AN ANALYSIS OF HIGHER EDUCATION IN IRAN
AND A PROPOSAL FOR ITS IMPROVEMENT

DISSERTATION

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The problem with which this study is concerned is the development of a plan to reform the structure of the current system of Iranian higher education, both quantitatively and qualitatively. These goals have been set by the Charter of Educational Revolution and coincide with the Development Plans of the nation which have aimed to bring about a fundamental change in society.

Educational history of Iran since ancient times is discussed, with special emphasis on higher education, and the religio-cultural influences in shaping the organization of educational institutions and curricula are overviewed. The nation developed one of the world's oldest scholastic centers of higher learning, Gondi-Shapur Academy, whose international faculty contributed significantly to the advancement of knowledge. Iranian culture was exposed to Islam following the Arab invasion; and Islamic doctrine, which has been opposed to secular education, has dominated the educational philosophy of the country.
Western education came to Iran through military institutions and religious institutions. Modern schools increased during the last decades of the nineteenth century; however, their progressive development can be traced only from the reign of Reza Shah, beginning in 1925. The first modern university of Iran was established forty years ago. The provincial universities and other institutions of higher learning came into existence in following years. After adopting the Charter of Educational Revolution in 1968, Iran experienced a rapid expansion of its institutions of higher learning. The percentage of total student enrollment in these institutions has never exceeded 0.37 per cent of the population, however, because the institutions could not expand rapidly enough to accommodate the students who applied for admission. Graduate education is also in the primary stages of development, currently comprising 2.4 per cent of the college students of the nation.

To cope with these shortcomings, the study has come to the following conclusions:

1. The system of higher education in Iran should develop qualified graduate schools to educate highly advanced professionals and scholars to fill the positions which the nation, until the present time, has had to award to personnel who have received their education abroad.
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CHAPTER I

INTRODUCTION

He who is wise is powerful.
An old heart becomes young through knowledge.
Ferdowsi*

To some economists, our time is characterized by "the human investment revolution in economic thought." Imaginative technological developments, advancements in science, and high standards of living, which are basic factors of development, characterize societies that are utilizing the finest resources of nature, that is, "investment in man."

Estimates have been made of the rate of return to investment in education in over thirty countries at every stage of development, and the concept of human capital is now seen to have important implications for educational planning, public and private investment decisions, income distribution and vocational choice (17, p. 9).

In today's highly dynamic and erratic era, only societies which are enjoying educational excellence can survive, develop, and succeed. This idea can be better conceptualized by reviewing, for example, the long history of Iran. The country was powerful, rich, and healthy when the process of

*An Iranian nationalist poet (934-1020).
education flourished but suffered and became weak when education withered.

In the last few years, the government of Iran has realized its responsibility in implementing "human capital." The Charter of Educational Revolution was decreed in 1968 with the theme of reforming the system of higher education and research institutions. The charter aimed "to make available comprehensive facilities for the education and training of every individual from any class or section of the people" (10, p. 1). Implicitly, the charter provided every Iranian the right to be educated to the limits of his talents.

Iran's system of education, particularly higher education, has for the past half century been an imperfect imitation of Western educational systems, with rare attention to social norms and regional needs. University procedures are rigid and despite recent expansion, there is intense pressure for admission to the higher level institutions. (In fact, despite the existing pressure, the higher educational system of Iran has not sufficiently matched the growth of secondary schools in the country).

In highly advanced societies, teaching is not the only function of colleges and universities. Service to the public and community is also an important mission of the institutions. The latter function in the system of higher education in Iran has been neglected in two ways. First, the
institutions have not been able to admit all the capable high school graduates; second, they have failed to sufficiently prepare students to meet the demands of the labor market. These educational shortcomings at the higher level are caused only partially by the unsatisfactory performance of the present system. Economical strains and a scarcity of trained manpower to staff the institutions have also restricted the development of a system to cope with the nation's demands.

Statement of the Problem

The problem of this study was to analyze the organizational and functional structure of the current system of higher education in Iran and to make recommendations for its improvement.

Purpose of the Study

The purpose of the study was (1) to describe the historical development of higher education in Iran, (2) to analyze the present system of higher education in the country and identify the shortcomings of the system based on social and economic factors, and (3) to propose a modified approach to the system, justifying the modified approach through reviewing the literature of the community college movement in selected countries in order to provide a rational basis for the proposal.
Guideline Questions

To carry out the purpose of this study, the following guideline questions were formulated:

1. What is the impact of inadequate utilization of human resources of Iran upon the society?

2. How can the system be extended within the existing economic structure?

3. How can the present system be modified and enriched in order to prepare a staff for the progress of higher education?

4. What is the impact of limited admission procedures in this system upon Iranian youth?

5. What are the cultural effects of enrollment in foreign colleges and universities upon Iranian students, particularly at the undergraduate level?

6. What pressure does having large numbers of students educated abroad bring upon the economy of the country?

Background and Significance of the Study

The history of higher education in Iran dates back to a remote period.

Long before Europe could boast of Salerno and Bologna in Italy, Montpellier and Paris in France, and Oxford in England, Iran possessed Jondi-Shapur University located in the province of Khuzistan (8, p. 21).

The university of Condi-Shapur (established in the sixth century A.D.) was a center for liberal education and professional studies. It enjoyed international faculty
members—including Greeks, Syrians, and Indians as well as Persians. The Arab invasion of Iran, in the third decade of the seventh century, modified the stream of education in Iran; the university suffered, and its scholars spread throughout the Islamic Empire or emigrated to other realms. Islam, it should be pointed out, did not oppose the process of education. New types of educational institutions were created. Their orientation, however, was based upon the Koran and Islamic education.

Western education came to Iran from two different sources—religious missionaries and military institutions. American Presbyterian missionaries were important in establishing modern schools in Iran. French and British advisors in Iran aroused interest in Western culture at the beginning of the nineteenth century. As a result, between 1820 and 1830 some Iranian students were sent to England to study at institutions of higher learning. The first modern college in Iran, Dar-ol-Fonoon, which was created as a military school in Tehran in the early 1850's, expanded its program to include liberal arts and some professional subjects (13, p. 239; 16, p. 203, 8).

The University of Tehran, the first modern university in Iran, was founded in 1934. The provincial universities were first created in the 1940's, and their number has grown to five. The University of Tehran and the provincial universities are state-supported (excluding Pahlavi University,
which is semi-private). In 1960 National University of Iran, the first private university, was founded. Aryamehr Technical University, which receives heavy financial support from the state, came into existence in 1966. In the fall of 1972 the universities enrolled 41 per cent of Iran's college students. Ten and one-half per cent of the students attended six independent, state-supported professional senior colleges. Students attending other relatively new senior colleges or post-secondary schools, private and public, comprise the remaining per cent of the total student enrollment (11).

Despite its recent challenges to expand, the system of higher education in Iran is still primarily devoted to undergraduate training. Furthermore, the universities are less sensitive to rapid social changes that occur in the country. As Zonis claims, "From USAID personnel to specially constituted teams of foreign specialists, from Iranian communists to the Shah himself, virtually no one has felt the system of higher education was satisfactorily performing . . . its functions" (18, pp. 245-246). The system also is not equipped to absorb the majority of the high school graduates who seek higher education. The highly-screened entrance examination, which was conducted by the National Testing Center, was taken by some 92,000 students this year, "an increase of 10,000 over the previous year. . . . Just under 10,000 of the total have secured university
Arasteh has described the function of the system as follows:

The present graduates of the high schools number five times the number that the colleges can accept. Indeed, much of the students' insistence on getting into colleges comes from the entrance restrictions imposed by authorities as well as from the actual lack of facilities. The college in Iran would do well to heed the words of Zoroaster: "Whosoever comes for knowledge, teach him without exception." Moreover, education in Iran should be modernized so as to provide the type of graduate who will be a dynamic force in the changing society instead of one competing for a desk (2, p. 19).

The candidates who pass the rigidly-screened Konkur, or entrance examination, are very often not selected on the basis of their personal preference to pursue a particular course of study. Restricted transfer policies between institutions and within institutions also cause students to continue studies which are contradictory to their personal desires. As a result, they may not take their education seriously. However, "since entering the college is the basis of occupational achievement, students psychologically expect their graduation when they enter the college" (12, p. 161). Therefore they continue their studies even when dissatisfied with their course of study.

Approximately 40,000 Iranian students pursue their university education in countries other than Iran. Eighty per cent are enrolled in American or European colleges, where the cost of living and educational expenses are three to four times higher than in Iran. For this reason the
nation is burdened with as great a cost for 40,000 students abroad as for 110,000 students enrolled in Iranian institutions. Another problem is that the many undergraduates studying abroad are influenced by these cultures and tend to bring elements of these cultures to Iran. There is also a tendency to reject Iranian culture due to this study abroad. The Report from the Education and World Affairs Study Committee on Foreign Student Affairs concurs with these conclusions.

... many of these students [foreign students in the United States] could have pursued their undergraduate studies profitably in their home countries to the benefit of their indigenous educational institutions, at a lesser financial cost to the United States and themselves and with less chance of permanent alienation from their home country (14, p. 14).

Definition of Terms

For the purpose of this study the following definitions have been formulated:

**Community college**: an institution of higher education with diversified programs offered to high school graduates. The curricula lead to terminal or transfer, credit or non-credit studies. Service to the surrounding communities is an important characteristic of this type of college. The terms junior college, community college, and community junior college are used interchangeably throughout this study.

**Senior college**: a higher educational institution that offers baccalaureate and/or master's programs. The terms
four-year college and senior college are used interchangeably throughout this study.

Limitation of the Study

This study was limited to (a) official documents and published sources in Persian pertinent to the higher educational institutions in Iran, and (b) professional journals, books, dissertations, and newspapers in English pertinent to higher education in Iran.
CHAPTER BIBLIOGRAPHY


CHAPTER II

HISTORICAL DEVELOPMENT OF HIGHER EDUCATION
IN IRAN

Introduction

"It is axiomatic that the range and nature of education in a nation emerge from its history, basic philosophy, and commitments" (16, p. 33). Having twenty-five hundred years of documented history and a location in one of the strategic zones of the world which has been a witness to numerous diverse cultural marches, Iran, the country which was the first to recognize human rights on the one hand and was invaded by Arabs and Mongols on the other hand, created an educational history that can be the subject of intensive study. In this work, however, the present chapter has been devoted to an overview of the development and function of educational institutions, particularly higher education, in the country since the time that pertinent sources could be traced. The organization of the chapter is on a chronological basis and the nature of the study required more attention to the contemporary system of higher education than to earlier systems.
Higher Education in Ancient Iran

Education as a Social Concept

The flourishing of schooling and instruction was a significant feature in the development of ancient Iran. Education provided a method of socialization and personality development and a process of training a good citizen. These attitudes toward education have been rooted in Iranian culture throughout its long history (1, p. 52; 2, p. 1). Society felt that education was its own responsibility, and educational institutions in the public and private sectors worked together. This cohesiveness created patterns of good citizenship and produced Iranian citizens who were moral, patriotic, and upright. The process of education was respected at all levels of the social strata because its final aim was to build a nation and a great civilization. The child was a part of his society; his parents as well as his surrounding community formally or informally participated in his education, which can be classified in three categories.

Education as the Family Responsibility.--In ancient Iran, parents who were highly faithful to their religion felt a strong responsibility for educating their children. In the Zoroastrian work, "Pandnameh Azarabad," knowledge is considered as the light and vision of the eye. A Zoroastrian, therefore, is urged to educate his children (8). In
ancient Iran, as in other societies with strong family relationships, parents also felt the responsibility of developing a happy child with high moral standards and a desire to be of service to his society. They willingly prayed:

Oh, Ahuramazda, endow me with an educated child; a child who will participate within his community; a child who will fulfill his duty in society; a child who will strive for the happiness of his family, his city, and his country; an honorable child who may contribute to others' needs (2, p. 3).

The child received his education more by practice than by instruction; primarily the father was the pattern for his son. Traditionally, the father participated in community games, and in religious services he prayed for a strong state and a prosperous society. Through a tight-knit kinship, meanwhile, the child saw his father as a symbol of power and a source of respect. Through this reflection of his father, the primary patterns of the child's socialization and personality were developed.

_Education as the Community Responsibility._--As the child grew older, the surrounding community took an active part in his education. Communities sought to develop a strong religious orientation among their youth. The ruling state and its religious institutions pursued a common aim--to live and to contribute to life. This lack of contradiction between secular and religious institutions provided full
opportunity to the child to participate in the group and to integrate his thoughts and actions in group activities.

Zoroastrian doctrine was devoted to physical development as well as spiritual development. It advocated the axiom "A good mind nests in a healthy body." Agoras, assembly places, came into existence to implement the doctrine of physical training. In agoras the child observed the performance of the youth and adults, and in turn he practiced his observations with his peers. Interpersonal relationships were emphasized. He also learned the Zoroastrian optimistic view of life and the maxim "Pondar nick, Kerdar nick, and Goftar nick"—gracious thought, benevolent action, and valid word—which was one of the first statements of his religious training.

Zoroastrian clergymen performed the functions of preaching and teaching. In Avesta, Zoroaster himself has been referred to as a teacher. Ateshkadeh and Ateshgah (Zoroastrian fire temples) were also institutions of religious education.

Education as the State Responsibility.—For the almost thirteen centuries during which the Zoroastrian religion and ethics formed the nucleus of Iranian education (29, p. 5), the ruling state also was influenced, and religious instruction was an integral part of the administrative machine. Religious leaders advised the authoritarian state and provided close cooperation in training the personnel needed to fill bureaucratic positions of the state. The educational
institutions designed for this purpose were established in the royal palaces and governmental buildings. The institutions were selective in nature, drawing their students from the upper social strata and members of the royal family. The teaching positions were also limited; they were filled by members of the royal family, Zoroastrian leaders, and top-ranking officials.

Institutions of Higher Education

Medicine and law were two prestigious professions in ancient Iran. There is evidence that in Avesta statements existed that contained special rules for practitioners of medicine and veterinary medicine. Also in existence are organized documents related to law that clearly describe the individual's rights and the relationship of the individual to society. This description reveals that there were institutions of higher learning that functioned to train individuals for the professions. It is difficult to ascertain the development of institutions of this kind in Iran. Recent studies, however, indicate that they have been in existence since the time of Cyrus the Great, the sixth century B.C. (15, p. 10; 27, p. 1).

"Twenty-five centuries ago, the Khuzestan region supported the wealthy center of a great civilization, the Medo-Persian Empire" (11, p. 75). In this province, which certainly is one of the cradles of civilization, the
metropolis of Gondi-Shapur developed. It was located at 32° N between Dezful and Shooshrat, Iran. The ruling state attempted to develop the city as a center of scientific and cultural exchange. About 483 A.D. a large group of Nestorian Christians took refuge in Iran. Settling in Gondi-Shapur, they were very well received. The medical knowledge of Iranians was strongly influenced by Nestorian physicians who practiced Greek medicine (21, p. 16). Iranian contacts with Romans and Greeks on battlefields, as well as in established centers of cultural exchange, introduced Western philosophy to Iran. During the reign of Nushirwan (531-578 A.D.), seven Greek philosophers—Damaskios, Simplikios, Eulamios, Priskianos, Hermias, Diogenes, and Isidoras (21, p. 34)—were expelled from their native land by the order of the emperor Justinian. Immigrating to Iran, they became an important influence on the intellectual community of Gondi-Shapur.

Scholars from many countries created the University of Gondi-Shapur, a great center of higher education of that time. It came into existence in the fourth century A.D. and served as a highly prestigious educational center until the tenth century. It functioned as a teaching institution as well as a research center and was particularly famous for its medical and philosophical schools. Mathematics, law, astronomy, and literature comprised the other disciplines of the university. The teaching staff included professors
from Greece, Syria, and India as well as Persia (10; 21, p. 19). During the reign of Nushirwan, the university flourished. It maintained a large hospital. During this time "... numerous translations from Greek and Sanskrit into Pahlavi executed by his (Nushirwan's) orders, caused it to be believed, even in the West, that a disciple of Plato was seated on the Persian throne" (6, p. 167).

The Arab invasion in the seventh century (beginning in 642 A.D.) severely disrupted Iranian life. Antagonism between the invaders and Persians, the existence of ideological conflicts, and religio-political pressures reduced the interest of Iranians in social and educational institutions. Gondi-Shapur also began to decline in importance. The intellectual community there eventually disappeared. Some of the scholars emigrated to other countries, and others settled in new intellectual centers that gradually developed in the Islamic Empire. Eventually Gondi-Shapur, which had survived the Arab conquest and was active until the tenth century (1, p. 54), ceased to function as a major center of learning. However, its influence as an institution of higher learning should not be underestimated. Perhaps its most significant contributions to the nascent Islamic culture were in the areas of science and philosophy. It served as one of the forces which attracted and channeled the spirit of scientific inquiry so characteristic of early Islam.
Higher Education in Islamic Period
Of Iran Until 1851

Islamic State and Persians

Islam has been the religion of Iran for over thirteen centuries. Originally it promised equality and unity among the Moslems. As Mohammed once stated: "You are all brothers and are all equal. None of you can claim any privilege or any superiority over any other. An Arab is not to be preferred to a non-Arab, nor is a non-Arab to be preferred to an Arab; nor is a white man to be preferred to a colored one, or a colored one to a white, except on the basis of righteousness" (18, p. 36). The Koran also states: "God has divided mankind into tribes and nations for greater facility and intercourse; neither membership of a tribe nor citizenship in a state confers any privilege, nor are they sources of honor" (18, p. 36).

The Islamic faith that Mohammed preached was simple and primitive, and in the early days the mosque was a place of worship, a judicial court, and a headquarters for military command (5, p. 53). When it subsequently mixed with the established cultures of Iran and Greece, it developed into a complex religion. When Mohammed died, a struggle arose over succession. Three different opinions developed. One of them, later called Shii, believed that succession belonged to the descendants of Mohammed. As the communality of Shii and the traditional culture of the Persians were stronger than
the other Islamic sects, Iranians supported the sect, and today it is the official religion of Iran. However, one fascinating point is that the Persian cultural heritage and values have been preserved throughout the history of Iran. Millward, a student of sociology, points out:

What is important is the obvious fact that traces of the folkways and beliefs of late Zoroastrian time still play a part in the lives of the vast majority of the inhabitants of present-day Iran. The religio-ethical system of that early time, in somewhat altered form, presumably affects the lives of those Iranians who still subscribe to that ancient faith, and what is more, virtually the whole population still adheres in varying degrees to the rituals and mystique of Nou Ruz (20, p. 4).

Not only did Islamic ethics and moral norms fail to permeate the whole fabric of social action and cultural patterns of Iran, but it also failed to change the mother tongue. Iranians refused to speak Arabic, and, as soon as they could, stopped writing it. It was not only cultural rituals that Iranians used to weave a new fabric of Islam; early successors of Mohammed also contaminated original Islamic doctrine. As Professor Armajani theorizes:

The Omayyads, however, preached the superiority of the Arabs, and in this they were following the policy set by Omar, who has sometimes been called the "second founder" of Islam. Islam believes in the brotherhood of all Moslems. Omar interpreted Islam to be a brotherhood of Arabs who had become Moslems. The non-Arab converts could join this community but would not be part of its inner governing circle, a privilege reserved only for the Arabs (5, pp. 58-59).
Edward Browne reaches the same conclusion. He writes:

The clients (Mawali), or non-Arab Muslims, who, far from being treated by the Government as equal to their co-religionists of Arab birth, were regarded as subject races to be oppressed, exploited and despised by their rulers (6, p. 231).

Though Arab superiority overshadowed defeated nations, they soon became culturally dependent upon the Persians and Greeks. The Arabs did not possess administrative proficiency of their own. They adopted the satrap system and the tax laws of the Persians. The Abbasid dynasty also shifted its cultural center from Syria to Iran. It seems feasible to conclude that the Persians helped the Abbasids to come to power. According to Watt, "The latter (Abu-Muslīm), himself a Persian mawla (non-Arab Muslim), gained the support of many other Persians, which was probably the decisive factor in the success of the Abbasids" (33, p. 109).

To the Persians, the shifting of power from the Omayyads to the Abbasids was a starting point in overthrowing Arabic influence in Iran. The anti-Arab movement was organized in three facets:

1. Religious uprisings--The movement began in 755. Because of the participation of the masses, religious opposition was very destructive to the ruling Arabs. The uprisings were led by Sinbad, Eshag, Turk, Ostadsis, Yusof Barm, Veiled Prophet of Khorasan, and Baback Khorramdin.

2. Literary opposition--Persian scholars projected their nationalistic feelings by writing about the attributes of
their own nationality and emphasizing the weaknesses of the Arabs. Through original writings and translations of books from Pahlavi to Arabic, they preserved their culture and social structure.

3. Political opposition—Persian influence on the central system of the Arab government caused the Abbasids to abandon their Arab base. Gradually Persian officials replaced their Arab counterparts. These political gains paved the way for the eventual overthrowing of the Arabs in Iran (5, pp. 53-64).

Educational Institutions

Islam supported scholarship and scientific inquiry. The early Islamic caliphs expressed their interest in developing educational institutions and intellectual centers. With the support of the Abbasids, attention was devoted to development of the sciences and arts. Worthwhile work was done by translating books from Persian (Pahlavi), Hebrew, and Syriac into Arabic. The sciences and arts continued to grow, and the golden era of Islamic civilization bloomed and flourished and awakened Western Europe from the Dark Ages (1, pp. 54-56; 10).

Islamic influence did not immediately affect the Iranian masses. A considerable time lag existed between the Arab invasion of Iran and the conversion of the majority of Persians to Islam. As pointed out earlier, traditional beliefs and the cultural heritage of Iranians had been
influenced by foreign invaders, but the traditional values had not been entirely given up. Many Persians, particularly in rural areas, remained faithful to their religious heritage for a long period of time. This gradual acceptance of Islam provided opportunities to Zoroastrian clergymen to operate their own educational institutions (15, pp. 18-20).

A closeness existed between the Zoroastrian doctrine of morality and Islamic doctrine. The latter greatly influenced the educational system of Iran. The cornerstone of Islamic thought consisted of the Koran and the Shariah, the sacred law of Islam. Moslem clergymen were the sole educational authorities. In the early Islamic period those who had mastered Arabic could teach and educate others. In the later periods diversification came into existence in the educational structure. Some distinct institutions, however, developed during the Islamic period to carry on formal instruction.

Maktab.--Maktab was an educational institution on the elementary level. It was operated by a single teacher in a single room. Though it could be either co-educational or segregated, the latter predominated. Maktab was either owned by a Moslem clergyman called Mulla or Maktabdar, man or woman, who performed the teaching duties and charged a small fee, or was founded by an act of charity. During the early Islamic period, the primary purpose of the institution was to teach the Koran. After the ninth century, however, other subject matter was included in the curricula.
The curriculum focused on religious, moral, and didactic subjects, including the Koran, the Persian language, and simple arithmetic. The belief that wrongdoing is the nature of a child was a predominant influence on instructional methods, and there was a heavy reliance on the ready application of physical punishment (1, pp. 69-70). Emphasis on authority and the value of imitation in learning was also significant in producing both positive and negative effects.

... this principle inculcated a strong sense of religious obligation in the mind of the student to accept what was said and to offer it back again word for word without question or alteration. Although in this way the faculty of memory was strengthened and the risk of exposure to bidcah (to avoid any taint of association with the cardinal sin of innovation or heresy) minimized, the inclination on the part of the student to cultivate the faculties of reason, analysis, interpretation and evaluation were more or less completely stifled (20, p. 13).

Mosque (Masjid).--In the doctrine of Mohammed, a sanctuary was not a fundamental necessity. From the early days of Islam, however, Moslems needed a quiet place to pray and to receive religious instruction. Mosques, therefore, began to be constructed; Mohammed himself built the mosque in Medina. Mosques in Iran have been erected since the first century of Islamic domination. Education in mosques included reading the Koran, studying language, and learning the "traditions." Classes met in the corners of the mosque in the form of teaching circles. In the early Islamic period, no written materials were available to the students. The
instruction, therefore, was oral. From the eighth century, when there was easy access to books translated from Aramaic, Greek, and Persian, texts came into use. Mosques also were very often equipped with libraries and residential quarters for both teachers and students (1, pp. 71-72).

Madrasseh.--The theological seminaries or Madrassehs were similar to the mosques. Madrassehs, however, primarily functioned as educational institutions. There were different organizational structures in the Madrassehs; some of them performed the function of a secondary school, whereas others operated on a higher level. At the turn of the tenth century, the first Madrassehs were established in Iran. Their number was few, and their structure was very simple. During the eleventh century they mushroomed and became complex in structure; some became major intellectual centers of the time. The establishment of the prestigious Madrassehs, Nizamyyas, is a landmark in the educational history of Iran. They were founded in the large cities, and the great scholars of the time taught in these institutions. Nizamyyas and other Madrassehs were endowed schools. In these institutions, Islamic theology based on logic and dialectics was developed, and the Madrassehs gradually became a stronghold of Islamic teaching, defending Islam against any non-conformity. During the fifteenth century, when the Shii sect was officially established in Iran, theological studies were exclusively devoted to sectarian study. At this time the curricula
consisted of the study of the Koran, the traditions, and Islamic law (1, pp. 73-86).

No organized educational rules existed in the system of Madrassehs. There was no formal graduation. After being convinced that a certain student had learned a certain subject covered within a book, a master would give him permission or license to teach that book (1, p. 82). These schools could be attended only by the upper strata of society who could afford to pursue an education.

**Educational Influence of the West**

In the sixteenth century, two developments increased the contact between Iranians and Europeans. One was the political disputes between Iran and the Ottoman Empire. The second was the eastward movement of Western traders, who found "greener pastures" in Iran. A treaty in 1508 permitted the Portuguese to trade in the Persian Gulf and included mutual military assistance against the Ottomans. The British, who were in competition with the Portuguese and the Spaniards, sent representatives to Iran to obtain privileges in using northern trade routes through Iran. In the late decades of the century, the ruling class accelerated its efforts to extend its contacts with Europe. They wished to broaden trade and find new markets for Persian products, especially silk. In addition, they wanted to equip the Iranian army with artillery and muskets. Foreign visitors were treated very fairly, and merchants were provided special privileges.
In 1581 Dutch merchants showed an interest in Iranian silk. In order to become acquainted, the Iranian government sent large contingents of emissaries to a number of European capitals in 1599.

Though economic contacts with Europeans became strong during the sixteenth century, cultural interaction was poor. The reasons for this lack of interaction can be traced to the religious orthodoxy of Iran and the close-mindedness of Catholic monks who represented European intellectuals in Iran (5, pp. 98-100).

In the early nineteenth century, Napoleon, who thought that an alliance with Iran would be important for a French march on British India, signed a treaty with Iran. In 1807, he dispatched a large French military mission of seventy instructors to Iran. They engaged in training the Iranian royal army and in making cannons and other weapons. Russia was considered to be a threat to Iran at that time. As Napoleon opened the gates of friendship with Russia, the British made their move, and in 1808 signed a treaty of alliance with Iran against France and Russia. This treaty opened the way for the British mission to Tehran (1, p. 150; 5, p. 105; 34, p. 167).

As early as 1320, the Dominicans, followed by various Catholic orders, established missions among the Armenians of Iran. Their success was limited, however. At the beginning of the nineteenth century, when the government began to take
an active interest in interaction with Europeans, new missions came to Iran. In 1840 a mission of French Lazarites built centers among non-Moslem populations in the northwestern section of Iran. In 1833 the Basal Mission Society established a school in Tabriz. An unsuccessful attempt, it was closed after four years. The first American mission, sponsored by the American Board in Boston, was a school for boys, established in 1836 in Rezaieh, with seven students. Their attempt was successful, and the enrollment increased to fifty-five during the first ten years. The mission also organized a girls' seminary in 1838, with four pupils. The school grew rapidly to fifty-eight students in 1851. For the most part, the schools were one-room institutions, open four to six months a year (2, pp. 155-159).

The traditional educational centers of the time, maktabs and madrassehs, completely ignored modern concepts of education. They resisted the modification of curricula and the study of non-Islamic disciplines, modern sciences, and technology. The weakened governmental machinery, however, realized the necessity of introducing modern science into the country. Between 1811 and 1815 seven students made their way to England; they were the first group of Iranian students who were supported by the government to study abroad. Their fields of study included medicine, artillery, engineering, chemistry, gunsmithing, and languages. By 1819 the students had completed their education and had returned to Iran. One
of them published the country's first newspaper. In 1845 the second group, composed of five students, left for Paris to study military sciences, mining, and medicine. Between 1811 and the time that Dar-ol-Fonoon, the first modern college in Iran, was founded, twenty-nine students studied abroad, primarily at governmental expense. When they returned to Iran, they brought not only modern knowledge, but also modern social ideas which they had adopted after observing Western life styles (5, pp. 118-120; 9, pp. 121-126).

Higher Education from 1851 to 1934

**Dar-ol-Fonoon**

A European-style polytechnical college was inaugurated in 1851 in Tehran. The college, which was more or less modeled after French schools, such as Saint Cyr in France, was called Dar-ol-Fonoon or house of technics. The founder, Amir Kabir, was the Grand Vazir, who took an active part in the modernization of Iran. After visiting modern academies in Russia and the Ottoman Empire, he perceived the importance of educated administrators and army officers in these countries. In an attempt to reorganize the Iranian army and to reform the ministries' structure, he created Dar-ol-Fonoon College. The site was donated from royal property, and the Vazir supervised the construction of the school. Supported by the state treasury, the college charged no tuition fees. The students also received free uniforms and lunches. Because
of these procedures, "Modern education in Iran was recognized as one of the functions of the state. . . . The idea behind its (Dar-ol-Fonoon's) foundation was not that the shah, or the state, wanted to offer the privileges of modern education to a certain group, but that students should be trained in such fields of knowledge as to be able to render better services to their state" (1, p. 159). During its lifetime, as a polytechnical college, Dar-ol-Fonoon succeeded in graduating 1,100 students, many of whom became statesmen and leaders in Iran (4). This college, more than any other instrument of change, was instrumental in the social and political awakening of Iran during its existence.

Faculty.--The faculty consisted of foreign professors and some Iranian educators who had been sent to study in France and England beginning in 1811. The Vazir's intent was to recruit foreign professors only from a neutral country. Austria was selected for this purpose, and with the assistance of the Emperor the Vazir hired seven Austrians to teach military sciences, engineering, medical sciences, and science. As the college developed and grew, professors from France, Italy, and Germany joined the faculty. At the beginning of the twentieth century, there were twenty-six Europeans and sixteen Iranians in faculty positions. Instruction was by the European method; lectures were given in French, and practical experiments were carried on in the laboratories (1, pp. 154-55).
Student Body.--The students were selected from the upper strata of society—the aristocrats, landlords, and top government officials. The school began with 105 male students. By 1880 the enrollment had increased to 387. Recruitment apparently was by persuasion and not by selections. Evidently, members of the Khavas, or elite, were more open to persuasion, since they had already come into contact with Western culture (1, p. 153).

Organizational Structure and Curriculum.--The college was closely supervised by the Shah, and the principals of the school were appointed by royal decree. The Shah once a year appeared for the final examinations and gave awards to both the students and the faculty (3, p. 328). The college was composed of four departments: medicine (surgery and pharmacology), mining, engineering, and military sciences (9, pp. 127-128). The college offered courses in artillery, medicine, infantry, calvary, engineering, pharmacy, and mineralology. Approximately 58 per cent of the students were enrolled in military sciences. As the college developed, liberal arts programs were added to the curricula. Painting, drawing, music, and photography also were added. The college was equipped with laboratory facilities in physics and chemistry. It also possessed a fine library and a printing shop. The second of the country's newspapers was also published at Dar-ol-Fonoon. Among the other publications
was Ruzname Almi, a science newspaper, which dealt with scientific and general matters (3). Dar-ol-Fonoon continued to serve the country until the end of the nineteenth century as an institution of higher education which was

"... a landmark in the history of modern Iranian education. Its influence was widely felt, for it not only contributed technical manpower, statesmen, scholars and writers, but it heralded new advances in technology and modern living, even to the extent of influencing the style of writing. The success of the royal college encouraged higher educational advancement elsewhere in the country (3, p. 330)."

**Development of Elementary and Secondary Schools**

Foreign missionaries extended their activities by establishing primary and secondary schools and hospitals during the second half of the nineteenth century and the first decade of the twentieth century. Before the turn of the twentieth century, American and British missionaries had opened schools or hospitals or both in nine major cities, including the capital.

The American Presbyterian Mission, which was the most popular group, opened a school for Armenian boys in Tehran in 1878. The school later admitted children of other minority groups as well as Persians. English was the medium of instruction. The school offered ten grades in 1902 and in 1913 became a full high school. Also the Mission opened large schools in Mashad, Kermanshah, Rasht, and Tabriz. In the latter city it opened a school for girls, which developed
rapidly. In 1930-31 it operated in a building that could accommodate 500 students. The boys' school in the same city enrolled 400 pupils in 1919. In 1913 the Mission sponsored sixty-five schools, mostly one-room (2, pp. 160-164).

The Church Missionary Society of England was another active mission which had had stations in Iran since 1869. Later, they expanded their activities to the south central and southeastern provinces of the country. By 1935 they were responsible for approximately sixty missionaries who taught the children in these centers.

A few non-missionary foreign schools were also established. For example, the Russians began schools in some of the towns, important among which was a commercial school in Tabriz. Alliance Français and Alliance Israelite also fell into this category (1, p. 163-164).

The government did not follow the movement for school development that occurred in the private sector and among foreign missionaries. In fact, an appreciable increase in educational facilities, vital as this was to general progress, was not manifested until after Naser-ol Din Shah's assassination in 1896; since the founding of Dar-ol-Fonoon in 1851 until that time no further step had been taken in modern education (9, p. 148).

The private sector participated more actively in the development of schools than did the government. The liberal merchants in several provinces established modern schools,
which were modeled after Western schools, in Azarbayjan, Gilan, and other provinces (5, pp. 121-122). In 1900, a society was established under the title "The Society for Establishment of Private Schools in Iran," later called "Educational Society." It founded approximately ten private schools in Tehran under the sponsorship and subsidization of the government. The total number of modern primary schools in 1911 was 123, in which were enrolled 8,344 pupils (2, pp. 164-173).

After the Persian Revolution in 1906, the number of privately-sponsored primary schools increased rapidly; the public schools also developed rapidly. The traditional schools, the maktabs and madrassehs, declined in number and enrollment. The growth of modern schools accelerated again after the inception of the Pahlavi dynasty in 1925. The enrollment in modern primary schools rose to 170,129 in 1934-35 compared with 55,960 and 10,531 for the years 1924 and 1911, respectively (1, p. 173; 2, p. 79; 19, p. 4).

The growth of modern secondary schools in the nineteenth century was also very slow. When Dar-ol-Fonoon was established, the minimum requirement for candidacy was the ability to read Persian and Arabic and a familiarity with subjects studied in the traditional madrassehs. In the late nineteenth century, Dar-ol-Fonoon and other institutions of higher education considered their candidates to be ill-prepared
for college because of insufficient secondary education. Furthermore, the increasing number of primary schools demanded additional qualified teachers. Therefore, the government attempted to supply this demand by improving the quality of secondary education. In other words, Secondary education arose out of two needs: the demand of higher educational institutions for better qualified candidates, and the shortage of elementary school teachers. The government and those in power envisioned the secondary education program primarily as a means for preparing individuals for college; less importance was attached to the need for educating minor government personnel and elementary school teachers (2, p. 86).

A few private schools opened, one of which was Almiy High School, which opened in Tehran in 1898. Several years later an army school with 100 enrolled came into existence. The latter school attracted many top-ranking individuals, including some of the princes. In 1918 the Ministry of Education opened eight high schools. By 1924 there were 56 private, public, and missionary high schools with a combined enrollment of 8,346 students, of whom 4,980 were enrolled in the madrassehs. After the inception of the Pahlavi dynasty in 1925, high schools, particularly in the public sector, mushroomed. By 1935 the number of students in the modern high schools rose to 16,200, and the number of madrassehs students dropped to 2,900 (2, pp. 86-87; 34, p. 33).
Education of Students Abroad

During the second half of the nineteenth century, the government continued to sponsor students abroad. In 1861 forty-two top-ranking members of the first graduating class of Dar-ol-Fonoon were dispatched to France. When they returned to Iran, they received prestigious positions in the various ministries, particularly in the Ministry of Education.

Until the twentieth century the government did not make any further attempts to educate students abroad. Furthermore, the Shah became apprehensive of the effects of Dar-ol-Fonoon; its ideas were too modern and occasionally too radical. In this period, however, some students left the country to attend European universities at their own expense. In 1911 the constitutional government sent thirty students to Europe to study military science, agriculture, and various social sciences. Arasteh points out that in 1918 there were in Europe about 500 Iranian students, 200 of whom were in France, 33 in England, 9 in Germany, and the rest in Switzerland and other countries (2, p. 40). Another report claims that only 70 Persian students were studying in Europe and the United States in 1922 (15, p. 5).

In 1928 a law was passed which authorized the Ministry of Education to send a minimum of 100 students each year to Europe or the United States during six consecutive years. These students enrolled in schools in France, England, the
United States, Germany, Belgium, and Switzerland. These 640 students, whose majors were determined by the Council of Ministries, specialized in modern education, and one third of the returnees accepted professorships in the institutions of higher education. On a smaller scale, other ministries also dispatched students abroad. Considering also the number of students who enrolled in foreign colleges at their own expense, the total number of Iranian students studying abroad during this period numbered as many as 2,000 (1, p. 176, 230; 15, p. 68).

Other Institutions of Higher Education

In the last decades of the nineteenth century, the administrative machinery of the government realized its need for knowledgeable, trained personnel to modernize Iran. This need was especially urgent in the Ministry of Foreign Affairs which dealt with Iran's expanding international relations. By the turn of the new century, Iran had gradually established its own institutions to train its manpower. Among the institutions which had been established by 1894, a few were operated at the college level.

School of Political Science.--A school of political science under the sponsorship of the Ministry of Foreign Affairs was founded in 1901. The founder, a graduate of the University of Moscow in political science, succeeded in his proposal to establish a school of political science approved
by the Shah. After allocation of the necessary budget, the school was established in Tehran. The faculty was composed of Persians, and the student body ranged in age from sixteen to twenty-two. The candidates were admitted after passing an entrance examination. The school's three-year program included professional training and a liberal arts program. In 1910 the school extended its program to five years. The first three years were devoted to general education; in the last two years the students received specialized training. The fields of specialization included international relations, business law, jurisprudence and logic, and Islamic law. The graduates were expected to serve in the Ministry of Foreign Affairs for three years without pay. The school graduated seven students in its first commencement. The graduates immediately received appointments in the Ministry of Foreign Affairs. In 1926 the school affiliated with the Ministry of Education and later became a department of the University of Tehran (3, pp. 330-331; 24, p. 49).

College of Agriculture.--A college of agriculture under the sponsorship of the government opened in Tehran in 1900. The school, called Mozaffari Agricultural School, was operated by a Belgian principal. In 1917 the School of Farmers in Karaj, a town about thirty miles northwest of Tehran, was founded, with a German as its principal. The school, which attempted to teach practical methods of agriculture to its students, was sponsored by the Ministry
of National Economy (later the Ministry of Agriculture). After five years of operation, the school closed in 1922. Ten years later the Institution of Agriculture, which offered a program at the high school level plus two years of college education, came into existence under the sponsorship of the Ministry of Agriculture. In 1935 the school consolidated with the veterinary school, which had been founded in Tehran in 1932, and in 1946 became one of the colleges of the University of Tehran (3, p. 331; 24, p. 57-79).

School of Law.—The judiciary also recognized the need for educated lawyers. Despite this necessity, no attempt at reform was made until 1919, when the Ministry of Justice established a school of law in Tehran. The school was inaugurated with an enrollment of seventeen in a single classroom in the building of the Ministry of Justice. In 1927 the school of law, the school of political science, and the school of commerce were consolidated into a college named the College of Law, Political Science, and Economics. This college was sponsored by the Ministry of Education until it became one of the colleges of the University of Tehran in 1934 (3, p. 331, 24, p. 49).

American Missionary Colleges.—The American Presbyterian Mission also showed its interest in higher education by establishing two colleges in Tehran. Alborz College for boys opened in 1925 on a site of forty-four acres. It was
affiliated with an elementary school and a high school. The college was accredited by the Board of Regents of the State of New York for its liberal arts programs. The college was composed of departments of biology, chemistry, commerce, education, literature, philosophy, and social sciences. It also offered a pre-medical program. A library of 20,000 bound volumes and 3,000 unbound pamphlets, and dormitories and boarding accommodations for 100 students comprised the college facilities. In its last commencement in 1940, the college graduated 126 students, 106 of whom were granted associate degrees and 20 of whom received baccalaureate diplomas. The college and its affiliated high school graduated a total of 600 students during its fifteen years of operation.

After World War I, the Mission opened Sage College for girls in Tehran. It offered studies in foreign languages, science, health, humanities, and home economics. The enrollment was small—only twenty-three students in 1932 (2, p. 163).

The Ministry of Education took over the colleges, along with the other missionary schools, in 1940, when it declared the termination of the independence of these schools. Accordingly,

The school personnel . . . were to be completely responsible to the government and take their orders from the Ministry of Education rather than from their own Board of Directors. This last step caused many foreign schools, especially American and English, to close down completely.
A few French schools accepted the new rulings and continued to function (1, p. 184).

Development of Teacher Training Institutions

Teaching as a profession is relatively new in Iran. Fifty years ago teachers were the traditional Moslem clergymen who preached at the mosques and functioned as teachers in the madrassehs or maktabs. Though modern education was introduced into the country more than a century before, no firm steps toward teacher training were taken until the beginning of the third decade of the twentieth century. The graduates of Dar-ol-Fonoon and those who studied abroad were educated for professions other than teaching. During the expansion of the modern primary schools in the nineteenth and early twentieth centuries, the majority of teachers for this level were recruited from the maktabs' and madrassehs' personnel. These teachers were also engaged to teach non-scientific subject materials on the high school level. This trend caused a serious shortage of teachers on the higher levels of education and in scientific subjects in the high schools. Political consideration after World War I, however, urged the government to establish more schools (1, p. 196).

Normal School for Boys.--In 1918 the Ministry of Education initiated its own program of teacher training by establishing two normal schools. Both of the schools, one for girls and one for boys, were located in the capital city.
The Normal School for boys began with eleven faculty members, six of whom taught also at Dar-ol-Fonoon. The school was fully supported by the public, and no tuition fees were charged. The school had two divisions, one for elementary teacher training and one for secondary teacher training, under a single administration. The candidates for the elementary level were required to have a minimum of full primary education. After a three-year program, they received a certificate to teach in the elementary school. The secondary level admitted students with at least a ninth grade education. These students were enrolled in a four-year program, and at graduation they were granted a diploma to teach in the secondary school (1, pp. 196-204; 2, p. 123; 3). The last year of school, in both levels, was devoted to teaching practice.

Normal School for Girls.--Franco-Persian, a privately-endowed six-year primary school for girls, opened in 1905 in the capital city. After a few years, at the request of the Ministry of Education, the school enrolled students whose expenses were subsidized by the Ministry. As a result, the school extended its program to include secondary education. In 1918 the Ministry of Education took control of the school and incorporated it into the Girls' Normal School. The reorganized school began with twenty-seven faculty members and adopted a four-year program of study for the candidates who already had a primary school diploma. The school's ten
to twelve graduates each year were qualified to teach geography, history, literature, science, and arithmetic on the elementary level (1, p. 207; 2, p. 123).

Normal School for Physical Education.--A part-time normal school for physical education was established in 1925. It offered programs in physical training and courses in physiology, hygiene, physics, and chemistry. The school trained prospective teachers for primary and secondary boys' schools (1, p. 207).

Tehran Teacher Training College.--In 1928 the lower level of the Boys' Normal School was abolished, and the upper level became the Tehran Teacher Training College. The college was composed of two departments: the department of letters and the department of science. A number of French professors joined the faculty, enabling the college to offer courses in philosophy and literature, history and geography, physics and chemistry, natural sciences, and mathematics. The student body, selected from high school graduates, enrolled in a three-year program leading to a baccalaureate degree. The students were charged no tuition; furthermore, some students received boarding expenses (1, pp. 210-211; 31, p. 5).


**Education and the Responsibility of the State**

Since the early stages of modern education, the state has taken a direct role in its development. However, it was not until 1907 that the constitution gave full responsibility of education to the state. Article XIX of the Supplementary Fundamental Law, enacted in 1907, states:

The foundation of schools at the expense of the government and the nation, and compulsory instruction, must be regulated by the Ministry of Sciences and Arts, and all schools and colleges must be under the supreme control and supervision of that Ministry (1, p. 167).

The article granted responsibility to the government to establish schools at its own expense and through a supreme authority (Ministry of Science and Arts, later renamed the Ministry of Education) to control and supervise all the schools. Furthermore, Article III of the Fundamental Law of Education of 1911 made primary education compulsory for all Iranians, and Article XVI of the same act considered the Ministry of Education the legal authority to develop curriculum for all levels of Iranian education (1, pp. 170-172).

In order to further improve higher education, the legislature enacted a law in 1928 requiring the Ministry of Education to send at least 100 students abroad every year, for six consecutive years, of whom 35 per cent should pursue degrees in education. By this means the law sought to provide the necessary training for prospective college professors.
The social status and financial problems of the teachers were not overlooked by the legislators. In 1929 the Law for the Establishment of Teacher Training Colleges was passed, and in 1934 the Teacher Training Act was passed. These acts, which dealt with the establishment of teacher training institutions, also provided Civil Service status to teachers, along with greater privileges (2, pp. 209-213).

Higher Education from 1934 to the Present

Development of the University of Tehran

On June 29, 1934, Parliament's passage of the Act of Establishment of the University of Tehran created the first modern university in the educational system of Iran. Already the department of medicine had separated from Dar-ol-Fonoon and had become an independent school in 1918. By 1934 there were also six other institutions of higher learning which operated independently of one another, some sponsored by the Ministry of Education and others attached to other ministries. According to the law of 1934, the school of medicine and the affiliated colleges of the Ministry of Education were organized under the structure of the University of Tehran. The Tehran Teacher Training College was incorporated into the university and renamed the College of Science and the College of Letters, Philosophy, and Education. The other colleges included the College of Theology, the College of Medicine, the College of Technology, and the College of
Law, Political Science, and Economics. In 1939 the College of Dentistry and the College of Pharmacy grew out of the College of Medicine and became two independent colleges of the university. In 1940 the administration of the College of Fine Arts was transferred to the university.

Upon its foundation, the university was headed by a chancellor, who was aided by the University Senate. For selection of the chancellor the Senate nominated three candidates, one of whom was appointed to the position for a term of three years by a royal decree through the recommendation of the Ministry of Education. The University Senate was composed of the college deans and two elected representatives from each college. College deans also were elected by the respective college council for a term of three years (29, p. 20). Until 1943 the university was financially dependent on the Ministry of Education, which allocated the budget and supervised its distribution. In 1943 the university gained administrative independence, and three years later became financially independent, receiving its allocation directly from the government. In addition, the Senate won the right to elect the chancellor without the approval of the Ministry of Education.

In 1944 the Cabinet of Ministries approved the transfer of the veterinary medicine school, which had been operated by the Ministry of Agriculture, to the University of Tehran. At this time the number of colleges increased to ten, and
the enrollment leaped to 3,087 students. The College of Veterinary Medicine did not actually join the university until one year later. In the following year, the College of Agriculture was attached to the university (16).

The autonomy of the university suffered because of the socio-political movements of the time and the intervention of the legislature, which in August 1953 passed a law to resurrect the role of Minister of Education in selecting the chancellor (3, p. 333). The university continued to grow both in organizational structure and the size of enrollment. In 1950, 5,411 students attended the university, and by 1957 the enrollment had climbed to 9,341.

In 1954 a contract between the University of Tehran and the University of Southern California created the Institute of Administrative Affairs in the College of Law, Political Science, and Economics. This institute, later renamed the Institute of Public and Business Administration, became the College of Public and Business Administration in 1964. In 1966 three new colleges were founded: the College of Education, the College of Natural Resources, and the College of Health; and the enrollment increased to 16,345 students. In 1967 the Act of Establishment and Function of Board of Trustees of the University of Tehran created a legal governing board for the university under the chairmanship of the prime minister. Under the law, the board of trustees choose
the chancellor and recommended him to be appointed by royal decree. On December 26, 1971, Parliament enacted the Act of Boards of Trustees of Public Institutions of Higher Education and Research, which provided a unique structure of government to the state-supported institutions of higher education, including the University of Tehran. Article II of the latter act automatically includes the Minister of Higher Education and Science or his deputy in the governing boards of these institutions. Furthermore, Article III provides a legal status to the provincial governors to participate in the boards of trustees in the respective institutions of higher education in their provinces.

With the founding of the College of Social Science and Welfare in 1973, the university presently consists of seventeen colleges and fifteen educational and research institutions. Furthermore, the University is affiliated with two schools of nursing and one school of midwifery. The university offers the degrees of A.A. or A.Sc., B.A. or B.Sc., M.A. or M.Sc., Ph.D., and also the professional degrees of Doctor of Medicine, Dentistry, Pharmacology, and Veterinary Science—in 105 academic or professional areas.

During the academic year 1971-72, 3,796 degrees were awarded by the university. Seventy-one were associate degrees, 2,633 were baccalaureate degrees, 590 were master's degrees, and 502 were doctoral degrees (20 Ph.D.'s and 482 doctorates in medicine, dentistry, pharmacology,
and veterinary science). In the fall of 1972 the university enrolled 17,489 students (12,839 males and 4,650 females), 121 of whom were from countries other than Iran. During the academic year 1972-73, the university employed 1,072 full-time faculty members (918 males and 144 females) and 409 part-time faculty members (393 males and 16 females) (13).

The university's educational and research facilities include laboratories, a computer center, and libraries. There are twenty-four libraries in the various colleges and institutions. The main library is housed in a new eight-story building with individual study areas, microfilm facilities, a cafeteria with a seating capacity of 300, a library theatre with a capacity of 440, and various study halls. The libraries contain 553,516 volumes and numerous pamphlets and bulletins (23).

**Development of the Provincial Universities**

The growing national need for trained manpower, the growing demand for teachers, and the crisis of urbanization together with the problems facing the high school graduates from the provinces in pursuing their higher education at the University of Tehran led to the foundation of the provincial universities. In 1947, the Cabinet of Ministers recommended that the Ministry of Education inaugurate the College of Letters and Humanities in Tabriz. The following year, the Provincial University
Foundation Act, amended by the 1949 Act, gave the responsibility to the Ministry of Education to develop the University of Tabriz and to propose appropriate plans for establishing universities at Mashad, Esfahan, Shiraz, and a medical school at Ahwaz (15).

**University of Tabriz.**--During its brief period of control in 1946, the Communist-Democratic Party established the University of Tabriz (3, p. 330). The College of Letters and Humanities was inaugurated on November 11, 1947. Shortly after the foundation of the university, a number of new colleges were created. In 1956 the university was composed of the College of Letters and Humanities, the College of Medicine, the College of Pharmacy, the College of Agriculture, the School of Midwifery, and the School of Nursing. The university in that year offered three-year programs leading to the Licentiate (equivalent to the B.A. or B.S.) in literature, agriculture, and midwifery, and a six-year program leading to the doctorate degree in medicine, and a five-year program leading to the doctorate degree in pharmacy. The university's organizational structure was similar to the University of Tehran's, excluding the administrative and financial matters, which depended on the Ministry of Education. During the early 1960's the educational structure of the university was revised, as were the structures of the other provincial universities and the University of Tehran.
The programs leading to the licentiate degrees were extended to four years, and medical training was extended to seven years. A new college, the College of Engineering, appeared in the composition of the university. The enrollment increased to 1,497 students in 1960-61, with a faculty of 146 members. During the mid-1960's the university became responsible to the Central Council of Iranian Universities.

The College of Science, offering programs leading to licentiate degrees, came into existence at that time, and the enrollment reached 2,087 in 1964-65. The growing demand for secondary teachers caused the university to establish a school of education, and simultaneously the other provincial universities followed suit. In 1967, the governing power of the university became vested in its board of trustees under the chairmanship of a member of the royal family. In 1972 the university consisted of seven colleges and one graduate school. The colleges and their respective departments are as follows.


College of Education: The departments of this college are (1) Biology, (2) Chemistry, (3) Library Science, (4) Mathematics, and (5) Physics.
College of Letters and Humanities: This college is composed of the following departments: (1) English Language and Literature, (2) French Language and Literature, (3) History, (4) Human and Economic Geography, (5) Natural Geography, (6) Persian Language and Literature, (7) Philosophy, (8) Psychology, and (9) Social Science.

College of Medicine: The college of Medicine includes departments of (1) Medicine and (2) Nursing.

College of Pharmaceutical and Laboratory Sciences: The departments of this college are (1) Biochemistry, (2) Laboratory Sciences, (3) Nutrition, and (4) Pharmacy.

College of Science: This college includes the departments of (1) Biology, (2) Chemistry, (3) Geology, (4) Mathematics, and (5) Physics.

College of Technology: This college consists of (1) Department of Civil Engineering, (2) Department of Electrical Engineering, (3) Department of Industrial Engineering, and (4) Department of Mechanical Engineering.

During the academic year 1972-73, there were 38 graduate students, who pursued programs leading to the master's degree in the fields of biochemistry, mathematics, chemistry, physics, library science, and microbiology. In the same academic year the enrollment increased to 6,796 students, 5,788 males and 1,008 females. The faculty totaled 409 full-time and 22 part-time members, plus 235 hourly-paid instructors (13, 14).
University of Esfahan.--In 1946 the Institute of Hygiene was founded in Esfahan, a metropolis in central Iran. In 1950 the College of Medicine was inaugurated with an enrollment of fifty-four. Five years later the School of Pharmacy was attached to the College of Medicine. At that time, the three colleges enrolled a total of 435 students. On December 9, 1958, the College of Letters and Humanities was founded, and in its first year enrolled 145 students in the fields of Persian literature and English language and literature. By adopting a central administration in that year, the University of Esfahan was created. The university, like the other provincial universities, was subject to the Ministry of Education and was headed by a chancellor who was responsible to the Minister of Education. In 1962 the central administration of the university was abolished, and the Colleges of Medicine and Letters and Humanities became independent units under the sponsorship of the Department of Higher Education of the Ministry of Education. Two years later the College of Science, offering a single course of study--chemistry, was founded with an enrollment of twenty-one students. Three years later a central administration joined the separate colleges and formed the University of Esfahan. At that time the College of Pharmacy, the School of Laboratory Sciences, and the School of Nursing were created. By July 1972 the university had grown to five colleges operated by a faculty of 326 members (219 full-time,
part-time, and 76 hourly-paid). The enrollment in the academic year 1972-73 totaled 4,108 (3,202 males and 906 females), who pursued their education in the fields of liberal arts and the professions. Following are the colleges and departments for that academic year.

College of Letters and Humanities: The college included departments of (1) American Language and Literature, (2) English Language and Literature, (3) French Language and Literature, (4) History, (5) Geography, and (6) Persian Language and Literature.

College of Medicine: The College of Medicine was composed of the (1) Department of Laboratory Sciences, (2) Department of Medicine (General and Specialized), (3) Department of Nursing, and (4) Department of Radiology.

College of Pharmacy: The college consisted of a single department, the Department of Pharmacy.

College of Science: The College of Science included the departments of (1) Biology, (2) Chemistry, (3) Geology, (4) Mathematics, and (5) Physics.

College of Education: This college consisted of the departments of (1) Biology, (2) Chemistry, (3) Pedagogy, (4) Experimental Sciences, (5) Geology, (6) Mathematics, and (7) Psychology (14, pp. 31-32; 13; 17, pp. 8-9).

University of Mashad.--A state Institute of Hygiene, founded in Mashad, a metropolis in northeast Iran, became a College of Medicine in 1959. The College of Letters and
Humanities opened in 1955, and two years later the College of Theology was established. Combining new colleges with the existing colleges under a unit administration, the Ministry of Education created the University of Mashad. In 1960-61 the university enrolled 1,056 students in programs leading to licentiate degrees in letters and theology and a professional degree in medicine. At that time the faculty consisted of 13 full-time and 119 part-time members. The College of Science and the School of Midwifery were founded in the early 1960's. The College of Dentistry and the School of Education were added to the university in 1966, and in 1967 a board of trustees became the governing body of the university. With the recent foundation of the College of Pharmaceutical Sciences and Nutrition, the number of colleges has increased to seven, enrolling 3,674 students (2,902 males and 772 females) in the academic year 1972-73. In the same year there were 427 faculty members (254 full-time, 81 part-time, and 82 hourly-paid). The structure of the colleges was as follows.

**College of Dentistry:** This college included a single department, the Department of Dentistry.

**College of Letters and Humanities:** This college was composed of these departments: (1) English Language and Literature, (2) French Language and Literature, (3) Geography, (4) History, (5) Persian Language and Literature, and (6) Psychology and Pedagogy.
College of Medicine: This college consisted of the departments of (1) Laboratory Sciences, (2) Medicine (General and Specialized), (3) Midwifery, and (4) Nursing.

College of Pharmaceutical Sciences and Nutrition: This college included the departments of (1) Pharmaceutical Sciences and (2) Nutrition.

College of Science: The College of Science included the departments of (1) Biology, (2) Chemistry, (3) Geology, (4) Mathematics and Statistics, and (5) Physics.

College of Theology and Islamic Studies: This college included two departments: (1) Fundamentals of Islamic Law Ordinances, and (2) Islamic Logic and Philosophy (13, 14, 15).

University of Jondi-Shapur.--Under the Provincial University Foundation Act, Jondi-Shapur University, consisting of the College of Agriculture and the College of Medicine, was founded in 1955. Later the School of Nursing and the School of Laboratory Technology were added to the organization of the university. Because of a shortage of qualified staff, the students received their advanced training at the University of Tehran. The College of Education was established in 1966 to train secondary teachers. In 1972-73 a total of 2,431 students (1,988 males and 443 females) enrolled at the university. The faculty included 206 members (175 full-time, 3 part-time, and 18 hourly-paid). The colleges of this university included the following.
College of Agriculture: This college is composed of the departments of (1) Irrigation and Soil Science, (2) Animal Husbandry, Livestock, and Fishery, and (3) Plant Breeding.

College of Education: This college included the following departments: (1) Chemistry, (2) Mathematics, (3) Natural Sciences, and (4) Persian Language and Literature.

College of Medicine: The College of Medicine included the departments of (1) Laboratory Sciences, (2) Medicine, (3) Nursing, and (4) Radiology.

College of Science: This college included the following departments: (1) Biology, (2) Chemistry, (3) Mathematics, and (4) Physics.

Also included was the Department of Foreign Languages, which offers a baccalaureate degree in English Language and Literature. The governing body is a board of trustees (13, 14, 15).

Development of Public Independent Colleges

These institutions are state colleges whose purpose is professional training. They are governed by their respective boards of trustees and are under the jurisdiction of the Ministry of Science and Higher Education. Academically they offer programs leading to B.S. or B.A. degrees. Two of the six colleges have graduate programs leading to M.S. or M.A. degrees.
Tehran Teacher Training College.--As has been discussed earlier, the Tehran Teacher Training College was founded in 1918, and in 1934 became one of the constituent institutions of the University of Tehran. In 1959 the Act of Independence of the Teacher Training College was passed, and the college was reorganized under a new structure responsible to the Ministry of Education. Four years later, by Parliamentary approval, the college was reorganized as the Organization of Teacher Training and Educational Research, consisting of the departments of (1) Secondary Education, (2) Educational Leadership and Guidance, and (3) Educational Research and Studies. A law passed in 1967 sanctioned the constitution of the Teacher Training College and included in it the previously-mentioned departments and a newly-created one, the Institute of Mathematics. Currently the college is composed of the departments of (1) Biology, (2) Chemistry, (3) English Language and Literature, (4) Educational Guidance and Counseling, (5) Geography, (6) Geology, (7) History, (8) Mathematics, (9) Persian Language and Literature, (10) Physics, and (11) Physical Education.

During the academic year 1972-73 the college enrolled 3,496 students (2,526 males and 970 females), of whom 100 pursued graduate studies in educational guidance and counseling and college teaching of mathematics. In the same year the faculty consisted of 147 full-time, 2 part-time, and 68 hourly-paid members (13; 31, pp. 5-8).
College of Science and Technology.--The College of Science and Technology is one of Iran's oldest educational institutions. It was founded in 1929, and during the early 1960's it developed into a unit to train vocational high school teachers in a variety of skills. The college was originally sponsored by the Ministry of Education. Later the government of the college came under the jurisdiction of a board of trustees. Presently the college consists of the following departments: (1) Air Conditioning, (2) Architecture and Interior Decoration, (3) Civil Engineering, (4) Construction of Machines, (5) Designing and Moulding, (6) Electrical Engineering, (7) Electrotechnics, (8) Mechanical Engineering, (9) Metal Industries, (10) Metallurgical Engineering, (11) Technical Drawing, and (12) Thermo-Machines. During the academic year 1972-73 the faculty consisted of 155 members (138 full-time, 2 part-time, and 15 hourly-paid), and the college enrollment was 3,677 (3,576 males and 101 females), who pursued programs leading to a B.S. or equivalent degree (13, 14).

Education Corps Teacher Training College.--After the development and implementation of the Literacy Corps Plan, this college was founded in 1964 to train the Corps' educational guidance personnel and also to develop the teaching skills of those corpsmen who had taught in the rural regions of the country. The college includes four departments: (1) Educational Guidance, (2) Primary Education, (3) Rural
Education and Co-operation, and (4) Training of Experimental Science Teachers. The college's programs primarily lead to an associate degree through correspondence or regular courses. In elementary education, however, programs leading to the B.S. or equivalent degree are also offered. In 1972-73, 466 students were enrolled in B.S. programs, and 1,252 were enrolled in associate programs. A faculty of 112 existed in that year (13, 14).

Tehran Polytechnic.--Tehran Polytechnic is a state institution founded in 1960 as a practical engineering training college for private and public industries. The college has also adopted an in-service program to train vocational teachers. Currently the college offers four-year programs leading to degrees in practical engineering, equivalent to a B.S., in five different departments. Furthermore, there are graduate programs leading to master's degrees in Electronics, Civil Engineering, and Mechanical Engineering. In the academic year 1972-73 a total of 10 students was enrolled at the graduate level and 1,006 in undergraduate programs in the following departments: (1) Chemical and Petrochemical Engineering, (2) Civil Engineering, (3) Mechanical Engineering, and (4) Textile and Dyeing Engineering. The faculty consisted of 121 full-time, 22 part-time, and 33 hourly-paid members (2, p. 63; 10; 13; 14).
College of Commerce.--Developing industry and growing business led the Ministry of Education to found the College of Commerce in 1958. The college offers a four-year program leading to a baccalaureate degree in business. In 1972-73, 1,730 students (1,395 males and 335 females) were enrolled, and the faculty consisted of 18 full-time, 7 part-time, and 74 hourly-paid members (13).

Rezaieh College of Agriculture and Animal Husbandry.--Good soil and an optimal degree of rainfall in Rezaieh, a northwestern city, have required trained manpower since man first settled in that region. The Ministry of Education, however, did not establish an agricultural school there until 1965, when Rezaieh College was founded. The college offers four-year programs leading to a B.S. in agriculture. The students spend four academic years in theoretical and practical education. They receive their basic and general education in their freshman and sophomore years, then continue their studies in their major fields during the last two years. In the academic year 1969-70 the faculty consisted of 21 members, of whom 13 held doctoral degrees, 2 master's degrees, and 6 bachelor's degrees. In 1972-73 the faculty increased to 46 (35 full-time and 11 part-time). In that year the total enrollment grew to 428 students (361 males, 67 females) (12, 13).
Development of Private Universities and Colleges

During the 1960's three universities came into existence: the Iran National University, the Aryamehr University of Technology, and Pahlavi University. They were established under special charters and are not regulated like state universities, and their non-academic employees are not civil servants. They receive state support and are partly financed by tuition and other special revenues (14, p. 4).

Aryamehr University of Technology.--This university, a professional training institution, was founded in 1966 and established a temporary campus in Tehran. It was governed by a board of trustees composed of the Minister of the Royal Court as chairman; the Ministries of Education, of Arts and Culture, and of Finance; the Chancellor; and twenty-five additional members (30, p. 550). The university recruited a qualified faculty, chiefly from the Iranian educators who had been trained in the United States. The university adopted a four-year program leading to an engineering degree equivalent to a B.S. Furthermore, the university has recently developed programs leading to master's degrees in Mathematics, Chemistry, Physics, Computer Science, and Electrical Engineering. In the academic year 1972-73, graduate students numbered 157 in a total enrollment of 2,357 students, representing the university's ten departments. The university has received substantial financial assistance from the government for its developmental plans as well as for its
current expenses. The university has also proposed to move its permanent campus to Esfahan, which is currently under construction. In 1972-73 the faculty of the university consisted of 235 faculty members (227 males and 8 females), plus 38 hourly-paid instructors. The university is composed of the departments of (1) Chemistry, (2) Chemical Engineering, (3) Computer Science, (4) Electrical Engineering, (5) Industrial Engineering, (6) Physics, (7) Mathematics, (8) Structural Engineering, (9) Mechanical Engineering, and (11) Metallurgical Engineering (13, p. 31; 14).

**Iran National University.**--The Iran National University was founded as a non-profit organization in 1960 in Tehran. The university included the College of Finance and Economics and the College of Architecture. The university was financed by student fees, gifts, endowments, and government grants. In 1961 the College of Medicine was established, and in the following year the College of Foreign Languages was founded. At that time 632 students were enrolled. The College of Science was founded in 1964, and the following year the College of Dentistry came into existence. With the creation of the Department of Penal Law in 1966, the university increased to five colleges and one department of law. At that time there were master's programs in Penal Law and Administrative Counseling, and in 1967 Economics was added to the program. Also in 1967 the departments of History, Geography, Psychology, and Persian Literature were added to
the existing departments of the College of Foreign Languages and renamed the College of Letters and Humanities. In the academic year 1972-73 the university included seven colleges and four institutions, a library containing 35,000 volumes and a new campus in one of Tehran's northwestern suburbs. The total enrollment in that year was 7,132 students with a faculty of 475 members. The university was governed by a board of trustees and received its financial support chiefly from the government (13, 14, 22, 26).

University of Pahlavi.--In 1949 a state school of medicine was founded in Shiraz, a city in south central Iran; shortly thereafter a teaching hospital was created. The College of Letters and Humanities and the College of Agriculture were established in 1955, followed by a College of Science in 1958. Because the existing institutions met the requirements of the Ministry of Education, the institution was elevated to the status of a university in 1958. The University of Shiraz, patterned after other provincial universities, was dependent on the Ministry of Education. The chief administrator was responsible to the Minister of Education and was aided by the University Senate, a body which approved internal regulations, educational procedures, and curricula.

During the late 1950's the government became interested in establishing an American-style university in Iran. Through the guidance of the American government, a team from the
University of Pennsylvania was invited to Iran to conduct a field survey and make suggestions. Through a comprehensive report in September 1960, the team recommended the University of Shiraz as appropriate for the purpose. On June 30, 1962, the university was reorganized as Pahlavi University. The governing power of the university was vested in a board of trustees. It was an autonomous institution, independent of the Ministry of Education. Nevertheless, the Ministry of Education and Plan Organization and other sources supported the university in the form of grants. Student tuition also made up a portion of its financial resources. USAID assisted the university through operating a project whereby the University of Pennsylvania participated in developmental programs. Because of the nature of the university, English is the language of instruction, and the faculty is predominantly composed of individuals who received their education in the United States (7).

Currently, Pahlavi University offers programs in professional fields and the liberal arts. The graduate school offers master's degrees in twenty-two professional and academic fields. In 1972-73 the graduate school enrolled 182 students in a total enrollment of 4,044. The university supplied residential units to both students and faculty. Fifty-one per cent of the students resided in university-operated dormitories, approximately 75 per cent of these in
single rooms. The university library housed 135,202 volumes in that year.


College of Dentistry: This college possesses the single department of Dentistry.

College of Engineering: This college includes departments of (1) Chemical Engineering, (2) Civil Engineering, (3) Electrical Engineering and Electronics, and (4) Mechanical Engineering.

College of Medicine: The departments in the College of Medicine consist of (1) Laboratory Sciences, (2) Medicine and Pre-Medical, (3) Medicine (General and Specialized), (4) Nursing, and (5) Radiology.
College of Veterinary Medicine: This college includes only the Department of Veterinary Medicine (13; 14; 25; 28, pp. 36-37).

Private Colleges

The 1960's saw an acceleration of participation in and expansion of higher education in Iran. The private institutions have only within the last ten years emerged as significant contributors to the educational process. These institutions are totally non-profit organizations. Their ability to grow, therefore, once seemed doubtful. Despite financial problems, forty institutions came into existence during this period. By the academic year 1972-73 their enrollments totaled 24,785 students, 20 per cent of all college students in Iran. Only ten years before, no institutions of this kind were in existence. These colleges offer professional programs as well as liberal arts courses. Primarily they are four-year colleges, though some offer two-year programs leading to associate degrees. Only a few are devoted solely to lower level college education. A majority of the students are pursuing baccalaureate degrees. Two of the colleges, the Institute of Iranian Culture Studies and the Iranian Center of Management Studies, offer only graduate work leading to the master's degree. Several of them, two O.R.T. colleges, Nafissi Technological Institution, Kakhdanesh College, the Institute of Building Construction, Iranzamin College, and the Judicial and
<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Year of Founding</th>
<th>Total Enrollment</th>
<th>Total Graduates (1971-72)</th>
<th>Full-time Faculty</th>
<th>Part-time Faculty</th>
<th>Hourly-paid Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Literature and Foreign Languages</td>
<td>Tehran</td>
<td>1965</td>
<td>1,655</td>
<td>242</td>
<td>14</td>
<td>19</td>
<td>33</td>
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<tr>
<td>College of Mass Communication</td>
<td>Tehran</td>
<td>1967</td>
<td>1,144</td>
<td>302</td>
<td>23</td>
<td>23</td>
<td>61</td>
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<tr>
<td>College of Translation</td>
<td>Tehran</td>
<td>1969</td>
<td>2,607</td>
<td>58</td>
<td>22</td>
<td></td>
<td>102</td>
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<tr>
<td>Damavand College</td>
<td>Tehran</td>
<td>1968</td>
<td>572</td>
<td>62</td>
<td>26</td>
<td></td>
<td>10</td>
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<tr>
<td>Ghazvin College of Public and Business Administration</td>
<td>Ghazvin</td>
<td>1971</td>
<td>1,077</td>
<td>..</td>
<td>8</td>
<td>..</td>
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<tr>
<td>Ghazvin College of Economics and Social Sciences</td>
<td>Ghazvin</td>
<td>1971</td>
<td>292</td>
<td>..</td>
<td>3</td>
<td>..</td>
<td>8</td>
</tr>
<tr>
<td>Gilan College of Management</td>
<td>Rasht</td>
<td>1970</td>
<td>995</td>
<td>..</td>
<td>15</td>
<td>12</td>
<td>3</td>
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<tr>
<td>Hamadan College of Agriculture</td>
<td>Hamadan</td>
<td>1968</td>
<td>950</td>
<td>1</td>
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<td>Institute of Accounting</td>
<td>Tehran</td>
<td>1964</td>
<td>2,118</td>
<td>432</td>
<td>13</td>
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<td>52</td>
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<td>Iran Institute of Banking</td>
<td>Tehran</td>
<td>1963</td>
<td>850</td>
<td>138</td>
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<tr>
<td>Iran Novin Institute of Political Science**</td>
<td>Tehran</td>
<td>1971</td>
<td>584</td>
<td>..</td>
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<td>2</td>
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<tr>
<td>Karaj College of Mathematics and Economic Management</td>
<td>Karaj</td>
<td>1971</td>
<td>727</td>
<td>..</td>
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<tr>
<td>Kerman College of Management</td>
<td>Kerman</td>
<td>1970</td>
<td>831</td>
<td>..</td>
<td>14</td>
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<tr>
<td>Marjan College</td>
<td>Arak</td>
<td>1971</td>
<td>735</td>
<td>..</td>
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<td>32</td>
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<tr>
<td>Mazandaran College of Economics and Social Sciences</td>
<td>Babolsar</td>
<td>1970</td>
<td>1,139</td>
<td>..</td>
<td>14</td>
<td>16</td>
<td>..</td>
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<tr>
<td>Pars College**</td>
<td>Tehran</td>
<td>1967</td>
<td>1,691</td>
<td>225</td>
<td>34</td>
<td>40</td>
<td>56</td>
</tr>
<tr>
<td>Rasht Commercial College</td>
<td>Rasht</td>
<td>1969</td>
<td>1,112</td>
<td>..</td>
<td>10</td>
<td>10</td>
<td>11</td>
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</tbody>
</table>
TABLE I--Continued

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Year of Founding</th>
<th>Total Enrollment</th>
<th>Total Graduates (1971-72)</th>
<th>Full-time Faculty</th>
<th>Part-time Faculty</th>
<th>Hourly-Paid Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tehran College of Insurance</td>
<td>Tehran</td>
<td>1970</td>
<td>929</td>
<td>.</td>
<td>12</td>
<td>.</td>
<td>80</td>
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<tr>
<td>Girls’ College</td>
<td>Tehran</td>
<td>1964</td>
<td>2,448</td>
<td>501</td>
<td>67</td>
<td>29</td>
<td>45</td>
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<tr>
<td>Iranian Center of Management Studies***</td>
<td>Tehran</td>
<td>1972</td>
<td>56</td>
<td>.</td>
<td>7</td>
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<tr>
<td>Institute of Hospital Sciences</td>
<td>.</td>
<td>.</td>
<td>329</td>
<td>.</td>
<td>9</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Institute of Cultural Studies of Iran***</td>
<td>.</td>
<td>.</td>
<td>20</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>18</td>
</tr>
</tbody>
</table>


**Offering Bachelor's and Master's degree.

***Offering Master's degree only.

Administrative Affairs Junior College, offer only associate degrees. Table I gives an overall view of the senior private colleges in Iran.

Development of Other Institutions of Higher Education

Senior Colleges Affiliated with Public Organizations and Ministries.—As has been stated earlier, the Ministries began to set up schools for training their personnel in the late decades of the nineteenth century. After the creation
of the University of Tehran and several provincial universities and an increase in the number of foreign-educated Iranians, university graduates became highly sought after to fill administrative and professional positions in the growing governmental structure. The government also began to demand manpower with less academic orientation and more professional and vocational training. However, it is not our consideration to analyze here whether the universities have neglected this requirement or have not been able to implement it. The institutions which were sponsored by the ministries or public sector generally began by offering only the lower level of college education. Many of them, which were affiliated with ministries other than the Ministry of Education, grew to four-year colleges, however. After the creation of the Ministry of Science and Higher Education, all educational institutions came under the jurisdiction of the latter ministry. With the exception of the University of Tehran, the provincial universities, Pahlavi University, Aryamehr University of Technology, Iran National University, and the independent colleges discussed earlier, the public institutions of higher education are currently affiliated with either the Ministry of Education, public organizations, or other ministries.

Currently there are twenty-four senior colleges in operation under the sponsorship of the ministries and public organizations, of which eleven are nursing schools affiliated
**TABLE II**

**SENIOR COLLEGES AFFILIATED WITH THE PUBLIC ORGANIZATIONS AND MINISTRIES**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsoring Organization</th>
<th>Place</th>
<th>Year of Founding</th>
<th>Enrollment in 1972-73</th>
<th>Graduates in 1971-72</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Hourly paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abadan Technical Institution</td>
<td>National Iranian Oil Company</td>
<td>Abadan</td>
<td>1929</td>
<td>250</td>
<td>37</td>
<td>26</td>
<td>...</td>
<td>1</td>
</tr>
<tr>
<td>Ashraf Pahlavi Nursing School</td>
<td>Imperial Organization</td>
<td>Tehran</td>
<td>1949</td>
<td>409&lt;sup&gt;b&lt;/sup&gt;</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Azarmidokht School of Nursing</td>
<td>Social Insurance Organization</td>
<td>Tehran</td>
<td>1971</td>
<td>62</td>
<td>...</td>
<td>4</td>
<td>...</td>
<td>9</td>
</tr>
<tr>
<td>Civil Aviation Training Center</td>
<td>Ministry of Roads</td>
<td>Tehran</td>
<td>1961</td>
<td>15</td>
<td>...</td>
<td>3</td>
<td>...</td>
<td>1</td>
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<tr>
<td>College of Decorative Arts&lt;sup&gt;C&lt;/sup&gt;</td>
<td>Ministry of Culture and Arts</td>
<td>Tehran</td>
<td>1960</td>
<td>278</td>
<td>62</td>
<td>15</td>
<td>...</td>
<td>11</td>
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<tr>
<td>Firoozgar School of Nursing</td>
<td>Ministry of Health</td>
<td>Tehran</td>
<td>1965</td>
<td>111&lt;sup&gt;b&lt;/sup&gt;</td>
<td>23</td>
<td>13</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Institute of Communication</td>
<td>Ministry of Post Telegraph and Telephone</td>
<td>Tehran</td>
<td>1929</td>
<td>153</td>
<td>...</td>
<td>31</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Jorjani School of Nursing</td>
<td>Ministry of Health</td>
<td>Mashad</td>
<td>1958</td>
<td>71</td>
<td>30</td>
<td>7</td>
<td>...</td>
<td>18</td>
</tr>
<tr>
<td>Mehr-Aeen School of Nursing</td>
<td>Ministry of Health</td>
<td>Esfahan</td>
<td>1967</td>
<td>62</td>
<td>15</td>
<td>5</td>
<td>...</td>
<td>12</td>
</tr>
<tr>
<td>NIOC School of Nursing</td>
<td>National Iranian Oil Company</td>
<td>Abadan</td>
<td>1941</td>
<td>87</td>
<td>37</td>
<td>7</td>
<td>20</td>
<td>...</td>
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<tr>
<td>Razi School of Nursing</td>
<td>Ministry of Health</td>
<td>Kerman</td>
<td>1962</td>
<td>52</td>
<td>23</td>
<td>8</td>
<td>...</td>
<td>14</td>
</tr>
<tr>
<td>Institution</td>
<td>Sponsoring Organization</td>
<td>Place</td>
<td>Year of Founding</td>
<td>Enrollment in 1972-73</td>
<td>Graduates in 1971-72</td>
<td>Full-time</td>
<td>Part-time</td>
<td>Hourly paid</td>
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</tr>
<tr>
<td>Reza Shah Kabir School of Nursing</td>
<td>Red Lion and Sun Society</td>
<td>Tehran</td>
<td>1959</td>
<td>121</td>
<td>43</td>
<td>15</td>
<td>...</td>
<td>28</td>
</tr>
<tr>
<td>School of Accounting and Finance</td>
<td>National Iranian Oil Company</td>
<td>Tehran</td>
<td>1957</td>
<td>1,101</td>
<td>176</td>
<td>...</td>
<td>...</td>
<td>39</td>
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<tr>
<td>School of Industrial Management</td>
<td>...</td>
<td>Tehran</td>
<td>...</td>
<td>46</td>
<td>25</td>
<td>...</td>
<td>15</td>
<td>8</td>
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<tr>
<td>School of Music</td>
<td>Ministry of Culture and Arts</td>
<td>Tehran</td>
<td>1939</td>
<td>59</td>
<td>1</td>
<td>16</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>School of National Music</td>
<td>Ministry of Culture and Arts</td>
<td>Tehran</td>
<td>...</td>
<td>18</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>13</td>
</tr>
<tr>
<td>School of Nutrition and Food Science</td>
<td>Ministry of Health</td>
<td>Tehran</td>
<td>1961</td>
<td>174</td>
<td>40</td>
<td>...</td>
<td>8</td>
<td>37</td>
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<tr>
<td>School of Physical Education</td>
<td>Organization of Physical Education</td>
<td>Tehran</td>
<td>...</td>
<td>348</td>
<td>...</td>
<td>...</td>
<td>8</td>
<td>41</td>
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<tr>
<td>School of Social Services</td>
<td>...</td>
<td>Tehran</td>
<td>1958</td>
<td>316</td>
<td>61</td>
<td>20</td>
<td>...</td>
<td>28</td>
</tr>
<tr>
<td>School of Statistics</td>
<td>Plan Organization</td>
<td>Tehran</td>
<td>1965</td>
<td>269</td>
<td>36</td>
<td>8</td>
<td>...</td>
<td>26</td>
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<tr>
<td>School of Surveying</td>
<td>Plan Organization</td>
<td>Tehran</td>
<td>1965</td>
<td>85</td>
<td>84</td>
<td>...</td>
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<td>22</td>
</tr>
<tr>
<td>Shafaee School of Nursing</td>
<td>Shafaee Center of Rehabilitation</td>
<td>...</td>
<td>1971</td>
<td>57</td>
<td>...</td>
<td>6</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Institution</td>
<td>Sponsoring Organization</td>
<td>Place</td>
<td>Year of Founding</td>
<td>Enrollment in 1972-73</td>
<td>Graduates in 1971-72</td>
<td>Faculty Full-time</td>
<td>Faculty Part-time</td>
<td>Faculty Hourly paid</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
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<td>------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Technical Institute of Road Construction and Maintenance</td>
<td>Ministry of Road</td>
<td>Tehran</td>
<td>...</td>
<td>149</td>
<td>...</td>
<td>2</td>
<td>...</td>
<td>30</td>
</tr>
<tr>
<td>Twenty-fifth Shahrvan School of Nursing</td>
<td>Ministry of Health</td>
<td>Kerman-Shah</td>
<td>1965</td>
<td>94</td>
<td>34</td>
<td>8</td>
<td>...</td>
<td>11</td>
</tr>
<tr>
<td>Twenty-fifth Shahrvan School of Nursing</td>
<td>Ministry of Health</td>
<td>Rasht</td>
<td>1965</td>
<td>80</td>
<td>27</td>
<td>8</td>
<td>...</td>
<td>17</td>
</tr>
</tbody>
</table>


b In 1971-72.

c Offers B.A. and M.A. Programs.

d Offers only M.A. Programs.

e Offers A.A. and M.A. Programs.
with the Ministry of Health or other organizations. They partially fill the needs of health centers for certified nurses. (The medical colleges of the universities also train nurses, and there is one nursing school in Tabriz affiliated with the Presbyterian Mission of America). The other colleges in this category train advanced professionals: the School of Industrial Management, the College of Decorative Arts, the School of Accounting and Finance, the School of Statistics, and the School of Social Services. Table II provides a brief picture of these colleges.

Institutions of Higher Education Affiliated with the Ministry of Education.--In the last eight years, the Ministry of Education has taken the responsibility of training semi-skilled professionals to match its diversified system of education on the primary and secondary levels. In 1972-73 a total of 25,932 students attended thirty-five institutes of technology or school hygiene. These students were enrolled in two-year* programs leading to an associate degree. The institutes of school hygiene, which developed in large urban areas enrolled a total of 486 students. Though the ministry had succeeded in developing technological institutions on a large scale, Table III illustrates

*The Higher Institute Technology of Tehran, the only senior college affiliated with the Ministry of Education, offers programs leading to the baccalaureate degree. The Institute enrolled 20 students in 1972-73.
TABLE III

INSTITUTIONS OF HIGHER EDUCATION AFFILIATED
TO THE MINISTRY OF EDUCATION<sup>a</sup>
(OFFERING ASSOCIATE DEGREE)*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Founding Year</th>
<th>Field of Study</th>
<th>Enrollment 1971-72</th>
<th>Enrollment 1972-73</th>
<th>Graduates 1971-72</th>
<th>Faculty Full-time</th>
<th>Faculty Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahwaz Technical Institute (Agricultural Technology)</td>
<td>1967</td>
<td>Soil Science, Irrigational, Agricultural Machinery Technology</td>
<td>186</td>
<td>204</td>
<td>75</td>
<td>. .</td>
<td>22</td>
</tr>
<tr>
<td>Ahwaz Technical Institute (Electrical &amp; Mechanical Technology)</td>
<td>1967</td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>238</td>
<td>240</td>
<td>77</td>
<td>. .</td>
<td>23</td>
</tr>
<tr>
<td>Babol Technical Institute</td>
<td>1967</td>
<td>Electrical, Mechanical and Civil Engineer Technology</td>
<td>189</td>
<td>217</td>
<td>100</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Behbahani Institute of Vocational Teacher Training</td>
<td>1965</td>
<td>Auto Mechanical, Electrical, Civil Engineer Technology</td>
<td>143</td>
<td>234</td>
<td>138</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Esfahan Technical Institute</td>
<td>1967</td>
<td>Dyeing, Electrical, Mechanical, Civil Engineer Technology</td>
<td>461</td>
<td>645</td>
<td>243</td>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>Ghazvin Technical Institute</td>
<td>1970</td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>252</td>
<td>254</td>
<td>. .</td>
<td>. .</td>
<td>21</td>
</tr>
<tr>
<td>Institute of Art Teacher Training</td>
<td>1969</td>
<td>Art Training</td>
<td>73</td>
<td>206</td>
<td>71</td>
<td>. .</td>
<td>15</td>
</tr>
</tbody>
</table>

<sup>a</sup>Excludes the Teacher Training Institutes, Educational Orientation and Guidance, with a total enrollment of 16,548 students.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Founding Year</th>
<th>Field of Study</th>
<th>Enrollment 1971-72</th>
<th>Enrollment 1972-73</th>
<th>Graduates 1971-72</th>
<th>Faculty Full-time</th>
<th>Faculty Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerman Technical Institute</td>
<td></td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>464</td>
<td>396</td>
<td>305</td>
<td>.</td>
<td>24</td>
</tr>
<tr>
<td>Kermanshah Technical Institute</td>
<td>1967</td>
<td>Civil Engineer Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mashad Technical Institute,</td>
<td></td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>166</td>
<td>209</td>
<td>57</td>
<td>.</td>
<td>10</td>
</tr>
<tr>
<td>Rasht Technical Institute (Agricultural Technology)</td>
<td>1967</td>
<td>Soil Science and Irrigational, Agricultural Machinery Technology</td>
<td>753</td>
<td>523</td>
<td>334</td>
<td>3</td>
<td>57</td>
</tr>
<tr>
<td>Rasht Technical Institute (Electrical and Mechanical)</td>
<td>1970</td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>259</td>
<td>393</td>
<td>41</td>
<td>.</td>
<td>16</td>
</tr>
<tr>
<td>Rezaieh Technical Institute (Agricultural Technology)</td>
<td>1970</td>
<td>Soil and Irrigation Technology</td>
<td>229</td>
<td>314</td>
<td>.</td>
<td>.</td>
<td>28</td>
</tr>
<tr>
<td>Rezaieh Technical Institute (Electrical and Mechanical)</td>
<td>1967</td>
<td>Electrical, Mechanical, Civil Engineer Technology</td>
<td>116</td>
<td>332</td>
<td>.</td>
<td>.</td>
<td>13</td>
</tr>
<tr>
<td>Sari Technical Institute</td>
<td>1970</td>
<td>Silo Technology</td>
<td>259</td>
<td>170</td>
<td>.</td>
<td>.</td>
<td>28</td>
</tr>
<tr>
<td>School of Hotel Management (Tehran)</td>
<td>1967</td>
<td>Hotel Management Technology</td>
<td>187</td>
<td>120</td>
<td>71</td>
<td>.</td>
<td>9</td>
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<tr>
<td>Institution</td>
<td>Founding Year</td>
<td>Field of Study</td>
<td>Enrollment 1971-72</td>
<td>Enrollment 1972-73</td>
<td>Graduates 1971-72</td>
<td>Faculty Full-time</td>
<td>Faculty Part-time</td>
</tr>
<tr>
<td>---------------------------------</td>
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<td>------------------</td>
</tr>
<tr>
<td>Shiraz Technical Institute</td>
<td>1967</td>
<td>Electrical, Mechanical, Civil Engineering Technology</td>
<td>324</td>
<td>268</td>
<td>137</td>
<td>.</td>
<td>30</td>
</tr>
<tr>
<td>Tabriz Technical Institute</td>
<td>1967</td>
<td>Soil and Irrigation, Agricultural Technology</td>
<td>263</td>
<td>273</td>
<td>94</td>
<td>.</td>
<td>22</td>
</tr>
<tr>
<td>(Agricultural Technology)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabriz Technical Institute</td>
<td>1969</td>
<td>Commerce</td>
<td>373</td>
<td>438</td>
<td>137</td>
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<td>(Commerce)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabriz Technical Institute</td>
<td>1968</td>
<td>Electrical, Mechanical, Civil Engineering Technology</td>
<td>442</td>
<td>370</td>
<td>206</td>
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<td>23</td>
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<tr>
<td>(Electrical and Mechanical Technology)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehran Technical Institute</td>
<td>1968</td>
<td>Aeronautical Technology, Computer Programming</td>
<td>629</td>
<td>804</td>
<td>107</td>
<td>7</td>
<td>41</td>
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<tr>
<td>(Air-Conditioning and Computer Programming)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehran Technical Institute</td>
<td>1968</td>
<td>Chemical Technology</td>
<td>153</td>
<td>190</td>
<td>38</td>
<td>.</td>
<td>22</td>
</tr>
<tr>
<td>(Chemical Technology)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehran Technical Institute</td>
<td>1966</td>
<td>Design, Architectural Technology</td>
<td>730</td>
<td>804</td>
<td>266</td>
<td>.</td>
<td>30</td>
</tr>
<tr>
<td>(Design and Architecture)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tehran Technical Institute</td>
<td>1969</td>
<td>Drawing, Drafting</td>
<td>157</td>
<td>229</td>
<td>31</td>
<td>.</td>
<td>15</td>
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<tr>
<td>(Drawing and Drafting)</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tehran Technical Institute</td>
<td>1965</td>
<td>Dyeing</td>
<td>183</td>
<td>283</td>
<td>69</td>
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<td>12</td>
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<tr>
<td>(Dyeing)</td>
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</tbody>
</table>
TABLE III--Continued

<table>
<thead>
<tr>
<th>Institution</th>
<th>Founding Year</th>
<th>Field of Study</th>
<th>Enrollment 1971-72</th>
<th>Enrollment 1972-73</th>
<th>Graduates 1971-72</th>
<th>Faculty Full-time</th>
<th>Faculty Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tehran Technical Institute (Electrical and Mechanical)</td>
<td>1965</td>
<td>Electrical, Mechanical Technology</td>
<td>212</td>
<td>192</td>
<td>57</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Tehran Technical Institute (Statistics and Accounting)</td>
<td>1968</td>
<td>Statistics, Accounting Technology</td>
<td>375</td>
<td>397</td>
<td>58</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>


That they are understaffed; there are 33 full-time faculty members for 27 of the institutions. The ministry should accept the challenge to provide adequate staff for these institutions.

Two-Year Institutions of Higher Education Affiliated with the Other Ministries of Public Organizations.--Also in operation were a number of two-year institutions which attracted a small portion of the students in the country. Six schools of laboratory technology were affiliated with the Ministry of Health; four midwifery schools under the jurisdiction of the Red Lion and Sun Society or the Ministry of Health were responsible for training semi-professionals
TABLE IV
TWO-YEAR INSTITUTIONS OF HIGHER EDUCATION AFFILIATED
TO THE OTHER MINISTRIES OR PUBLIC ORGANIZATIONS*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsoring Organization</th>
<th>Place</th>
<th>Year of Founding</th>
<th>Enrollment in 1972-73</th>
<th>Graduates in 1971-72</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Hourly paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babol Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Babol</td>
<td>1965</td>
<td>40</td>
<td>16</td>
<td>.</td>
<td>.</td>
<td>17</td>
</tr>
<tr>
<td>Bissetoon School of Midwifery</td>
<td>Ministry of Health</td>
<td>. .</td>
<td>. .</td>
<td>32</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>5</td>
</tr>
<tr>
<td>Esfahan Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Esfahan</td>
<td>1965</td>
<td>40</td>
<td>12</td>
<td>.</td>
<td>.</td>
<td>8</td>
</tr>
<tr>
<td>Esfahan School of Midwifery</td>
<td>Red Lion and Sun Society</td>
<td>Esfahan</td>
<td>. .</td>
<td>55</td>
<td>.</td>
<td>9</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Faris School of Sanitary Engineering Technology</td>
<td>Ministry of Health</td>
<td>Veramin</td>
<td>1951</td>
<td>70</td>
<td>50</td>
<td>.</td>
<td>.</td>
<td>8</td>
</tr>
<tr>
<td>Mashad Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Mashad</td>
<td>1965</td>
<td>40</td>
<td>15</td>
<td>.</td>
<td>.</td>
<td>17</td>
</tr>
<tr>
<td>Railways Training Center</td>
<td>Ministry of Road</td>
<td>Tehran</td>
<td>1939</td>
<td>. .</td>
<td>.</td>
<td>3</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Rey School of Midwifery</td>
<td>Ministry of Health</td>
<td>Rey</td>
<td>1970</td>
<td>52</td>
<td>.</td>
<td>4</td>
<td>.</td>
<td>14</td>
</tr>
<tr>
<td>School of Forestry and Range Manager</td>
<td>Ministry of Natural Resources</td>
<td>Gorgan</td>
<td>1959</td>
<td>. .</td>
<td>149</td>
<td>18</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>School of Ichthyology and Fishery Technology</td>
<td>Ministry of Natural Resources</td>
<td>Rasht</td>
<td>1968</td>
<td>19</td>
<td>23</td>
<td>.</td>
<td>.</td>
<td>8</td>
</tr>
<tr>
<td>Institution</td>
<td>Sponsoring Organization</td>
<td>Place</td>
<td>Year of Founding</td>
<td>Enrollment in 1972-73</td>
<td>Graduates in 1971-72</td>
<td>Full-time</td>
<td>Part-time</td>
<td>Hourly paid</td>
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</tr>
<tr>
<td>School of Cinema and Television</td>
<td>...</td>
<td>...</td>
<td>1966</td>
<td>149</td>
<td>50</td>
<td>8</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Shiraz Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Shiraz</td>
<td>1965</td>
<td>39</td>
<td>8</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Tabriz Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Tabriz</td>
<td>1965</td>
<td>12</td>
<td>9</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Tehran Laboratory Technology</td>
<td>Ministry of Health</td>
<td>Tehran</td>
<td>1953</td>
<td>103</td>
<td>43</td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Touss School of Midwifery</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>20</td>
<td>...</td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

for the health organizations. Table IV demonstrates the number and size of the existing institutions of this kind, and also shows the range of their activities.

Summary

Because of its affinity with the cultural setting and religious beliefs, education was valued and therefore flourished in ancient Iran. The family, community, and religious institutions were responsible for the education of the youth. It is difficult to trace the dawn of the nation's higher learning; however, there is evidence that it goes back to the sixth century B.C. A great center of higher learning at Gondi-Shapur, Iran, gained world-wide fame in the sixth century A.D. and attracted many scholars from the world's famous scholastic communities. Iranian inquiry was enriched through interaction with other advanced societies; consequently, as Browne has pointed out: "... a disciple of Plato was seated on the Persian throne" (6, p. 167).

The Arab invasion of Iran in the seventh century A.D. brought disaster to the country, and educational systems, which were not distinct from society, also suffered badly. Dependent upon the Koran, Islamic education (after the conversion of Iranians to the new faith) became the sole educational doctrine of the time, and attention to secular inquiry was overlooked. Modern education was introduced into Iran through the West. Western merchants and, later, religious and military missions introduced modern education to
Iran. Persian students who studied in Western countries after 1811 were also influential instruments of educational change in Iran.

The nation's first modern college, Dar-ol-Fonoon, a polytechnic college, was founded by the government in 1851. It trained top-ranking personnel for the governmental bureaucracy, medical doctors, teachers, and other professionals. Also an instrument for social change, Dar-ol-Fonoon fostered the Persian Revolution in 1906. A few colleges were established at the turn of the present century, and in 1918 the constitutional government took the responsibility for teacher training programs. Ten years later a teacher training college was founded in Tehran, and Parliament passed the Law for the Establishment of Teacher Training Colleges. The Teacher Training Act of 1934, which dealt with the establishment of teacher training institutions, provided civil service status to teachers, along with greater privileges.

The University of Tehran, the nation's first modern university, was established in 1934. Having graduated a total of 54,994 graduates and having a current enrollment of more than 17,000 students, the university is the largest and most prestigious institution of higher learning in Iran. The university also is the sole institution which offers Ph.D. programs in the disciplines of Ancient Languages, Persian Language, Philosophy, Public Health, Theology, and
Urban Planning. The university receives its operational and developmental budgets from the government, and its governing power is vested in the board of trustees under the chairmanship of the Prime Minister.

Ten years after the creation of the University of Tehran, the idea of founding state universities in various provinces came into existence. During the late 1940's and early 1950's, provincial universities were established in Tabriz, Mashad, Esfahan, Shiraz, and Ahwaz. These universities were patterned after the University of Tehran. Until 1967 they were financially and administratively dependent upon the Ministry of Education; in that year they became responsible to their respective boards of trustees. The provincial universities, particularly in recent years, have been challenged to extend their enrollments and improve the quality of their programs. However, they have concentrated on undergraduate studies, and graduate programs are in the primary stages of development. The University of Shiraz in 1962 was recognized as an American-style autonomous institution which was financially dependent on students' tuition and grants from the Ministry of Education, the Plan Organization, and other sources. It adopted English as the medium of instruction.

Iran National University, the first private university and the third largest--after the University of Tehran and the University of Tabriz--was founded in 1960. The
Institution currently receives considerable governmental grants. The youngest university in Iran, Aryamehr University of Technology, a semi-private university, was established in 1966. Its area of concentration is the technological field at the bachelor's level and on a small scale at the master's level.

Parallel to university development, some colleges have grown up in the country. Many of them are professional schools. Tehran Teacher Training College, which educates high school teachers, was founded in 1918. One of the oldest technical colleges is the College of Science and Technology, which was reorganized in 1962 and currently offers four-year programs leading to the bachelor's degree in highly advanced technical fields. Tehran Polytechnic, created in 1960, trains practical engineers. The College of Commerce, which offers programs of four years in business, was established in 1958, and seven years later an agricultural college was founded in Rezaieh, a city in northwestern Iran. In the same year, 1965, the Education Corps Teacher Training College was established in Varamin, a town not far from Tehran, to train the Literacy Corps' educational guidance personnel. The preceding colleges are all public independent institutions responsible to their boards of trustees. These colleges enroll 36 per cent of non-university college students of the nation which are sponsored by the public sector.
Twenty per cent of the nation's college students attend private colleges, which have been developed during the 1960's and early 1970's. The remaining colleges, which have attracted approximately 26 per cent of the student body, are two-year or four-year colleges which operate under governmental organizations. Tables in the present chapter give a general overview of these colleges.
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CHAPTER III

AN ANALYTICAL APPROACH TO THE CONTEMPORARY SYSTEM OF HIGHER EDUCATION

Introduction

Chapter II of this study presented the historical development of higher education in Iran; the present chapter attempts to analyze the functions of higher education in the country in relation to social change, in the belief that a significant relationship exists between the functions of universities and colleges and the stage of social development in any society. As Nevitt Sanford wrote in "The Contribution of Higher Education to the Life of Society,"

In industrialized and highly differentiated societies today, the various (and sometimes conflicting) demands upon or expectations of institutions of higher education include research, scholarship, the training of scientists and scholars, training for other professions and vocations, giving general education--for more and more people, including adults--offering direct service to society as instrumentality, critic, or innovator (26, p. 8).

Iran has now taken steps toward industrialization and the ambitious goals of development that recently have been officially termed "Great Civilization." Following is an overview of the response of the contemporary system of
higher education to the demands of the dynamically growing country of Iran.

Developing Economy and Educational Outlook

During the 1960's Iran witnessed rapid economic development. The Fourth National Development Plan (1968-1973) brought about rapid urbanization and a higher standard of living. Vast capital investment, a higher GNP, and an extension of educational and health institutions were some of the successful results of the plan. As Charles Issawi of Columbia University notes in "The Economy: An Assessment of Performance," "Iran's economic performance has been very satisfactory and, given political stability, there is every hope that it will continue, and improve, in the next few years" (19, p. 61).

On March 21, 1973, the country launched its Fifth National Development Plan, covering a five-year period. This plan, Iran's most ambitious and exciting ever, calls for a projected expenditure for capital investment of $23 billion by the public sector and $13.5 billion by private enterprise. The total of $36.5 billion is one-and-one-half times the investment in all the four previous plans combined. At current prices, the plan is expected to increase the GNP from the current $16.7 billion to approximately $34 billion, with an annual growth rate of 15 per cent. The basic strategy underlying the plan is to raise the national
standard of living and to achieve a greater equality of income distribution. By anticipating an annual rate of population growth of 2.8 per cent, the plan expects to increase the yearly per capita income to $1,000 by the end of the five-year period (15, p. 19).

Though industrialization and urbanization have coincided with prosperity and advancement in the country, they have created a series of problems which planners should not overlook. The following drastic educational changes have occurred and deserve considerable attention.

1. Since 55 per cent of the population is under twenty years of age, a population pyramid with a large base has been formed. As a result, the number of potential pupils at the various educational levels will continue to increase, and a higher standard of living will make higher education more feasible for those on lower socio-economic levels. Accordingly, demands for expansion of educational facilities will accelerate.

2. Rapid economic growth will create greater urbanization and a continuing shift from an agrarian to an industrial economy (See Table V). As was expected, by the end of the fourth plan the urban population had increased 43 per cent, and this trend is expected to continue. As a result, educational demands will increase, and growing pressure will be brought to bear on the educational system, particularly at the higher level, where capacities are limited at present.
TABLE V
DISTRIBUTION OF MANPOWER IN IRAN*

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Other skills (tertiary sector)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>1963</td>
<td>49%</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>1973**</td>
<td>46%</td>
<td>26%</td>
<td>28%</td>
</tr>
</tbody>
</table>


**Projected.

A quantitative approach clearly illustrates the projected growth of the educational system in the future and demonstrates the pressures that will face its prospective students. The fourth plan predicted an increase of 800,000 primary school students, 770,000 secondary school students, and 30,000 college students. The latter target was reached easily; in fact, the student enrollment in colleges and universities was far above that expectation (See Table VII). Allocation of funds for educational needs in the fifth plan has been increased to $1.7 billion. During the next five years the total enrollment of students in the nation's schools is expected to rise to 8.3 million (25, pp. 143-155; 15, p. 19; 14, pp. 55-56; 24).
Education and Social Mobility

Since its beginning, modern education in Iran has been purposely planned to train government personnel. When Dar-ol-fonoon was established, according to Arasteh, "It was a privilege to attend the school, and the students were actually considered as government employees" (4, p. 328).

In the same context Afzal writes:

This college . . . was completely a government undertaking and the graduates were expected to render services in fields that the government was in need of. The students were recruited from the "elite," or the ruling classes (1, p. 153).

Soon after the graduates from Dar-ol-fonoon were appointed to higher civil service positions, modern schools began to develop and to attract children from the upper strata of society.

Thus, Iran's first modern institution of higher education was deeply infused with the notion of elite recruitment into the higher echelons of governmental structures, an educational precedent which was reinforced by later experience and which now poses the crucial problem of freeing university education from prestige considerations and integrating it with the actual needs of present day Iran (20, p. 20).

Though the Constitutional Act of 1907 did not deny the privilege of education to any social group, it was not until the reign of Reza Shah, 1925-1941, that the middle class had access to the modern schools. In his highly centralized government, Reza Shah filled administrative positions with domestic college graduates or with graduates of universities abroad. Gradually the schools, particularly at the higher
level, became involved in training this prestigious group which very soon developed its own layer in the social structure. It is not surprising that the merchant of the bazaar, the landlord of the village, and even in some cases the Moslem clergy (all of whom rarely passed the sixth class of elementary school or the maktabs) forced their children to obtain a secondary education and usually a college education, either in Iran or abroad (28, p. 196).

This trend has continued throughout the last half century, and today it is a common belief that modern education is an essential prerequisite for social mobility and for positions of political leadership. For example, in 1970 the Cabinet consisted of twenty-four members, fourteen of whom held doctoral degrees and all of them were college graduates (12). Accordingly, every freshman who is admitted to a college may visualize himself as a cabinet member or a high ranking officer of the future, because the level of success in governmental positions directly corresponds with the level of educational standing. As Zonis of Chicago University illustrates:

The members of the political elite—the most politically powerful Iranians—have had the benefits of formal education to a greater extent and to far higher levels than other segments of the population. Education and political power clearly go together in Iran. But more to the point is the fact that the more prestigious government positions tend to be the province of the more highly educated. This employment pattern is also seen among the political elite themselves (31, p. 232).
The governmental machinery has not only honored education in its political apparatus, but also in recruitment and promotion of governmental personnel and in their salary structure. While education is the sole criterion for employment, both seniority and education are major tools used in promotion and compensation of employees. Because of its emphasis on education, the public sector has customarily been successful in attracting the best available manpower for its positions. "Accordingly, the government is in a unique position to manipulate the use of existing manpower stock through employment and salary regulations" (20, p. 170).

Although the private sector has not been able to successfully challenge the public sector, it is currently experiencing a renaissance. Primarily, the former landlords have been engaged in relatively large scale mechanized agriculture, or in complex industries, or in service organizations. Their children have completed college education and are now performing managerial tasks in their father's business. These young managers also value education, and they generally follow the same employment procedures as the government.

Families have encouraged, and still encourage, the children in their education. No matter how well educated or poorly educated they are, Iranian parents have conditioned their children's psychic structures to be receptive to the advantages of education. Lawyers, doctors, and
engineers, but not plumbers or rug weavers, have been introduced to the youngsters as models of success and sources of power.

**Establishment of the Ministry of Science and Higher Education and the Educational Revolution**

Social and cultural factors as well as rapid urbanization and industrialization of the country, have given impetus to expansion of the primary and secondary schools. During the 1960's the enrollment at these schools almost tripled (See Table VI). The system of higher education was less sensitive to the expansion of the primary and, most important, the secondary schools. In the academic year 1964-65, for instance the enrollment at the secondary level was 439,296 students, while the total system of higher education enrolled 25,373 pupils. This situation created an imbalance between the number of secondary school graduates and the number of students who were admitted to the colleges and universities through highly screened examinations (30, pp. 221-222).

As a result of social pressures and the need for training qualified manpower on a large scale for the country's growing economy, the government inaugurated the **Ministry of Science and Higher Education** in 1967. Its establishment...

... was primarily directed by an awareness on the part of the political leadership of the need to give some degree of coherence to the scientific
<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Total Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary**</td>
</tr>
<tr>
<td>1960-61</td>
<td>1,458,175</td>
</tr>
<tr>
<td>1961-62</td>
<td>1,567,696</td>
</tr>
<tr>
<td>1962-63</td>
<td>1,817,302</td>
</tr>
<tr>
<td>1963-64</td>
<td>1,960,492</td>
</tr>
<tr>
<td>1964-65</td>
<td>2,272,850</td>
</tr>
<tr>
<td>1965-66</td>
<td>2,459,616</td>
</tr>
<tr>
<td>1966-67</td>
<td>2,675,405</td>
</tr>
<tr>
<td>1967-68</td>
<td>2,860,312</td>
</tr>
<tr>
<td>1968-69</td>
<td>3,065,564</td>
</tr>
<tr>
<td>1969-70</td>
<td>3,257,719</td>
</tr>
<tr>
<td>1970-71</td>
<td>3,437,958</td>
</tr>
</tbody>
</table>


**Data include the enrollments in primary and corpsman schools, excluding exceptional schools' enrollment.

***Data include enrollments in vocational-technical schools.
and research activities of national institutions in general and the university in particular. The primary preoccupation of the new ministry with the twin tasks of science policy-formulation and educational planning is clearly defined by laws (20, pp. 107-108).

The following year the educational system of the universities came under public criticism. As a result the chancellors of the universities were replaced, and the Council of Educational Revolution was organized. In that year, 1968, the High Conference of Ramsar adopted the Charter of Educational Revolution. Composed of forty-four articles, the charter pays special attention to the improvement of the conditions and welfare of students and the growth of their individual and social personalities in respect to their talents and the increase of their level of skill and specially in order to render more efficient services in the development and progress of the country (13, p. 546).

Article 11 of the charter emphasizes the expansion of the institutions of higher education and states:

The creation or expansion of new national or governmental institutes of Higher Education must take place in accordance with criteria and standards defined by the government, taking into consideration the country's educational and scientific needs (16).

Since the launching of the charter, higher educational units have developed rapidly. New private and public colleges and technological institutions have come into existence. The total enrollment, as Table VII demonstrates, has doubled. The current expansion of the system of higher
TABLE VII
GROWTH OF HIGHER EDUCATION IN IRAN
(ACADEMIC YEAR 1963/64--1972/73)*

<table>
<thead>
<tr>
<th>Students</th>
<th>63/64</th>
<th>64/65</th>
<th>65/66</th>
<th>66/67</th>
<th>67/68</th>
<th>68/69</th>
<th>69/70</th>
<th>70/71</th>
<th>71/72</th>
<th>72/73</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>4,438</td>
<td>5,001</td>
<td>7,039</td>
<td>8,862</td>
<td>12,132</td>
<td>15,070</td>
<td>16,949</td>
<td>19,027</td>
<td>28,869</td>
<td>34,530</td>
</tr>
<tr>
<td>Male</td>
<td>20,447</td>
<td>20,372</td>
<td>22,644</td>
<td>28,020</td>
<td>34,855</td>
<td>43,124</td>
<td>50,319</td>
<td>55,681</td>
<td>68,469</td>
<td>80,781</td>
</tr>
<tr>
<td>Grand Total</td>
<td>24,885</td>
<td>25,373</td>
<td>29,683</td>
<td>36,882</td>
<td>46,987</td>
<td>58,194</td>
<td>67,268</td>
<td>74,708</td>
<td>97,338</td>
<td>115,311</td>
</tr>
</tbody>
</table>

education in the country, however, is not adequate to satisfy the socio-economic demands of the country. The expanding economy demands skilled workers and trained managers. The nation has experienced a substantial industrial growth rate. However, "this growth rate has been achieved mainly through considerable input of resources, including capital equipment and labor, rather than through increased production per worker" (11, p. 28). In order to reach its developmental targets, the country needs considerable reorganization in training the human resources.

In addition, the rate of growth of secondary education is much higher than the corresponding growth at the higher level education. In July, 1973, approximately 92,000 candidates registered to take the university entrance examinations, Konkur, but only 9,992 were eventually accepted at the universities and independent colleges.* Though there were other places available in various institutions outside the university system, the cumulative capacity of the total system of the tertiary schools--private as well as public--would never have been sufficient to absorb more than one-third of the higher education candidates (8).

*Pahlavi University did not participate in the nation-wide Konkur, but administered its own entrance examinations in that year.
Student Enrollment Abroad

It was noted in chapter two that in the early 1930's two important decisions pertinent to higher learning were made; first, the establishment of the University of Tehran, and second, sending Iranian students abroad. In 1935, the Ministry of Education reported that 1,175 Iranians were enrolled in European colleges, approximately 75 per cent of whom were in France. Also it was reported that 640 of them were supported financially by the Ministry of Education; 131 studied under the sponsorship of other ministries, and the rest paid their own expenses. In the 1940's the student enrollment abroad gradually declined and finally became stagnant.

After World War II, however scores of Iranians left their national boundaries each year to study elsewhere, particularly in Germany and the United States. The enrollment abroad rose to more than 10,000 in 1958, one-tenth of whom were sponsored by government agencies and the rest of whom studied at their own expense. In that year 4,000 students pursued their higher education in Germany. The United States enrolled 3,700 Iranian students. France, Switzerland, and England absorbed 800, 250, and 600 students, respectively (3, pp. 445-446). In the academic year 1963-64, the enrollment abroad skyrocketed to 17,385, an astounding 41 per cent of the Iranian college student body. American colleges enrolled the largest number of these students in that year,
with West Germany and England second and third. Five years later the figure rose to 20,317, and in that academic year, 1968-69, more than one-third Iranian students abroad, 7,236 students, attended American higher educational institutions (13, p. 548).

No accurate figures of current enrollments of Iranians studying in foreign universities and colleges have been released. It is estimated, as the Monarch expressed in the news conference, in July, 1973, "Iran today has 100,000 students at home and 40,000 abroad and in another five years expect to have 200,000 university students at home" (27, p. 8).

Many factors have contributed to the skyrocketing enrollment of Iranian students abroad. First, when the middle class began to have access to modern education, the upper classes dispatched their children abroad for a luxury college education in order to preserve their superiority. Second, the technological advancement and the social conventions of the West have attracted many students. Third, and most important, the rigid screening procedures of Iran's domestic colleges, as has been discussed earlier in this chapter, have prevented two-thirds of the candidates from enrolling in Iranian colleges. These procedures result a large number students who can afford the expenses continue their education abroad (3, pp. 464-474).
During the past half century or more, Iranians educated in the West have obtained the top official positions. The majority of university professors, heads of major public organizations, and cabinet members have received their universities' educations abroad. Though these Iranians have been effective agents of change, there are serious disadvantages related to being educated abroad.

**Cultural and Psychological Disadvantages**

Samuel Jordan, an American educator in Iran seventy years ago believed that "The young oriental educated in Western lands as a rule gets out of touch with his own country. He loses sympathy with his own people. He loses all faith in his old religion and gets nothing in its stead" (6, pp. 121-122). The majority of Iranian students abroad are young undergraduate students. According to Baldwin these students compose 60 per cent of the total student body in foreign countries (10, pp. 268-269). These young students naturally are sensitive to cultural estrangement and often become alienated from their home country. Also they are more in danger of isolation and frustration in their host colleges. Furthermore, the conflict between their traditional values and newly-acquired social attitudes may create psychological stresses that threaten their social adjustments. One of the aspects of the maladjustment is that the graduates from Western universities:
. . . are not particularly responsive to the more pragmatic and less prestigious needs of the country. This attitude is in fact the by-product of a more serious constraint that has not yet received adequate consideration by policy makers and planners (20, p. 203).

**Economic Disadvantages**

A dramatic increase in the number, currently 40,000, of the university students abroad results in a great spending of national wealth in foreign countries. The majority of Iranians studying abroad are enrolled in Western colleges and universities where the cost of living and educational expenses have soared. As Baldwin in *Planning and Development in Iran* states:

In the early 1960's the annual cost of foreign study [when there were 10,000 to 17,000 Iranian students abroad] was running around $30 million, about a third of total export earnings excluding oil. Foreign studies have not been closely geared to national needs, and a sizable (but unknown) number of students have failed to return to Iran after completing their studies (9, pp. 144-145).

The skyrocketing numbers of the students abroad on the one hand, and increasing the costs of education on the other hand, provide logical reasons for concluding that Iran should adequately expand its system of higher education by appropriating these funds for the domestic colleges.

**An Assessment of Higher Education in Iran**

After ten centuries of intellectual decline, the educational system of Iran created its first modern university,
the University of Tehran, in 1934, and that creation began a new era in the educational development of the country. Very soon the new institution modeled after French universities, gained the reputation of being a prestige university and emerged as a national asset, the "vision and light" of the nation. Being involved in the university as an administrator or professor was highly valued; in fact, leaders of the country and members of the cabinet were very often chosen from the university faculty. Furthermore, statesmen were grateful if they were given an opportunity to teach at the university. In the same way, a professorship was often a stepping stone to political and social responsibility. Nationally-known organizations were pleased to have members who belonged to the university faculty, and public or private enterprises felt honored if a university professor accepted a position as their chairman. Where so much opportunity was offered to university scholars, they were not reluctant to accept these prestigious positions to satisfy their hierarchy of needs.

Commitments to outside activities gradually became so heavy that a faculty member's university responsibilities appeared to be a subordinate function to his civic or private positions. This situation became critical not only at the University of Tehran, but also at the provincial universities, which were patterned after the mother university. Because of their outside commitments, professors often did
not provide students a syllabus for their courses. Plans 
were vague or disorganized, and assignments were frequently 
unclear. Classes could simply be cancelled without any 
make-up, if the professor so desired. There was no student-
teacher contact outside the class, and in fact no faculty 
ofices were in existence. Remarks upon this situation, 
His Majesty in Mission for My Country writes:

... A professor may march into his classroom, 
deliver his lecture, and march out again. He 
may believe a student is disrespectful if he 
asks for supporting evidence for one of the pro-
fessor's statements or presumes to suggest an 
alternative interpretation. Without any advance 
notification the professor may repeatedly fail 
to come to his class. He may neglect to establish 
office hours for student consultation, and expect 
for lecture she [sic] may spend virtually no time 
in the precincts (22, p. 258).

Texts were rare because it was necessary that they be 
written in Persian, and the scholars only occasionally took 
the time to translate texts from other languages or write 
the appropriate texts themselves. Lecturing was the domi-
nant method of instruction, and lectures relied on notes 
which sometimes had been preserved for many years without 
any or considerable revision. Again the Monarch remarks:

But upon the slightest provocation certain of our 
professors will tell you what distinguished men 
they are and how many important positions they 
hold. Their intellectual arrogance betrays their 
lack of the scientific spirit. Some of them con-
duct no real research of their own but copy their 
lectures from foreign works, with or without 
credit being given to the original authors; or they 
originate some writing which they support with no 
scientific evidence; or they deliver the same
lectures year after year without bothering to bring them up to date (22, p. 259).

Because of these practices, the university system fell behind in academic development. It became resistant to change and innovation and reluctant to accept social demands. Rather, it functioned as an appropriate ladder to social and political ascendancy. Traditionally speaking, however, a university prepares its graduates for the learned professions and also accepts responsibility for the advancement of learning through the discovery of knowledge (29, p. 16); in contrast, the university system of Iran suffers in quality. Furthermore, dissemination of knowledge is not the sole function of a university; "the newer functions of research, public service, and, most recently, the achievement of an ideal democratic community within the university have organizational requirements that are significantly different from those necessary for teaching" (23, p. 680). The following paragraphs illustrate briefly the "research" and "service to society" functions of universities in Iran.

**Status of Research in Iranian Universities**

By the dawn of the nineteenth century, research as a means of attaining knowledge had reshaped the structure of universities in Europe and particularly in the United States. Graduate schools devoted to research developed in increasing numbers. These schools gradually became important centers of research and innovation in the developed countries.
**TABLE VIII**

**INSTITUTIONS OFFERING GRADUATE PROGRAMS IN IRAN**

**FALL 1972**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Total enrollment</th>
<th>Graduate enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aryamehr University of Technology</td>
<td>2,357</td>
<td>57</td>
</tr>
<tr>
<td>College of Decorative Arts</td>
<td>278</td>
<td>17</td>
</tr>
<tr>
<td>Industrial Management Institute</td>
<td>. . .</td>
<td>46</td>
</tr>
<tr>
<td>Institute of Iranian Culture Studies</td>
<td>. . .</td>
<td>20</td>
</tr>
<tr>
<td>Iran Center for Management Studies</td>
<td>. . .</td>
<td>56</td>
</tr>
<tr>
<td>Iran Novin Institute of Political Sciences</td>
<td>585</td>
<td>169</td>
</tr>
<tr>
<td>National University of Iran</td>
<td>5,858</td>
<td>155</td>
</tr>
<tr>
<td>Pahlavi University</td>
<td>4,064</td>
<td>182</td>
</tr>
<tr>
<td>Pars College</td>
<td>1,711</td>
<td>20</td>
</tr>
<tr>
<td>School of Accounting and Finance</td>
<td>1,101</td>
<td>237</td>
</tr>
<tr>
<td>School of Social Services</td>
<td>316</td>
<td>27</td>
</tr>
<tr>
<td>School of Statistics</td>
<td>269</td>
<td>40</td>
</tr>
<tr>
<td>School of Surveying</td>
<td>. . .</td>
<td>13</td>
</tr>
<tr>
<td>Tehran Higher Institute of Technology</td>
<td>. . .</td>
<td>20</td>
</tr>
<tr>
<td>Tehran Polytechnic</td>
<td>1,016</td>
<td>10</td>
</tr>
<tr>
<td>Tehran Teacher Training College</td>
<td>3,496</td>
<td>100</td>
</tr>
<tr>
<td>University of Mashad</td>
<td>3,674</td>
<td>40</td>
</tr>
<tr>
<td>University of Tabriz</td>
<td>6,796</td>
<td>43</td>
</tr>
<tr>
<td>University of Tehran</td>
<td>17,789</td>
<td>1,449</td>
</tr>
</tbody>
</table>

*Excludes the programs leading to first professional degrees.

Iranian universities neither carried out outstanding research nor established adequate and qualified graduate schools. Out of 140 institutions of higher learning in 1972-73, only 19 possessed graduate schools. Excluding the University of Tehran, which offers Ph.D. programs, the other institutions offered courses only through the master's level. The latter university enrolled more than 50 per cent of the total graduate students (See Table VIII). In that year graduate students comprised only 2.4 per cent of the total student enrollment in colleges and universities (17).

The majority of faculty members in Iranian universities hold advanced graduate degrees (See Table IX). Accordingly, the limited development of graduate schools may be

**TABLE IX**

PERCENTAGE DISTRIBUTION OF TEACHERS BY ACADEMIC DEGREE IN THREE IRANIAN UNIVERSITIES, 1969-70*

<table>
<thead>
<tr>
<th>University</th>
<th>Ph.D. (%)</th>
<th>M.A. (%)</th>
<th>B.S. (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Tehran</td>
<td>93.0</td>
<td>5.0</td>
<td>0.6</td>
<td>98.6**</td>
</tr>
<tr>
<td>University of Esfahan</td>
<td>56.7</td>
<td>10.6</td>
<td>32.7</td>
<td>100</td>
</tr>
<tr>
<td>Aryamehr University</td>
<td>33.8</td>
<td>54.8</td>
<td>11.4</td>
<td>100</td>
</tr>
</tbody>
</table>


**Percentage for Tehran University do not add up to 100. The academic degrees of the remaining 1.4 per cent are below B.S.
contingent upon deficiencies in research rather than in faculty qualification; the fact that there have been few opportunities for scholars to pursue scientific research is perhaps directly the result of the inadequate number of graduate schools. Taking a similar view, Manzoor writes:

The majority of younger university academicians rightly believe that the insufficient development of graduate education in Iran is largely responsible for the lack of adequate and purposeful research activity in the universities. A sound graduate program is more conducive to research, and graduate students can, comparatively speaking, contribute to the execution of university research (20, p. 117).

Scientific research in Iranian universities is not only less developed than in their counterparts in the developed nations, but Iranian universities also suffer in competition with the research institutions attached to the ministries and public organizations. The Ministry of Agriculture, for instance, in 1971 allocated to its attached research centers two times the combined research budgets of the colleges and universities (20, p. 125). The newly-created Council of National Scientific Research under the Ministry of Science and Higher Education may alleviate the mounting problems related to research; obviously, if the universities do not integrate scientific research into their educational structure, they will decline to mediocrity. As Zonis of Chicago University in "Higher Education and Social Change" remarks:
A university which is not sufficiently concerned with research rapidly becomes a teaching institution, the level of which approaches some sort of complemently secondary education (31, p. 255).

Status of Service to the Society Among Iranian Universities

Generally speaking, though the universities are devoted to serving society by offering educational opportunities to the people, they are bound up with society and should not stand over and above it. Particularly when a university is a state-supported enterprise, and Iranian universities generally are so, it should be closely integrated with the community in which it is situated. Throughout their life span, Iranian universities have attracted upper class and middle class students, and traditionally they have graduated white-collar civil servants who have often refused to serve the lower socio-economic class of society, which is proportionally the largest segment of society. The universities have been located in privileged urban centers that are not rapidly accessible to socially deprived rural families who comprise the majority of the population.

Student recruitment procedures are lamentable. Through nationwide entrance examinations, Konkur, less than 10 percent of the candidates are admitted to the university system, and the remainder have only a few alternatives. The rejectees who can afford the expense may seek higher education in the United States or Europe. The majority, however,
usually join the army, where they have a choice of regular service, the Literary Corps, the Health Corps, or the Development Corps. After two years of service in one of these branches, they may become village teachers or welfare or extension employees. However, in the majority of cases the

... high school graduates will remain the disadvantaged white collar workers of the Iranian society. That explains why many of them time and again sign up to sit for university entrance examinations. The secondary school graduates who fail to enter into universities are in fact victims of Iran's system of miseducation. They have studied for twelve years to prepare themselves for a university course. Once they fail to make it into a university they feel twelve years of schooling has been largely wasted. And they are right (21).
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CHAPTER IV

THE COMMUNITY JUNIOR COLLEGE CONCEPT

Introduction

Chapter III analyzed the current system of higher education in Iran. This chapter will deal with new identities of institutions of higher learning which are developing rapidly in international scenes. The world-wide growth of educational systems after World War II is unprecedented in world history. Student enrollment doubled in many countries, and educational expenditures rose at an even higher rate. As a result, education became one of the largest enterprises of many nations. Economic and technological developments and social changes, however, have been so rapid that educational systems, very often, have not kept pace in "... an era when a man's knowledge and approach become obsolete before he has even begun the career for which he was trained" (1, p. 22). This disharmony of educational systems with their environments has created a crisis. To end this crisis, educational systems require modern concepts of administration, new methods of adjusting to a changing environment, and a new philosophy of teaching and operations. "Perhaps the community college concept, with its use of nonformal education and flexibility of function, [which] could be a means
for providing increased opportunities, at least in the area of higher education" (9, pp. 5-6) is America's twentieth-century innovation to alleviate such a crisis.

Community colleges are genuine American educational institutions which appeared, comparatively speaking, a short time ago and grew at an astonishing rate, a rate unprecedented in the higher educational system of any nation. Those colleges have attempted to meet the particular needs of a changing American culture. The community college idea, however, is becoming a universal phenomenon—in both industrialized and developing nations—because of its flexibility in adapting to varied cultural, political, and economic environments (9, p. 2).

The present chapter has been organized into two separate but not unrelated sections; section one will attempt to define the philosophy and functions of the community junior colleges, while section two will be devoted to the historical development and success of these institutions in the selected nations.

Philosophy and Function of Community Junior Colleges

One of the pioneers in the community college movement, Leonard Vincent Koos, in 1920 visualized the functions of the colleges in great detail. To him, providing occupational training, popularizing higher education, affording attention to the individual student, relieving the burden of the universities, offering work to meet local needs, and
affecting the cultural tone of the community were all functions of the community college. During the period of its initial development, the community college's philosophy was viewed from various perspectives, which do not differ substantially from each other. In the 1967 edition of *American Junior Colleges* the areas of study and range of activities in the colleges were: First, transfer programs, which included lower division, university parallel courses; second, occupational or vocational programs; and third, evening courses composed of most of the daytime courses and also programs designed especially for the adult population (3, pp. 30-34).

This approach makes the function of the community colleges much broader than the lower division of a senior college or university. The community colleges duplicate the effort of the universities by offering appropriate studies for university transfer programs for those students whose ability allows them to benefit from such studies. How qualified the students are and how good the programs are, are questions that Cosand has tried to answer in his article, "The Community College in 1980." "Records at the University of California show that the transfer student from a two-year college does just as well as, or better than, his classmate who entered the university as a freshman" (6, p. 135).
Community colleges, meanwhile, accept those students who have no desire for advanced studies or whose talents cannot develop by a pursuit of traditional and systematic studies. Occupational programs have been designed to serve that portion of the student body. The colleges, therefore, aspire to serve students of diverse backgrounds and abilities. Their potential clients, however, are most frequently from less privileged families with a low socioeconomic status. Tillery of the University of California, in his survey of a large group of senior college and community college students, concluded that 52 per cent of the students in community colleges are from families whose income are below the national average, while only 39 per cent of the students in senior colleges had such a family standing (4, p. 3). Formal education is not the sole function of the junior college. Other functions appeared in the recent edition of The Community Junior College.

**Admission Policy**

As mentioned earlier, community colleges, contrary to traditional procedures of student recruitment in universities or senior colleges, offer a wide variety of educational opportunities to their students. These institutions have also been devoted to recognizing the talents of students who are most likely to profit from directed study and individualized education. In a community college, anyone who is
over eighteen years of age and can benefit from the instruction offered is welcome. This characteristic of the junior colleges necessitates an open-door policy in the recruitment of students. This policy has given equal opportunity for appropriate education to all levels of social strata. The responsibility for success or failure lies in the student's behavior in college, rather than administrators' or counselors' decisions reached through a man-machine (objective) type of examination. By pursuing an open-door policy, the community colleges attract not only college-age students, but they also provide opportunity to the adults in the community who can use the college in their leisure time for increasing their professional skills or for the purpose of refreshing their knowledge and seeking new horizons.

Diversification of Curriculum

In the previous section, it was briefly noted that the community colleges' open-door policy has attracted a heterogeneous student body in the belief that everyone is capable of being educated, though in his own way. Traditional university programs seek a homogeneous group of students through highly selective admission processes. Moreover, they offer unique and narrowly-structured programs to their students. The situation in the community college is the reverse; because of their open-door philosophy their student bodies are diverse in socioeconomic backgrounds, in their
experiences, and in their images and self-concepts. The colleges, therefore, offer a wide variety of programs to their students. Some of the courses are remedial in nature, available to students with primary educational needs and with a lack of educational background in communication skills. The colleges also seek to reshape the psychic organization of the disadvantaged (and others with similar needs) by strengthening the positive features of their personalities so that they feel that they are sources of value to their society.

After building self-awareness in the student and giving him a solid educational foundation, the community colleges then offer transfer or terminal programs according to the students' personal desires and abilities. The transfer courses are offered primarily in areas that are acceptable in nearby universities or senior colleges. This part of the curriculum is designed so that the graduating student lose very few or no credits. The colleges also help the student after his graduation to find an upper-division institution to insure that the student will successfully continue his studies. Occupational education is another segment of the curriculum. The nature of occupational programs in the community colleges is different from vocational training in technical institutions. In the community colleges, "Most vocational educators see their task as being broader than supplying salable skills; they want their students to be well prepared for the society in which they will live as
well as for the factory in which they work" (26, p. 7). The occupational programs in the community colleges provide students the opportunity of involvement in general education as well as in the courses that stress occupational skills which prepare the student for employment in semi-professional jobs.

The community colleges also react to community needs. In rapidly-changing societies the continuum of education cannot be broken. Therefore the colleges attempt to provide education to both youth and adults, regardless of age or sex, to help them adjust to a changing world. Adult programs are more fluid in structure; requests for such programs may develop rapidly and fulfill community requirements in a short-time class (22, p. 39). In serving the community, the colleges must not neglect the needs of its older citizens. The colleges, particularly in the United States, actively engage in planning and coordinating programs on behalf of the older community members. Developing portable educational programs, providing local councils on aging, and helping to increase their enjoyment of leisure time are examples of community colleges' commitments to serve its older citizens (14, pp. 15-16). The community colleges also associate closely with industries and business firms in the community. The colleges which prepare potential employees for these institutions meanwhile seek their assistance in cooperative educational programs that provide significant
opportunities for the students to enrich their lives and to be exposed to on-the-job training. Lay advisory committees of the colleges, which are composed of local officials and leaders in business and industry, typically play important roles in the development and operation of these programs. The committees make recommendations regarding college policies and practices in cooperative work-study education; they publicize the program and interpret it to the community; they assist in locating employment opportunities for students; and they participate in the planning of such special events as student-employer conferences (11, pp. 56-57).

The Responsibility for Guidance

Diversification in both the curricula and student personnel is a dominant characteristic of community colleges. The colleges feel responsible in helping the student to select his program of studies to match his abilities and personal desires through competent guidance programs. Guidance is a continuous function of the colleges, and for this purpose the counseling department, staffed with highly-educated and well-experienced members, not only help the students in academic matters, but also attempt to find appropriate jobs, creating an intimate teacher-student relationship and perhaps understanding and solving students' personal problems. Community colleges have concentrated their guidance activities on the entire student body; however, their greatest emphasis is the disadvantaged students
who need pre-registration counseling and face-to-face guidance during their college residency. The counseling programs in the colleges attempt to collect accurate information about the students from high school records, family backgrounds, tests, observations, and instructors' comments. The counselors "interpret this information tactfully but conscientiously to the student in order to assist him to reach decisions about his future education and career choice" (22, p. 41), by becoming aware of his abilities and talents, social assets and liabilities, values and aspirations.

**Standards of Teaching**

In community colleges, teaching is the most important mission of the instructors, whereas for a senior college or university professor, research and publication are as important as teaching. The community college instructor affects his students personally, and because of his direct influence can reshape the structure of pupils' characters. Cohen states

The instructional staff as a whole and each teacher individually is responsible for designing procedures that will bring about changes in students' aspirations, personality development, and capabilities. However, these changes--called "learning"--are the result of more than direct instructional effort. The instructor also affects his students inadvertently (5, p. 102).
The community colleges which attract students diverse in talents and abilities need specialized and highly-motivated faculty members who have been exposed to formal education in community college teaching and are acquainted with community college problems.

In recent years, particularly in the United States, community junior college instructor preparation programs have received top priority. By 1970 more than 200 colleges and universities in the United States had indicated an interest in establishing community college instructor preparation programs. As Cohen has pointed out, these programs are designed "... to help teachers gain the ability to specify objectives, select appropriate media, and gather evidence of learning" (5, p. 162). The community colleges seek to recruit faculty members for full-time positions, whereas universities and senior colleges assign lower-level instruction to their graduate assistants. Thus community college students have contact only with full-time staff members who generally teach more than one course and therefore have more opportunities for interaction with their students. And because faculty members' professional training has made them desirous of creating better student-teacher relationships, community colleges have been "beds of silence" during the campus turmoils of the 1960's. These attitudes may "spring from the students' greater sense of satisfaction with the institution, or it may be that students
attracted by the community college tend to be less critical" (15, p. 317).

Standards of Student Achievement

Of many divergent views about educational goals, two lines of thought require clarification. First is the belief that the student should work through a well-designed program containing courses carefully defined and the belief that the college should adopt formal evaluation procedures through special examinations. Contrary to the first approach, the second is the concept that

... education frees the student to pursue the knowledge, skills, and experiences which seem to him related to his own goals of ultimate professional and scientific competence. ... This seems to be more in accord with what we know of the laws of learning and the principles in individual development and growth (19, p. 689).

The community colleges have attempted to adopt the second philosophical posture. The colleges aim to develop interpersonal sensitivity and meanwhile to help the student to understand his unique potential, talents, and capabilities. The colleges also attempt to help the student realize that he is a part of his society and his success is dependent upon his success in his social life, not merely achievement in the prescribed programs of study. Through intimate teacher-student links and college-community relationships, the community junior colleges promote the process of socialization. By providing teamwork, they create acceptance
of responsibility for political and social affairs, and by individualization of the programs, the colleges devote themselves to their students' personal development.

An American innovation in the system of higher learning, the community college in the twentieth century promises flexibility, adaptability to change, relatively easy accessibility, comparatively less costly higher education for various social strata and for the diversity in students' abilities. The colleges are not as resistant to change as are traditional universities and colleges. In addition, they accept full responsibility for the lower level of college education and for the preparation of students for a wide range of vocations. They also serve to fulfill local needs and community demands. In his American paradigm, Lamar Johnson writes that the junior college program results in petroleum technology in the oil fields of Texas; in agriculture in the wheat fields of Kansas; in a medical secretary program at Rochester, Minnesota; in fashion design in the garment manufacturing center of New York City; in citriculture in southern California; in forestry in northern Idaho (11, p. 42).

The Community Junior College Movement In the Selected Countries

Of the many reasons for the phenomenal growth of the community colleges in their country of origin, the United States, three factors are particularly important.

1. There has been an overwhelming demand for college education resulting from an increase in the population and
also in the number of high school graduates. Because universities and four-year colleges were unable to expand sufficiently to fulfill this growing demand, student recruitment in these institutions followed the law of supply and demand; that is, the increased demand for university education stiffened the universities' admission requirements.

2. Technological development brought about an unprecedented need for technicians. The rising standard of living also expanded tertiary (service) jobs, and as a result trained manpower was required in fields such as welfare, medicine, and business.

3. Enrollment in a community college meant lighter burdens for the family income and lower public expenditures in comparison with universities or four-year colleges. Furthermore, students could live at home and save the costs of living on campus. Most important, the students' adjustment was much easier in the community colleges than in their counterparts, the universities or four-year colleges (21, pp. 2-3).

This American innovation, the community junior college, has since the beginning of the last decade attracted the attention of educators and educational leaders throughout the world. In many developed and developing nations the community college concept has been implemented rapidly. There is no intention in this study to present a world-wide picture of the development of these colleges. However, in
this section their development will be introduced in a study of a selected group of nations that have adopted this innovative feature of higher learning and similar to Iran are currently taking rapid steps toward development. The community college movement in the United States is also being presented because the United States developed the concept in practice.

Development of Community Colleges in Ceylon

The concept of the community college has developed in Ceylon in the last few years. The creation of its junior college system "resulted from the cumulative thinking and planning of many educators and political leaders" (12, p. 6). Higher Education Act Number 20, passed in 1966, gave legal status to the establishment and development of Ceylon's community junior colleges. After a thorough assessment of regional population distribution, availability of sites, building facilities and staff, and allocation of funds, the nation inaugurated a system of community colleges in 1969 by opening six campuses under the sponsorship of the Ministry of Education and Cultural Affairs. The first five campuses were established at Dehiwala (Colombo), Galle, Kegalle, Kuligapitlya, and Palay (Jaffa). Through the Ministry, subcommittees were appointed to recommend curricula and to develop basic syllabi for detailed development by the faculties and also to set up rules and policies for entrance and graduation requirements.
Before the existence of the junior colleges, admission to universities and four-year colleges was very competitive, and only a small portion of the high school graduates were granted admission. The newly-created colleges helped to solve two major problems which were facing Ceylon. First, the junior colleges alleviated the pressure on the universities to admit more candidates. Second, by adopting special curricula, the junior colleges provided programs to train needed manpower. Traditionally, the universities in Ceylon were not equipped to educate the students for practical occupations in scientific and technological fields. "Consistent with the statement of objectives contained in the law, two-year diploma programs were determined in areas of critical manpower shortage—Agriculture, Applied Arts, Commerce and Management Studies, Science, and Technology" (12, pp. 6-7). The contents of the curricula were designed to fulfill requirements for university transfer programs as well as terminal courses. The curricula planners, however, made it necessary for graduates to take the required examinations before being admitted to the university. Being regionalized, the colleges grew up on the basis of regional population density and anticipated concentration of students. To some extent admissions to the colleges have been made on a zonal basis; in each college one-third of the places are reserved for students living within a thirty-mile radius. Ceylon's junior colleges have included in their
philosophy the function of service to the community. Representatives of the Manpower Division of the Ministry of National Planning, university professors, educators, and community leaders in both the public and private sector participated in developing the curricula. Communities have also provided facilities to students for practical training and for exposure to the life of the community (9, 10).

Development of Community Colleges in Chile

The community college movement in Chile is new, but is growing very rapidly. The idea for community college development came through the public sector; that is, the government-operated University of Chile, the oldest and largest university in the state, took responsibility for establishing junior colleges. In 1959 the Advisory Council of the university approved a proposal to found regional colleges called colegios universitarios regionals. These colleges provided intermediate-level studies in accordance with national and regional needs. Between 1960 and 1965, five of these colleges came into existence in the provincial centers of Temuco, LaSerena, Arica, Antofagusta, and Valparaiso. Since beginning their operations, these colleges have attracted a large number of high school graduates, particularly those who are highly motivated but have not been admitted to a university. Furthermore, by operating on a regional basis, the institutions have brought together
students from various socio-economic classes and have therefore democratized higher education in Chile.

Overall, the regional university colleges have aimed to provide general education for eventual transfer to professional schools and universities, to offer general education, to operate an open-door policy to high school graduates, to provide opportunities of formal education to the adult population, and to collaborate with community enterprises to utilize human resources, a precious asset to the rapidly-developing economy of Chile (9).

Development of Community Colleges in Colombia

Rapid industrialization has attracted a majority of Colombia's population to the industrialized urban areas of the country. The number of cities with a population of 100,000 or more access to twenty. Similar to other industrialized societies which require mass middle level professionals and highly-trained manpower, the nation needs special institutions to successfully train personnel to fill growing industrial demands and to provide the necessary personnel for increasing tertiary (service) jobs.

By law, the overall responsibility for policy-making and administration of higher education in Colombia is vested in the Department of Higher Education and Teacher Training, within the Ministry of Education. Article 26 of the Organic Law of the Ministry of Education of 1960 has authorized the
Department of Higher Education to plan and develop non-university programs at higher levels of learning (24, p. 342).

Colombia was faced with another problem, the solution to which could also alleviate the shortage of manpower in the industrial and service areas. The secondary schools were turning out many more students than could be placed in the universities. These two critical situations reached a climax in 1965, when the country needed 80 per cent more technicians in its industries, and there were 8,000 high school graduates who could not be absorbed by the universities. The pressure on the universities on the one hand and the urgent need for well-trained manpower in the labor market on the other hand brought about a series of studies during the years 1964 to 1966, which concluded by recommending the inclusion of community colleges, called Instituous Universarios, in the master plan of Colombian higher education.

The immediate need of the nation for community colleges caused the conversion of three existing technical institutions--located in Bogota, Medillin, and Santan der del Sur--to Instituous Universarios (9).

**Development of Community Colleges in Israel**

Before the state of Israel was established, one-third of its nurses and paramedical students and a great portion
of the teachers were trained in post-secondary institutions. In the field of technical and engineering training, however, most of the post-secondary institutions have been established only since 1960. The latter institutions have developed rapidly in recent years to respond to Israeli demands for professional manpower at a level between that of the trained laborer and the engineer.

The post-secondary institutions can absorb the high school graduates who have neither learned a profession in the secondary school nor obtained the prerequisites for a university education. These students pursue their studies for a period of one to four years. Some programs, however, cover shorter periods of time.

These institutions also serve the adult population. Eighty per cent of the students studying clerical subjects and accountancy, 67 per cent of the technical students, and between one-third and one-half of the paramedical and technical engineering students are trained during the evenings.

Nation-wide bodies are responsible for the policy-making and development of the institutions. They also supervise the financial and professional activities of the organizations. The Ministry of Education and Culture, for instance, bears the sole responsibility for training teachers and financing teachers' colleges.
Though Israel's post-secondary institutions have contributed to the economy and to the manpower development of the nation, they have been criticized for several faults. First, the institutions attract only the students who have been rejected by the universities. Intellectually, socially, and emotionally, the post-secondary institutions are regarded as inferior to the universities. Second, university graduates who are offered governmental positions enjoy more prestige than their counterparts who graduate from post-secondary institutions, even when the positions require no academic education. This situation contributes to the students' increasing tendency to choose a university rather than a post-secondary school.

In order to cope with the shortcomings of the post-secondary institutions, experts in the fields of education and manpower development in Israel have recommended that the institutions should expand and deepen their programs with the objective of including within their framework academic and technical education based on regional demands and national goals. As H. E. Shively points out in *A Community College System for Israel*:

> Overall planning at least on a regional basis, and most hopefully on a national scope, will result in a better distribution of educational facilities and manpower, more effective utilization of economic resources, and more effective educational services to the citizens of Israel (20, p. 6).
In recent years, however, regional colleges on the post-secondary level have been established in Tel-Hai, in the Jordan Valley, in the Menashe region, and at Beith Berl. These institutions have developed programs for professional training, for limited academic education, for adult education at various levels, and for extension courses, all of which essentially fulfill Israel's concept of the role of the community college (21).

Development of Community Colleges in Japan

Japan has one of the most highly-developed tertiary systems of education in the world, with 72.4 per cent of its institutions sponsored by the private sector in 1967. In that year close to 1,500,000 students enrolled in Japan's colleges and universities, 234,748 of whom attended junior colleges (18, pp. 70-71). In Japan, post-secondary education has existed since late in the nineteenth century. The Sino-Japanese War of 1897 necessitated the creation of special colleges, called Semon Gakko, to train technicians. Later, two types of educational institutions on the post-secondary level came into existence, Koto Gakko and Shihan Gakko. The first was established for the purpose of preparing students for the universities, and the second was for teacher training. Following World War I, the secondary schools were substantially expanded as the demand for higher education increased. On the basis of the recommendation of
the Extraordinary Education Council, set up in 1917, a plan was developed by the Ministry of Education to reform the system of higher education. The preparatory schools, Koto Gakko, were altered, and these new identities became an organ of the structure of higher education—with two distinct objectives: "The education of middle class workers who might play a leading role in the development of the country in various professions after graduation and preparation for entering the university [sic]" (23, p. 103).

The father of modern Japanese junior colleges is W. Crosby Eells, who founded the Tanki Daigaku (short college) system. These institutions, however, were far inferior in prestige and public image until 1964. In that year a revision of the educational structure included these colleges as an integral part of the system of higher education. The colleges then grew rapidly, and by 1970 their number had increased to 475. Eighty per cent of them, similar to other types of higher educational institutions, are operated by the private sector. With a diversified curriculum and a variety of courses, the main objectives of the colleges are "to instruct and encourage intensive study in the arts and sciences on the semi-professional level, equipping graduates with the abilities for the vocational and practical way of life" (28, p. 33).

Tanki colleges operate flexibly; close to one-third offer night courses, while others operate during the day.
Several colleges, however, are open both night and day to serve students who cannot attend a regular daytime program. Individual programs may continue as long as three years. Though terminal programs are emphasized, courses which may be transferred to a university are also offered. The largest fields in these colleges are nursing, pre-school education, and literature; business and industrial courses compose the next-largest fields of study.

Japanese junior colleges, like their counterparts in the United States, have pledged to develop and serve their communities. As Naito believes:

The junior college is making a major contribution to the generalization of higher education in Japan. The percentage of high school applicants for higher education is presently almost twenty per cent. Half of these applicants are children of salaried-class families. In the near future the percentage is expected to reach forty per cent, the same percentage as in the U.S.A. Japanese junior colleges must make an effort in the increasing number of applicants (17, p. 12).

Development of Community Colleges in the United States

The term junior college was used in America in the late decades of the nineteenth century to refer to institutions that offered only the lower division of the four-year college, or the term simply referred to that section of the university which admitted only freshman and sophomore students in universities such as the University of Chicago or the University of California (7, p. 15).
Two of the many factors which have contributed to the development of junior colleges are worthy of repeating here. First, a steady increase in economic wealth and productivity has enabled a greater number of students to attend college, and, in turn, the college graduates whose manpower was utilized by American industry have improved the productive machinery of the American economy. Second, in the late nineteenth and early twentieth centuries, the rigid policies of the universities and their concentration only on the advancement of knowledge resulted in highly selective admission procedures. They focused their attention on attracting potential scholars and researchers (7, pp. 16-17; 22, pp. 46-47). This approach contradicted the "American Dream"--the belief inbred in every stratum of society that education is a social and individual good and that the society is obligated to provide as much of it as any individual desires and can profit from" (22, p. 47).

At the turn of the present century, a superintendent of a new high school in Joliet, Illinois, developed post-secondary programs in his school in a belief that the courses would enable the graduates to enter four-year colleges with advanced standing. From this experiment gradually developed the oldest public junior college in America. During the first decade of the twentieth century, junior colleges began to develop in both the public and private sectors. However, since 1915 the colleges have
grown sharply. In that year sixty private and twenty public junior colleges were in operation (13, p. 3). By 1921 70 public and 137 private junior colleges had been established, and for the first time the enrollment in the public junior colleges exceeded the enrollment in the private junior colleges (22, p. 52).

The American Association of Junior Colleges, recently renamed the American Association of Community and Junior Colleges, came into existence in Chicago in 1921. Its purpose was

to define the junior college by creation standards and curricula, thus determining its position structurally in relation to other parts of the school system; and to study the junior college in all of its types (endowed, municipal, and state) in order to make a genuine contribution to the work of education (3, p. 3).

Since 1930 the association has published the monthly Junior College Journal, later called the Community and Junior College Journal, and since its creation, it has functioned as a spokesman for the interests of junior colleges of all types.

Occupational education, which now is an established part of the total framework of the colleges, has developed primarily in American technical institutions since 1895. These institutions prepared students in the fields which were not then available at either the secondary schools or four-year colleges. Most of the public junior colleges adopted occupational programs during the second decade of
the present century. Their chief development, however, occurred when they began to implement federal vocational educational bills which were passed during World War I. These measures provided federal grants to vocational training institutions. State legislatures also gave impetus to the adoption of these courses in junior colleges. California was the first state to pass legislation calling for occupational training in its colleges. After its initial measures of 1917 and 1921, other states gradually followed the trend, and some of them spelled out the occupational courses which could be offered in the public colleges (2, p. 27). Gradually the term occupational education, sometimes termed technical or semi-professional education, came to mean a level of training which combined both general and specialized education.

American junior college advocates did not limit their mission only to offering liberal arts programs and occupational studies. In 1930, R. Nicholas, in the first issue of Junior College Journal, viewed the colleges' role as diverse.

A fully organized junior college aims to meet the needs of a community in which it is located, including preparation for institutions of higher learning, liberal arts education for those who are not going beyond graduation from the junior college, vocational training for particular occupations usually designed as semi-professional vocations, and short courses for adults with special interests (22, p. 55).
The concept of the junior college as a "people's college" or "community college" is strongly emphasized throughout the literature of two-year colleges, as is the belief that junior colleges should be devoted to intellectual growth within the community by providing educational, recreational, and vocational opportunities to adults and young people alike. The community service function of the colleges soon came to the attention of American statesmen. In 1940 the term community college was first adopted to replace junior college in the Report of the President's Commission on Higher Education (22, p. 56).

Gradually junior colleges became community centers. Their geographical location within easy reach of the people who were using them attracted many local citizens, and as a result, the growth of the colleges accelerated sharply. The 1960's witnessed a phenomenal increase in both the number of colleges and total enrollment. In 1964 1,000,000 students attended community colleges. By 1972, according to the Directory of the American Association of Community and Junior Colleges, the figures had risen to 2,866,062 students enrolled in 1,141 colleges (See Table X).

The quantitative increase in the enrollment parallels the qualitative improvement of the colleges. Attracting qualified scholars and providing educational facilities appropriate to the dynamic nature of the colleges has resulted in a notably higher quality of education. The
TABLE X
GROWTH OF COMMUNITY JUNIOR COLLEGES IN THE UNITED STATES**

<table>
<thead>
<tr>
<th>School Year</th>
<th>Total Colleges</th>
<th>Public Colleges</th>
<th>Independent Colleges</th>
<th>Total Enrollment</th>
<th>Public College Enrollment</th>
<th>Independent College Enrollment</th>
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<td></td>
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</tr>
<tr>
<td>1920</td>
<td>207</td>
<td>70</td>
<td>137</td>
<td>12,000*</td>
<td>6,240*</td>
<td>5,760*</td>
</tr>
<tr>
<td>1930</td>
<td>469</td>
<td>181</td>
<td>288</td>
<td>77,014*</td>
<td>45,105*</td>
<td>31,908*</td>
</tr>
<tr>
<td>1940</td>
<td>627</td>
<td>279</td>
<td>348</td>
<td>206,984*</td>
<td>146,057*</td>
<td>60,926*</td>
</tr>
<tr>
<td>1950</td>
<td>597</td>
<td>324</td>
<td>273</td>
<td>439,332*</td>
<td>368,921*</td>
<td>70,411*</td>
</tr>
<tr>
<td>1960</td>
<td>678</td>
<td>405</td>
<td>273</td>
<td>660,216</td>
<td>566,224</td>
<td>93,992</td>
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<tr>
<td>1970</td>
<td>1091</td>
<td>847</td>
<td>244</td>
<td>2,450,451</td>
<td>2,316,301</td>
<td>134,150</td>
</tr>
<tr>
<td>1972</td>
<td>1141</td>
<td>910</td>
<td>231</td>
<td>2,866,062</td>
<td>2,729,685</td>
<td>136,377</td>
</tr>
</tbody>
</table>

*Indicates estimated opening Fall enrollment based on conversion of cumulative enrollment reported. Other enrollment figures are reported opening Fall enrollment.

**Source: Community and Junior College Directory, 1973, American Association of Community and Junior Colleges, Washington, D.C.

American community colleges have been supported by local, state, and federal leaders and most of all by private citizens; therefore, the community junior colleges are expected to continue to grow, and, as Joseph Cosand has stated in Campus 1980, by 1980 the community junior colleges will have virtually the entire responsibility for providing the first
two years of college through both daytime and night-time operation (6, p. 139).

Summary

In the dawn of the present century, the two-year college concept appeared in the system of American higher education. Providing occupational training, relieving the burden of the universities and senior colleges, and adapting the curriculum to fulfill the local needs were included in the objectives of the junior colleges that were proposed by Leonard Koos, one of the pioneers of the concept. The colleges grew at an astonishing rate in America; in 1972 close to 3,000,000 American college students were attracted to these institutions.

Junior colleges also have been developed in other countries. Japan had established post secondary educational institutions as early as 1897. Japanese junior colleges, however, were not an integral part of the system of higher education in that country until 1964. In that year a revision of the educational structure included these colleges in the system. Because Ceylon, Chile, Colombia, and Israel are taking rapid steps toward industrialization and advancement similar to Iran, development of the community junior colleges in these countries was discussed.

The community colleges have great flexibility in adapting to varied cultural, political, and economic
environments. Their objectives can be stated as: providing lower-division of university-parallel programs, training semi-professional and vocational manpower with an orientation to general education, offering in-service and adult educational programs, promoting the cultural and intellectual tone of the community, and admitting anyone who can benefit from the college education.
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CHAPTER V

CONCLUSION AND RECOMMENDATION

Before the concluding statements, an overview of Iran's national developmental outlook, in terms of the profound change in the social structure, will be a helpful means of understanding the problems of the educational system in general and the universities in particular.

1. Having the advantage of wise leadership and a stable political system, the nation in recent years has advanced rapidly, as indicated by a sharp increase in the GNP and per capita income. It is expected that by the end of the Sixth Development Plan, in 1982, the per capita income will have risen to $1,700, the rate that Western European countries presently enjoy (5).

2. Through extensive investments in steel production, petroleum, chemicals, machine tools, as well as housing, health, and education, urbanization and industrialization surged during the 1960's, and the trend is expected to continue in such a way that a sizable number of low-productive farm laborers will be absorbed by newly-created industries, thereby shifting a majority of the labor force, which is currently concentrated in rural areas, to urban communities.
3. The growing inclination to utilize modern agricultural techniques will affect the life styles of the uncultivated segment of society throughout the nation's scattered villages, which number approximately 40,000. Primary responsibility for the latter programs has been vested in the Literacy Corps, Health Corps, and Development Corps. Though dynamic and fruitful today, they are not sufficient for tomorrow's mechanized farms and modernized farmers. Better educational personnel in agricultural technology and human relationships will be the most important requirement needed to improve the deplorable conditions in the rural areas of the nation.

4. Poverty areas in towns and slums in the large cities still reveal their unsightly features throughout the country. Unemployed or underemployed residents of these quarters, along with the unskilled laboreress of these poverty pockets who cannot maintain their jobs because of growing automation, need intensive education and inservice training programs to encourage them to understand their potential and enable them to join the ranks of the country's productive citizens.

5. Women in Iran have been disadvantaged until recent years. Culturally oriented to raise children and keep house, they have been far behind men in their exposure to the opportunities of education. Even more significant has been their social and political deprivation. It was not until ten years ago, on January 26, 1963, that they won the
right to vote and to be elected to Parliament and the local councils. Since the Amendment of the Election Law and the enactment of the family Protection Law, women have actively participated in socio-political affairs, a trend which should continue. The newly-created social force of women needs to be directed into productive channels by providing appropriate educational centers and manpower training programs.

6. As has earlier been shown, Iran is a country which, after a long decline in educational advancement and social innovation, has adopted Western education in a relatively short period of time. Because these concepts are new, they have not yet completely eroded cultural barriers which inhibit social development in the entire nation. In addition, religious bonds are in serious conflict with secular education, particularly in the towns and rural areas. Because of these pressures and economic restraints, the nation has not succeeded in democratizing education for its youth, even at the primary level. In order to overcome these religious and cultural barriers, a capable and educated cadre of professionals is required to work alertly and progressively to direct the masses toward an acceptance of these modern concepts of living.

To fulfill the preceding developmental goals, the educational institutions must accomplish sweeping changes. Higher education, the concern of this study, as Article I of the Charter of Educational Revolution states:
should made it possible for all young people in Iran to reveal their various talents, and to develop their spirit of creativity and sense of social cooperation so that everyone can be expert in the occupation which he undertakes (6).

The concept of change, therefore, is twofold—qualitative and quantitative. The universities and colleges, for that reason, are bound up to serve any potential high school graduate in order to utilize him in an optimum level. New social classes will have access to a college education including a large group of students whose parents can usually neither read nor write. To this group of students should be added another large group, the women of Iran, whose new opportunities have increased their desire for education. Women's movements currently are progressive, and their desire to acquire for a women a college education and to obtain high-ranking professional positions has developed rapidly. Also the demographic structure of Iranian society should not be overlooked. With one of the world's highest rates of population growth, 2.8 per cent, the Iranian population is very young. According to the 1966 census, 34.1 per cent of the population was under ten years of age, a factor which will create enormous pressures on educational institutions, including the colleges and universities, in the near future.

To conclude, a brief look at the present function of the system of higher education is necessary in order to determine its future course of action in facing the missions outlined in the preceding paragraphs.
Shortcomings of Higher Education in Iran

Chapter II of this study overviewed the historical development of higher education; especially, the development of modern tertiary level schools was traced both extensively and intensively. Chapter III analytically approached the current system of higher education and underlined the influential forces, both cultural and social, which have directly or indirectly shaped its structure. There is not presently in existence an accurate scale for measuring the contribution of a college or a university in effecting social change and advancement of a nation; in Iran, however, modern lifestyles and social modifications are by-products of modern educational institutions, particularly at the higher level. These institutions have succeeded in training national leaders and highly-trained professionals who have fostered Iran's rapid national development. Also the present social synthesis is the result of the genuine response to challenge of Iranians who received valuable educations in Western countries and have returned with significant techniques for advancement and for intellectual progress in Iranian society.

The greatest phenomenon of our time is change. It affects societies of every kind—developed, developing, and underdeveloped. Lamar Johnson, in his illustrated example, writes:
. . . within the brief span of 300 years—from 1600 to 1900—technological and scientific advancements have brought more changes in the way man lives and works than were produced in the 6,000 years preceding. Nor has this activated momentum lost its velocity. On the contrary, it is highly probable that, within the next 30 to 35 years, more changes in the way man lives and works will occur than were experienced in all previous history (8, p. 5).

Ideally, universities should keep pace with these changes, and education should be a reflector of change. A qualitative and quantitative description of university development in Iran clearly indicates that these institutions are inadequately sensitive to the changes which occur in their society.

Qualitative Development of Institutions of Higher Education

Almost 150 years ago a few individuals with some advanced knowledge were perhaps sufficient to fulfill the needs of the underdeveloped society of Iran. When the crown prince dispatched two students to England in 1811, his expectation was that they learn something useful to him, to themselves, and to their country (3, p. 120). Close to forty years ago, when the University of Tehran was established, the nation's expectations became relatively higher. Training a number of medical doctors and high school teachers, some lawyers, and other professionals, however, was considered adequate for Iran at that time.

In today's society when, for instance, 90 per cent of the faculty of the University of Tehran and a majority of
the cabinet members hold Ph.D.'s, society's demand of the system of higher education is greater. That is, society wants highly educated professionals, scholars, and researchers to be by-products of the nation's qualified universities under the leadership of well trained governmental officers.

Iranian universities suffer because of insufficient development of graduate studies. They face a serious problem of manpower training for their own use as well as for the use of society at large. In other words, the system not only is "... incapable of training the teaching staff it needs, and Iran has to rely on the sizable reserve of its nationalists studying abroad in foreign countries ..." (10, p. 48), but it is also incapable of training a sufficient and productive number of graduate students required in the other organizations. In 1972 the total number of Ph.D.'s graduating in the country numbered twenty--three in economics, four in foreign languages, eleven in Persian literature, one in theology, and one in urban planning (7).

A report to the Evaluation Conference of the Educational Revolution in 1972, however, pointed out that approximately 56 per cent of the entire faculty of the nation's colleges and universities--including the faculty of two-year institutions--received their degrees abroad (4). These figures indicate that Iranian universities need to meet the challenges of supplying a sizable number of highly-trained
personnel for academic institutions as well as economic, business, and industrial organizations.

Underdeveloped graduate programs create two serious problems. First, the universities fall behind in their missions to research and scientific dissemination. In the well-developed nations, universities are research-oriented centers, and the graduate schools are the basis for this orientation. The universities in Iran have been less devoted to scientific research. Manzoor writes, "The organization of research in the Iranian society in general and in the university system in particular is far from being rational" (10, p. 103). One causal factor, perhaps the most important one, related to lack of advancement of research in Iran, is inadequate development of graduate schools.

Article twenty-four of the Charter of Educational Revolution emphasizing advancement in the area of research states:

The spirit of research and scientific exploration must guide the university campus so that those who seek knowledge, whether professor or students, can regularly coordinate their information and learning with the latest developments of science, technology, culture and art in the world (6).

The creation of the Institute for Research and Planning in Science and Education within the Ministry of Science and Higher Education was a reaction designed to partially fulfill the requirements of the article. Whether or not the institute has succeeded in its functions is not the
consideration of this study; however, as the article pro-
fesses the universities should be strongly contributing to
research. It should be pointed out that graduate schools in
general are less costly and more productive research centers
in comparison with other research centers. The development
of graduate schools in Iran will certainly serve to advance
national research.

Second, Iran's dependence on foreign universities for
training Iranian graduate students is a serious economic
burden to the nation. The problems of language barriers,
cultural alienations, and problems related to university
adjustments abroad lengthen the period of studies and
increase the expenditures. Also there is the problem of
immigration. According to Baldwin "Many students never
return to Iran. They become something they had not intended
when they left, emigrants" (1, p. 274).

Quantitative Development of Institutions of Higher Education

The rapid growth of secondary schools in the last few
years has created a serious problem for university admin-
istrators and educational leaders. It is expected that this
growth will take place at an even faster rate " . . . because
nearly 80 per cent of the children who belong in the secon-
dary education age still do not have access to education . . . ."
(10, p. 37), and in the near future they will enjoy this
education. In relatively recent years, an accelerated
expansion in the system of higher education has occurred. Because of the proportional increase of high school graduates, university expansion has not been able to alleviate the social pressure that the universities face. One of the dimensions of the expanded system is the expansion of associate degree programs in relatively small units throughout the country. These institutions which are innovative in nature, suffer several weaknesses, however. That is, their establishment is not based on a purposeful, planned approach, but is merely an instrument to reduce public pressure for higher education. The programs of these institutions are terminal, and their students are well aware that they will not receive any academic credit. The students in these schools are chiefly those who have failed the university entrance examinations and register in these institutions to avoid being drafted into the military services. Their desire to prepare for taking another university entrance examination, Konkur, is far stronger than their desire to become a technician.

As pointed out earlier, the curricula in these institutions seldom enjoy a high academic status because liberal arts courses are generally not included. Liberal or general education, which encompasses the common knowledge, skills, and attitudes needed by each individual to be effective as a person, a member of a family, a worker, and a citizen (9, p. 286) is of outmost importance in a college education.
Another problem facing the technological institutions relates to the faculty. Generally speaking, these institutions are understaffed. Most faculties are composed of hourly-paid individuals who have no formal preparation for teaching in these institutions. These institutes are new identities; therefore, any concrete judgment seems fallacious. However, the shortcomings which have been overviewed here result in a serious failure to successfully train potential students who hope to pursue technical careers.

The difficulties facing the system of higher education seem insurmountable unless a long-range master plan can be developed through systematic research to modify and reorganize the present system of higher education in these directions:

1. Develop qualified graduate schools to educate highly advanced professionals and scholars to fill the positions for which the nation, until the present time, has relied upon personnel who have received their education abroad.

2. Amplify the university research activities through a dynamic involvement of the graduate departments in order to bring about advancement of the nation and contribution to the world's knowledge.

3. Promote scholarship through organized centers of publication which may be established within the universities and attract expert scholars to devote their time and energy
to writing scholarly books and translating the world's valuable texts. Initiating such a program will help to cope with the problem of scarcity of university texts which has lowered the quality of college education in Iran.

4. Last, but not least, provide an opportunity to every high school graduate to develop his potential talents so that he can pursue a happy life and creative career in order to be a useful member of his society.

Recommendation

The charter of Educational Revolution calls for a substantial innovation in the system of Iranian higher education as indicated by article thirteen of the charter:

Our Universities and Scientific Centers must therefore adapt themselves to the country's human, scientific and cultural needs and provide favorable conditions for developing the younger generations' latest talents, for raising their standard of learning, for using their creative abilities and for training future educators. By enlightening public opinion, disseminating scientific knowledge and promoting useful research, Universities should also play a most important role in the rapid social and economic development of the country (6).

This modification should be characterized with two dimensions, qualitative development and quantitative expansion. As a result the new system should meet the society's demands for large groups of qualified technicians, human engineers, service personnel, as well as scholars, researchers, and modifiers.
Economic barriers, lack of optimum size of qualified faculty at the present time, and diversity in student's talents, aspirations, and socio-economic backgrounds, however, necessitate the creation of a flexible structure within the system which is capable of educating students from different social classes, from different age groups, from different life experiences, and from different sexes with less economic burden on the nation. Adapting the community college concept in the educational system of Iran seems a rational approach in solving many of the problems that the system is currently facing. That community colleges have proven their great worth to the American society (2, p. 1) as well as to other societies, can be a landmark innovation in Iranian higher education in the direction that the Charter of Educational Revolution suggests. These colleges can alleviate or eliminate social pressures, and educational burdens on Iranian universities and can share partial or full responsibility in areas to which presently the universities devote too much of their energies. The functional areas of the prospective community junior college in Iran can be visualized as follows:

1. It has been conceptualized that Iran is a growing nation which is taking rapid steps toward technological change. This requires a large number of qualified technicians for agriculture, industry, health fields, and communications. Also the nation demands more semi-professional
manpower for business, health fields, and other service areas. As it has been pointed out, currently the existing technological institutions and, in some circumstances, the universities attempt to train this manpower. It has been argued that, on the one hand, the responsibility of a university is not to confer associate degree programs when its advanced research and graduate programs suffer. On the other hand, the technological institutions are extensions of vocational high schools which operate in small units and generally bear less prestige and have questionable educational qualifications. The prospective community junior colleges can supplement associate degree offerings in the universities, in senior colleges, and in two-year institutions in the fields of technical and semi-professional training.

2. Iran is large in size, with an immense variety of climate, soil, flora, and natural resources. This diversity requires a flexible curriculum to fit the regional needs and existing resources, such as agriculture, mining, petroleum, etc. Neither the universities of Iran, all of which are located in metropolitan areas, nor the unique curriculum of the two-year institutions can always fulfill the needs of rural areas and small communities. The prospective community junior colleges can serve their surrounding communities by better utilizing the local resources and by educating its citizens through their flexible mechanisms.
3. The pressure from high school graduates in order to be admitted to the universities grow stronger every year and will continue, even faster in the future. Because of the shortage of financial and human resources, these institutions are compelled to block the education of many high school graduates. The students who become rejected due to their scores on the National University Entrance Examinations, Konkur, cannot be labeled as unqualified for a college education; indeed, they are the victims of a lack of educational facilities in higher learning which bears their educational growth. A portion of these students, who can afford their educational expenses abroad, despite interfering problems related to foreign environment, very often successfully continue their education, and in some cases demonstrate exceptional educational achievement. The prospective community junior colleges can expand college education and provide the opportunity for every aspirant to continue his education.

4. Iranian universities are costly to the nation. As Manzoor estimated, "The average recurrent unit costs of Iranian universities, which amounted to nearly $1,200 in 1970-71 (without Melli University), is far above that of other developing nations (10, p. 150). These costly ventures are utilizing a vast amount of energy in preparatory programs--pre-agriculture, pre-veterinary, pre-dentistry, and so forth--for their professional schools. These
programs, range from one to two years, and can be offered in the prospective community junior colleges.

5. Engagement of the highly qualified faculties of the universities in the lower-division programs is contrary to reasonable management of human resources. This portion of the national wealth can be better utilized in the upper-level programs, research, and graduate studies. The prospective community junior colleges can share with the universities the responsibility for training students in the lower-level of college education. Through this cooperation which is in agreement with article four of the charter*, universities will be better able to utilize their faculties at an optimum level.

6. Contrary to the advantage of an education abroad, there are serious disadvantages, particularly at the undergraduate level. Being extremely costly, student enrollment in Western colleges and universities weakens the economy of the country. Conflicting motives, psychic stresses, and alienation are other unfavorable results of studying abroad.

*Article IV--As any improvement in higher education is closely linked with primary and secondary education, it is essential that all educational organizations cooperate fully with the Ministry of Science and Higher Education in the Execution of its legal duties and responsibilities so that all activities in this field may be completely coordinated.
The prospective community junior colleges can reduce student study abroad. These colleges also can serve students who desire to pursue their studies in foreign colleges, in two ways: first, the community junior colleges can assist the students in developing proficiency in the respective foreign language of their host country, and second, the colleges through their university-parallel programs can devote the education of the lower-level of their prospective colleges.


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