1977). Merchants in Yemen received this merchandise in their own trading depots. They transferred them, along with local products, to mainland trading routes using either the camel as their primary carrier in the process or by coastal shipping to Africa, Egypt, and the Middle East (Stookey, 1978). Among the locally grown products were frankincense and myrrh, used for both religious and medical purposes by ancient peoples (Bidwell, 1983; Jenner, 1983; Phillips, 1955)

Commerce, however, wasn't the only reason for the growth of Yemeni civilization. In Yemen, unique irri-

gation systems for agricultural production were constructed by the ancient states of Main and Saba. More than eight dams, including the largest one at Moribe, Marek were built in the 10th century A.D. This was made possible because of the durability of the ancient Yemeni kingdoms. Saba was a power in this area from the 9th century B.C. until 115 B.C., when it was succeeded by the reign of the Kingdom of Himyarites, which lasted until 525 A.D.

Islam was introduced into Yemen in the 7th century A.D. and was accepted by the people as the dominant faith. A letter from the Prophet Muhammad advised the Yemenites to become Muslims. His letter was followed by a mission directed by Muhammad's cousin and son-in-law, Imam Ali. The mission was well received and attracted large numbers of converts, the descendants of whom have remained faithful to Islam for generation after generation (Stookey, 1978). The official date of the acceptance of Islam in Yemen was the first Friday of the month of *Rajab* (628 A.D.), a date which is still celebrated as a religious holiday in the *Hijrah* calendar.

During the life of the Prophet Muhammad, the Yemenites accepted the religious authority of the central Islamic state, first at Medina and then Mecca. Stookey (1978) has noted that the Prophet Muhammad fre-

alib
quently praised the Yemenites, particularly after the Hamdan group of tribes submitted entirely to Islam under the personal influence of the Imam Ali ibn Abi Talili. The Prophet took the occasion to announce to all Muslims, "people have come to you from Yemen. They are the most amiable and gentlehearted of men. Faith is of Yemen, and wisdom is Yemeni" (Stookey, 1978, p. 29).

After the death of the Prophet Muhammad, Yemen continued to be an important part of the central Islamic state until the time of the formation of the Umayyat and Abassid dynasties in the 9th century. In 822 A.D., the state of Ziyadia had been established as an independent Islamic state, establishing a famous center of learning at Zabid in Yemen. This was followed by a period of dynastic instability, with the Ziyadi state succeeded by the Yafurids and the Ismailis, and then reasserting itself again under the Imam Al-Hadi ila-al-Hagg, who chose Sada as his capital and center of learning in 893 A.D. Subsequently, this state was further divided into Zaidia in the north and Yafurid to the south. Al-Mottahar (1986) has stated that this division continued until Ali al-Sulayhi attempted to unify Yemen under the Sulayhid dynasty. He succeeded in creating a unified state and ruled until his death in 1067 A.D., when he was succeeded by his

wife. Eventually, this dynasty was replaced by the Ayyubids, who ruled from 1173 to 1229 A.D. The Ayyubids were succeeded by the Radulids, who ruled from the early 13th century until they were ousted by Mamelukes from Egypt in 1517. However, this Turkish rule was opposed from the start and the Imam Sharaf al-Din (1507-1573 A.D.) regained the independence of nearly all of Yemen, excepting the cities of Zabid and Aden and their surrounding lands. Eventually, the Turkish Mamelukes asserted their right to rule by late in the 16th century. But Sharaf al-Din and the Jahirids, who instituted a type of higher education, the *madrassas*, continued to control some of the inland areas.

According to Al-Shamahi (1972) and Al-Arashi (1939), early in the 17th century the Imam al-Qassim ibn Mohamed and later his son were able to rally people against the Turks, and after a long struggle created an independent state which was ruled by Al-Mulawakil Ismail from 1644 until 1676. This dynasty, the Qasimi, instituted a foundation of higher education for the systematic study of Islam throughout most of Yemen (Ghalib, 1966). This new unity lasted into the 18th century, when in 1732 Gairan, Lahej, and Aden established their independence. However, in 1839 the British occupied Yemen, and were followed by the Turks in 1875, who put an end to the independent Qasimi dynasty. The

Turkish occupation continued until the year 1918, though it never succeeded in controlling more than the coastal areas.

In 1890, the religious leaders chose as their new Imam, Mohamed Ibn Yahya Hamid al-Din, who opposed Turkish rule until his death in 1904. Mohamed Ibn Yahya Hamid al-Din's son, the Imam Yahha, then replaced his father and ruled until 1948. He successfully reorganized opposition against the Turks, who by treaty recognized Yahya's right to rule in the north in 1911. Finally, with the Turks allied to the Central Powers of Europe in World War I, the Turkish Empire was disbanded with the loss of the war in 1918.

According to Peterson (1982), the Imam Yahya never succeeded in entirely controlling the border areas of Yemen since Saudi Arabia claimed much of the territory in the north and the British occupied large areas of the southern coastal areas. Thus, the Imam kept the balance of his territory isolated from the world out of fear of western influences. The result, however, has been a high rate of illiteracy and a backward way of life (Al-Eryani, 1980; Al-Saidi, 1983).

Because the Imam Yahya refused to accept modern reform, a revolution led by Abdullah al-Wazir succeeded in assassinating the Imam, but in the absence of support from many of the Yemeni tribes, Abdullah al-Wazir

failed to take control of the state. This support was gained by the son of the Imam, who from 1948 to 1962 ruled as the Imam Ahmed. The policy of isolation from the international community was continued during this time.

The Imam Ahmed did introduce a number of minor reforms, such as paving the principal roads and building a new port at Hodidah. Nonetheless, the Imam encompassed the total of legislative, executive, and judicial powers in his own person and did not permit any form of participatory government (Nyrop, 1977). Then, in 1962, the 26 September Revolution occurred, resulting in the overthrow of the monarchy and the establishment of the Yemen Arab Republic. Aid from Egypt to the republican revolutionaries was a major blow to the monarchy and Egyptian assistance, largely in the form of teachers to help combat illiteracy, has continued until the present.

Geography of Yemen

To understand Yemen, it is necessary to understand its geography, which of course is a major determinant of the ability of any state to compete in international markets with saleable goods and produce.

The Yemen Arab Republic (YAR) occupies an area of approximately 200,000 square kilometers and lies at the

southwestern corner of the Arabian peninsula. It is bound on the north and east by the Kingdom of Saudi Arabia, on the south by the People's Democratic Republic of Yemen, and on the west by the Red Sea.

The Tihamah coastal area bordering the Red Sea includes the area from the Bab al-Mundab to the borders with Saudi Arabia (Al-Mottahar, 1986). Elevation ranges from sea level to mountain ranges nearly 2,000 meters in height. The region is known for its heat, humidity, and very little rainfall. However, Tihamah is still an agriculturally productive area, producing fruits and vegetables as well as tobacco and cotton. The mountainous parts of this region are known for their moderate climate and the quality of their soil.

Between the coastal areas and the mountains, there are areas of semi-desert rising about 1,000 meters in elevation. The area is very hot, has little rainfall, and is largely unsuited for agriculture. It is hoped that recent development in connection with the Maribe dams will enhance the productive capacity of much of this area. In addition, recent explorations in this area have discovered oil deposits, which provide much hope for future economic development (World Bank, 1979). At the more moderate elevations in Yemen the temperatures are mild and the deep valleys in these ar-

lands are productive for the growth of cereals, vegetables, and fruits.

Population and Economy

In 1975, the total population of Yemen was 5,258,530 (CPO, 1983). A more recent study put the total population at 7,161,851 (Confederation of Yemeni Development Associations, 1981). The World Bank (1989) estimates the population of Yemen at 8,000,000 (Table 2.1). Tables 2.2 and 2.3 provide additional information on population demographics and projections.

Table 2.1 Population Growth and Projections.

Average annual population growth (percent)		
<u>1965-1980</u>	<u>1980-1987</u>	<u>1987-2000</u>
2.8	2.6	3.1
Population (millions):	1987 = 8	
	2000 = 13	
	2025 = 23	
Hypothetical size, stationary population		44 million
Projected year of achieving net repro- duction rate of 1 =		2040
Population momentum, 1990 =		1.9

Source: World Bank, 1989.		

Table 2.2 Yemen, Demography and Fertility.

	Year	
	1965	1987
Crude birth rate per/1000	49	48
Crude death rate per/1000	27	16
Percent of women of childbearing age	46	44
Total fertility rate (project 5.7, year 2000)	7	7

Source: World Bank, 1989.		

Table 2.3 Population Demographics.

	1965	Decade of 1980s
Population, females per 100 males	97	1985 = 111
Population, females ages 0-4 per 100 males	97	1985 = 97
Life expectancy at birth (years)	40	1987 = 52
Male life expectancy at birth	39	1987 = 50
Infant mortality (per 1,000 live births)	197	1987 = 116
Education, females per 100 males		
Primary	5	1986 = 27
Secondary	3	1986 = 12
Urban population as percent of total population	5	1986 = 23

Average annual growth rate (%): 1965-1980 = 10.1; 1980-1987 = 8.4.		

Source: World Bank, 1989.		

The economy of Yemen is based on agricultural production. More than 80 percent of the population is dependent upon the land for its livelihood. The principal products are coffee (mocha coffee), barley, corn, durra wheat, fruits, vegetables, tobacco, and cotton. Though the base for statistical measurement of economic growth is incomplete, the national accounts published by the CPO suggest that the GDP (gross domestic product) has grown annually at an average rate of eight to nine percent between fiscal years 1969-1970 and 1975-1976 (World Bank, 1983). A large part of the problem of lack of economic development is due to the state of mass illiteracy, a byproduct of the policy of cultural and economic isolation observed under the monarchy. At present, more than 670,000 Yemeni citizens reside outside of the country, most of them working as laborers in Saudi Arabia or other oil-rich states on the Gulf. To a degree, this migration has been reversed, particularly after the onset of the world-wide oil glut and resulting economic decline of the oil producing states. Western Asia's second poorest country in terms of per-capita gross national product (\$580), the Yemen Arab Republic has the lowest life expectancy (48 years), the highest infant mortality rate, and the highest percentage of population (49 percent) under the age of 15 in the area (World Bank, 1983).

Internally, some progress has been seen in the fishing industry, which has a potential for considerable modernization and expansion. A truly modern fishing industry would provide additional employment and broaden the food supply for the population. At the same time, an expanded fishing industry could earn valuable foreign exchange. As poor as the YAR is, adequate food supplies and health care are available to all citizens. Though foreign observers have characterized living conditions in Yemen as grim, UNESCO has not placed Yemen among those countries in desperate need of food supplies (Nyrop, 1977).

According to the World Bank (1989), Yemen has a lower-middle income economy, in contrast to the lower income economies of China, India, and Ethiopia. However, agricultural productivity, transportation, communication, and education systems have witnessed a strong degree of improvement during the republican years. The YAR economic system is based upon private enterprise and local and foreign investments have been actively encouraged for the development of mineral and industrial projects. The government has made consistent efforts to use these efforts as a basis for a national budget based on steady economic growth. Nonetheless, agriculture is still the most important contributor to the national economy, given the quality of the land and

the existence of vast areas of surrounding unproductive wastelands. Its productive soil gives Yemen unique importance in the entire Arabian peninsula. Even those workers who have migrated to other countries in search of work serve to help the economy of Yemen by regularly returning funds to their families in Yemen.

Education

Prior to the revolution of 1962, the Imam Yahya kept Yemen isolated from foreign influence in order that the Yemeni people should remain free of unwanted alien influences. While this may have helped to maintain the structure of belief in Islam in Yemen, the fact is that the policy hurt the country more than it helped it. Al-Attar (1965) has indicated that Yemen lacked a modern education system and the quality of education suffered in the three school levels of the six-year primary, three-year preparatory, and four-year secondary and teaching training institutes. By the end of the monarchy, there were only 38,653 primary students, 468 preparatory students, and 228 secondary students in the entire country (Al-Mottahar, 1986).

Higher education prior to the revolution was almost nonexistent. Though students were required to study for 12 years beyond the primary level, the curriculum was narrowed to only Islamic theology, Shari'a

and Islamic law, logic, history, the Qu'ran, and the Hadith (or interpretations of the fundamentals of Islam) (Al-Akwa, 1980). There were 16 schools, the Al-madrassah al-Ilmiyah, with the most well known established by the Imam Yahya in 1924. For 40 years these schools did graduate a qualified *Ulema*, or cadre of religious authorities, a number of whom contributed to the revolutionary movements of 1948 and 1962.

Students who wanted a modern education were sent to foreign countries to study under scholarships granted by the kingdom or by host countries. Because of limitations within the educational system in Yemen, many students were often required to repeat their secondary education course work before they could be admitted to universities. Al-Attar (1965) has stated that there were 500 students enrolled in foreign study programs in 1958, a figure which increased to 1,020 by 1961. With the republic, the Ministry of Education was established in 1963, marking the beginning of a new era in education in Yemen. The government issued its first and second five-year plans, in which educational reform was given a high priority. Tables 2.4 and 2.5 show the increase at all three educational level in both plans. The peak of this period of educational growth is shown in Table 2.6, indicating the number of schools and students at all three levels.

Table 2.4 Student Enrollment Increases by Level, First Five-Year Plan(1976-1983).

Level	1976	1981	1982	1983
Primary	252,100	412,573	522,966	602,212
Preparatory	15,620	25,037	32,566	43,302
Secondary	6,050	9,895	11,645	11,984
Religious	4,600	32,250	47,831	56,834

TOTAL:	278,370	479,755	615,038	713,882

Source: Yemen Arab Republic, Ministry of Education, 1982; CPO, 1981, 1983.				

Table 2.5 Targeted Enrollment Increases, Second Five-Year Plan (1981-1986).

Level	1981	1986	Increase (%)
Primary	479,809	806,528	68.0
Preparatory	26,989	60,968	126.0
Secondary	10,622	18,979	78.6
Tech./Vocational	422	1,081	156.0
Agricultural	77	522	577.0
Industrial	461	660	43.0

Source: Yemen Arab Republic, Ministry of Education, 1982.			

Table 2.6 Yemen, Educational Institutional Plan, 1988-1989 (Ministry of Education, 1989).

Governance	Number Schools	Students		Total
		Male	Female	
Elementary	6,873	962,123	300,077	1,262,200
Preparatory	1,127	179,158	26,863	206,021
Secondary	332	57,432	6,598	64,030
Industrial	6	2,295	2	2,297
Commerce	7	966	300	1,266
Agricultural & Animal Care	3	522	-	522

Elementary Education

The standard age for male and female primary students is 6 to 12. Generally, students sit at benches attached to desks, often with as many as four students at desks designed to accommodate two students. Schooling is conducted in full-day sessions and the brighter students can expect to be advanced to the preparatory level for more specific training. This selection process is completed either through an examination system or by teacher recommendations (Schmida & Kennum, 1983). Classes in primary schools are usually full to capacity and the Ministry of Education has undertaken a program to build greater numbers of schools. Overall, the primary education curriculum in the YAR, consisting of religious education, Arabic, general science, and math,

is designed to increase students' respect for traditional values (Al-No'Aman, 1986).

Currently, there are more than 6,873 elementary schools in Yemen (Ministry of Education, 1988, 1989). The increase in enrollment rate has been substantial: from 412,513 students in 1981 in the targeted plan to 806,528 students in 1986, an increase of 68 percent, to more than 1,262,200 students by 1989 (Table 2.7).

Table 2.7 Yemen, Ministry of Education, Plan for Elementary Education, 1988-1989.

Governance	Number Schools	Students		Total
		Male	Female	
The Capital	53	59,458	49,252	108,710
Sana'a	1,827	177,173	34,193	211,366
Taiz	788	18,890	84,672	265,562
Al-Hodaidah	562	111,783	28,953	140,736
Ibb	959	160,789	53,080	213,869
Dhamar	746	101,256	21,197	122,453
Hajah	754	63,078	9,270	72,348
Sadah	308	29,172	1,930	31,102
Albidha	320	33,226	10,018	43,244
Almahwit	290	25,179	5,137	30,316
Marib	190	14,684	1,160	15,844
Algof	71	5,435	1,215	6,650
TOTALS:	6,873	962,123	300,077	1,262,000

According to Educational Policy No. 9, issued by the Ministry of Education, elementary education is compulsory from the age of six and is provided by the gov-

ernment without cost to the students. Responsibility for attendance is incumbent upon the head of the family or the individual placed in charge of elementary age children. However, students who live 2.5 kilometers or more from a school are not obligated to attend if they cannot find transportation. Handicapped students are also relieved of the compulsory requirement if the facilities necessary to accommodate their special needs have not been provided by the Ministry of Education. In addition, elementary age students can choose the option of attending a private school, so long as the school has been accredited by the government. In other cases, penalties are applied to responsible persons in instances of nonattendance. They can result in one-week jail sentences or fines of 20 to 30 Yemeni *rials*.

The budget for elementary education is determined each year by the Ministry of Education for each governance in Yemen. The Ministry is responsible for appointing principles and the faculty, while the administration of the governance is responsible for enforcing the laws regarding compulsory education or supervising any other activities related to local communities.

Primary students in the religious classes learn from the *Qu'ran*, the holy book of the Muslim faith, and they are actively encouraged to develop good relationships among their family members. In addition to

learning their responsibilities to God and their parents, the students are taught to respect their elders and to help those who are younger. Although the practices of Muslim prayer are taught within families, the schools are also involved in this teaching.

Students spend much of this period learning the Arabic language, which is the key to advancement in education at all levels of education in Yemen. A common means of instruction in Arabic is the alphabetic method, in which students learn to use words and then put them into sentences. Through discussions of what they do in their daily lives, the students learn which are the correct letters to form words into acceptable sentences. Step-by-step, children learn to read books which are provided either by the Ministry of Education or for which modest fees are charged. Dictation and memorization are also widely used methods of instruction, beginning with the first year of instruction and becoming gradually more difficult as the students progress. By the sixth grade, the students know enough grammar to qualify for admission to the next level of education.

In the general sciences, students begin by learning about the vegetable families and the more common animals and poultry. Students are also introduced to the classification and identification of both plants

and animals, along with the study of trees and undomesticated animal life. From this point, the students begin to learn about insect life and the more uncommon animals. In addition, the environment and the need for clean water is not neglected and the characteristics of water and air are studied. Students then move to the study of birds and the forms of life which live in water. Ultimately, the necessities of life are introduced in the study of vegetables, cereals, sugar, salt, and glass. In the final year, attention is given to such plants as cotton, tea, and coffee, and minerals, including oil, coal, iron, copper, gold, and silver.

In mathematics, students learn enough arithmetic to include basic accounting skills, in addition to learning to add and subtract. Identifying Yemeni currency, which is expressed in the *rial* and *filce*, is also taught. In the second and third years, students move to the study of multiplication and division, along with the study of measurements and currency problems, fractions, and the basics of geometry.

Preparatory Education

Preparatory school is the period of education designed for the general student and to date the process is not directed at specialization. Students who wish to continue to high school must finish this level,

which is conducted in three-year cycles. The equivalent in the United States is the middle school for grades seven through nine. Graduating students are awarded a certificate.

According to the Ministry of Education, Yemen had 1,127 preparatory schools, enrolling 206,021 students, in 1988-1989 (Table 2.8). Growth has been rapid, with enrollments increasing by 126 percent between 1976 and 1986. To be admitted to this level, students must possess an elementary school certificate and should be between the ages of 11 and 16. Education at this level is also free and is more rigorous than at the elementary level. Students must maintain marks of 40 percent or more in all subjects, with 50 percent or better in the Arabic language and the religion classes, to pass to the next level. Administration is conducted in a pattern similar to that for the elementary schools, with the Ministry of Education the chief administrative authority at this level (Ministry of Education, 1989).

The curriculum is similar to that taught in the elementary schools, with the addition of such new subjects as English, geography, and history. Students are also introduced to biology, chemistry, and physics, and new mathematics levels include geometry and some algebra. Art is also taught at this level.

Table 2.8 Yemen, Ministry of Education, Plan for Preparatory Education, 1988-1989.

Governance	Number Schools	Male	<u>Students</u> Female	Total
The Capital	35	21,005	7,924	28,929
Sana'a	242	25,345	1,266	26,611
Taiz	272	42,020	9,460	51,480
Al-Hodaidah	77	18,114	4,051	22,165
Ibb	174	32,296	2,524	34,820
Dhamar	65	11,353	627	11,980
Hajah	67	9,830	332	10,171
Sadah	49	4,574	127	4,701
Albidha	53	6,522	364	6,886
Almahwit	44	4,815	179	4,994
Marib	38	2,418	4	2,422
Algof	11	857	5	862
TOTALS:	1,127	179,158	26,863	206,021

At this level, the curriculum changes each year of the three-year cycle and from grade to grade the requirements become progressively more difficult for the students. All public schools offer an identical program of study, designed to assist students in choosing a specialization for the time when they enter secondary studies. At the preparatory level, the teachers predominantly make use of the lecture method of instruction, and at the same time little is required in the way of outside homework.

English is introduced to the students in the first year of this cycle. Students are required to memorize the English alphabet and numerical system. The names of some animals and vegetables are taught. During the second year, more vocabulary is added, including work on sentence structures. Prior to graduation, students in preparatory school should have learned basic English grammar, a number of verbs, and their status in the past, present, and future tenses. The Arabic language is also extensively taught during this three-year cycle.

Secondary Education

Secondary education encompasses the grades 10 through 12, following which the students who successfully complete the course are awarded a secondary school certificate (Johnson, 1983). El-Mallakh (1986) has stated that in 1975-1976 there were 27 secondary schools in Yemen, with an enrollment of 6,050. The number of students grew to 10,645 by 1981-1982. Growth has been rapid at this level, given an enrollment figure of only 939 at the time the YAR was created and expansion to 11,984 students by 1982-1983 (Al Mottahar, 1986). However, the figure represents only 2.4 percent of the 15 to 17 age group. Secondary schools are divided by type into areas of specialization, and by the

second year of this three-year cycle students must choose whether they want to follow a science, literary, agricultural, commercial, or technical curricula.

There are 332 high school in Yemen, enrolling 64,030 students (Table 2.9). Between 1976 and 1986, enrollment in secondary education grew by 98 percent. There are four types of secondary schools:

- 1) General high schools, including schools which specialize in science and literary education;
- 2) Agricultural high schools;
- 3) Commercial high schools; and
- 4) Industrial high schools.

The general category often includes both the scientific and literary specializations at the same school.

Schools within each governance are placed under the authority of the educational administration of the governance, but ultimate oversight is maintained by the national Ministry of Education. The Ministry hires the staff, sets salaries and wages, and controls the curriculum at this level (Ministry of Education, 1989). Day-by-day supervision is exercised by a principal, who reports directly to the educational administration of the governance. However, some school principals report directly to the Ministry of Education and for the greater part, the administration of the governance serves as a conduit to maintain communications between

Table 2.9 Yemen, Ministry of Education, Plan for Secondary Education, 1988-1989.

Governance	Number Schools	Male	<u>Students</u> Female	Total
The Capital	14	10,899	2,656	13,555
Sana'a	52	5,337	203	5,540
Taiz	120	19,324	2,192	21,515
Al-Hodaidah	27	5,687	839	6,526
Ibb	34	7,290	438	7,728
Dhamar	10	2,085	90	2,175
Hajah	16	1,859	74	1,933
Sadah	19	1,262	30	1,292
Albidha	17	1,707	60	1,767
Almahwit	11	1,133	16	1,149
Marib	9	605	-	605
Algof	3	244	-	244
TOTALS:	332	57,432	6,958	64,030

national educational administration and the staff in place. On some occasions, if the needs are immediate, the Ministry will delegate some of its authority to local administration.

In recent years the rules have been changed for students who have completed their primary education. The Ministry of Education previously allowed them to enroll in secondary schools for a five-year period. At present, all students must have a preparatory certificate to be allowed into a secondary school.

The first 35 graduate students at the secondary level were sent to the Republic of China to further their studies, returning to teach at this same level in Yemen. Students in the third and fourth years at this level spend as much as 40 percent of their time in practical work and design projects. During the final year, this percentage can reach as high as 80 percent. Currently, secondary schools are arranged into the five following specialized classifications.

Scientific High School

Scientific high schools are the most desirable for advanced preparation. Scientific high schools offer advanced studies in mathematics, chemistry, physics, and biology.

Literary High Schools

Students choosing this major by their second year receive more schooling in Arabic literature, religion, and English as a second language. These areas are also taught, but with less emphasis, in the scientific high schools; in contrast, students in the literary schools take less math and pay more attention to economics.

Agricultural High School

Presently, there are three agricultural high schools in Yemen, the first constructed at Ibb in 1977. Current enrollment is 522 students (Table 2.6). These

schools offer courses in agricultural education in which first year students are expected to learn animal training and health assistance. The Ministry of Education, in cooperation with the Ministry of Agriculture, is responsible for the design of the curriculum. Course offerings include religion, Arabic, foreign languages, psychology, physics and chemistry, agriculture, horticulture, animal husbandry, food processing, agricultural engineering, pest control, and agricultural economics.

Commercial High School

Commercial courses were established in 1969-1970, with the first school in Sana'a enrolling only five students. Two more schools have been established in Taiz and Hodeida since that time. Graduates of these schools receive a certificate upon graduation and usually continue their education at the School of Commerce and Economics at Sana'a University. At present, there are seven commercial schools, enrolling 1,266 students, including 300 females (Ministry of Education, 1989).

Course offerings include religion, Arabic, foreign languages, including translation, geography and economics, history of the economy of Yemen, history of Yemen, commercial and economic information processing, accounting, business math, and securities.

Industrial High School

Schooling at this level is conducted for a five year period, selectively admitting only primary school graduates. Upon successful completion of a technical school course, students receive a high school diploma in technical education. At present, there are six schools enrolling 2,297 students (Table 2.6).

The curriculum of industrial secondary schools includes religion, Arabic, foreign language, social science, science, including natural history, chemistry, and math, engineering drawing, industrial drawing, surveying, fundamentals of industrialization, the history of vocational centers, and the history and basics of design.

Higher Education in Yemen

The year 1970 marked the beginning of formal higher education in Yemen with the establishment of Sana'a University. Initially, there were only 61 to 68 students in the School of Law and Shari'a (Islamic law) and the sciences and arts. Three years later, the Schools of Education, Commerce, and Economics were added and the total enrollment had reached 932 students, 60 percent enrolled on a full-time basis. In 1975, the number of students increased to 2,304 students, 71 percent of whom were full-time students

(World Bank, 1983). Currently, the total enrollment is 25,000 (Focus--The Yemen, 1990).

CHAPTER III

COMMUNITY COLLEGES IN THE UNITED STATES

Nineteenth century scholars in Germany felt that only those who possessed the highest intelligence should continue their higher education in a university. Those who sought a general education or a profession were urged to seek other types of schools. By the beginning of the 19th century, universities in Germany had become more oriented to research than to teaching (Brubacher & Rudy, 1976). American scholars reviewed this change in Germany and traveled there to study the new system. Upon their return to the United States, they became the first to advocate German concepts of the university. One of the first of these advocates was Henry P. Tappan, president of the University of Michigan from 1855 to 1863 (Monroe, 1972).

Fields (1962) stated that Tappan, as president of the University of Michigan, was the first to suggest the transfer of secondary studies currently completed at the university level to the high school or secondary level. Tappan was joined in this position by William Watts Folwell, the president of the University of Minnesota (Thornton, 1960). Other scholars who over the

following decades supported the position of Tappan and Folwell included Richard H. Hesse of Missouri, Andrew S. Draper of Illinois, and Edmund J. James. Just prior to his inauguration as president of the University of Illinois in 1905, James had called upon the University of Pennsylvania to drop the freshman and sophomore years of university study. These American university presidents were concerned with founding an ideal structure for upper division and graduate study, and at the same time advocated that what had been the first two years of university study should be added to the high school curriculum (Blocker, Plummer, & Richardson, 1965).

Consequently, it is only from the beginning of the current century that the two-year college came into existence, largely an American phenomenon, but with a few two-year institutions scattered throughout the rest of the world (Thornton, 1960). Since 1900, the two-year college concept grew very rapidly in the United States and in 1922, at its second meeting, the American Association of Junior Colleges adopted the earliest definition of a junior college: "An institution offering two years of instruction of strictly collegiate grade" (Koos, 1925). The two-year college movement in the United States has witnessed the following growth categories:

- 1) Generation I: Extension of high school (1900-1930);
- 2) Generation II: Junior college (1930-1950);
- 3) Generation III: Community college (1950-1970); and
- 4) Generation IV: Comprehensive community college (1970-1987) (Deegan & Tillery, 1985).

Development of Community Colleges in the United States

Generation I, 1900-1930

Change in American higher education occurred early in this century in response to critics from within the education environment, in addition to the external pressures of the larger environments of society and technological progress. Just which institution constituted the first two-year college is unknown, but it is believed to be Joliet Junior College. In 1901, with the help of William Rainey Harper, Joliet High School began to offer postsecondary courses that would enable students to qualify for entrance to four-year colleges with advanced standing (Thornton, 1960).

Following the establishment of Joliet, the two-year college movement spread only very gradually and was largely a handful of private and semi-public insti-

tutions (Fields, 1962). According to Monroe (1972), Harper had three principal recommendations for the establishment of a broad junior college institutional structure: 1) reduce the number of weakened four-year colleges; 2) add two years of college credit course work to secondary education; and 3) create junior colleges as back-ups to the existing university structure. Initially, the option which attracted the most favor was the expansion of existing secondary education to include college credit courses.

Deegan and Tillery (1985) have stated that the 1907 Caminelli Act in the State of California was the initial legislation permitting high schools to teach course work equivalent to the first two years of university study. By 1915, California was reported to have more than 1,300 students enrolled in junior colleges and by 1917, more than 16 high schools were participating in some form under the terms established by the Caminelli Act (Fields, 1962). Subsequently, with the 1921 District Act, California junior colleges became separate institutions from the secondary institutions from which they had grown and the movement in California became the model for the junior college movement throughout the United States.

Generation II, Junior Colleges 1930-1950

By 1930, whether public or private, junior colleges had been created throughout the United States (Cohen & Brawer, 1982). Although the Great Depression served to slow down the movement as financial resources dried up, it did not stop the spread of the two-year college movement. In fact, widespread unemployment during the depression years served to expand the extent of occupational education. Hillway (1959) called the 1930s the time of diversity, a period when a number of college-associated junior colleges were created which were vocational and adult education oriented.

In 1944, the passage of the G.I. Bill helped colleges diversify education in providing educational benefits to war veterans. Returning war veterans made large use of this opportunity and contributed to rapidly expanding enrollments in junior colleges as well as four-year institutions (Vaughan, 1983).

In the 1947 Truman Commission Report, the public junior colleges were for the first time referred to as "community colleges," insofar as they provided local communities with educational services. Their main goal, as stated by Vaughan (1985), was to provide education for all and the public was urged to support these institutions, which would

charge no tuition, serve as cultural centers for the community, offer continuing education for adults, emphasize civil responsibilities, be comprehensive, offer technical and general education, be locally controlled and blend into the state systems of higher education, while at the same time coordinating their efforts with the high schools. (p. 8)

It was during this period of intense growth that the junior colleges began to include adult education, vocational education, student services, career and program guidance, and personnel counseling function. The maturity of the students, and the numbers of new students, also assured that the junior colleges, which also served as transfer institutions, would become increasingly popular educational resources from the viewpoint of their community orientation.

Generation III: Community Colleges 1950-1970

By 1950, the community college concept had gained general acceptance and, as noted by Palinchak (1973),

programs began to reflect an involvement with public need and community service on a level never before attained. Programs were especially well suited for veterans and the curricular diversity contributed to the further development of the junior college as an institution with comprehensive programs and many purposes. (p. 31)

The Vocational Act of 1963 also served to spur the growth of community colleges, through the media of funds provided for vocational training. Vaughan (1983) has stated that scholars refer to the period of the community college boom, in which communities began to

draw direct social benefits from the expansion of community colleges into their areas. Further federal legislation in 1963 and 1965 reinforced this tendency, providing tuition and fee grants for needy undergraduates or all individuals who sought to improve their employment capacities (Thornton, 1960). According to Deegan and Tillery (1985), the major contributions to community college growth during this period, as the institutions were separated from the past secondary school ties, were the open door policy and public legislation subsidizing student enrollment costs.

Generation IV: Comprehensive Community Colleges

1970-1987

The "golden age" of the community college concept, in terms of popularization, diversification, and credibility of services, occurred from the late 1960s into the 1970s (Vaughan, 1983). It was during this time and subsequently that most community colleges reformed their programs in terms of the open door policy and expanded their curricular appeal to include adult education programs (Deegan & Tillery, 1985). This period of rapid growth only began to decline late in the 1970s with economically related sharp declines in local, state, and federal funding. Attendance figures subsequently fell and from this time the institutions began

to actively solicit student enrollments. Nonetheless, the period still witnessed a considerable overall increase in enrollment figures, from 1.9 to 4.9 million students, 63 percent of whom were enrolled as part-time students (Cohen, 1984).

Current State of Community Colleges

According to the AACJC (1988), in 1987 there were 1,060 community colleges enrolling 4,922,291 students, including 1,572,106 full-time students and 1,132,127 students from minority populations. Of 245,722 faculty members, 102,974 were employed on a full-time basis.

Community college critics have questioned the quality of education offered in these institutions, largely as an effect of the open door admissions policy. The questions has been reduced to the issue of whether or not the existence of comprehensive, quality programs can be reconciled with the open admission policy. As Mancha (1987) has voiced this concern, "only if community colleges establish a more specialized mission and/or close the open door can they hope to become education institutions of quality in the future" (p. 32).

Consequently, it may be said that the community college concept in the United States has witnessed period of both growing and declining popularity, and

these institutions have undergone several processes of rapid change. However, the community college movement has had an overall positive impact on American higher education, which can be expected to continue so long as the institutions' primary function remains the provision of a serve to local communities.

Functions of the Community College

At one time community colleges seemed to have but a single goal, the preparation of students for further study in four-year institutions. This is no longer the case and community college functions have become more comprehensive, including:

- 1) Career education: student preparation for employment;
- 2) Compensatory education: enhancing literacy through remedial studies;
- 3) Community education: reaching out with extended services;
- 4) Collegiate functions: new directions in the Liberal Arts; and
- 5) General education: development of an integrated curriculum (Cohen & Brawer, 1982).

According to Monroe (1972), community colleges encompass as many as 12 separate functions, as follows:

1. Transfer curricula functions: It has been estimated that of the 75 percent of the community college student body enrolled in a transfer student programs, 25 percent actually transfer to a university. Thus, a reevaluation of emphasis on transfer curricula would be in the interest of the community colleges and Monroe (1972) has recommended the upgrading of transfer courses to the level where students would not encounter unusual difficulties upon transferring to a higher institution. At the same time, Monroe indicated his opposition to the teaching of upper level courses, even though this might be a faculty preference.

2. Citizenship and general education functions: Community colleges provide community needs in the form of classes with no prerequisites. Students are allowed to study what they please, regardless of their background or their choice of future career. In this sense, the basic community college function remains the fulfillment of community and individual needs.

3. Occupational training functions: In community colleges occupational training has begun to compete with the transfer function in terms of priorities since the former train individuals for entry into skilled jobs and helps retrain employees for new jobs (Monroe, 1972). The local community college is the usual determinant of which occupational programs are needed and

how they will be taught, but only with respect to knowledge of local needs and benefits to the community.

4. General studies functions: Includes course work for both those who will and will not transfer to institutions of higher education.

5. Adult and continuing education functions: The functional area which Monroe (1972) through would expand at the most rapid rate in the 1970s and 1980s.

6. Remedial functions: Centered upon the issue which has contributed to the growth of the community college concept, the open door admissions policy, which is at the same time an issue of discouragement and frustration to many community colleges. Of the total community college enrollments, less than 20 percent of the remedial enrollments have been sufficient successful to result in transfer to higher education or to technical level occupational courses.

7. Counseling and guidance functions: Initially regarded as an unnecessary service in the past, this function has become increasingly important. Overall, the ratio of counselors to students has changed from 1/500 to 1/100 (Monroe, 1972).

8. Salvage functions: The function, in combination with counseling and guidance, is particularly aimed at those who have failed at the four-year college

level; or for students who are capable but lack motivation.

9. Screening function: This function may pose a conflict to the open door admissions policy. Monroe (1972) has suggested that there should be some screening accomplished for those students who intend to pursue their education beyond the community college level.

10. Cooling-out and goal finding function: This function is designed for those students who have not developed firm career or educational goals, and provides the opportunity to explore a variety of educational programs.

11. The custodial function: Also referred to as the "time killing function." It exists because of the dichotomy between the institutional need to maintain academic recognition and legitimacy and complementary difficulties in restricting the admission of the non-motivated student due problems in measuring motivation.

12. Cocurricular or student activity function: Monroe (1972) recognizes that it is important to promote student activities at community college campuses in order to assure that students relate positively to their institutions. He advocates appointment of full-time student activities directors insofar as community college students are demonstrably interested in cocurricular activities, including music, athletics, drama

and the arts, and student government. For some students, these activities have direct ties to their future careers.

In contrast, at an earlier stage in the development of the community college concept, Koos (1925) summarized community college goals in five principal functions:

1. Occupational training or general education. Two year programs based upon the goals of a) popularization of higher education by providing educational opportunity at lower costs and closer to home, b) student control exercised through the media of home influences, c) opportunity for leadership training, d) academic exploratory opportunity, and e) quality instruction. Overall, the community college is a bridge between high schools and universities.

2. Extension of high school, to include freshman-sophomore university credits. This concept, which serves to academically strengthen the junior college, is related to bridging between what is taught in high schools and colleges.

3. A division of responsibilities, whereby junior colleges and high schools prepare students for upper division work, while universities devote full attention to research and higher learning.

4. Establishment of close relations to secondary education in order that upon graduation from high schools students can enroll directly in community colleges without loss of time.

5. Direct benefit to local communities, to the extent that community colleges offer course work which serves local needs.

Shortly after Koos' (1925) classic work, W. C. Eells (1931) summarized the four most popular functions of junior colleges as follows:

1. Popularizing function: All people should have the opportunity to benefit from higher education, and the provision of this opportunity has become an obligation on the part of the state and a right of all citizens. Financial, location, or other problems have restricted the ability of some to enter four-year colleges and the community college offers a cost effective alternative, including provision of adult and citizenship education.

2. Preparatory function: Lower division course work should be focused at the junior college level, leaving research and professional level education to the university system. Advantages of this approach include lower university costs since these institutions will be able to concentrate upon advanced course work; students will be able to remain at home for two addi-

tional years; smaller classes will allow students to benefit from personal teacher contact in junior colleges; and junior colleges will be able to derive their programs from community needs.

3. Terminal functions: Placing this function in the junior colleges will benefit those students enrolled in technical and semi-professional training, allowing direct entry into a number of occupations. This was termed by Eells (1931) as "cooperative education" in conjunction with vocational training.

4. Guidance functions: Being small in size, junior colleges can provide a greater extent of personal guidance and attention to students and their needs than can a large university. This will also facilitate a smoother transition to four-year institutions, thus assuring an atmosphere where the immature student can seek and find help prior to enrollment in a university.

L. L. Medsker (1960) attributed the following functional areas to community colleges:

1. Transfer programs: Teaching lower division course work to students who will transfer to four-year institutions.

2. Terminal programs: General programs which include occupational training and which reflect community needs, while avoiding program duplication with agencies offering parallel training programs.

3. General education: To provide skills and knowledge that each citizen can benefit from, including training for citizenship rights and responsibilities.

4. Salvage function: To provide students with second opportunities to make up course work failed in high school, or to help those students lacking in basic skills succeed in universities and enhance student standing in order to qualify for entrance to a four-year institution.

5. Adult education: Teaching new occupational skills or offering opportunity for recreational or cultural learning.

6. Community service: Direct assistance to local communities by conducting special workshops, advisory assistance to community groups, and offering recreational and cultural activities through the use of buildings and facilities for community activities.

In summary, the principal functions of community colleges, as agreed by a number of authorities (Bogue, 1950; Cohen, 1971; Harlacher, 1969; Reynolds, 1965; Thornton, 1960) include six basic functions: 1) general education, 2) transfer programs, 3) general education, 4) occupational programs, 5) developmental/remedial education, and 6) community services.

CHAPTER IV

COMMUNITY COLLEGE MODELS

Introduction

Before examining the organizational models, it is useful to define the word "organization." According to Midkiff & Come (1988), "organization is the process of putting everything together." The National Advisory Council on Adult Education (1980) has defined "administration" as "the functions provided by management in the planning, organizing, initiating, coordinating, operating, evaluating, and revising procedures; or programs directed toward the completion of an assigned task or achievement of goals" (p. 3).

The organization and its administrators perform under governing rules and regulations. Governing, or governance, as defined in the American Heritage Dictionary, is "to make and administer public policy for political units." Zoglin (1976) defined community college governance as "the means, both structural and procedural, by which all the interested individuals, groups, agencies, and governmental units participate in making policy" (p. 6). Observers of community colleges

in the United States have characterized their governance as growing increasingly more complex. An important framework for the analysis of community college governance may be found in Medsker and Tillery (1971), *Models for Governance*. These authors cite two basic patterns of governance for community colleges:

- 1) Local community colleges share responsibility with state governments; and
- 2) State government is the responsible agency for community college governance.

Medsker and Tillery (1971) categorized community college governance into six types. A review of the literature resulted in the selection of six states, each of which provides a useful model of one of the governance categories.

Shared Control Between the State and Local Communities

This section includes three examples of states in which the control of two-year colleges is shared between the state and the local communities in which the colleges are located.

Illinois Community Colleges

In the State of Illinois, state functions are performed by a separate board for community colleges.

Background

According to the AACJC (1988), there were 51 colleges in the state of Illinois in 1987, enrolling 333,852 students, 93,200 of whom were full-time students. They were taught by 41,005 faculty members, 15,501 of whom were full-time instructors.

Governance

The state board functions consist of reviewing policies established by the community colleges and providing general guidelines. The board is the planner and coordinator, assuming the role of establishing or expanding community colleges and their districts throughout the state. In effect, the state board is responsible for the development of a statewide master plan for community college programs. For the most part, the state agency sets the process for expanding community college districts or reestablishing community colleges within a district.

Advantages

This model of statewide coordination is important for preventing unnecessary competition among different factions, and for solving the problems which arise between local groups in competition within the same territories. Wellman (1978) stated that the state agency can take the initiative when there is local

desire for the state to move into an area. In the case of Illinois, there are often more than one community college competing for attention in a single area.

State coordination is important to eliminate unnecessary duplication in community college districts or between community colleges and other educational agencies, thus assuring that minimum educational requirements are met. Through coordination, licensing and certification procedures are uniform and of benefit to local consumers (to protect both students and taxpayers from chaos, both of whom benefit from the programs and services).

With respect to sites and facilities, state coordination can develop a helpful acquisitions policy that local trustees, with little or no experience in such areas of concern, will find useful. The state is able to prevent duplication in given locations and to avoid disastrous local miscalculations. Although disagreements between state and local authorities may occur over the question of location suitability and access requirements, the projects that have been completed have demonstrated that cooperative local and state coordination can be useful.

Financially, state coordination is important to strengthen local community colleges since local revenue bases are inadequate and the property tax is a largely

inflexible revenue source. Survival is the principal aim of most community colleges and without state aid many of these institutions would have to restrict their services and even omit educational programs. State coordination is especially important to those districts that lack sufficient local funds to meet state funding level requirements.

State coordination is of extreme important to research and management systems, as Lach (1976) has noted. State coordination of research policy provides local and state officials with accurate and current information on students, programs, finances and other aspects of community college operations. It would not be easy for individual colleges to develop their own information management systems without state assistance. Frequently, the data submitted by individual institutions may cause embarrassment to local districts, but it is nonetheless important since it can provide valuable assistance with regard to day-to-day operations and also for strategic college evaluations and plans. Those colleges who submit favorable data can show the state their degree of success and ask for assistance in expanding their successful programs; conversely, those who submit unfavorable data can provide a case for strengthening weaker programs.

Disadvantages

The disadvantage of the coordination model is that following state rules may restrict decisional autonomy on the part of local authorities, resulting in the failure of some Illinois districts when they failed to meet minimum state requirements (e.g., minimum population, tax rate, equalized assessment valuation requirements). The state has often encouraged the annexation of an existing district by neighboring territories to help bolster their common size and tax base. However, at some points this has been done against the wishes of local residents. Thus, the loss of academic freedom and local control can result from the infringement of state authority.

Naturally, the question of the fairness of the state bureaucracy has been questioned by local authorities when new programs are delayed, resulting in the feeling that state authorities favor some districts more than others.

According to Wellman (1978), most of the time local officials are concerned with the multitude of state rules and regulations governing community college financial operations, particularly when the reasons underlying the regulations are not understood. Thus, it is incumbent upon the state to clearly explain its

rules and regulations to avoid conflicts between levels of authorities over the question of fund allocations.

Conclusions

Wellman (1978) concluded his consideration of the case of Illinois by noting that state coordination of locally controlled community colleges is both necessary and helpful, but that it should be conducted in a joint partnership approach if it is to be of the greatest benefit to both local and state officials and the public.

New York Community Colleges

New York community colleges provide a second type of state coordination with local communities. In this case the state function is performed by a board responsible for all of higher education (Medsker & Tillery, 1971).

Background

According to the AACJC (1988), in New York in 1987 there were 45 colleges enrolling 259,466 students, of whom 137,754 were full-time students. The faculty for these institutions totalled 16,534 teachers, of whom 7,832 were full-time instructors.

Governance

The Board of Regents of the University of the State of New York is the educational policy maker and the final authority. The Board of Trustees of the State University of New York "is the state level agency responsible for the overall supervision, regulation, and coordination of the public community colleges, as well as for operational control and governance of the State University of New York" (Martorana, 1974, p. 71). The Board of Higher Education is the local board of trustees of seven community colleges in the city of New York, and at the same time is the governing board of the City University of New York.

The local board consists of nine members, five of whom are appointed by the local legislative body of the sponsoring agency and four of whom are appointed by the governor. The local board appoints a president for each college, subject to the approval of the State University trustees, and the president appoints other members of the local staff. The board adopts the curriculum, prepares a budget for approval by the local legislative body or other appropriate governing agency. General supervision is exercised by the State University trustees, but not at the effective operational level.

Advantages

New York has one overall agency which is responsible for all postsecondary education. This helps to avoid duplication at the community college level. The University of the State of New York is the main agency under the authority of the state education department. The same agency is also responsible for all levels of public education, which makes it easier for the agency to predict what the future needs of the state will be for postsecondary education. Furthermore, the University of the State of New York is also responsible for public and private education, which makes it easier for the agency to discover the nature of local needs and plan from that point (Medsker, 1960). Moreover, this model, from the viewpoint of a common course structure and common educational policies, provides articulation with other collegiate institutions.

Disadvantages

Martorana (1974) referred to the complexity of the New York structure, "the most complicated network in any state" (p. 70). The State University trustees are a state-level postsecondary education coordinating board under the regents, which themselves are an overall coordinating board. This results, as Martorana noted, in the involvement of community colleges in two realms of planning. Coordination and review of pro-

grams and operations are within the State University System under the Board of Trustees, with college central staffs placed under the authority of a chancellor, while other elements of postsecondary education are placed under the authority of the Board of Regents, its commissions, and the State Department of Education.

The Board of Higher Education is the governing board of the City University of New York and also the local board of trustees of seven community colleges in the city of New York. The Board of Higher Education, as a governing board of a major university, is responsible for dealing with the Regents in the same way it deals with local community college boards. Community colleges in New York are locally sponsored, which makes the local boards of trustees fiscally dependent on their sponsors and to the State University trustees for budgetary matters.

Pennsylvania Community Colleges

The third situation in the first category is states where state control, in cooperation with local communities, is placed under the general jurisdiction of one or more state universities. This is the case in Pennsylvania.

Background

The state of Pennsylvania has 18 community colleges enrolling 88,341 students, of which 31,025 were full-time students, and employing a full-time faculty of 5,766 in the fall of 1987 (AACJC, 1988).

Governance

Community colleges in Pennsylvania are modeled after the policies of the American Association of Community and Junior Colleges as stated in 1963. The resultant legislation provided a green light for local community colleges to operate autonomously.

According to Shoemaker (1978), community colleges in Pennsylvania operate autonomously, with community colleges receiving funds from the Commonwealth of Pennsylvania in return for submitting important information to the state. Local control, rather, is sponsored by an existing tax jurisdiction, such as a school district or a county commission, either of which may be responsible for appointing local boards of trustees. Thus, the community college is under the direct control of the local board of trustees.

Shoemaker (1978) noted that the function of the board of trustees is to exercise

direct control over the community colleges. They are responsible for appointing the president, holding title to all of the physical facilities and assets, and making all of the necessary policies on admission of students, courses of instruc-

tion, tuition, and other matters necessary for operation of the college. (p. 64)

Advantages

Pennsylvania has a unique and effective organization of higher education. This organization is unified as a voice for the universities and the community colleges. The PACU (Pennsylvania Association of Colleges and Universities) includes all higher education institutions in the state. During the past 30 years the power of the PACU has increased as it became the sole source of checks and balances for the state higher education system. The legislators and others who are concerned with higher education are pleased with this organization since many of the problems previously faced have been solved before ever reaching the state level. Within PACU, the community colleges have established the Pennsylvania Federation of Community College Trustees, which works closely with the PACU, the State Board of Education, the Department of Education, and other institutions concerns with the course of higher education.,

Another bright side of the Pennsylvania model is that the State Board of Education is a coordinating board, rather than a governing board. The Board establishes plans and regulations for the establishment, operation, and monitoring of community colleges. However, it does not exercise direct control over these

institutions. The Pennsylvania Department of Education is mainly concerned with the protection of the Commonwealth's funding contribution, processing payments without involvement in local contracts, officers, staff, or institutional programming needs.

Disadvantages

The problem that Pennsylvania faces is accountability for its funding. According to Shoemaker (1979), the state share is limited and the balance of the local requirements are the responsibility of the local sponsor. Therefore, the primary problem facing this model is funding inadequacy. Consequently, as greater state funding demands are made, the Department of Education and the State Board of Education have greater reason to ask for a greater share of authority in managing local institutions.

Conclusions

The trend toward more centralized control therefore also affects Pennsylvania community colleges, though the present model has evidently been satisfactory to local authorities. Nonetheless, this could change since with the passage of time local needs are also changing.

State Control of Community Colleges

Three examples are presented of states which exercise full control of local community colleges.

Connecticut Community Colleges

The state of Connecticut provides an example of a model in which two-year colleges are fully controlled by the state, in this case placed under the authority of a state-appointed separate board for community colleges.

Background

The AACJC (1988) has stated that in 1987 there were 17 community colleges in Connecticut, with a total enrollment of 39,791 students, 9,551 of whom were full-time students, and a teaching staff of 1,929, of whom 791 were full-time instructors.

Governance

In Connecticut there are three levels of governance for community colleges. First, there are the legislative and executive branches of state government, vis-à-vis laws enacted by the General Assembly and enforced by executive agencies. Second, a Commission for Higher Education (Board of Education), which coordinates various subsystems within the system of higher

education, establishes statewide policies for higher education, approves the statewide higher education budget, approves and reviews program content and facilities, and reviews policy development to the extent that it is consistent with state policies. The third level of governance is the only direct influence, including a Board of Trustees for regional community colleges, the administrative personnel at each college, and a regional council appoint for each college by the Board of Trustees.

Darnowski (1978) stated that this system is seemingly straightforward, but the reality is different insofar as the responsibilities of the various units and subunits are more complex than statutory mandates might suggest. The Commission has been given responsibilities by the General Assembly which appear to supersede or overlap the lines of authority given to the Board of Trustees. For example, recommendations can now be initiated by the Commission of Higher Education to the General Assembly to change community college tuition fees, an authority normally incumbent upon the Board of Trustees. In addition, there is no such thing a local institutional autonomy, each with its own board of trustees. Rather, for the entire system there are:

- a) common policies,
- b) common fiscal procedures,

- c) basic standards for facilities, and
- d) legislation and events have diminished local autonomy where it has existed in the past.

In effect, authority is top-down. Personnel in agencies outside of the community college structure have the authority in matters of expenditure control to approve or disapprove actions. The result, in Connecticut, is continued controversy between local colleges and state agencies.

Darnowski (1978) added that appointments to positions begin with the approval of the state budget (the number and dollar amounts for the positions are fixed). Colleges cannot exceed these figures, which the local president recommends subject to Board approval. The entire process is a papermill, mired in layered decision-making and a host of conflicting interest between various state agencies. These factors work against the ability to achieve reasonable educational objectives.

Advantages

State agencies have a broader view of the position of local economies within the larger economic situation and are better able than local authorities to make planning and expenditure decisions in the light of this broader view. In addition, expenditure controls are a further check on agency over-expenditures, thus lessening the likelihood of deficiency appropriations that

may exceed revenues. Expenditure controls thus make it easier for the executive branch to monitor spending, especially during periods of economic change or uncertainty (Darnowski, 1978).

Disadvantages

The other side of the coin is that there are various authorities and responsibilities mandated to the Board of Trustees for Regional Community Colleges or the Commission for Higher Education which are, in reality, meaningless due to intervention from controlling agencies. In effect, educational decisions are made by expenditure control personnel with little, if any, expertise in the educational field and little knowledge of situations at the individual schools.

Other criticisms have noted that the expenditure controls are not applied with consistency, they create time lags and reduce flexibility in planning and operations, and as currently practiced, they can easily be arbitrary or political in nature. In summary, critics have stated that expenditure controls are neither truly economical nor efficient (Darnowski, 1978).

Conclusions

Darnowski (1978) called the Connecticut model, "the dirty laundry." In his article he used Connecticut to indicate the complexity of state bureaucracies

practicing under the name of efficiency. He concluded by stating that

control of college activities through fiscal, personnel, and other checks by people at a distance does not make sense. Substitution of the judgment of various state commissions for that of trustees and administrators on the spot is an invitation to confusion and delay and not a step toward excellence. In almost every instance, there is an increase in costs to the taxpayer as there is less efficiency in decision making. (p. 14)

Oklahoma Community Colleges

Oklahoma provides a second example of states in which two-year colleges are fully controlled by the state, in this case placed under the supervision of a board of higher education with a subunit given primary responsibility for community college education.

Background

According to the AACJC (1988), in 1987 there were 16 community colleges in Oklahoma, enrolling 61,599 students, 21,270 of whom were full-time students, and employing a faculty of 2,447, of whom 979 were full-time teachers.

Governance

State junior colleges in Oklahoma are placed under the legal jurisdiction of the Oklahoma State System of Higher Education. However, each institution has its own board, with the jurisdiction of some boards ex-

tended to include more than one college. The Oklahoma State Regents for Higher Education is the chief coordinating board for the entire educational system through the office of a chancellor. The board is also responsible for all accreditations of postsecondary institutions in the state.

Advantages

Municipal colleges were established out of concern for local high school graduates who found it difficult to cope with institutions of higher education for reasons of their location or finances. Programs were initiated in the local high school plants, with some high school teachers devoting some of their time to junior college instruction. These municipal junior colleges are locally financed internally through an annual fee, with the balance paid by the local educational district. Local districts provide all building facilities, which are usually local high schools. However, some of the local colleges do have new buildings which are dedicated to junior college use.

The Oklahoma State Regents for Higher Education is the chief coordinating board for the entire educational system, thus duplication of decision making processes can be eliminated. The need for new colleges is easier to track since the Oklahoma Regents are in contact with all agencies of higher education.

Disadvantages

The chief disadvantage of the Oklahoma model is that the municipal colleges receive no state assistance to encourage a state of equality between institutions. Efforts to include the municipal colleges in the state system have not been accepted by the legislature since it would call for system enlargement or more funds drawn from the purse of higher education. According to Medsker (1960), state officials were none too happy about the need to consider new taxes for state aid to community colleges.

A disadvantage can also be noticed in the structure of institutional leadership. Authority in the state system is vested in the budgetary and curricular supervision exercised by the Regents, whereas the municipal institutions are at the same time placed under the supervision of the State Board of Education. At the same time the State Superintendent of Education is responsible for all public schools and thus concern with general standards for the municipal colleges. There are two factors which make it difficult for the superintendent to exert a leading roll. The first is the lack of state aid and the second is that the municipal colleges are regarded as a part of the higher education system. Therefore, organizational coordination is at best difficult. Medsker (1960) concluded that

"what lies ahead in Oklahoma will probably depend on enrollment pressures and the extent to which junior colleges will be called upon to meet them" (p. 267).

Florida Community Colleges

Florida provides a third example of local community colleges placed under the full control of the state, with state functions performed by a state board of education (Department of Public Instruction).

Background

The AACJC (1988) has stated that in 1987, Florida had 34 colleges enrolling 244,766 students, 80,494 of whom were full-time students, and a faculty of 12,889, of whom 4,351 were full-time instructors.

Governance

Owen (1978) disputed the claim that greater dependency on state fiscal support will lead to state control, referencing the case of Florida as an example of balanced state and local control. Louis Bender (1975) stated that Florida had successfully demonstrated that full state funding of operating and capital costs could be put into effect, while leaving institutional policy jurisdiction with local boards of trustees and maintaining a state structure for the coordination of community college policies. In Florida, there is a state

Department of Education with a Community College Division. Local governance is exercised through 28 local district boards of trustees.

In the past, Florida community colleges were controlled by local boards in each Florida county. In 1968, control was placed in the hands of the boards of trustees in local education districts. By 1979, 75 percent of community college funding was provided by the state legislature and the State Board of Education had continued to stress its support for local control.

According to Owen (1978), the state Community College Council drafted proposed legislation for submittal to the Florida legislature. The draft proposal made it clear that the commitment to local control under a nine-member lay citizens boards chosen from among existing members of local district boards of trustees, appointed by the governor for a maximum of two four-year terms, should be continued. This draft would have made the director and staff of the present Division of Community Colleges the administrator and staff of a state community college coordinating board. At the time, the State Community College Council endorsed the proposal because of strong feelings among existing board members that this change would not lead to further state control of community colleges at the expense of local control.

Advantages

Local boards have the maximum flexibility to carry out their assignments. First, there are standards of accountability since local jurisdictions are responsible for local assessments in the areas where they are required. Second, articulation between community colleges and state universities has been improved. The Coordinating Committee includes two representatives from the State Department of Education. Coordinating Councils operate on a local basis to solve local or regional problems, and have been successfully operated in many areas of the state.

A common course numbering project has been instituted throughout the system and more than 50,000 courses taught at local community colleges and universities have been reviewed, largely by faculty members on discipline-based task forces. For the Division of Community Colleges, four representative councils, which are in turn advised in turn by councils of presidents and the local offices of instruction, student, and business affairs, provide much of the planning and coordination.

Disadvantages

The system is bureaucratically unwieldy, as evidenced by the following: 1) the Administrative Procedures Act requires public hearings which must be pub-

licly advertised 21 days prior to each hearing; 2) equal access/equal opportunity statutes require extensive semiannual reports, which are costly in nature; 3) the Auditor General requires annual evaluations from all agencies received state funds, representing a power which can be misused; 4) community instructional service requires consideration of the problems of health, safety, environmental concerns, governmental difficulties, and family and child rearing; and 5) the Public Employees Relations Act of 1974 infringes upon the authority of local boards.

In addition, state technical program reviews, which provide the standards for the accountability of funds, constitute another layer of authority through which decisions must be passed. Overall data gathering and report requirements are time consuming and often serve as obstacles to local boards, and often serve only to strengthen state controls. This authority is already considerable since funding provision language states where public funding should be directed, including funding for occupational programs, which are distributed in accordance with overall entitlements as established by state formula.

On a second level, management information systems are used to gather information to provide the basis by which the state can provide more direction to local in-

stitutions, a situation which could lead to the future exercise of further legislative control.

Conclusions

When reviewing the above obstacles and opportunities for the continued exercise of local controls, it may be seen that a balance between local and state control has emerged, creating a powerful impact on the community colleges in their trend toward future growth and the fulfillment of their educational mission. Henderson (1977), in describing the situation in Florida community colleges, has stated it thus:

State level actions have been subject to individual whim and political pressure rather than being made mainly on a systemwide statesmanlike approach. State coordination has also been weakened, and the cumulative effect of these changes has been a loss of direction of the system; feelings of uncertainty and change in the local institutions; and a breakdown in communications between local boards and state agencies. (pp. 2-3)

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions--A Community College Model for Yemen

Yemen has 11 governances, or *liwa*, each headed by a governor appointed by the president of the republic. Within each *liwa*, the governor is the chief administrative authority, but each national government ministry furnishes its own appointee to serve as its representative at the level of the governance.

Though the Board of Education would have considerable influence in determining the functions of community colleges, in coordination with three governing agencies (the Ministry of Education, the Ministry of Higher Education, and the central government of the Republic), the three basic functions of community colleges should be clear to each of these agencies:

- 1) reduction of the high rate of illiteracy,
- 2) transfer functions, and
- 3) developmental education.

Each governance in Yemen differs with respect to its natural environment, resources, population, and educational needs. Moreover, from one governance to the

next, acceptance of the authority of the central government is not a questionable issue. These diversities must be borne in mind in the establishment of local community colleges in order to assure that the institutions are accepted at the local level. What is apparent is that some people look at education as a form of cultural corruption if there is an attempt to mix the sexes within the same institutions while there is some other means to solve such problems. A branch of the community college for women would be recommended.

In general, Yemenites are religiously conservative and strongly faithful believers in Islam, and the government will face considerable resistance if it attempts to create institutions which run counter to the convictions of people at the local level. Through the administrative structure of each governance, the government should reassure people that it intends to educate them within the parameters of Islamic values and convictions. Without assuring a level of cooperation between the government and the people, any institution will assuredly fail. Thus, if national policy is to increase the educational level of the populace, winning the trust of the people should be one of the main goals of the government.

At present, the government has with some effect undertaken campaigns to attract greater numbers of peo-

ple to complete their education. In this respect, feedback has been apparent in recent increases in school attendance figures (Table 2.6, p. 28). Basically, people have realized the need for and benefits of education. When schools or hospitals are build, electricity is extended into the countryside, and roads have been paved to connect one area of the country with other areas, most of the work completed has been done by local people. Yemen must seize this opportunity to improve its educational system, which in the long run will reflect positively upon society at large as well as individuals within the population. Despite progress, Yemen continues to face serious educational problems meeting the current as well as the future needs of its people, and now is the time to do something about this situation. Community colleges are one answer to current educational problems as well as future needs. The American experience has been unique and it is possible to borrow from the accomplishments of community college structures in the United States and beneficially apply selected procedures to the environment of Yemen. This can be done by examining the various alternatives within American community college structures, identifying those which constitute appropriate organizational alternatives for Yemen.

For a community college model (Figure 5.1) for Yemen, the Ministry of Education should be organized as follows. The administrator should have three assistants, one for each primary, preparatory, and secondary education. Eleven members for a community college board would be appointed jointly by three agencies: the Ministry of Education, three appointments; the Ministry of Higher Education, three appointments; and the central government, five appointments. When selecting board members, each agency should take into consideration the cultural background of the candidates, making every effort to assure that the appointees reflect the background of the areas in which community colleges are to be placed.

The Board then must make policy in accordance with local needs in terms of the basic functions of the community colleges, and the same is true for each governance within the scope of its resources. In Yemen, total state control would be less effective than shared responsibility since each *liwa* differs in terms of its resources and environment. State and local authorities will be more able to jointly arrive at solutions that can be of the greatest influence and benefit to local community colleges. However, there is no way in which state authority can be avoided since it is the ultimate

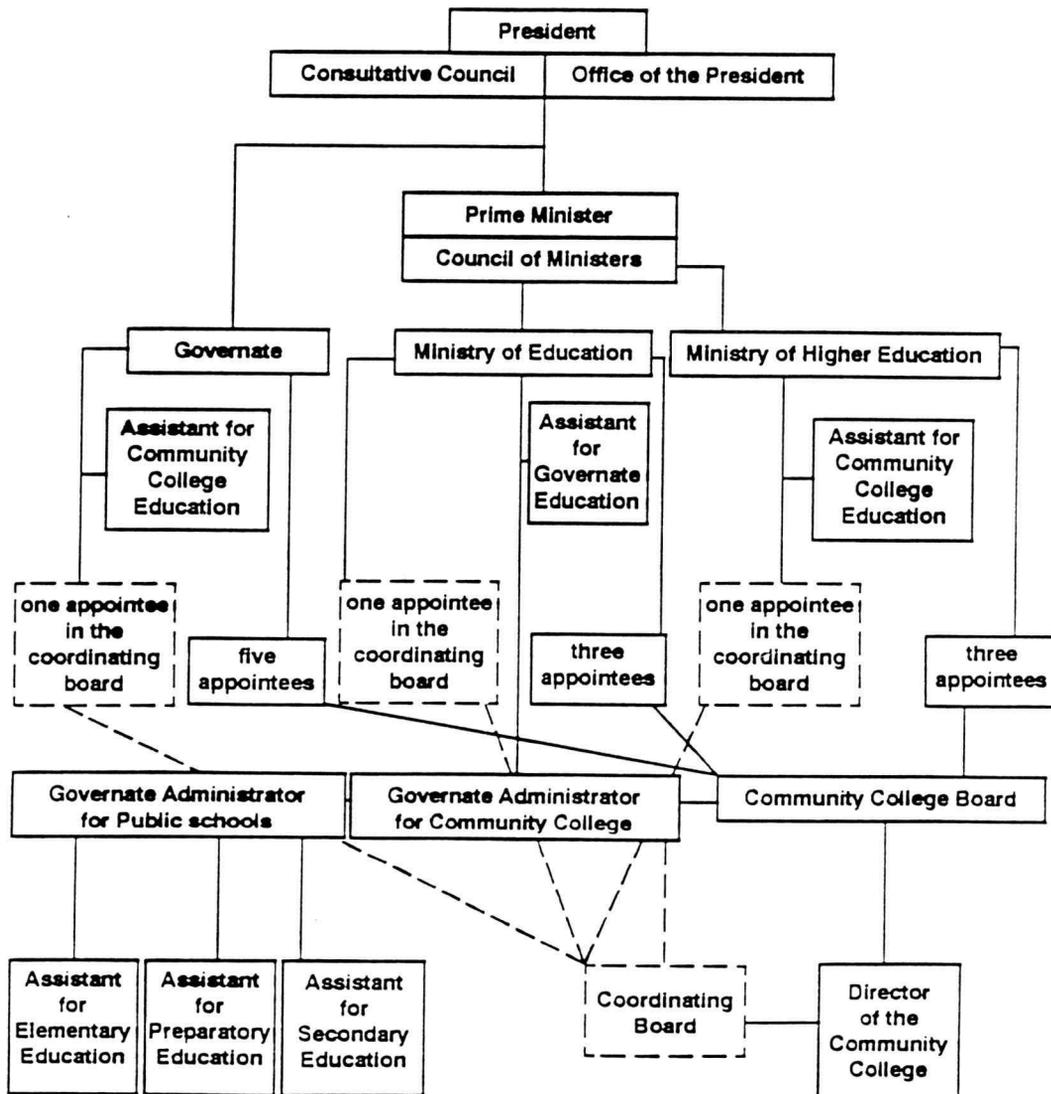


Figure 5.1 Organizational Model for Community Colleges in Yemen.

repository of all authority and of all funding. Local residents are more aware of local needs, thus cooperation at every level is both inevitable and preferable. Moreover, policy coordination will be appropriate to the introduction of new colleges in Yemen since the institutions will be established to solve problems arising from outside the colleges. It is hoped that these institutions will be of tangible assistance to people from outside the colleges; thus, the goals of these institutions cannot be achieved without a common coordinating policy.

For the balance of appointees to the college governing board in each *liwa*, the governor should choose citizens who are knowledgeable about local community needs. The function of this board, in cooperation with *liwa* officials and representatives of the national ministries, would be to assume legal responsibility for all college affairs and to constitute a bridge between the college and the local community.

Duties and Responsibilities

Ministry of Education

- 1) Responsible for all public education, including elementary, preparatory, and secondary education, including the specialized schools for the study of literature, science, com-

merce, agriculture, and vocational/industrial education, as well as community college education.

- 2) Responsible for appointing administrators for all levels of governmental educational institutions under its control, including administrators for elementary, preparatory, secondary, and community college education.
- 3) Appointing three Board of Education members.
- 4) Appointing one Coordinating Board member.

Ministry of Higher Education

- 1) Administration of the University of Sana'a.
- 2) Administration of all research institutions.
- 3) Appointment of an assistant for community college education.
- 4) Appointment of three members of the community college Board of Education.
- 5) Appointment of one member of the Coordinating Board.

Governors

- 1) Chief executive authority in each *liwa* with ultimate supervisory authority and review authority for implementation of all college rules and regulations.

- 2) Appointment of an assistant for community college education.
- 3) Appointment of three members of the Community College Board.
- 4) Appointment of one member of the Coordinating Board.

Ministry of Education Assistant for *Governat*

Education

- 1) Assure that articulation is maintained between public schools and community colleges.
- 2) Coordinate reports on public activities within the *Governat*.
- 3) Coordinate reports on activities in community college education with the *Governat*.
- 4) Forward recommendations concerning public school needs through appropriate channels within the Ministry of Education.
- 5) Forward policy decisions, recommendations, claims and complaints to the Coordinating Board of Education.
- 6) Attend both Board of Education meetings as required.

Administrator or Assistant for Community College
Education

- 1) Establish full cooperation with the Board of Education and the Coordinating Board for Education, attending the meetings of both as required.
- 2) Receive Coordinating Board policy decisions, recommendations, claims, and complaints.
- 3) Work toward accomplishing the needs of local colleges through appropriate channels within governing agencies.
- 4) Forward agency recommendations, policy decisions, claims, and complaints to appropriate institutions and coordinate appropriate responses at the college level.

Community College Boards of Education

The local boards should be endowed with seven essential functions:

- 1) To adopt a statement of purpose;
- 2) To establish the rules and regulations concerning the administration, control, and qualifications of student populations;
- 3) To establish personnel policies, including the determination of employee working conditions;

- 4) To develop, use, and maintain sites, buildings, and equipment.
- 5) To develop financial procedures for budgeting and managing funds;
- 6) To develop relationships with other educational institutions at all levels and with governmental agencies; and
- 7) To prepare an appropriate set of internal rules and regulations for college governance.

In the YAR, the board should assume responsibility for the identification of the needs of the population within its governance, and to choose a president for each college and maintain articulation between the college and other educational institutions. The philosophy, goals, and policies of the college should be set by the board, appointing the president or chief executive officer of local institutions and then working with that officer to set policy.

The duties of local college directors will be the administration of the daily processes and procedures at each community college, including supervision of all staff, faculty, and student affairs. The directors will be chosen by the Board and will work closely with the Board to assure effective pursuit of the educational mission of each college at the local level.

Coordinating Board of Education

- 1) Establish coordination between the three government agencies and community colleges.
- 2) Maintain close contact with community college boards.
- 3) Work toward the accomplishment of board decisions, recommendations, and the needs of local colleges.
- 4) Forward decisions, recommendations, claims, and complaints to both the local community colleges and other government agencies.

Directors of Community Colleges

- 1) Assure that policies are carried out in accordance with Board rules and regulations.
- 2) Assume responsibility for staffing and employment.
- 3) Work toward the accomplishment of local board decisions and recommendations and coordinate responses to all claims and complaints.
- 4) Work closely with the Board of Education.
- 5) Work closely with the Coordinating Board for Education.
- 6) Assure that there is coordination between the Board of Education and the Coordinating Board for Education.

Advantages of the Model

Since the colleges will be important parts of the public education system, the facilities of the Ministry of Education will be invaluable. The Ministry, through its appointees to the Board and to the Coordinating Board, will have strong articulation, which should prove beneficial to local colleges as well as to the government. Furthermore, the Ministry of Higher Education is well represented, guaranteeing articulation between higher education and the community colleges. Finally, the local *liwa* will be well represented since local representatives will constitute a Board majority and be represented on the Coordinating Board, assuring observance of the priorities of local colleges.

Disdvantages of the Model

The principal disadvantage is a common phenomenon in institutions which obtain all of their funding through the central government. Bureaucracy will certainly be the pattern of government for local community colleges. Moreover, the model structure is complicated with three separate state agencies involved in the processes of administration. It is possible that some local colleges will end as the victims of rather than as the beneficiaries of this type of model.

Recommendations

Community Colleges

The Ministry of Education of the Yemen Arab Republic should appoint a committee, in coordination with other involved agencies, to study a model for community college development in Yemen and arrive at appropriate recommendations. The committee should also closely examine the financial aspects of recommended alternatives. In addition, appropriate measures for the selection of board of education members and other involved personnel should be considered.

Other Recommendations

Institution of a system of local community colleges in the Yemen Arab Republic will serve a purpose useful to the larger community only insofar as this step toward the reform broadening of the scope of education in Yemen is accompanied and complemented by an appropriate series of reforms through other educational institutions in the YAR.

For elementary education, children at this age are at a stage where they like to see and touch. Thus, the Ministry of Education should structure appropriate curricular reforms which engage children in interactive learning processes, rather than relying upon rote or

repetitive learning. Television should be considered as another possible tool of a broadened process of primary education, just as there should be increased reference to hands-on education and education via field trips for direct experience in selected vocational and professional areas. The question is one of encouraging broadened public interest in basic education and the personal possibilities it can offer.

A similar approach, if somewhat more sophisticated, could be adopted for both preparatory and secondary institutions. At these stages, counseling should be a part of the institutional structure and, in order to prepare students to pass on to the next education level, should be a function which offers personal counseling as well as academic counseling.

Another major policy change should encompass the reform and revision of the examination system. Currently, the way the examinations are prepared and administered can have only a negative psychological effect on students; it is a frightening experience. Although students have two opportunities to pass the exam, those who can't pass just one subject should not be required to repeat an entire academic year. Forcing students to repeat is destructive of personal motivation. If the goal of the Ministry of Education is to educate as many students as possible, then the Ministry

should seek other means to confront the problem of passing students from one stage to the next and determining qualifications.

At each preparatory and secondary levels of education, there should be some form of introduction to the next appropriate level of public education, focusing upon upperclassmen at each institutional level. This class could introduce the students to the different types of high schools or different career possibilities, providing them with a firm basis with which to effect personal choices which will assuredly affect their future and that of the nation.

With specific regard to secondary education, it is not certain that the current division of secondary schools into general or commercial, agricultural, or vocational/industrial specialties serves to attract students. These divisions could be more effective if they were imposed on educational structures beyond this level since preparatory school graduates cannot always make informed decisions regarding personal careers and futures. It would be preferable that this division into occupational specialty areas should be accomplished at the postsecondary level where students can make more mature and informed decisions. In addition, high schools should coordinate with college level institutions to smooth the transition between the two

stages and to provide colleges and universities with additional knowledge about the strengths and weaknesses of the students they enroll.

With respect to higher education, Sana'a University is currently the only university in the YAR, and this is not geographically convenient for large numbers of students. Enrollments are lost or others are delayed until individual students can make those arrangements necessary to obtain housing and a means of support. One obvious solution to this problem, as suggested in this investigation, is the extension of community colleges throughout the country, while assuring curricular coordination between the colleges and the university.

Close coordination would be necessary at all levels of higher education since the University of Sana'a would remain the principal source of staff and faculty for the new community colleges. In turn, the colleges could provide the university with information on student quantity and quality to help the university more carefully prepare each of its students. This would have important effects on the future of education in Yemen at all levels.

The acceptance of these recommendations would undoubtedly change things for the better in the Yemen Arab Republic, throughout society as well as in educa-

tional institutions. Most authorities are in agreement that the current state of educational affairs cannot be continued if Yemen is to accept the challenge of development in the future. The process of educational reform, however, will be a step-by-step undertaking and it will hopefully help to prepare Yemeni society for the future.

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