Preliminary Report

PLANNING FOR THE 1970's: HIGHER EDUCATION IN COLORADO

Colorado Commission on Higher Education
719 State Services Building
Denver, Colorado 80203

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This report is a preliminary statement of proposals of the Colorado Commission on Higher Education for the development of higher education, and particularly of public higher education, in Colorado during the decade of the 1970's. This preliminary report is released with general consensus of Commission members. It is presented with the invitation to all interested persons and groups to advise the Commission concerning any of the matters included. Written comments are earnestly sought and should be sent as early as possible to the Commission office (address below), and in any case by January 1, 1970. The Commission proposes to schedule one or more public hearings on this report, as well.

Following receipt of written and oral comments the Commission will give further consideration to the proposals herein and will issue its revised report and recommendations prior to the end of January 1970.

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Preface

This report presents facts and ideas concerning Colorado's system of colleges and universities, and recommendations for the further development of the system. It deals primarily with the public institutions of higher education, but recognizes also the significant role played by the private colleges and the University of Denver in expanding educational opportunities.

To strengthen higher education in truth is a process that is specific to individual students and teachers; it happens (or fails to happen) in the classrooms and laboratories, in the libraries and seminar rooms and offices where learners meet. Yet the maximum of strengthening of the processes of learning can occur only within an overall system in which there are opportunities that fit the large and growing numbers of men and women of all ages and backgrounds who come to college to pursue widely varying interests and goals. It is the concern of the state, and of the Colorado Commission on Higher Education as the coordinating and planning agency of the state in higher education, to assure that Colorado's higher education system develops in ways that will present these opportunities.

A statewide system of higher education must:

1. Provide for a wide diversity of educational opportunities. There must be programs leading to proficiency in the learned professions and in advanced studies in all of the fields of knowledge; programs for youth and adults seeking a general education; programs emphasizing the development of particular skills as well as knowledge; programs leading into employment.

2. Provide for geographic accessibility to higher education, because study after study has shown that proximity of an educational institution is the leading factor determining whether or not people can and will go to college.

3. Through both an appropriate variety of educational programs and readily-accessible institutions, and through policies of encouraging and assisting men and women of all backgrounds and from all walks of life to avail themselves of college opportunities, to reduce economic and social barriers to college attendance.

4. Provide the freedom and the support, fiscal and otherwise, which will encourage experimentation and innovation in instructional programs and methods on the campuses.

5. Because of the scarcity of resources, provide programs and services free of waste including unnecessary duplication in programs and facilities.

6. Provide for all institutions and for the state as a whole a concept of how and where each institution "fits" and of its best contribution to the well-being of the whole, including a plan for its on-going development.

The Colorado Commission on Higher Education is one of about three-dozen such state agencies in this country which is charged with the development of plans and concepts for higher education within the state which will help institutions and their governing boards, on the one hand, and executive and legislative officers of government on the other, to make their best contributions in accomplishing the best program of higher education within resources which are always limited in relation to the needs. One of the first efforts of the Commission after its establishment in 1965 was to crystalize and publish ideas for "Strengthening Higher Education in Colorado;" it did this in the winter of 1966-67. In that initial planning document the Commission looked at the differing roles of major sectors of the overall system of higher education and of individual institutions within these sectors. It gave special attention to the need for two-year commuter colleges which would emphasize occupational programs, to complement the system of residential colleges offering programs in the arts, sciences and professions which, with limited exceptions, represented the Colorado higher education system at that time. The report dealt also with the roles and future development of higher education programs in the Denver Metropolitan Area.

A provisional statement of the Commission's proposals was published in December 1966 as a basis for reactions from institutions, agencies, legislators, and other interested persons and groups. Following consideration of those reactions, the Commission published in February 1967 a summary of its revised recommendations. Its proposals for the establishment of a state community college system and for new two-year colleges in Denver and Colorado Springs, and for the evolution of Metropolitan State College as provided for in the act of 1963 establishing that institution, were enacted into law.

In many respects, as the Commission was aware, its report and recommendations of 1966-1967 were incomplete. Moreover, higher education is in a state of rapid growth and change--a condition to which the Commission's recommendations contributed; but the changes would have been extensive anyway in the face of rapidly-increasing enrollments and changing needs and demands of society upon the colleges and universities. Vital as a plan is in providing a direction for development and some benchmarks for assessing progress, no plan can or should remain fixed in a society that is dynamic.

In the spring of 1968 the Commission initiated action to update and expand its statewide planning document by asking each of the governing boards and institutions to advise the Commission of their aspirations and plans for their future development. The private institutions which are members of the Colorado Association of Independent Colleges and Universities were invited to participate, and all of them did so. When the staff and Commission were unable to publish a complete report during the 1969 legislative session, preliminary statements in two areas were issued in February 1969, one setting forth the Commission's plans and recommendations respecting "Higher Education Opportunity in the Denver Metropolitan Area" and a second intended to evoke critical response concerning "Coordination, Planning, and Governance of Higher Education in Colorado."

Subsequently, additional information has been developed and proposals relating to present programs and structures and to desirable future developments have been identified and considered at length by the Commission in the formulation of the present report.

This document is, like the report of December 1966, the product of Commission thinking about the Colorado system of higher education taken as a whole, the best roles of institutions within the system, and the direction for future development. It is explicitly a preliminary formulation, intended to convey to the interested institutions, boards, agencies, and persons the thoughts and ideas of the Commission within the overall context that the Commission believes necessary for informed response to these thoughts and proposals. The Commission expressly seeks comments and suggestions respecting the findings and proposals set forth here as a basis for its review, further analysis, and revision prior to its issuance, about January 31, 1970, of a revised report.

The Commission will present information concerning operating and capital construction cost projections to the Legislature in the revised report or in a supplemental statement.

A SUMMARY

PLANNING FOR THE 1970's: HIGHER EDUCATION IN COLORADO

I. Assessing the Needs

The estimation or "projection" of future enrollments is a basic tool of planning for higher education, but it is an inexact process because projections are affected by changing public preferences as well as by changes in policies--as examples, new institutions may be created; more adequate student aid policies may increase the numbers going to college. History indicates one common trait of enrollment projections: actual experience seems always to prove that the projections of prior years were too low.

Two projections ("A" and "B") of enrollments in Colorado public and private institutions are presented in Tables I and II (pages 3 and 6). Projection "A" is a "status quo" projection based on the assumption that in all institutions the growth trends of the past will continue through the projection period to 1980. Projection "B" is somewhat higher in that it assumes that counties now sending numbers of high school graduates on to college at a rate below the statewide average will come up to the average. Because of improved student assistance programs and because larger numbers of adults who are older than the traditional college-going age are now going to college, particularly in urban areas where new commuter colleges are located, both projections "A" and "B" are likely to prove to be low.

Nonetheless under either projection, enrollments will approximately double between 1969 and 1980, growing by about 85,000 persons. Approximately two-thirds of the additional students (55,000) will reside in the 5-county Denver Metropolitan Area, and 10,000 more in El Paso-Douglas-Teller counties.

In Tables II and III (pages 6 and 13), the geographic distribution of Colorado residents attending college in Colorado is shown. The heavy concentration of population in the band east of the mountains is evident. In only one area of the state--Larimer-Weld counties--are there substantially more places for students in colleges within the area than there are students whose homes lie within the same area. Areas having a large deficit of places in college are the Denver Area and El Paso County. Because of sparsity of population, several mountain and

State and Western State Colleges will approach the planned size. The effectuation of enrollment limitations at any of the Colorado institutions invites consideration of policies of admission of non-resident students and the Commission will report on such policies later in 1970.

III. Planning for Growth: Institutions and Their Programs

Distinctive as each college is within the total system, there are "families" which have certain qualities in common: the community junior colleges, state colleges, and universities.

Community Junior Colleges

Commission recommendations to the Governor and Legislature in 1967 resulted in legislation which has substantially transformed the community junior college system in Colorado with the establishment of a system of state institutions including the new Community College of Denver and El Paso Community College and the entry of Lamar, Otero, and Trinidad into the state system. Enrollments in the two-year college are growing more rapidly than elsewhere in the total higher education system. The new institutions are strongly oriented toward occupational programs. In fall 1969 there were five state system colleges operating on six campuses and six local district colleges operating on seven campuses--eleven institutions and thirteen campuses, in all.

Programs of the community colleges should relate to the needs and interests of their respective communities, and the nature and amounts of occupational and college transfer programs in each should therefore vary from one to another. Systemwide planning for expansion of occupational programming with limited resources available provides a significant challenge to the institutions, State Board, and Commission. In the smaller schools especially, selectivity in program choices is necessary. *For Lamar and Otero a mechanism is needed through which the programs, services, and faculty-staff capabilities of the two can be integrated.*

For the more sparsely-settled areas of the state, grants to students to cover costs of room and a portion of board could provide some equalization of opportunity and might be made available for use at institutions where academic and dormitory space is underutilized.

With the basic pattern of community colleges now existing it is appropriate to defer planning for additional such colleges

until patterns of their growth emerge more clearly and their interrelationship with the four-year institutions can be assessed. *However legislation should be adopted under which the state coordinating board can interrelate the acceptance of local district colleges within the state system with other state commitments and priorities in higher education.*

The State Colleges

Whether judged in terms of geography or of educational programming, Adams, Colorado, Fort Lewis, Metropolitan, Southern Colorado, and Western state colleges provide a good pattern of opportunity in arts, sciences, and selected professions at baccalaureate and graduate levels. Some, by virtue of their earlier development, emphasize the occupations of education and business; the new colleges (Southern Colorado and Metropolitan State) include the technologies and are urban-oriented. As community college enrollments grow, the mix of students in the state colleges should become less heavily lower-level and efficiencies in offerings at the more specialized upper-division level should result.

Expansion of graduate programs within the state colleges must be carefully monitored by the Board of Trustees and Commission because of the high costs associated with small programs.

Adams, Fort Lewis, and Western state colleges should give special emphasis to the needs of youth and adults within their respective regions, without ignoring their appeal to students from throughout the state. Each of these colleges will be serving in areas in which there will be no comprehensive community college. *Admission standards should restrict the number of out-of-state students but should always permit access for residents of the immediate area of the college where there is reasonable prospect that the student can benefit in the program. These institutions should remain essentially undergraduate colleges with emphasis upon teaching. Any graduate offerings should be limited to areas in which there are sufficient students to provide the instruction with reasonable economy. They will not offer programs on the doctoral level.*

Particularly within the region in which state colleges are located, these colleges should be encouraged and aided in the development of off-campus educational services, within the needed statewide framework of planning and coordination. Research is undertaken in these institutions as it relates to the improvement of the instructional program and to the professional growth of the faculty.

Southern Colorado State College, like Metropolitan State College, has opportunities to initiate programs geared to the needs of city people and institutions. It will continue its occupational education thrust, but the nature of this program may change, particularly if an Area Vocational School is developed at the former Orman campus. As the College grows, needs of the area will be well served by the initiation of selected master's degree programs. No courses beyond the master's should be planned or anticipated.

The role of Metropolitan State College is treated in Chapter IV.

The size and status of development of Colorado State College together with pressures to expand its mission and rename it as a university require special consideration of the best future role for this college within the state system. In the past the College was distinguished for its programs in the profession of education. Since World War II, as in many "former teacher's colleges" across the nation, CSC has broadened and extended its program significantly. Programs in the arts and sciences, business, medical technology, and nursing have been added. Graduate programs leading to the master's degree were developed in many of the arts and sciences. Aspirations of the faculty and within the community for further expansion and extension of programs have led to the desire for university status.

The significant issue relating to Colorado State College is not what the institution is named; it is what role the institution is to play within the total educational resource of the state. The issue relating to role is presented primarily by the question whether CSC should offer the Ph.D. degree in fields outside the profession of education, and also as to the extent to which programs in occupational and professional fields other than education should be developed.

The Commission does not believe that at this juncture the state requires additional programs on the doctoral level in areas in which such programs are already available within the state. If and when additional instructional resources on the doctoral level are needed in Colorado the Commission believes that such resources should be provided in a commuter institution in Denver rather than in any of the residential colleges or universities. Proximity of CSC to the comprehensive universities, particularly to CSU in Fort Collins, makes possible the development of doctoral offerings on a cooperative basis.

The Commission believes that Colorado State College approaches the size and scope of program which should be maximum for the College, recognizing that its programs must continue to evolve in response to new opportunities and needs, instructional methods, and other forces. *Expansion of program should be anticipated in areas*

contiguous to education but not in additional professional areas or in indigenous Ph.D. programs.

In 1970 the Commission, in cooperation with the University of Colorado and El Paso Community College should propose programs and procedures that will enable the Center at Colorado Springs to become an institution offering high-quality upper division work with a small lower division program and selected offerings on the graduate level. Such proposals should include recommendations for the future governance of the institution. Rapid population growth in the Colorado Springs area together with enrollment limitations in some of the colleges and universities assure continuing and rapid growth in enrollment at this institution, which should serve primarily as a commuter college.

By the mid-1970's enrollment pressures in the West Central counties of Mesa, Delta, Montrose and Garfield will justify a baccalaureate institution in that area. In 1970-71 the Commission should develop plans for a college in the Grand Junction area, to be integrated with programming on the two-year level at Mesa College, in the arts and sciences, business, and education, which would admit its initial students in 1975. During the 1970's any graduate offerings would be on an extension basis, only.

The Commission believes that administration of the Colorado Springs and Grand Junction institutions should ultimately be undertaken by boards of trustees established for each institution; neither should be developed as branches or centers of another institution.

If enrollment pressures seem to require additional state college programs in the Denver Metropolitan Area by the late 1970's or early 1980's, such expansion may be feasible through cooperative programs with community colleges in the area, and technological developments may also serve to reduce demands for on-campus instruction, at least in some instructional areas. By the middle of the decade it should be possible to determine how well the present institutions are meeting the needs.

The University System

The "university resources" of the state embrace two public and one private comprehensive universities, two specialized institutions offering advanced programs in specific fields, and one branch of one of the comprehensive universities: the University of Colorado, Colorado State University, the University of Denver, programs related to the mineral resources industries at the Colorado School of Mines, programs

oriented to the profession of education at Colorado State College, and certain programs at the Denver Center of the University of Colorado.

The University of Colorado is a comprehensive university taking leadership in the arts and sciences and selected professions. In the future the University should place increasing stress upon programs on the graduate and advanced professional level and upon research.

Colorado State University is a comprehensive university taking leadership in the sciences, especially the biological, and in selected professions. At CSU, as at CU, increasing emphasis should be placed upon offerings at the upper division and graduate levels.

At each of the comprehensive universities, because of resource limitations programs should evolve, during the 1970's, within the fields to which each is presently committed. At advanced levels in fields which are part of the special responsibility of other universities and colleges in the state, cooperative programs may be of mutual advantage.

The Colorado School of Mines is and should remain a specialized institution oriented to the mineral industries. Broadening of programs into the arts and sciences or general engineering should not be anticipated, but progressive growth and strengthening of the graduate program should be fostered. As at other institutions offering doctoral studies, cooperative programs might be planned with other institutions, particularly the University of Colorado or the University of Denver.

In the years immediately ahead the two comprehensive public universities and the specialized institutions should emphasize those programs and levels of study which are available only within these institutions. This practice will increase costs per student within these institutions, but not within the system as a whole.

Limitation of enrollments at CU and CSU should contribute to strengthening of these institutions, but are also intended to make it possible to initiate, in the later 1970's, a deliberate, progressive, planned expansion of university resources on a commuter basis in the large urban centers. The Commission believes that further expansion of university resources in residential institutions in the Boulder-Larimer-Weld county area would not serve the state effectively since such expansion would unduly delay and perhaps prevent the expansion that will be needed in commuter institutions.

The Denver Center provides a logical base for the

needed expansion, since the University of Denver is dedicated to strengthening its role as a private institution serving a national clientele. The future development of the Denver Center cannot be considered from a viewpoint of needs of the urban area without considering also the prospective development of Metropolitan State College. Program development of the two institutions must be meshed. It is the possibility of such meshing of programs and people which, along with the feasibility of sharing of certain facilities, makes the Auraria Higher Education Center a compelling idea.

The Commission recognizes that the independent status of MSC and the Denver Center complicates the task of directing these institutions toward a long-range target of providing urban university resources in Denver. It is persuaded, nonetheless, that if the idea is right the mechanisms will be developed to accomplish it.

IV. Higher Education in the Denver Metropolitan Area

Prior to 1965 there was no public college in the Denver area which offered a broad program for commuting students. In that year Metropolitan State College was opened and Arapahoe Junior College was authorized. Subsequently in 1967, on recommendation of the Commission a three-campus Community College of Denver was authorized as part of a new system of state community colleges. In the same year Metropolitan State College was authorized to enter junior and senior year programming.

Definition of distinctive roles for the new Community College, Metropolitan State College and the Denver Center were developed by the Commission and respective governing boards, in 1967 and 1968. The following role concepts continue in effect:

The Community College of Denver will offer programs of up to two years beyond high school suited to the needs of youth and adults for both (a) occupational, technical, and community service programs and (b) general education, including college transfer programs. The Community College should be the principal institution in the Denver area emphasizing programs of occupational education beyond high school level. It should have unrestricted admissions for high school graduates or students with comparable qualifications, and as provided by law, any person should be able to enroll in any courses that he can reasonably be expected to complete successfully.

Metropolitan State College is an urban-oriented four-year college offering baccalaureate programs in the arts and

sciences, programs of more than two years in semi-professional technical education on a terminal basis, and programs in selected professions including business, education, and approved areas of the public and social services. Its offerings should relate on one hand to the lower division programming of the Community College and on the other to graduate programs at the Denver Center of the University of Colorado, without development of graduate programs at the College. As the Community College comes into full operation the transfer of two-year applied science programs from Metro to the Community College is foreseen. Moreover as the "open door" community colleges are fully established, admission requirements at MSC should be adjusted to provide reasonable assurance that admitted students can succeed in its programs.

Within the Denver Center, the needed long-term role is that of a downtown university branch offering programs of instruction, research, and public service which are particularly relevant to the downtown location and which cannot be met through the Community College of Denver and Metropolitan State College. While undergraduate instruction in public institutions will be available in Denver in some fields only through the Denver Center (for example, engineering or architecture or pharmacy), the progressive development of the program at Metropolitan State College will make possible the further evolution of the Denver Center program and role to that, primarily, of a graduate center directly tied to programs in Boulder.

Agreements upon distinctive roles and services in occupational education areas have been developed by the Coordinating Council on Occupational Education representing the Denver Public Schools, Arapahoe Junior College, Community College of Denver, and Metropolitan State College.

Given the opportunity, the private colleges in the Denver Area (Loretto Heights, Regis, and Temple Buell) and the University of Denver can make an even larger contribution in the future than they are making at present in the absence of any effort by the state to utilize their resources. At the University of Denver, such areas as hotel management, social work, librarianship and engineering are programs through which, given arrangements suitable to the University and the state, services needed by the state might be provided. Private institutions in the area might be able to enroll larger numbers of local residents if appropriate financial arrangements could be made. The Commission is exploring such possible avenues of cooperation.

Planning for the development and siting of the new colleges in Denver, Colorado Springs, and Pueblo has been a top current priority for the state. The key to planning in the Denver Area is the

location of Metropolitan State College. After an extensive process of study the college selected a site known as "Auraria," immediately west of the downtown business and commercial area. Subsequently Urban Renewal status for this site was obtained and reservation of the federal share amounting to $12.4 millions was made.

In July 1968 study began of the possibility that the Auraria site might serve the needs of a Higher Education Center embracing Metropolitan State College and a downtown campus of the Community College of Denver, as well as the Denver Center of the University of Colorado which is located across Cherry Creek from Auraria. Cooperation with the Denver Public Schools, particularly the Emily Griffith Opportunity School, was also part of the concept. Detailed exploration by representatives of the institutions concerned and the Commission, together with a professional study of feasibility in the fall of 1968, confirmed the promise in the Higher Education Center concept.

Metropolitan State College, authorized by the Legislature in 1963, cannot possibly occupy the first of its permanent buildings before 1973. As this time sequence demonstrates, in 1970 planning for 1980 is at most intermediate-range planning. A great deal has been accomplished in higher education in the Denver Area since the mid-1960's, but current planning must be projected even beyond 1980. The concept of a Higher Education Center at Auraria permits a wide range of alternative lines of development both in the near future and in the longrun.

Permanent campuses of the Community College elsewhere in the Denver Area should be of sufficient size and appropriate location to accommodate selected programs of MSC and the Denver Center as well, in order to expand the range of programming available within the area and to restrict the rate of growth at the central site.

Since 1961 Colorado has undertaken essential commitments for higher education in the urban centers of the state. Performance on these commitments, by providing permanent facilities for the new colleges, remains to be accomplished. Failure to provide such facilities will lead in the short run to progressive restrictions of educational opportunity and in the longer run to expenditures for rents and construction costs which are growing more severe each year.

V. Coordination, Planning and Governance of Higher Education in Colorado

The Colorado Commission on Higher Education was established in 1965 after several years of experimentation with devices of state-level planning and coordination, but the search for optimum structures of planning and governance continues in Colorado, as in other states. Since 1965 significant changes in the total structure have occurred through an increased centralizing of direction exercised through the Trustees of the State Colleges in Colorado and establishment of the Board for Community Colleges and Occupational Education, and some modifications in the functions and composition of other governing boards. The Commission, too, in this period has established itself in the total complex of statewide coordination. Numerous proposals for modification in the governing and coordinating board structures were considered in the course of the 1969 legislative session.

A state higher education system must include a wide span of learning opportunities and institutions of several kinds. In fostering such a system, governing boards comprising laymen are needed to establish policies, with the assistance of professional staffs. Provision for the development and effectuation of a statewide view of higher education needs and goals and overall assessment of performance has been found necessary in most states, through designation of a board and professional staff having coordinating responsibilities.

The states have developed a wide variety of structures to provide this overall view. Three major approaches are:

1. A single governing body for all institutions of higher education. This approach has the advantages and the limitations that go with central planning and control.

2. Each institution has its own governing board, and the governing boards function within the purview of a strong coordinating body having specific powers of statewide planning and review.

3. Major sectors--the state colleges, community junior colleges, and universities--have governing boards which also coordinate their respective sectors, within or without an overall coordinating structure.

Concerns relating to the present structure in Colorado arise in part from conflicting wishes for more or for less central direction of higher education; from the overlapping of function and authority inherent

in a coordinating structure; from a state budgeting system which involves multiple layers of review; from difficulties inherent in the structure of some of the governing boards. Nonetheless, major structural changes would lead to a new period of testing and exploration of mutual powers, and evolutionary modifications may be preferable.

The basic question is whether a system of statewide governing or statewide coordination is preferred. The Commission believes that the principle of coordination provides for more initiative and direction at the institution level and that independence from partisan interference is more readily assured under a coordinating structure. It therefore favors that approach. It recommends that any institutions created or reorganized in the future be given governing boards of their own, within a strengthened system of statewide coordination.

Chapter 1

ASSESSING THE NEEDS

In the United States "higher education" embraces a wider variety of "colleges" and enrolls a larger proportion of the population than in any other nation. As compared to many countries in which the higher education system includes only the traditional universities and pedagogical and technological institutes, in this country institutions called colleges and universities abound (2,498 in 1968), and the varieties are almost as numerous as the colleges. The varying kinds and qualities of programs as well as the dispersal of institutions undergird the democratizing of higher education which has occurred to a very large degree in this country.

Probably the best evidence of the broad public appeal of higher education in Colorado today is the numbers of students enrolled. Thirty years ago, in 1940, there were 16,439 students in Colorado public and private institutions of higher education. Thirteen years later, after the bulge of veterans had passed, enrollments stood at 26,178. For ten more years of the middle and late 1950's and early 1960's, enrollments rose at a rate averaging about 2,000 per year. In 1962 in all Colorado institutions, 50,835 students were enrolled. Then in 1963 the enrollment boom that had been predictable since 1945 arrived. Six years later, in the fall of 1969 there were 105,974 students in colleges in Colorado, 91,942 of them in the state-supported institutions.

Enrollments of the Future

The estimation or "projection" of future enrollments is a basic tool of planning for higher education. As in other enterprises, the effort to divine the future is based in large part upon an analysis of experience of the past.

Enrollment projecting is a complex business, for its results may be affected by changes in public policy (such as the establishment of new state institutions or of student aid programs) as well as by changes in student preferences which are by no means entirely predictable (such as the proportion of high school graduates represented by first-time entering freshmen in colleges in Colorado, which rose from 39.8% in 1960 to an estimated 48.7% in 1968).

The characteristic of enrollment projections that does seem to be predictable is that whatever the projections are, they will prove to be lower than actual enrollments turn out to be.

In 1954, projections were made for 1969 by the Association of State Institutions of Higher Education in Colorado. The estimates for 1969 had already been surpassed before the great enrollment boom that began in 1963.

Low, middle and high projections for 1965 made by the Legislative Committee for Education Beyond High School in 1959 all proved to be low (highest projection: 71,368; actual: 72,860).

Projections for all Colorado institutions made in 1957, 1959, and 1961 as part of a national effort by Ronald B. Thompson of Ohio State University ranged, for 1968, from 66,600 to 84,669; actual enrollments in the fall of 1968 were 97,159.

Enrollment Projection "A"

Enrollment projections for statewide planning typically are based upon population age groups, numbers of high school graduates, college-going rates, past experience of the colleges in proportion of students progressing from one college year to the next, and policy assumptions pertaining to such matters as admission standards, proportion of resident and non-resident students, and the formation of new colleges.

Two projections of enrollments to 1980 in Colorado public and private colleges and universities have been developed by the Commission.

Projection "A" is summarized in Table I and Chart A (following). It is a "status quo" projection in that it is based upon estimates for each institution on the assumption that the growth trends of the past will continue through the projection period without changes caused by public policy. For example enrollment Projection "A" assumes no changes in admission policy. It assumes that the formation of new institutions will not change college attendance trends any more than the establishment of new institutions has caused changes in past years. It assumes that all institutions will continue to grow without restriction of size either because of lack of space or because of the imposition by policy of limitations on growth. Projection "A" represents the application to the future of the trends of the past; it takes no account of changes in the state's educational system such as those which are recommended in this report.

Table I

ENROLLMENT PROJECTION A
Fall Head Count Enrollments (Colo. Res. & Non-Res.)
Colorado Public & Private Colleges & Universities
(Actual 1960-1969; Projected 1970-1980)

YEAR	Public Sector 2-year	State Cols. 1/	Univs. 2/	Public Total	Private 3/ (CAICU)	GRAND TOTAL
		A C T U A L				
1960	6,050	6,649	23,953	36,652	9,688	46,340
61	6,798	7,089	25,360	39,247	9,476	48,723
62	6,419	8,240	26,533	41,192	9,643	50,835
63	4,232	11,075	28,413	43,720	10,620	54,340
64	5,034	12,938	31,632	49,604	11,334	60,938
1965	6,939	17,713	35,565	60,217	12,343	72,560
66	8,516	20,809	38,267	67,592	12,766	80,358
67	10,718	23,788	41,269	75,775	13,244	89,019
68	14,140	26,158	43,082	83,380	13,779	97,159
69	16,544	28,914	46,484	91,942	14,032	105,974
	P R O J E C T I O N S					
1970	23,694	31,950	46,640	102,284	14,155	116,439
71	26,920	34,783	48,466	110,169	14,277	124,446
72	30,164	37,583	50,348	118,095	14,400	132,495
73	33,387	40,307	52,485	126,179	14,522	140,701
74	36,496	43,042	54,567	134,105	14,645	148,750
1975	39,572	45,911	56,701	142,184	14,766	156,950
76	41,578	48,817	58,843	149,238	14,901	164,139
77	43,243	51,707	61,023	155,973	15,035	171,008
78	44,923	54,650	63,275	162,848	15,170	178,018
79	46,642	57,541	65,617	169,800	15,304	185,104
1980	48,387	60,260	68,026	176,673	15,435	192,108

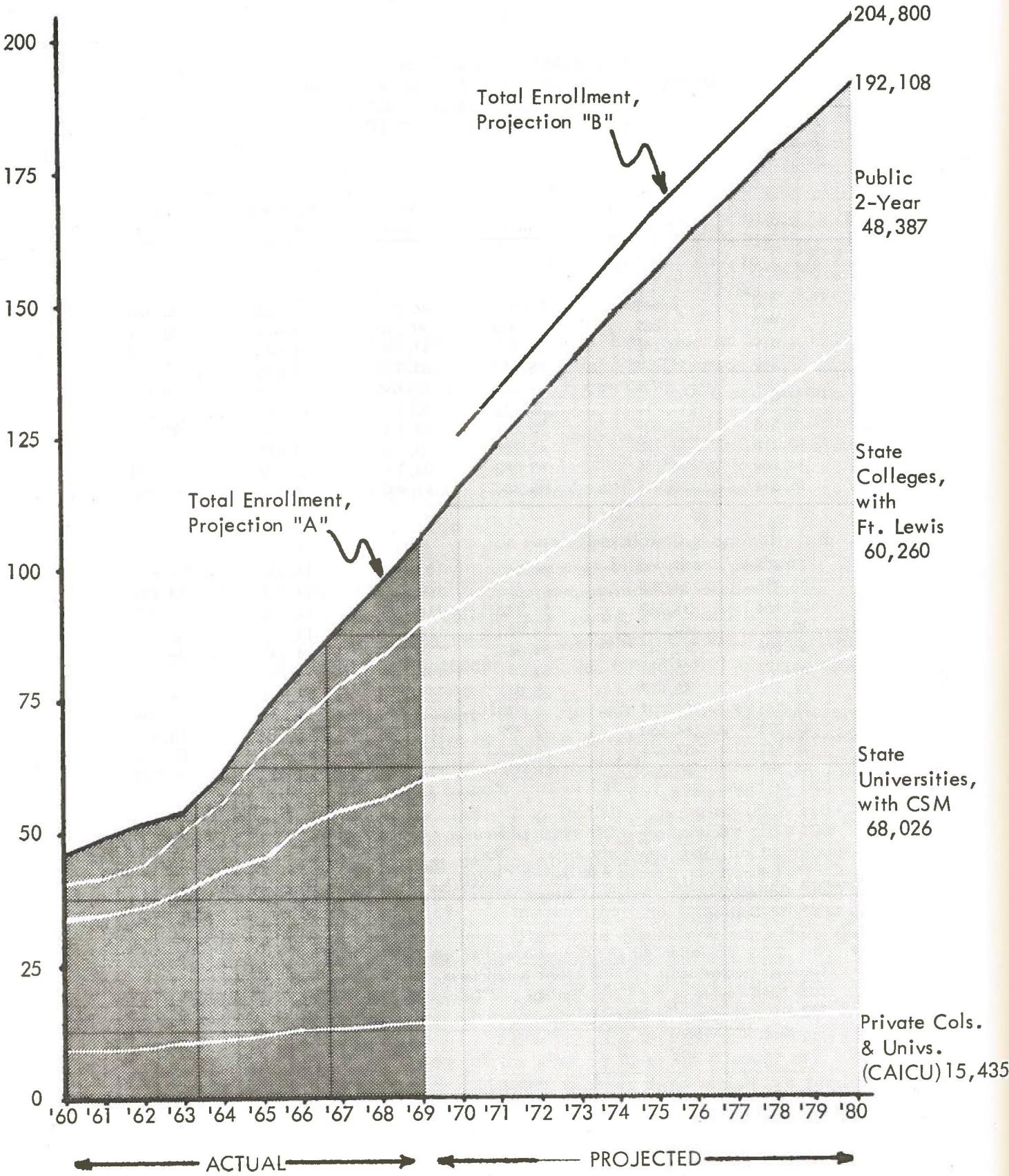
1/ ASC, CSC, FLC (beginning fall 1962; previously operated as 2-year), MSC, SCSC (beginning fall 1963; previously 2-year), WSC

2/ CU (including Colo. Springs and Denver Centers), CSU, CSM

3/ Colo. College, Loretto Heights College, Regis College, Temple Buell College, University of Denver

NOTE: The above tabulation differs from most earlier tabulations in that it includes in the two-year sector adult evening credit enrollments, and in the universities sector actual head counts at the Colo. Springs and Denver Centers, rather than estimated FTE's. Both actual and projected numbers thus are consistent with current reporting practice.

CHART A ● TOTAL ENROLLMENT IN COLORADO PUBLIC AND PRIVATE COLLEGES AND UNIVERSITIES (Fall Headcount in Thousands)



In the development of Projection "A" the facts and methods utilized have been reviewed by the public institutions and revisions have been made by the Commission where additional considerations have been advanced. Estimates provided by the private institutions have been used without change. 1/

Projection "B" is summarized in Table II (following). It is based upon college-going trends county-by-county and is related to estimates of population growth within the counties; it thus does not reflect growth trends institution by institution. To provide a better base for analysis, counties are grouped in 13 areas of the state and potential enrollment demand of Colorado residents is summed for each area. Map 1 (following) showing locations of Colorado institutions of higher education, also delineates the thirteen areas of the state used in Projection "B". Because population data are compiled on a county basis it has been necessary to follow county lines in delineating the areas.

Projection "B" reflects the college-going rates that might be expected if in every county there were as easy access to higher education as there is in seven counties of the state chosen to reflect a desirable range of educational opportunities and urban, suburban, and rural environments. Though the resulting mix of educational opportunities in these counties is superior to that in some areas of the state, the rate of college-going in these seven counties is actually somewhat below

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1/ Details concerning the methods employed, and tables from which the summary information in Table I is drawn, will appear in the Commission publication, Higher Education Enrollments in Colorado, 1960-1980, of Fall 1969. In the estimates for private institutions only CAICU (Colorado Association of Independent Colleges and Universities) institutions are included: Colorado, Loretto Heights, Regis, and Temple Buell colleges and the University of Denver.

Table II

ENROLLMENT PROJECTION B[1/]
Fall Head Count Enrollments
Colorado Public & Private Colleges & Universities

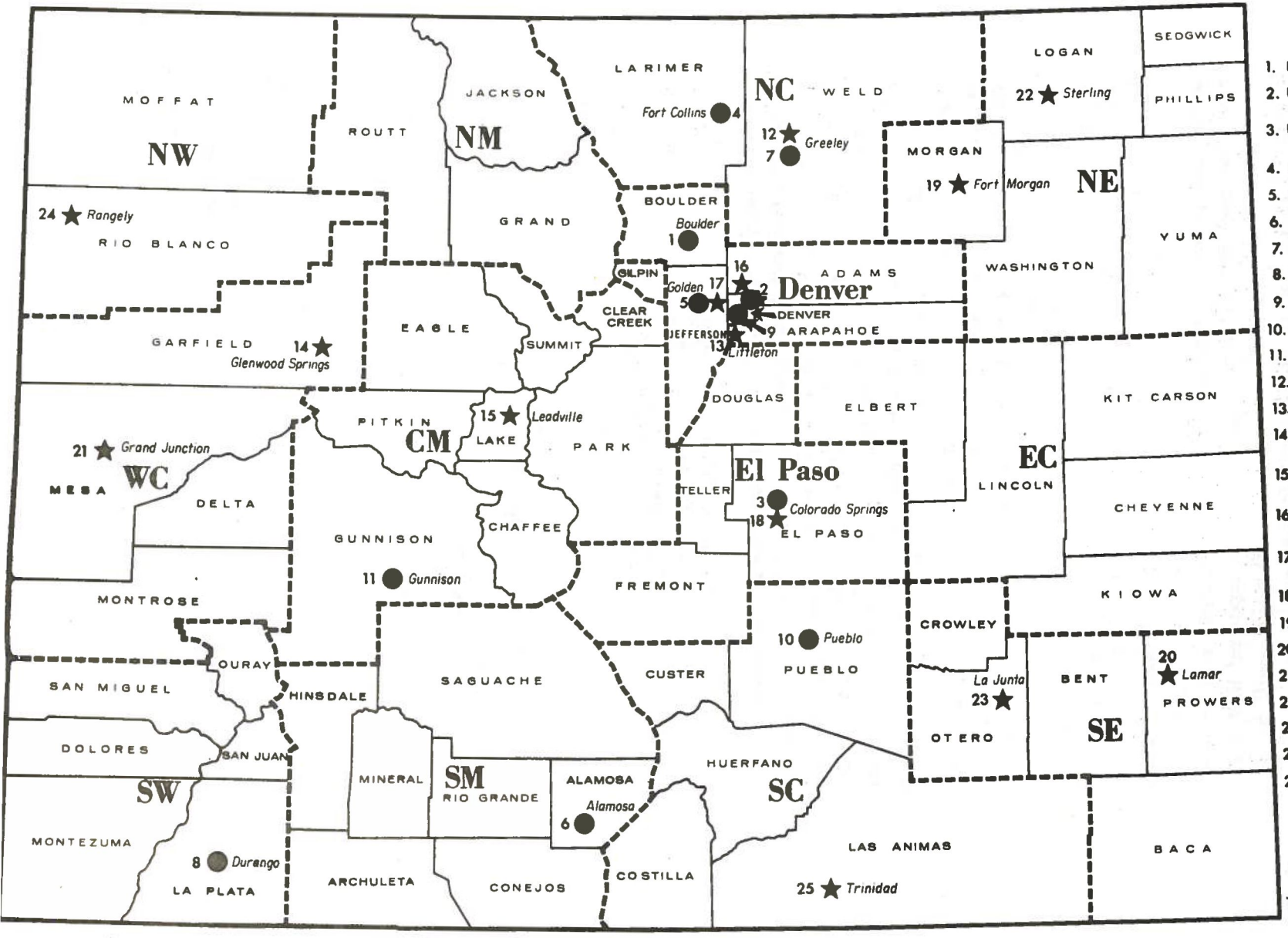
Colo. Residents by Area (est.)[2/]	1968	1970	1975	1980
Denver SMSA	36,402	48,326	74,214	99,289
El Paso	6,271	8,672	12,994	16,701
North Central	5,253	6,565	8,677	10,499
South Central	5,533	7,427	8,374	9,125
West Central	3,777	5,056	6,454	7,416
Northeast	3,203	3,874	4,456	4,584
Southeast	2,103	2,818	3,224	3,511
Southwest	2,055	2,623	3,013	3,445
South Mountain	1,544	2,146	2,493	2,809
Central Mountain	1,187	1,703	2,469	3,252
East Central	888	1,115	1,275	1,369
Northwest	468	657	808	969
North Mountain	395	584	746	871
Colo. Res. Total	69,079	91,566	129,197	163,840
Non-Residents	28,080	33,867	38,591	40,960
TOTAL	97,159	125,433	167,788	204,800

1/ Enrollment Projection B estimates numbers of Colorado resident students coming from 13 areas of the state and adds estimated non-resident students in public & private colleges & universities.

2/ Areas listed from largest to smallest Colo. resident head count in 1975 and 1980.

Map 1

PUBLIC COLLEGES AND UNIVERSITIES IN COLORADO



1. University of Colorado
2. University of Colorado, Denver Center
3. University of Colorado, Colorado Springs Center
4. Colorado State University
5. Colorado School of Mines
6. Adams State College
7. Colorado State College
8. Fort Lewis College
9. Metropolitan State College
10. Southern Colorado State Coll
11. Western State College
12. Aims College
13. Arapahoe Junior College
14. Colorado Mountain College, Glenwood Spri
15. Colorado Mountain College, Leadv
16. Community College of Denv N
17. Community College of Denv W
18. El Paso Community College
19. Ft. Morgan Junior College
20. Lamar Community College
21. Mesa College
22. Northeastern Junior Colleg
23. Otero Junior College
24. Rangely College
25. Trinidad State Junior Coll

● Four-year colleges and unive
★ Community junior college

Prepared by State Division of Public Works
October 1969

the average for the state as a whole.[2/] The pattern of college-going in the seven counties is applied to population estimates for the 15-19 age group in those counties of the state in which the current rate of college going is lower than the seven-county average.[3/]

2/ Projections for 1970 indicate that first time entering freshmen will be 10.6% of the age group in the state as a whole and 10.09% in the seven counties. The selected counties are:

County	Higher Education Institutions in County (1968)
Alamosa	Adams State College
Denver	University of Colorado Denver Center, Metropolitan State College, Community College of Denver, University of Denver, Loretto Heights College, Regis College, Temple Buell College
Jefferson	Colorado School of Mines
Larimer	Colorado State University
Logan	Northeastern Junior College
Pueblo	Southern Colorado State College
Weld	Aims, Colorado State College

3/ The technique involves calculating an average attendance rate (Colorado resident first-time freshmen, or FTF) for the seven counties and applying that rate to the estimated population aged 15-19 of each county in 1970, 1975, and 1980, except those counties in which the attendance rate was estimated to be greater than the seven-county average. Population data are those supplied by the Colorado State Planning Office. The number of Colorado resident FTF has typically represented 15% of total headcount enrollments in Colorado public and private colleges (1960: after adjusting Denver Center to estimated headcount, FTF is 6862 ÷ 46,340 = 14.8%; 1965: adjusting C.U. Centers to estimated headcount, FTF is 13,872 ÷ 72,560 = 19.1%—an above-average proportion in a year when the number of new freshman students was extraordinarily large; 1968: FTF is 14,354 ÷ 97,159 = 14.8%). However it is expected that the proportion of Colorado resident FTF to total enrollment (resident and non-resident) in Colorado public and private institutions of higher education will increase somewhat over the years because it may be expected that non-residents in Colorado public and private institutions will be a decreasing proportion of enrollments in the public institutions, and because enrollments in the private institutions (where two-thirds of the students are non-residents) are essentially stable and hence represent a declining proportion of total enrollments in all Colorado institutions. Accordingly in developing Projection "B" Colorado FTF are estimated to be 15% of total enrollments in 1970, 16% in 1975, and 17% in 1980. Total enrollment-generating capability of each county is computed accordingly and totals are summed for each area.

Projection "B" increases somewhat the numbers expected to go on to college from counties with below-average college attendance rates, but it does not affect estimates of numbers from those counties which now send on to college a proportion as high as (or higher than) the average of the seven counties used as the base. Many factors seem certain to increase further the proportion of the population going on to college in those counties which are at or above the average. Such factors include larger student assistance programs, better focus on needs of minority youth, expansion of commuter colleges, development of better and more effective programs of off-campus instruction, and marked trends among adults to enroll for part-time study.

As a matter of fact college enrollments must be expected to grow at an accelerating rate in some of the most populous counties such as those in Denver and El Paso SMSA's which now send on to college a proportion of high school graduates larger than the proportion in the seven counties used as the base for Projection "B". Studies for the Community College of Denver and for El Paso Community College in 1969 assume that a larger proportion of high school graduates will go on to college than the Commission's projections assume, and on the basis of experience in other states, assume that large numbers of older population groups will enroll in the community colleges. As a result, these studies project substantially more rapid growth of enrollment at CCD and EPCC than the Commission "A" and "B" projections. 4/

4/ Taylor, Lieberfeld and Heldman assume that older students equal to four per cent of the total population aged 21-44 will enroll at Community College of Denver campuses during the projection period to 1980. This assumption leads to the estimate that more than one-third of the full-time equivalent students projected for 1980 will be from the older age group. Taylor, Lieberfeld and Heldman, CCD: Comprehensive Development Program, 1968-1980, (1969), Tables B-1 and B-2, C-1 and C-2. In 1967-68 the percentages of high school graduates going to college stood at 60% in Denver, 61% in Jefferson County, 65% in Boulder County, and 66% in Arapahoe County. In the same year the percentage going on in Adams County was 35%; this was the year prior to opening of the Adams County campus of CCD. In 1968-69 67% of all high school graduates in New York State went on to college according to the New York State Education Department. See also preliminary tables in the El Paso Community College Master Plan study provided by Arthur D. Little, Inc.

Though the Commission estimates in either Projection "A" or "B" appear to be conservative, they have the virtue that they are anchored in the actual trends given by past experience. It is nevertheless true that the advent of significant commuter college opportunities in the heavily-populated areas in the recent past has added a new element for which there is insufficient experience to build their influence into projections for the future. Rather than develop a third projection based upon some particular assumptions about students from older age groups, the Commission simply points to these considerations as virtually assuring that both Projections "A" and "B" will prove to be conservative. The Commission is experimenting with projection models which can be expected to provide progressively more authoritative estimates of future enrollments, as experience of the new commuter colleges grows. 5/

Projection "A" versus Projection "B"

Projection "B" exceeds Projection "A" as follows:

1970:	8,994 (7.72%)
1975:	10,838 (6.90%)
1980:	12,692 (6.60%)

5/ Enrollments are projected in "headcount," i.e., numbers of different individuals, because base data relating to population, high school graduates and the like pertain to individuals. For funding purposes, enrollment growth in full-time equivalent students (FTE) is of primary interest. The Commission anticipates that the development of commuter-type institutions in the heavily-populated areas which embrace the three Standard Metropolitan Statistical Areas of the State (Pueblo, Colorado Springs and Denver) by 1980 will produce larger numbers of part-time students and will reduce the number of full-time equivalent (FTE) in relation to headcount students. Whereas the Commission estimated 1968-69 FTE for state supported institutions to be 74,700 compared with Fall 1968 headcount of 83,380, the 1980 projections indicate a reduction in FTE (150,138) as compared to headcount (176,673). The increase projected for 1980-81 represents nonetheless a doubling of the 1968 full-time equivalent enrollment. This in turn represents an average annual FTE enrollment growth of 5.95% during the 12-year period.

The methods used in developing Projection "A" appear to produce results close to actual experience, in the short run. For example, projections of headcount enrollments in Colorado public colleges and universities for fall 1969, made in the spring of 1969, were 91,588 whereas actual enrollments in fall 1969 were 91,942, a difference of 354 students, less than four-tenths of one per cent. For the early years of the projection period, Projection "B" may be high. However, attention to increasing the proportion of minority racial and ethnic groups going on to college; the continued up-grading of educational requirements by many occupational and professional groups; improvement in the range of programs available in El Paso County and in the West Central area; and the maturing of the new commuter-type institutions in Denver, Colorado Springs and Pueblo, are factors which appear certain to make Projection "B" conservative by the mid-1970's.

While Projection "A" indicates specific figures for sectors of the higher education system and is drawn from estimates of growth institution-by-institution, these numbers may change as a result of policies that remain to be effectuated. For various reasons institutions may alter rates or extent of growth; the Commission or the Legislature may establish size constraints which would have a comparable effect.

It is essential that enrollment projections for the institutions be revised annually, based upon annual experience and improved information. This the Commission is doing. As revisions become available each year, longer-range as well as short-range plans must be reviewed.

Geographic Areas of Prospective Need

As Table II makes apparent, the compression of population in the band to the east of the mountain face and particularly in the five-county Denver Standard Metropolitan Statistical Area creates within the Denver SMSA a demand which by 1980 will represent more than 60% of the total estimated demand of Colorado residents for college opportunity. The enrollment potential in the five Denver SMSA counties is roughly six times that of the next-largest demand generator (El Paso area) and nearly one hundred times that of the least populous area. These observations do not imply that areas other than Denver are of little importance or urgency, or that geographic proximity to educational opportunity is the only significant factor to be considered in expanding educational opportunities. However the great expanse of the less heavily-populated areas contrasted with the limited size of the Denver Area make

it difficult to grasp the fact that three-fifths of Colorado's potential enrollments are generated in a single area which is the smallest of the 13 areas.

Table III (following) sets forth in column 1 the estimated number of persons living in each area who were actually enrolled in Colorado public and private institutions of higher education in Fall 1968, and in column 3, the number of Colorado resident students who were enrolled that year in the public and private colleges and universities located in each of these areas.

These figures indicate that the North Central area (Larimer and Weld Counties) has many more spaces in institutions located within the area than the number of students whose homes are in the North Central area and who are enrolled in a public or private college anywhere in Colorado. These extra spaces are available to, and are filled by, residents of other areas of Colorado or of other states or counties. The South Central, South Mountain, and Central Mountain areas have small "surpluses." 6/

Areas in which institutions now located within such areas lack, by a substantial margin, sufficient student spaces to accommodate current enrollments generated within such areas are the Denver SMSA and El Paso. The deficiencies in both areas would be much larger than indicated in Table III if enrollments in public colleges alone were shown in column 3. Again, to point out the areas of major deficit is not necessarily to recommend that educational facilities be expanded within such areas to provide for these additional needs. Those areas which have a "surplus" of spaces, and particularly Larimer-Weld counties, have major facilities in place which have been utilized largely by students from elsewhere in Colorado, and these facilities should and will continue to be so utilized. However in planning for new or expanded institutions, the condition of deficit or surplus of facilities within the area in relation to numbers of students enrolled in Colorado institutions whose homes are in such areas, is one factor among several that must be taken into account.

6/ Of course it is possible that an area having an overall "surplus" of spaces may lack sufficient places in programs of certain types. The North Central area for example may need additional community college programs.

Table III

Enrollments in 13 Areas: By Area of Student Residence Compared With Area of College Attendance
(1968 Fall Headcount of Colo. Residents in Public and Private Colleges)

Area	Est. Residents of Area Attending College in Colo. 1/ (1)	H. E. Institutions Located in Area (2)	Colo. Res. Enrollments in Public and Private Colleges in Area (3)
Denver SMSA	36,402	CU-Bldr., CU-Den., CSM, MSC, CCD, AJC, DU, LHC, RC, TBC	28,455
El Paso	6,271	CU-C.S., EPCC, CC	2,324
North Central	5,253	CSU, CSC, AC	18,505
South Central	5,533	SCSC, TSJC	6,274
West Central	3,777	MC, CMC-Glen.	3,119
Northeast	3,203	NJC, (Ft. Morgan)	2,093
Southeast	2,103	OJC, LCC	1,338
Southwest	2,055	FLC	1,395
South Mountain	1,544	ASC	2,302
Central Mountain	1,187	WSC, CMC-Ldvle.	2,927
East Central	888	---	----
Northwest	468	RC	347
North Mountain	395	---	----
Subtotal-Colo. Res.	69,079		69,079
Non-Residents	28,080		
TOTAL	97,159 (actual)		

1/ Estimates for each area are based on number of Colo. resident first-time freshmen (FTF) from area in 1968 and on proportions FTF are to total Colo. resident head count.

It should be noted also that there are large areas within the state which are so sparsely populated and lacking in urban centers that even by 1980, barring developments that cannot now be foreseen, the potential for enrollments generated within such areas is insufficient to justify any institution of higher education. Steps must be taken which will bring some equity in the availability of educational opportunity throughout the state, even though it is not possible to build a comprehensive community college and university within easy driving distance of every resident.

Extension Programming

Beyond the college and university campuses where the lion's share of educational programming is available, credit course offerings through extension programs serve in a limited way to expand educational opportunity. During the academic year 1968-69, 15,604 enrollments in 875 credit courses were reported in 40 of the 63 counties of the state by seven four-year and four two-year public institutions. 7/

The number of course enrollments is roughly equal to the number of courses that would be taken by 1,000 full-time equivalent students. Considering the wide expanse of the state, it is a limited program.

Approximately 80% of all extension credit enrollments in 1968-69 were in 10 of the 40 counties in which extension courses were offered. With the exception of Mesa County and of Fremont County (where Southern Colorado State College conducts a significant extension program in Canon City), all of these 10 counties are in the urban belt stretching from Larimer south to Pueblo County. Thus, the remaining 20% of enrollments were spread through 30 counties across the state. Excepting Montezuma County (Cortez) and a single course enrollment in Durango, no extension courses were offered in nine counties in Colorado's southwestern corner. The thinly-populated mountain counties of Gilpin, Clear Creek, Summit, Park, and Teller, and the High Plains counties of Sedgwick, Phillips, Washington, Elbert, Lincoln, Cheyenne, Kiowa, and Bent are other blank spots on the extension map.

Sixty percent of the extension credit courses offered, and more than two-thirds of the total enrollments, in 1968-69 were in the four fields of education, social sciences, psychology, and business.

7/ See Appendix A, Tables 1-3.

Other fields in which there were 150 or more course enrollments (1% of the total enrollments in all extension credit courses) were English (781), computer science (639), mathematics (611), art (558), speech and drama (473), engineering (366), trade and industrial (314), medical support services (276), biological sciences (171), and physical training (155).

Extension programs have been developed in Colorado largely by those institutions which have been willing to respond to requests for specific course offerings from groups of persons large enough to assure that course fees will cover the out-of-pocket costs of the instruction. In 1968-69 six institutions offered virtually all of the credit extension work--the University of Colorado, Colorado State University, and Adams, Colorado, Southern Colorado and Western State Colleges. Adams and Western State ranged through 21 and 18 counties, respectively; CSU worked in 16, Colorado State in 12, and the University of Colorado in nine. SCSC had the largest program of all, aggregating 278 courses and 4,082 course enrollments, but with the exception of two courses in its home county the SCSC program was limited to Canon City and Colorado Springs. Metropolitan State College and five junior colleges, (Aims, Arapahoe, Colorado, Colorado Mountain, Otero, and Rangely), each offered a very few credit courses in a single county. It should be pointed out that most of the two-year institutions participate in the extension programs of four-year institutions through making classroom facilities available and, indirectly, through occasional employment of junior college faculty personnel by the institution sponsoring the extension program.

It is apparent that little effort has been made by the institutions of higher education to develop their off-campus credit programs as their on-campus programs have grown. A major reason for this relates to institutional structure and administrative policy. Staff reponsibility for the support and development of extension programming is typically centered outside the regular academic departmental structure. Consequently, the teaching of extension classes has tended to be regarded as a diversion of faculty effort from the primary academic mission of the department, with performance in such activities largely excluded from those considerations related to advancement in rank or salary.

Placed outside regular departmental budgets and without funded program development plans, support for extension courses has been limited largely to the income these courses generate. Related to this practice, instructional services for extension have been supplied primarily on an overload basis, with additional payment in very small amount to the instructor, or through employment of the extra-time services of instructors

of other institutions located in the area where the course is offered. The state has not undertaken an extension policy under which full-time faculty are employed for extension course offerings. Under the circumstances it is not possible to predict what the demand for extension courses and services would be if planned sequences of courses were to be offered in specified localities, scheduled over a period of years so that such sequences might be used in building toward specific academic objectives.

The exciting potential of television links, through direct electronic ties and through the circulation of videotapes by courier or by the U.S. mail, is being demonstrated by special programs initiated by Colorado State University with partial support from the National Science Foundation. In the "SURGE" program at CSU and the "ACE" program at CU, videotapes are made of actual class presentations in a number of engineering-related subjects. These tapes are circulated to cooperating companies where qualified employees may enroll in the courses for degree credit. In project CO-TIE, CSU is cooperating with a group of two-year and four-year institutions to provide instruction by videotape and TV lectures in selected freshman and sophomore engineering courses. Course credit is awarded by the cooperating college. These efforts strongly suggest a potential for provision of broader programs of instruction in communities remote from campus centers.

The SURGE, ACE, and CO-TIE projects utilize tapes or electronic circuits which limit the audience, unlike open-circuit broadcasting which is available to the broad audience of TV set owners. Obviously open-circuit broadcasting has a tremendous potential in extending educational programs and services to the widest possible audience beyond the college and university campus. The state has not, in the past, provided subsidy for open-circuit educational television. Efforts to activate Channel 8 as an educational television station at Southern Colorado State College, under way for several years, are now close to fruition. Possibilities of expanding extension programming through open broadcast television as well as through "closed circuit" approaches such as SURGE and CO-TIE, have been demonstrated in other states in which educational television stations have been operating for many years. Television undoubtedly presents the opportunity for new and possibly more effective means of providing extension programming than large field organizations, and further challenges the institutions and the Commission to re-evaluate efforts of the past in extension services.

It seems evident that overall planning and direction of extension programs, together with revised policies under which state tax funds are allocated for such programs, might make it possible for extension

programming to serve more effectively some of the areas of the state where residential or commuter colleges are not available. Exploitation of the potential of television and other electronic techniques will assist.

This area of academic programming calls for the coordinative and planning efforts of the Commission working in cooperation with the institutions. The Commission is well aware of the charge given in the Act establishing the Commission that it "Develop a unified program of extension offerings, recognizing the responsibility of the state to provide to the extent possible higher education in communities remote from a campus and the need to integrate the extension functions of state-supported institutions of higher education." The Commission wishes to exercise greater leadership in this area than its resources taken together with other pressing issues have permitted in the past.

Needs in The "Deprived Community"

In recent years the serious economic and social deprivation of large numbers of Americans, long unseen by dominant groups in the "affluent society" or accepted as one of the "givens" of life, has emerged as a problem that can be and must be overcome. While the process of overcoming long-standing inadequacies involves virtually all aspects of public life and effort, and in education at present gives emphasis to pre-school and the elementary-seconday school years, the institutions of higher education have a particular obligation as well since teachers and leadership groups generally are prepared in the colleges.

In Colorado, public policy in reference to large segments of the deprived community must be developed without the base of facts that would help form that policy, for specific facts are not available. We do not know how many youth there are of minority racial and ethnic backgrounds within census age groups in particular geographic areas; or how many of the age group are enrolled at various school grade levels; or how many of the age group graduate from high school; or how many of the graduates, or of the age group, enter college; or how many graduate from college. Such information is not available because the collection of such data has been deemed distasteful to the persons involved and in some cases unlawful.

Studies in other states repeatedly have shown that parents of college students are in higher income groups, are more predominantly in professional and other white-collar positions, and have higher educational

attainments than the general population. 8/ In other states and undoubtedly in Colorado, the proportion of minority youth graduating from high school is below that of whites, and the proportion of minority youth entering college similarly is below that of whites and far below the needs of the entire community for minority leadership.

The deprived community in higher education includes not only large numbers of economically and educationally disadvantaged youth of all racial and ethnic components and especially of minority backgrounds, but it may appropriately be said to include other groups which the traditional residential colleges and universities have not served well. This group includes some 185,000 Coloradoans aged 65 or over who may seek new skills or insights either for purposes of employment or for general education; persons young and old whose interests and talents lie in occupational rather than academic or professional areas; the physically handicapped.

In Colorado until very recently, educational opportunity has been restricted to an excessive degree to those who sought an academic education and who could arrange, financially and otherwise, to leave home for college. Not only have students found it necessary to move to those opportunities which involve added costs of room and board, but in addition most of the college spaces have been available in relatively small communities with many fewer employment opportunities than the large cities offer.

Proximity to employment opportunity is a major factor in determining who may go to college. A study undertaken for the Commission concerning economic and other characteristics of students attending Colorado public four-year colleges in Fall 1967 reveals significant differences among the colleges in the proportion of students who undertake employment while enrolled in college, and in the proportion working on-campus as against off-campus. The urban institutions, Metropolitan State College and Southern Colorado State College, had the largest proportion of the student body employed (MSC 69%, SCSC 54%). At the other end of the

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8/ See e.g., E. V. Hollis, Costs of Attending College: A Study of Student Expenditures and Sources of Income (Washington, D.C., 1957); E. Sanders and H. Palmer, The Financial Barrier to Higher Education in California (Claremont, California, 1965); W. Sam Adams, Economic Characteristics of Students Attending Colorado State Colleges and Universities During the Fall Term 1967 (Denver, 1969), pp. 47-48.

scale were Western State College with 22% employed and Adams State College with 28%. It was at MSC and SCSC also that the largest proportion of students worked off-campus (MSC 66% off-campus, 3% on; SCSC 48% off, 6% on). At Western State College on the other hand, 11% worked on-campus and 11% off-campus; at Adams State College 18% worked on and 11% off-campus. It seems obvious that opportunity for the student to undertake additional employment--or for employed persons to take advantage of nearby educational facilities--is enhanced in the urban environment. 9/

The same study demonstrated that only 31% of the total expenditures of the average student in these institutions went for direct educational costs (tuition, fees, books and supplies) while two-thirds of his total expenditures went for normal living costs. These findings are entirely consistent with other student expenditure studies. 10/ The Colorado study documents how expenditures by students living at home are substantially reduced by "out-of-pocket" savings of board and room charges.

The Colorado system prior to the mid-1960's was an adequate "fit" for the middle-class community whose children sought an academic education in a residential college, but an inadequate one for adults and for urban youth generally. In a period when rapidly-increasing numbers of college-age youth have required the provision of additional educational institutions and programs, substantial headway has been made in bringing better balance to the Colorado system as commuter college opportunities have been opened--Southern Colorado State College in Pueblo in 1963, Metropolitan State College in 1965, Arapahoe Junior College in 1966, Aims College in Greeley in 1967, and the Community College of Denver and El Paso Community College in 1968 and 1969. These commuter-type institutions are the fastest-growing institutions in the system. Their growth attests to the long-standing need for such opportunities to complement the earlier Colorado system of higher education.

Student Financial Assistance

While the provision of a wide range of educational programs "where the people are" represents the most direct and effective way to expand educational opportunity, adequate programs of student financial assistance are also needed in order that economic barriers to

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9/ W. Sam Adams, pp. 156, 160.

10/ See e.g. E. V. Hollis, op.cit.

college attendance may be reduced.

For many years in Colorado, the state institutions of higher education have been authorized to reserve a portion of income from tuition payments for allocation for student aid. Prior to 1966 a program of "Honors Scholarships" was funded through this mechanism, and other grants were made on the basis of need, services rendered to the institution, or skills such as music performance and athletics.

The Commission adopted, in December 1968, guidelines for the allocation of tuition income funds by the state institutions, as follows:

> The principal use of tuition income funds for student financial aid should be for awards based primarily upon need. This implies that substantially more than half, and typically three-quarters or more of such funds should be awarded to students according to need. In these cases any other criteria will be secondary to need.
>
> Remaining awards may be based upon services rendered to the institution (as for support for instruction, dormitory, or similar programs), and honors for performance in academic, artistic, or athletic pursuits. In making such awards, need should also be taken into account.
>
> Because of prior commitments to students now enrolled, it is to be expected that the distribution indicated above may be reached progressively during the next three years.

Tuition income funds available for student financial assistance have been steadily enlarged by the Legislature and in 1969-70 stand at $3,985,000 in the two-year and four-year public institutions, an increase from a level of $1,146,500 in 1962-63. Though the numbers of dollars have grown substantially, these funds represent, in 1969-70, only 11.8% of total expected tuition revenues as compared to 10.6% in 1962-63.

Federal programs of aid for students who can demonstrate financial need have assumed major importance since initiation of the loan program of the National Defense Education Act of 1958. Subsequent federal programs include College Work-Study (1964), Educational Opportunity Grants (1965), and for students without respect to need, the Federally Insured Student Loan Program (1965). There are also programs of

aid to students in preparation for nursing, medicine, and law. Funds made available to Colorado students in 1968-69 by the three federal programs having a need criterion were as follows:

NDEA Loans--principal amount	$2,851,185
Economic Opportunity Grants	1,954,080
Federal Work-Study Program (Cal. Year '69)	2,373,254
	$7,178,519

In addition, under the Guaranteed Loan Program, 11,295 federally-insured loans were made to Colorado residents in 1968-69 in a principal amount of $10,933,537.

Rising college costs and living costs represent one of the bases for needed expansion of student aid funds. Even more significant has been the increasing number of young people desiring to go to college who can go only with substantial financial assistance. The numbers of persons who can benefit from college but who lack incentive or ability to go primarily for economic reasons are not known, and in a precise way may be unknowable. That there are large numbers of such students is known from the pressures upon many of the colleges at this time for additional help for minority student programs. It is strongly indicated also by the fact that in 1968-69, when $7,178,000 was available in Colorado through federal NDEA loan, grant, and work-study programs, the colleges urgently requested $10,190,000 for those programs--$3 million more than was available.

In the face of rapidly-increasing demand for financial aid and limitations in funds for the authorized federal programs, the Colorado Legislature initiated two programs in 1969. A work-study program to be administered by the state colleges through the Commission will provide $300,000 for student employment, with the provision that 70% of the available sums must be allocated for employment of students according to need and 30% on a basis other than need. The second program provides assistance to members of racial and ethnic minority groups who will agree to teach in Colorado for a period of two or more years after receiving a teacher's certificate or other necessary qualifications to teach. An appropriation of $75,000 was made for the initial year.

Public officials long have held and the people of the state of Colorado have long recognized that higher education is vital to the general welfare and that it has been a prime factor in the continuing economic growth of the state. Dollars expended for financial support to a student who can go to college only with such support would seem

no different in effect from dollars expended to provide space, equipment, and faculty for another student who can afford to go but who can go only if a place is provided for him. In both cases the state is providing an essential, constitutionally-ordained state service. The Commission is working with representatives of the colleges and schools to formulate appropriate state student assistance programs which, with the federal programs will assure that economic barriers to college attendance are eliminated.

In Summary. . .

The assessment of current and prospective demands for education beyond high school in Colorado in the decade to 1980--demands estimated on the basis of population growth and college-going trends, only--has revealed a number of salient facts:

• By 1980 enrollments in the two-year and four-year public colleges of the state, whether projected on "status quo" assumptions which reflect past growth trends or on assumptions of some continued improvement in the mix and distribution of educational institutions, will grow in absolute numbers by about 85,000 and in relative terms, will nearly double.

• Enrollments in the private colleges will grow very little. While Regis College anticipates doubling its current size by 1980 (to a total of 2,370), the five CAICU institutions including Regis anticipate adding a total of only 838 Colorado resident students during the period as their total enrollments move from 13,779 in 1968 to 15,435 in 1980. It is possible that some shifting of enrollments from out-of-state to Colorado resident might be brought about through state programs that would reduce costs of attendance to Colorado students. It is possible also that new private institutions may be established or that some of those now in being which are not accredited 11/ may attain accreditation and may grow in enrollments. Nonetheless, as valuable a

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11/ E.g., Colorado Western College and Rockmont College. Colorado Alpine College (formerly Yampa Valley College) has been acquired by and will be operated as a branch of United States International University (of California), an accredited institution, but it is expected that it will attract students from a national rather than a local or Colorado market. St. Thomas Seminary College is an accredited institution which is not a participant in CAICU; but the number of Colorado residents enrolled now or likely in the future is not a significant one for statewide planning purposes.

resource to Colorado as the private colleges are, it seems apparent that these colleges will not assist materially in meeting the additional demands of Colorado residents for higher education opportunity.

• Of the additional youth and adults who will seek higher education opportunity by 1980, more than 50,000 will live in the Denver Standard Metropolitan Statistical Area--Adams, Arapahoe, Boulder, Denver, and Jefferson Counties. Nearly ten thousand more will live in El Paso-Douglas-Teller counties.

• From the point of view of locations of present two-year and four-year colleges in thirteen areas of the state, the areas which have the largest numerical gap between the demand for places in college and the supply of places within the area are in the Denver and El Paso SMSAs. By 1975, the West Central area embracing Delta, Garfield, Mesa and Montrose Counties should be added, both because of expected population growth and because Mesa College will be approaching a size at which enrollment limitations will become necessary.

• One or more public colleges are located in all of the 13 areas of the state except the East Central area (Elbert, Lincoln, Kit Carson, Cheyenne, and Kiowa Counties) and the North Mountain area (Grand, Jackson, and Routt). A branch of an accredited private institution is located in the latter area. In these two areas the small size and lack of concentration of population and the slow rate of population growth make it unlikely that, barring unforeseen developments, it will be feasible or desirable to establish any form of public higher education institution during the projection period to 1980.

• In terms of the supply of student spaces in institutions located within each of the 13 areas in comparison to demand for college opportunity generated by the resident population of each of these areas, Larimer and Weld Counties constitute the only area of the state with a significant "surplus" as so defined.

• A definition of the "college-age population" as the age group 18-21, if it was ever accurate is accurate no longer. In a genuine sense all of the population over age 17 (and a few persons 17 and under) are of college age, and a rapidly rising proportion of this massive age group is in fact going to college--many in non-traditional ways, picking up a course here and an institute or seminar there, but swelling the demands upon the colleges nonetheless. A substantial increase in the proportion of recent high school graduates who go on to college is also in the making as the college-going tendencies of middle-class

families are extended to groups within the population from which too few college students have come in the past.

• Though it is a great challenge to the states to provide higher educational opportunities within reasonable distance of the citizenry, educational opportunity is a matter of more than geographic proximity. A student seeking an education in law is assisted little by living next door to a college of mineral engineering. The range of programming is a second major element in educational opportunity, and financial feasibility through low costs, opportunities for employment, and/or financial assistance constitutes a third. "Accessibility" in terms of geography, comprehensiveness of program, and low cost has been achieved in Colorado at the secondary school level. The challenge of the years ahead is to continue to extend accessibility to education on the post-secondary level.

• Programs of student financial aid have grown significantly in recent years. During the past year, from state and federal sources alone, more than $5 million in grants, $2.3 million in work-study funds, and $13 million in loans have been utilized by Colorado students--an average of nearly $250 for every college student enrolled in the state. Nevertheless the demand for grants, loans, and employment exceeds the supply by a wide margin--a margin that is further widened both by continually rising college costs and by the growing success of efforts to encourage disadvantaged students to improve their educational qualifications.

Chapter 2

PLANNING FOR GROWTH: THE ISSUE OF SIZE

The additional tens of thousands of Colorado youth and adults who will seek places in the colleges of the state may be accommodated by expanding the present institutions or creating new ones, or some combination. Where expansion should occur and where it should not, and where new institutions should be located and for what purposes and numbers of students--these are questions which will determine how well Colorado's higher education system fits the needs of the state, and at what cost. They therefore are crucial questions; and they are questions which, in Colorado as in most of the states, have been largely ignored in years past.

In the past, growth within the system has occurred without the benefit of benchmarks provided through a longrange, statewide plan. Individual institutions have taken additional students if sufficient sleeping and dining spaces could be provided and the needed chairs brought into the classrooms. New buildings have been constructed when the student load grew large enough. New institutions have been created when the pressure of numbers in particular communities grew strong enough--and even when sufficient community pressure could be mustered to create a college, without particular regard to the availability of an adequate cadre of local students to fill the classes. The product of an unplanned total system is a number of institutions so located that they are uneconomically small and may forever remain so. The product of an unplanned total system encompasses several institutions which are rapidly approaching full utilization of available academic space. The most damning product of an unplanned system has been the abundance of spaces in residential colleges and universities and the absolute lack, until very recently indeed, of any full-credit public commuter colleges in the Denver and Colorado Springs metropolitan areas where three-fifths of the population resides.

Confronting the on-going increases in growth it may be unthinkable to proceed in the unplanned way of the past; but there are substantial forces of inertia and of institutional and community self-interest which may lead the state to do so. No Colorado public college or university has attained a range of programming and a size which it regards as its optimum. No present institution is likely to consider itself favored by the imposition of restraints upon its growth which are placed there

precisely in order that the state may strengthen programs and facilities of the new commuter institutions in the urban areas.

Yet, the circumstances which made the growth patterns of the past understandable, prevail no longer. All of the four-year colleges excepting Fort Lewis have attained a size which permits reasonable breadth in programming and economies in operation, and Fort Lewis should do so before the mid-seventies. Thus one major reason for growth of institution enrollments no longer prevails within the four-year sector. Some institutions now approach the limits of space without acquisition of expensive real estate or disruption of major traffic arteries at the campus boundaries.

Moreover prior to the 1960's the unpatterned growth of the past was found to be acceptable because the numbers of students--and the dollars involved--increased slowly enough to be accommodated without major disruption in other programs. Furthermore until recently there was no means within most states to initiate statewide planning for higher education for with a few exceptions there were no central state agencies having a comprehensive responsibility to assess needs and recommend plans from a statewide point of view. Most states during the decade of the 1960's have created such agencies.

Size Concepts for Planning

Many but not all of the Colorado institutions have in fact been building their campuses against size concepts which, though not viewed as ultimates, have been established with deliberation. It is essential for institutional as well as for statewide planning that a concept of ultimate planned size be established for each institution and that these concepts guide the expansion of programs and facilities for present institutions and undergird the consideration of where new programs and institutions are to be located.

In preparation for these and other determinations relating to a statewide higher education plan the Commission in May 1968 requested each institution or governing board to advise whether it had identified an optimum size for on-campus instruction; what considerations had entered into that determination if made, or what factors would point to particular enrollment targets if no such decision had been taken. Information in the following paragraphs comes in part from these reports and from other official documents filed with the Commission.

The Colorado School of Mines for many years has programmed

new facilities and its land acquisition policies on a plan for 2,500 students. Following studies in 1968-69 which indicate that space utilization can be improved in some areas the Trustees of the School have adopted a planning target of 3,000.

Colorado State University has declined to propose a size concept for planning, pointing out that there are no proven guidelines for maximum enrollment and that "continuous growth will be reflected at an institution which is attempting to parallel expanding knowledge with new programs." In 1968 the University projected its enrollments to 1980-81 by which time growth trends would produce a headcount enrollment of 26,000.

It is to be noted that two years previously (1966), in program planning for the expansion of the Student Center, the University determined the space and financial requirements of this all-campus facility for 20,000 FTE students.

The University of Colorado for a decade has been planning against an assumed ultimate size on Boulder campus of 25,000. This was the number recommended by John Carl Warnecke and Associates in a 1959 study of "Long Term Land Requirements;" and it has consistently been regarded as the maximum--larger than some at the University wished--without a major and costly reorganization of programs and spaces. In view of the substantial development since 1959 of research and of graduate programs--both being consumers of space--it seems likely that the space which in 1959 was deemed adequate for 25,000 students would not be deemed adequate for that number today.

No size concepts have been adopted by the University for the Centers at Denver or Colorado Springs. Establishment of such plans is an important element of role definitions inherent in this report of the Commission.

The master plan for Adams State College in 1967 established the maximum enrollment of the institution at "approximately 4,000" students, except that it provided that this number should be 5,000 contingent upon the incorporation of a vocational-technical education function within the college program. The formation of an Area Vocational School at Monte Vista and its funding by state and local action in 1969 makes it appropriate to acknowledge the 4,000 number in the master plan.

With assistance of Frank L. Hope and Associates, Colorado State College prepared a master plan in 1965-66 based on target enrollment of 10,000 FTE, though consideration of "flexibility" for expansion

beyond 10,000 was one of seven factors used in appraising several alternatives for campus development. In its Fall 1968 report to the Commission the Trustees of the State Colleges presented statements indicating that the College "has under study the hypothesis that it can best serve the state and maintain its quality by setting a tentative limit, for at least the foreseeable future. . . beyond which the institution will not seek to grow, barring radical changes in future conditions. . . ." The limit was 15,000 students, which the report indicated would equal 14,100 FTE. The new library building under construction in 1969 at CSC was programmed for 10,000 FTE.

Metropolitan State College has developed all of its planning, including site selection and phases of master and program planning, on an assumed ultimate size of 20,000 FTE students in day and evening programs. This target is generally consistent with the enrollment projections first developed for the College and presented by the Trustees in December 1963 pursuant to state law, showing an estimated 18,212 FTE in 1980-81. Actual enrollments in the initial four years have closely paralleled those projected in the Trustees' planning document.

Southern Colorado State College in 1962 was master planned for 5,000 FTE students at the new Belmont Site. Among other factors, growth of enrollments beyond the numbers projected led the Trustees in 1967 to revise the master plan on a concept of 10,000 FTE students. In the Fall 1968 report to the Commission the Trustees provided enrollment projections indicating 9,995 headcount (=8,655 FTE) students in 1980.

Western State College anticipates approximately 4,000 headcount (=3,850 FTE) students by 1980 and for reasons of the size of the community in which it is located as well as for educational reasons, it regards this number as an appropriate maximum. A master plan for the College is in preparation which is based on an enrollment of 4,000 FTE.

No size for planning has been established for Fort Lewis College. An initial plan for the College prepared in 1962 advised that "Because of the potential of the proposed academic program, it would be unwise to set an enrollment ceiling beyond which the College would not expect to grow." In its Fall 1968 report to the Commission the College declined to suggest an ultimate size.

Planned enrollments in the two-year college sector are summarized below.

Aims College - No enrollment target established. The master plan completed in November 1969 is based on 3,124 fiscal year FTE in 1980-81, but argues that this number is conservative.

Arapahoe Junior College - Program plan for total College facilities established maximum at 2,625 FTE day students which, with evening, summer, and off-campus students is expected to represent 4,175 fiscal year FTE and about 7,500 individuals.

Colorado Mountain College - Master plans for Glenwood Springs and Leadville campuses developed in 1967 have been subject to review by the College and State Board for Community Colleges and Occupational Education but have not been formally presented. In the College report to the Commission in Fall 1968, an upper limit of 2,000-3,000 FTE for each campus was suggested but it was stated that before this number is reached the College would probably establish a third, and possibly a fourth campus within the college district in order to preserve relatively small size and meet the needs of a large district in which travel is confined by natural barriers.

Community College of Denver - No enrollment targets yet established; master planning is in process.

El Paso Community College - No enrollment target established. Master plan is in preparation.

Lamar Community College - Master plan (1963) envisaged ultimate size of 1,000 students; College report of Fall 1968 stated that it was concerned to provide a minimum enrollment of 750 day FTE students and that when this had been attained, the College expected to be able to accommodate up to 1,250 day FTE students.

Mesa College - In 1960 a College plan projected development to an enrollment of 2,500 day students. As this number is approached and the building plans formulated in 1960 are realized, the College is revising the master plan, envisioning a campus to accommodate 3,000-3,500 day FTE students.

Northeastern Junior College - Master plan (1966) was based on target enrollment of 3,000. The Student Center which opened in 1968 was programmed for 3,500 students.

Otero Junior College - Master plan (1964) was based on a target of 1,100 FTE students, to which the College continues to subscribe.

Rangely College - No information has been furnished the Commission which indicates any enrollment concept for planning purposes.

Trinidad State Junior College - Master plan (1967) envisions an ultimate 2,900 students with a "First Phase" development at 2,200 students.

What is the "Optimum Size"?

"Optimum size" represents a concept of that size at which maximum effectiveness as an educational unit is achieved within the limits of available or projected financial, physical, programmatic and staff facilities.— Given the opportunity to establish planning targets before institutions are "too big", optimum size should be the ultimate size planned for. A concept of optimum or ultimate size is subject to review and modification on the basis of new evidence. However because of the applications to which this particular idea is put in acquiring land, establishing the range of the academic program, planning and constructing buildings, and providing personal and financial resources, modifications in the planned size concept create large waves that travel to many shores. Fortunate is the institution that can be planned from the beginning with a size concept that is consistent.

The determination of size concepts should be the product of a deliberate master planning process. Major elements pertaining to the institution which should be assessed include:

(1) Educational (programmatic): considerations of number, variety and levels of academic programs to be offered; numbers of students required to justify numbers of faculty implied by such programs; nature of the institution as a commuter or residential college. From the standpoint of "college atmosphere" and of desirable student/faculty and student/faculty/administration interaction, when are the desirable limits of size reached?

(2) Managerial: considerations of efficiency in provision and utilization of physical plant and of "overhead" personnel for general administration and academic support. Are there "economies of scale" in the educational enterprise? "Diseconomies"? At what point is efficiency maximized in relation to academic effectiveness?

(3) Geographic: considerations pertaining to the available site

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1 / Definition adapted from Institutional Size and Capacity, A Report to the Illinois Board of Higher Education, Master Plan Committee L,

and to the community in which the college is located. What is the impact of the institution's size upon the community in respect to physical elements such as commercial facilities, streets, and utilities but also in respect to the more subjective components of a "style of life"? How much land is required by all of the academic and support functions that accompany higher education enterprise today--residential (if relevant), recreational, administrative service, and parking as well as basic academic?

Apart from factors inherent within the institution such as the above are considerations relating to the system of higher education as a whole. The state may wish to place enrollment constraints on institutions as a matter of policy, in the belief that education of quality is promoted in institutions that do not grow beyond some particular size; or in order to disperse college programs and facilities through the state rather than concentrate them in a limited number of places; or in order to provide new types of education (as in commuter colleges) in lieu of promoting growth in the older institutions.

The earliest statewide effort to establish size guidelines for institutional and systemwide planning was made in the California Master Plan of 1960. Minimum, optimum, and maximum numbers of "full-time" students were recommended as follows:

Type of Institution	Minimum	Optimum	Maximum
Junior Colleges	400	3,500	6,000
State Colleges			
In densely populated areas	5,000	10,000	20,000
Outside metropolitan centers	3,000	8,000	12,000
University campuses	5,000	12,500	27,500

The Coordinating Council for Higher Education in California in 1964 modified some of these numbers and relaxed their apparent rigidity. It omitted reference to "optimum" size: 2/

	Minimum	Maximum
Junior Colleges	900	5,000-7,500
(These numbers could be changed if either isolation or density of population warrant.)		
State Colleges		
In densely populated areas	5,000	17,500-20,000
Outside such areas	3,000	9,500-12,000
University campuses	5,000	25,000-27,500

2/ California State Department of Education, A Master Plan for Higher Education in California, 1960-1975 (Sacramento, 1960), pp. 111-112; CCHE, The Master Plan Five Years Later (No. 1024, March 1966,) p. 16.

A California study in 1964 stated that economies of operation "begin when a range of between 3,000 and 5,000 students are being served by a state college." For a university the report indicated a range of 5,000 to 7,000 students. 3/

Subsequently several other state coordinating bodies have studied questions relating to size and in some cases have established size planning guidelines. A task force drawn primarily from colleges and universities appointed by the coordinating board in Illinois (1966) declined to state optimum sizes for institutions but advised that new four-year commuter colleges should be established only if they would attain 2,500 FTE within four years and 5,000 FTE within eight. 4/ Concepts shaping the provisional master plan in Tennessee (1969) call for a minimum size for state colleges of 3,000; they call for a maximum size for the University of Tennessee(Nashville) of 27,000 to 28,000, and for Memphis State University of 25,000. The Texas master plan (1969) proposed no minimum or maximum size for state colleges but its recommendation for the establishment of six new baccalaureate institutions assured that each of the six would enroll at least 2,000 (headcount) students by the third year of operation. In the third year the median size of these six colleges would be 3,900. For universities no general size criteria were proposed, but limitations were established for the University of Texas (Austin) at 35,000 and for the University of Houston at 30,000. Studies in Missouri and Michigan are reported which suggest a minimum of 3,000 FTE for four-year colleges. 5/ The Coordinating Council for Higher Education in Wisconsin has proposed a limitation of the University at Madison to 42,000.

In the two-year sector, California's present guideline of a minimum of 900 full-time students is comparable to that of Texas (1,000 FTE by the fifth year). It is substantially larger than the minimum figure of 500 in Minnesota, but both California and Texas coordinating boards have recognized the need for exceptions to their larger numbers, in order that relatively sparsely settled areas might be accomodated.

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3 / California's Need for Additional Centers of Public Higher Education, December 1964, p. 13.

4 / Master Plan Committee L, op. cit., p. 2.

5 / Richard Browne, Background Papers Prepared for the Advisory Committee to the State Council of Higher Education for Virginia (1969).

It seems apparent that though the numbers of students required to mount an acceptable range of two-year or baccalaureate programs on a reasonably efficient basis can be calculated, the present state of knowledge of educational outcomes and of cost elements, together with the large number of variables in program, locational circumstances and other factors, does not permit the derivation of authoritative guidelines to optimum or maximum size. Maximum sizes set for certain institutions in Tennessee, Texas, and Wisconsin, and in California as well, appear to reflect the sizes the institutions have already attained rather than objective criteria.

It is of interest to note that the 42 U.S. universities which are members of the prestigeous Association of American Universities range in size from 1,520 at the California Institute of Technology to 58,304 at the University of Minnesota; and that the median of the group falls between the University of Colorado (18,280) and Columbia University (main division: 17,459)--all numbers being Fall 1968 headcount for the main campus. Moreover of the largest 21, 17 are public institutions while of the smallest 21, 18 are private. The smallest public institution in the group enrolled 15,601 students in Fall 1968 (University of North Carolina).

Though it is not possible to prove with objective facts that any particular number represents an "optimum" for institutions of a type, or even for an individual institution, there remains strong reason to establish size concepts for all institutions. When a college plans its programs, facilities, staffing, and longrange development according to a size concept it can avoid false starts and waste, and thus achieve greater quality on resources which will always be limited in relation to need. An institution can, as it were, make a size concept its optimum through effective planning and managing. Moreover planning for a total system which will meet the needs of the people of the state can proceed only on the basis of understandings of how large particular institutions will be. Thus though particular size concepts cannot be objectively proven "right," it remains advantageous both to the state system as a whole and to each institution individually that size targets be established for planning purposes on the basis of the best evidence and judgment that can be mustered. Statewide needs, and educational, managerial, and geographic factors should be taken into account, and historical factors as well.

While a size planning concept should represent the best possible decision as to ultimate size, the number should remain subject to change in the face of clear evidence that a decision to change will contribute to educational effectiveness and promote wise allocation of resources, and that it will do so to greater advantage than the alternatives.

Size Planning Concepts for Colorado Public Institutions

In Table IV (following), the Commission proposes size concepts for planning for all of the public institutions in Colorado. Along with other components in this report, institutions and governing boards will have opportunity to review these proposals with the Commission prior to formulation of the Commission's revised report.

In some instances the Commission is proposing an enrollment range, anticipating that further studies by the institution and Commission may lead to agreement on a specific number or, in cases of relatively large institutional size or smallness of the indicated range, the range may constitute a sufficiently precise number for planning purposes.

In Table IV, sizes are given in "headcount students" (column 5), with equivalencies in full-year full-time equivalent (FTE) students (column 6) and in daytime FTE (column 7). It is essential for planning purposes that several definitions of "student" be clearly specified.

Headcount numbers provide a measure of the different individuals who avail themselves of an institution's program. Day and evening, full-time and part-time students are included.

Operating budgets are computed in terms of full-time equivalent students. One "FTE student" is represented by the amount of instruction undertaken by one student in a "normal" program of 15 credits in a quarter or semester. Thus during a full academic year each 45 hours of quarter credits or 30 hours of semester credits produced by the faculty are equal to one FTE student. Computation of institutional workload in terms of FTE students (or student credit hours produced) removes distinctions between full-time and part-time students.

Needed classroom and laboratory facilities should normally be calculated according to day-time FTE students, since students taking work in the evening may be accommodated in facilities required for the day-time program (exception: when enrollments during evening hours are larger in relation to the number of evening hours available than day-time enrollments are to day-time hours available). Faculty offices are computed according to total FTE student numbers, and admissions counselors and certain other administrative and support personnel should bear a relationship to headcount numbers.

The significance of these distinctions in kinds of "students" is suggested by an example. If both daytime and evening students in

Table IV

"STATUS QUO" ENROLLMENT PROJECTIONS AND CCHE ENROLLMENT TARGETS FOR PLANNING
COLORADO PUBLIC COLLEGES AND UNIVERSITIES

Institution	"STATUS QUO" Enrollment Projections[1] Fall Headcount 1968 (Actual) (1)	1970 (2)	1975 (3)	1980 (4)	CCHE Enrollment Targets for Planning: Fall Headcount (5)	F. Y. FTE Equiv. (6)	Day FTE Equiv. (7)	Planning Sources[2] (8)
University of Colorado-Boulder	18,217	19,421	23,357	27,223	20,000- 22,000	18,600- 20,460	18,600- 20,460	Land Requirements Study (1959)
-Denver	6,100	6,695	7,762	9,063	12,000- 13,000	7,200- 7,800	4,800- 5,200	
-Colo. Springs	2,471	2,399	2,930	3,447	11,000- 12,000	7,370- 8,040	7,040- 7,680	
Colorado State University	14,658	16,400	20,535	25,591	20,000- 22,000	20,600- 22,660	20,000- 22,000	Mstr. Pl. (1968), Stud. Ctr. Prog. Plan (1966)
Colorado School of Mines	1,636	1,725	2,117	2,702	3,000	3,090	3,300	Trustee action (1969)
Subtotal	(43,082)	(46,640)	(56,701)	(68,026)	(66,000- 72,000)	(56,860- 62,050)	(53,740- 58,640)	
Fort Lewis College	1,723	1,965	2,678	3,780	4,000	4,320	4,400	
Adams State College	2,744	3,050	3,850	4,200	4,200	4,200	3,780	Mstr. Plan (1967)
Colorado State College	8,568	9,900	12,396	15,000	11,000- 12,000	11,000- 12,000	9,900- 10,800	Mstr. Plan (1966) Lib. Prog.
Metropolitan State College	4,629	7,375	15,137	23,280	25,000	20,000	16,000	Trustee action (1963)
Southern Colorado State College	5,401	6,425	8,350	10,000	11,000	9,900	9,900	Mstr. Plan (1967)
Western State College	3,093	3,235	3,500	4,000	4,000	4,120	4,000	Trustee Report (1968)
Subtotal	(26,158)	(31,950)	(45,911)	(60,260)	(59,200- 60,200)	(53,540- 54,540)	(47,980- 48,880)	
Total, Four-Year Colleges and Universities	69,240	78,590	102,612	128,286	125,200-132,200	110,400-116,590	101,720-107,520	
Aims College	1,627	2,340	3,671	4,684	6,000- 7,000	4,020- 4,690	3,800- 4,500	Mstr. Plan (1966)
Arapahoe Junior College	1,360	2,009	3,968	4,215	4,215	2,996	2,625	Mstr. Plan, Prog. Plan (undated)
Colorado Mountain College-Glenwood Springs	(				1,500	1,080	1,450	
-Leadville	(843	1,164	1,709	2,100	800	576	750	
Community College of Denver-North	(1,861	(			11,400	7,980	6,000	
-West		(6,200	14,108	17,784	11,400	7,980	6,000	
-Central		(			11,900	8,330	5,000	
El Paso Community College	--	2,066	4,182	5,490	9,000- 10,000	5,850- 6,500	6,000- 7,000	
Fort Morgan Junior College	--	433	750	1,000	1,000	640	800	
Lamar Community College	486	577	758	946	1,250	1,100	1,250	LCC Report (1968)
Mesa College	2,889	3,432	3,975	4,600	5,400	3,618	3,500	MC Report (1968)
Northeastern Junior College	2,193	2,349	2,616	2,952	3,000	2,400	2,400	
Otero Junior College	936	1,012	1,231	1,497	1,570	1,005	1,100	Mstr. Plan (1964 and 1969)
Rangely College	412	454	731	1,049	1,000- 1,100	850- 935	900- 1,000	
Trinidad State Junior College	1,533	1,658	1,873	2,068	2,500	2,125	2,250	Mstr. Plan (1967)
Total, Two-Year Colleges	14,140	23,694	39,572	48,387	71,935- 74,035	50,550- 51,955	43,825- 45,625	
Total, All Public Colleges and Universities	83,380	102,284	142,184	176,673	197,135-206,235	160,950-168,545	145,545-153,145	

[1] "Status quo" projections (Sept. 1, 1969) assume continuation of recent and current influences and trends, without limitations imposed by state policy. Enrollments are on-campus, only.

[2] CCHE enrollment targets are based in part upon enrollment concepts in the documents or actions cited.

a given college of 10,000 students take, on the average, 80% of the normal load (12 credits) and 30% of the students are in evening classes, then the 10,000 "students" can be taught in classrooms and laboratories built for only 5,600 "students." Stated more precisely, the 10,000 headcount students can be taught in classrooms and laboratories built for 5,600 daytime FTE students; and the college will need to employ faculty to teach 8,000 FTE students. Proportions of part-time and evening students such as in this example are not unusual in the urban commuter college.

In adopting size concepts for planning, in cases in which college master plans have been based upon particular size decisions by the institution, the Commission has followed such master plan numbers (except at Trinidad where the Commission figure provides for approximately doubling of present numbers). In other cases, enrollment plans set forth in program plans for major buildings, and in reports submitted to the Commission incident to preparation of this statewide plan have been used. There are significant practical advantages in using these basic planning guidelines because they have guided institutional decisions in the past, and in all cases these numbers appear to the Commission to be consistent with needs and plans for the state system of higher education as a whole.

During the projection period (to 1980), these size planning concepts will require limitation of enrollment growth at the Boulder campus of the University of Colorado, Colorado State University, and Colorado State College, and by 1980 it is to be expected that Adams State and Western State Colleges will also approach the planned size.

Obviously institutions can alter policies of admission of freshmen, transfer, and graduate students in order to control the mix of students at various levels of instruction and numbers of residents as against nonresident students. In particular the effectuation of enrollment limitations at any of the Colorado institutions must invite consideration of policies of admission of out-of-state students at such institutions and ultimately, at many or all of the Colorado institutions.

A strong case can be made for the admission of non-resident students as freshmen, transfers, and graduate students. Individual freedom of choice is a valued attribute of American life and it too is enhanced by absence of artificial barriers erected along state lines. Students who come from other states to attend college in Colorado probably contribute more to the total income of the state (through tuition and taxes) than the cost of their education to the state, and many of them make their homes in Colorado and contribute to its well-being for many

years. The "atmosphere" of the campus, and the efficiency with which programs attracting smaller numbers of students can operate, are improved by a mix of nonresident students. Colorado like other states can expect reciprocal treatment from other states, and if strict limits are placed upon non-resident admissions here, the large numbers of Coloradoans attending college in other states will probably shrink as barriers go up elsewhere.

It is nevertheless true that some of the Colorado public institutions attract large numbers of non-residents and that when limitations in total enrollments are required, the case for stricter limitation of non-residents will be strengthened. Appendix B, Table 4 summarizes 1968 headcount enrollments by resident and non-resident status.

After consideration of the numbers of non-residents in Colorado colleges and universities, and tuition levels for residents and non-residents then in effect, the Legislative Committee for Education Beyond High School in 1961 proposed that: "All state colleges and universities except the Colorado School of Mines, move as rapidly as possible to limit the number of out-of-state first-time-entering freshmen to no more than 20 percent of the total first-time-entering freshmen who enrolled on each campus during the preceding fall term. The University of Colorado should continue to reduce the proportion of out-of-state first-time-entering freshmen so that the recommended level is reached by the fall term 1965. . ." No policy restraints were indicated for transfer students, total undergraduates, or graduate enrollments. The guideline has been followed by the institutions except that the University of Colorado has limited out-of-state first-time-entering freshmen to 1,000, and is now undertaking to restrict non-resident transfers.

The Legislative Committee at the same time recommended that resident tuition charges should continue to bear "a proportionate share" of increasing costs of higher education. It proposed that non-residents should pay no less than 60 percent or more than 90 percent of the "full-per-capita costs of educating the student, exclusive of major capital outlay expenditures." It did not recommend specific proportions to be paid by Colorado residents though it noted that current charges ranged between 10 and 20 percent of institutional expenditures for Education and General functions.[6/]

The Commission is not proposing specific guidelines at this time either respecting the admission of non-resident students or respecting on-going policy for resident and nonresident tuition. The impending

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6/ Legislative Committee for Education Beyond High School, Committee Study No. 2, January 1961, pp. 23-26.

tightening of enrollments at the largest institutions will call for policy guidelines in these matters. The Commission will pursue the consideration of such guidelines in cooperation with the governing boards, institutions, and other interested parties and will report on these subjects later in 1970. For the present the Commission will recommend tuition levels which it believes to be generally consistent with the intent of the Committee for Education Beyond High School, as part of its regular presentation of operating budgets for higher education.

Limitations of enrollments at CU, CSU, and CSC will imply significant evolutionary changes for these institutions as well as for the development of adequate spaces elsewhere for students who will not be able to enroll at these institutions. The additional needed spaces may be provided in other present institutions or, ultimately, in new ones. Major implications of the enrollment planning targets proposed above are discussed in the following chapter.

Chapter 3

PLANNING FOR GROWTH: INSTITUTIONS AND THEIR PROGRAMS

In the decade of the 1870's, Colorado opened three public institutions of higher education--the School of Mines at Golden (1874), University of Colorado at Boulder (1877), and the Agricultural College of Colorado at Fort Collins (1879). Nine decades later we depend upon a large-scale system of institutions of differing kinds, sizes, and locations to meet the needs of the state. There are nine public colleges and universities offering degrees at the baccalaureate level and, in six of these institutions, at graduate levels; and 11 public two-year colleges which offer a range of occupational courses and programs as well as arts and sciences, which are operating in 13 campus locations. There are five accredited private colleges of liberal arts and one comprehensive private university.

For each public and private institution in the state one or more qualities that are unusual and special can readily be identified. These are qualities that institutions cherish; upon them are based claims of distinctiveness and even of distinction, and out of them, in the system as a whole, comes a variety of opportunities appropriate to the variety of interests and talents within the citizenry.

Though there surely are "individuals" within the higher education community there also are "families" which--with all the rich individuality of their members--have certain qualities in common.

The community junior colleges in purpose, program, and clientele are oriented toward a given locality or community far more than other state-supported education institutions. Several are, and all new ones should be, commuter institutions. In Colorado significant directive powers over the two-year colleges are exercised by committees drawn from the locality, to help assure that the college program and policies will serve well the enterprise and people of the community.

Community junior colleges place their emphasis less upon the subject of study than upon the student as an individual person. They are dedicated to helping the individual of whatever age and background to discover his strengths and limitations and to find areas of study or skill development appropriate to his talents. This emphasis leads the community college to provide special services of testing and counseling, developmental programs for reading and other skills and appropriate remedial courses.

Within its academic program the community junior college offers a wide range of courses and sequences which may lead either to an immediate occupational objective or to advanced study in a baccalaureate (or higher) program. It also offers courses for youth and adults interested in a general education, without reference either to employment goals or transferability of course credits to a baccalaureate program.

The community college serves the community also through such public service activities as providing on a formal or informal basis special instructional programs on campus or elsewhere in its service area, making its facilities available for other educational and cultural purposes, and otherwise helping to meet community needs.

The community junior college in some respects may be viewed as an extension of public education in the service not only of "college-age youth" but of adults of widely varying ages and educational backgrounds.

The state colleges serve students from throughout Colorado, though they are oriented particularly to the needs of the region within which they are located.

Without eschewing concern for the student as an individual, the state colleges place chief emphasis upon the instructional function in the areas of the arts and sciences, typically in the professions of education and business, and in some cases in other occupational areas. These institutions are strongly oriented to programs leading to employment, stressing those fields for which preparation calls for the baccalaureate degree. The state colleges are also concerned with preparation for advanced study in arts and sciences disciplines and in the advanced professional areas offered at the universities. Typically the state colleges have distinctive features or programs which give them statewide or regional and even national appeal.

The state colleges like the community colleges are sensitive to the needs of the communities in which they are located and offer programs of public service which sometimes include research services as well as formal and informal instructional programs. Sensitivity to local and area demands is often a factor in the desire of the state colleges to expand the range of their course offerings and to extend such offerings to the masters or even higher degrees.

The universities are little oriented to the immediate community in which they are located, reaching out instead to the state and the

western region and in a genuine sense, to the entire nation. In Colorado and in other states the university-type institutions are truly part of a national resource which draws its faculty and to a significant degree its students from the national market. These institutions also draw substantial support from national sources.

Within the universities the emphasis is upon the professions and the more specialized and advanced levels and areas of knowledge, including the extension of knowledge beyond the current boundaries. As compared to the student in the community college or the state college the university student to a large degree must be capable of fending for himself, for the university is not equipped with the personnel or the programs to help the student overcome deficiencies of earlier education; its resources must go instead for the tools required in rigorous scholarship at the advanced levels. The university is known within the national family of university institutions primarily for its offerings in the professions, in its doctoral programs, and in its contributions to research, and it is through its programs in these areas that it makes its distinctive contribution to the state.

Several points should be made about these families of higher education institutions.

The families differ in their capabilities to serve the needs and to solve various problems of the state. Where one family stands out, another may be inept. The state should value each one equally, for they are different in their capabilities and contributions and Colorado needs them all.

Though the paragraphs above have implied that each institution carries one "family name," by no means are the family members all alike. And whatever their characteristics today, their natures were not necessarily the same yesterday nor is there any presumption that they should be tomorrow. Institutions and indeed the whole system of higher education are always in a state of development and change. If it were not so the institutions and the system would become irrelevant to the society they serve. In the sections that follow, the discussion will make explicit the differing nature of the several institutions and the differing lines of development which the Commission recommends.

The Colorado System of Community Junior Colleges

Junior colleges, in recent years known as community colleges or community junior colleges, were established in Colorado in numbers and at a time which made Colorado one of the early states to have a significant junior college movement. In 1960 junior colleges were located in Lamar, La Junta, Trinidad, Pueblo, Grand Junction, and Sterling. Those in Pueblo and Trinidad offered comprehensive programs of college transfer and vocational studies; the others offered in essence the first two years of general college work, with limited programs in vocational areas.

The junior colleges were initiated, according to state law, by vote of the people within local districts. Following their establishment, local tax levies provided for construction and operating costs, along with income from student charges and state aid. By 1965 state support for operations amounted to $500 per Colorado resident full-time equivalent student, and additional aid was extended for capital construction purposes.

After 1961 when Pueblo Junior College was transformed by local and state action into Southern Colorado State College, there were no two-year colleges in the urban band of Colorado extending from Fort Collins and Greeley to Pueblo. In 1965 a favorable vote in a small district embracing Littleton and a portion of Englewood, south of Denver, authorized the establishment of Arapahoe Junior College, the first two-year institution to be created in the Denver area. However during the 1960's the efforts of interested groups in Adams, Boulder, Denver, and Jefferson Counties to form junior college districts failed at the polls. The Commission, studying needs for educational opportunity in Colorado in 1966-67, felt that "The highest priority need in the state and in Denver is an adequate system of regional community colleges offering, on an open door basis, vocational-technical (occupational) programs and academic programs in liberal arts and sciences." [1]

Commission recommendations to the Governor and Legislature in 1967 eventuated in legislation which has substantially transformed the community junior college system in Colorado. A system of state community colleges was instituted with the establishment by the Legislature of the Community College of Denver and El Paso Community College and with the entry into the state system of Lamar, Otero, and Trinidad junior colleges as authorized by the law enacted in 1967. Under the direction

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[1] Strengthening Higher Education in Colorado (November 1966), p.30.

of the State Board for Community Colleges and Occupational Education, established in the basic legislation of 1967, these institutions are giving emphasis to programs of occupational education with a goal that half their instructional effort be in occupational programs. Enrollments in the community junior college sector have risen dramatically with the opening of institutions in the Denver and Colorado Springs metropolitan areas, from 6,939 in 1965 to 16,544 in Fall 1969. 2/ Within the state higher education system, community junior college enrollments have risen from 12% to 18% of total headcount enrollments in these four years.

It is a well-known fact that community colleges are the fastest-growing element in higher education throughout the country. For several years in the nation at large, new two-year colleges have been formed at a rate of more than one each week. In Colorado in addition to the new state institutions in Denver and Colorado Springs, in the mid-1960's prior to the new legislation of 1967 junior college districts were formed in a large area west of the Continental Divide, in Weld County centered in Greeley, and in Fort Morgan. In the fall of 1969 there are five state system colleges operating on six campuses and six local district colleges operating on seven campuses--a total of 11 institutions and 13 campuses. All of these institutions are subject to the coordination of the State Board for Community Colleges and Occupational Education and the state system schools are governed by the State Board, with substantial powers delegated to local councils appointed by the Governor.

Expanding the Community Junior College System

The Commission has been a consistent champion of the community college system in Colorado and has urged an emphasis upon occupational programming that the State Board has succeeded in providing. However the Commission would urge also that community college programs should relate to the needs and interests of their respective communities, and the nature and amounts of occupational and college transfer programs in each should therefore vary from one to another. Within the larger communities, enrollments will make it possible to offer truly comprehensive programs embracing a wide selection of occupational, college transfer, and general education courses. Yet, even in Denver it will not be possible to offer a full range of programs on every campus of CCD and Arapahoe Junior College. Systemwide planning for expansion of occupational programming to provide maximum opportunity within the limited resources

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2 CCHE preliminary report.

available represents a significant challenge to the institutions, State Board, and Commission.

In the smaller schools, resource limitations necessitate selectivity in the program areas chosen, particularly in the sciences, fine arts, and occupational fields. In the case of Lamar and Otero, small institutions destined to remain small but which are only an hour's driving time apart, a mechanism is needed through which the programs, services, and faculty-staff capabilities of the two can be integrated. In some instances it may be educationally desirable and economically feasible to transport students from one school to the other in lieu of duplicating programs. In others, faculty members might readily be employed to teach at both. Provision for planning and administration of the two programs on a tightly-integrated basis would undoubtedly be facilitated by provision for a single administration, but this integration may be feasible while each retains its own administration. This need poses a significant challenge to the State Board for Community Colleges and Occupational Education. The Commission believes the State Board has the statutory powers required to bring the needed integration about.

Considering its wide expanses and sparsity of settlement both on the high plains of the east and in the mountainous western half of the state, Colorado is fortunate in its array of community junior colleges, as Map 1 (page 7) reveals. One or more of these institutions will be found in each of the 13 areas excepting the East Central and North Mountain sectors, and the Southwest and South Mountain areas where Fort Lewis College and Adams State College (and an Area Vocational School at Monte Vista) provide a mix of opportunities.

The ideal that an institution of higher education be located within easy commuting distance of every resident is difficult to achieve in any of the Rocky Mountain states, where vast areas are sparsely settled and where natural barriers complicate transportation patterns. Analysis of potential enrollments generated by prospective population in the East Central and North Mountain sectors, the two areas of Colorado now without public higher education institutions, makes it apparent that in the period to 1980 neither area could justify a community college or college outpost, barring unforeseen developments.

Substantial areas of the East Central counties are within feasible commuting distance of community colleges at Lamar, La Junta, Colorado Springs, and Littleton. The State Board for Community Colleges and Occupational Education is studying ways and means by which residents of the eastern portion of this large area may have appropriate access to

the Colby Community Junior College at Colby, Kansas.

Provision of access to educational opportunity for residents of the North Mountain area is even more difficult because distances to existing community colleges are greater, the terrain deters travel, and numbers of potential students are smaller. The acquisition of Colorado Alpine College by the United States International University, a private institution, may make feasible in the future an arrangement under which some residents of the North Mountain area can be accommodated with appropriate payment by the State.

The entire matter of subsidy for residents of areas of the state in which public higher education institutions cannot be established requires further study. Grants to residents of such areas which would cover costs of room and a portion of board would provide some equalization of opportunity as compared with the advantages enjoyed by residents of areas in which public colleges are located. It is possible that the smaller community junior colleges might be strengthened and their costs spread over larger numbers of students if such grants could be made available for use at institutions where academic and dormitory space is underutilized.

Partly to help preserve the local character of the community colleges, maximum enrollment levels in the range of 6,000-7,000 day FTE were stated in the preceding chapter as planning targets for El Paso Community College and for campuses of CCD. It seems clear from experience of the first two years that the metropolitan community colleges will grow rapidly. Ultimately, unless other colleges are established some of them will outstrip the planning maximums and grow to great size. Just how rapidly problems of size will develop it is not possible to forecast at this time. "Status quo" enrollment projections have been made for Aims, Arapahoe, Denver and El Paso community colleges as well as for the older schools, but since there is little "status quo" upon which to base projections for these institutions the projections may prove to be far from the mark. In particular, developments in the North Central area and in the Denver SMSA will need continuing assessment. With the basic pattern now available it is appropriate to defer planning for additional community colleges until patterns of growth emerge more clearly and their impact upon four-year institutions can be assessed.

Under the legislation creating the state community college system in 1967, local district junior colleges are empowered to enter the state system at the option of the local district. The state has no means under this measure to prevent or delay entry of any one--or all--of these institutions in a single year and hence no means of interrelating such

action with other state commitments and priorities. By appropriate statutory amendment the statewide coordinating board should be empowered to approve the entry of local district colleges into the system of state institutions.

The State Colleges

As institutions emphasizing undergraduate teaching in the arts, sciences, and selected occupations and professions, the state colleges fulfill needs for educational opportunity at levels beyond those provided in the community colleges. Oriented to residents of their respective regions of the state, they make baccalaureate degree programs relatively accessible, without the extra costs associated with the advanced, more specialized programming of the comprehensive universities. Adams, Colorado, Fort Lewis, Metropolitan, Southern Colorado and Western state colleges afford a good spread of such colleges whether judged from the viewpoint of geography or of educational programming.

Three of the colleges--Adams, Colorado State, and Western--have evolved far from their origins as normal schools to a status as general or multiple-purpose institutions based upon the liberal arts and sciences, with an emphasis in the profession of teacher education but with programs in business and other fields. At Colorado State College, a graduate program of considerable breadth has developed, and at Adams and Western substantial graduate work, below the doctorate, is offered in fields related to education.

Southern Colorado and Metropolitan State Colleges are entirely different in origin though they have some common elements in their arts and sciences, business and education offerings. Both are urban; Metro State is entirely a commuter institution and SCSC is largely so, with nearly 70% of its students living in Pueblo County. Southern was erected on the base of Pueblo Junior College through legislative action in 1961. Metro State was created in 1963 to provide a multi-purpose undergraduate program in the Denver metropolitan area. Both offer programs in selected technologies. Both are deliberately oriented to a "practical" or applied emphasis in most fields though they serve also to prepare students for advanced professional study and for graduate study in arts and sciences.

Fort Lewis College until the early 1960's was a two-year college of agriculture and mechanic arts, located in the San Juan Basin in Southwestern Colorado at substantial distance from any other college and from any large center of population. In its first years after its transition

to four-year college status in 1962 Fort Lewis sought identification as a public liberal arts college dedicated to undergraduate teaching.

The future development of the state colleges will find these institutions growing at different rates and in differing areas of program, so that they probably will be even more differentiated a group in 1980 than they are in 1970. The three that are located in the urban area of the state will be larger than many well-known universities. All six of these colleges should benefit from progression of some graduates from two-year colleges into the four-year college system with a resulting improvement of the range of program and of class sizes at the upper levels of instruction. At present, three-quarters or more of the total instructional production in the state colleges is in freshman-sophomore courses, excepting at Adams State College where the lower level proportion is more than three-fifths.

Entry into or expansion of graduate work is a current or probable future aspiration of all of the state colleges. Within the older colleges, graduate instruction in fields related to the profession of education has been offered for many years. Such instruction extends through the doctorate at Colorado State College. At CSC, masters degree programs are offered in many arts and sciences fields and in some occupational or professional areas in addition to education. Any further extension of graduate programs within the state colleges must be carefully monitored by the Board of Trustees and the Commission because of the high costs associated with small programs.

With respect to graduate programs at state colleges not now offering graduate work (Fort Lewis, Metropolitan State and Southern Colorado State) the Commission stated in its February 1967 summary of Strengthening Higher Education in Colorado:

> After 1970 the Commission will consider proposals to initiate such master's level programs, provided an undergraduate major has been offered in the field concerned for at least three years and that an institutional self-study affirms that the proposed advanced program is consistent with continued emphasis upon the primary undergraduate mission of the college. All such proposals will be considered in light of available programs in other institutions and the overall needs of the State.

The Commission affirms this statement as an appropriate procedure.

Institution Roles

Adams, Fort Lewis, and Western state colleges, each located in small cities outside the most densely-populated region of Colorado, have much in common along with some notable features unique to each. The Commission has proposed that each plan for an ultimate size of approximately 4,000 students. Each will be serving in areas in which there will be no comprehensive community college, though vocational programs may be available through Boards of Cooperative Services and Area Vocational Schools.

Without ignoring their appeal to students from throughout the state, these institutions should give special emphasis to meeting the needs of youth and adults within their respective regions, while recognizing the contributions best made by other institutions and the debilitating effect of attempting to provide programs of greater breadth or depth than their enrollments can sustain on an economical basis.

While selective admissions standards should restrict the number of out-of-state students in these institutions and may be required before 1980 to limit admission of Colorado residents, such standards should permit access for all residents of the immediate area of each college, provided there is reasonable prospect that the student can benefit in the program of the college.

Adams State College, acting alone and in cooperation with SCSC and other institutions, may provide leadership in Colorado in devising programs and materials most relevant to the needs of the large Spanish-speaking population of the State.

As this report is written, Fort Lewis College is engaged in major review and evaluation of its program and of the trimester calendar adopted on an experimental basis in 1962. It seems apparent that the emphasis in undergraduate arts and sciences, perhaps in combination with the trimester calendar, has had adverse effect upon rate of growth, retention of students, and costs. The Commission is eager to assist wherever appropriate in the appraisal and planning efforts and to support modifications that will extend the capacity of the College for service to the state and particularly to the people of southwestern Colorado. The Commission concurs with the State Board of Agriculture that the College should offer undergraduate programs in the arts and sciences, business administration, and education. Because of the particular needs of the

large Indian enrollment [3] as well as the economic status of the Four Corners area, the College should continue to provide a base upon which programs in occupational fields appropriate to the region can be developed. Plans relating to graduate programming should be subject to review as indicated above.

Adams, Fort Lewis, and Western state colleges should remain essentially undergraduate colleges with emphasis upon teaching. To the extent that graduate programs are offered, they should reflect subjects of particular strength in these institutions and having relevance to the area in which each college is located. They should be limited to programs that will attract sufficient students to be offered with reasonable economy recognizing the advantage afforded to residents of the region through proximity to such opportunities. These colleges will not offer programs on the doctoral level.

Many of the state colleges have developed substantial programs of extension credit courses off-campus. ASC, CSC, and WSC conduct such programs widely throughout the state. With federal assistance in the program of continuing education and community service (Title I, Higher Education Act of 1965), all of the state colleges have worked with community groups in the identification and solution of community problems. Within the needed framework of planning and coordination and particularly within the region in which they are located, the state colleges should be encouraged and aided in the development of off-campus educational services.

These institutions in general are not staffed or equipped to undertake research on a large scale, nor should they be. Nonetheless, research relative to improvement of the educational program, including research which contributes to the professional growth of the faculty and to the educational development of students, is appropriate and desirable and state assistance should be provided for such purposes.

The role and development of Metropolitan State College are discussed in detail in the following chapter.

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3 Current state and federal statutory requirements that Fort Lewis College admit American Indian students regardless of their place of residence have led to a very rapid increase in Indian enrollments during the past five years, only a small proportion of whom reside in Colorado. The State Board of Agriculture is exploring means of obtaining reimbursement for rapidly-growing state expenditures for the education of Indians from other states.

Southern Colorado State College, a four-year institution which has incorporated within itself the programs of its predecessor, Pueblo Junior College, seeks to respond both to the urge of a community college to relate to community needs and to the press of the baccalaureate divisions to strengthen instruction at the more specialized upper division level and to move on into graduate work. Unlike the older state colleges, SCSC's mission from the outset has included an occupational program at the two-year level. Four-year technologies have also been developed.

Discussions between the public schools and the College have been in progress to explore the feasibility of establishing an Area Vocational School in facilities of the former junior college. Such a development could open avenues of growth which in time might make it appropriate and desirable for the College to focus its occupational programs more specifically at the baccalaureate level. Proposals of the College that it initiate degree programs in electrical and mechanical engineering are under review in the context of statewide analysis of needs and resources for engineering education, analysis that is focused particularly upon SCSC and the Colorado Springs Center of the University of Colorado.

As urban colleges, both MSC and SCSC have opportunities to initiate programs geared to the needs of city people and institutions which have never been developed in the residential colleges. In addition to new areas of curriculum, these institutions can meet needs unknown in the residential college setting, for example through special programs like that for a "Weekend College" which Metropolitan State College will initiate in January 1970 with support through the Model Cities program. SCSC aims in due course to offer all of the courses required for baccalaureate degrees not only during the day but in the hours after 4 p.m. These are worthy goals which deserve encouragement and support.

As Southern grows in number of students and faculty and as its facilities are expanded at the new Belmont Campus, needs of the area of Pueblo and of Southeastern Colorado more generally will be well served by the development of selected master's degree programs at SCSC. No courses beyond the masters should be planned or anticipated.

Colorado State College

The size and status of development of Colorado State College together with pressures within the College and the community of Greeley to expand its present mission and change its name to "university," call for special consideration of this institution's best future role within the statewide system of higher education.

Over the years the identification of Colorado State College in Greeley with the preparation of teachers and administrative personnel for the schools is well known. In years past, CSC achieved national stature in this role.

After World War II, great increases in enrollments along with increasing emphasis upon education in basic arts and sciences disciplines served to transform teachers colleges across this country into more broadly-based institutions. In these years Colorado State College added programs in the arts and sciences, business, medical technology, and nursing. In many of the arts and sciences, graduate programs leading to the masters degree were instituted, and increased emphasis on work within these disciplines was given in programs leading to all its degrees including the Doctor of Education.

By the 1960's, around the nation many of the "former teacher's colleges" had so grown in breadth of program, numbers of students, and academic quality that they were assuming a new role within the nation's higher education system. They were aptly described by Clark Kerr in Agenda for the Nation (pp. 254-255):

> Three hundred state colleges . . . have come a very long way in recent years. For the most part they started as teachers' colleges, largely ignored. They are now bigger, better financed, better known. They have extended their efforts across the board from their earlier confinement of teacher training. Most of them give the master's degree, and such work has expanded faster than enrollments for either the first degree or higher degrees. They have vitality and increasing political power. Their problem is one of unknown destiny, of how far and how fast they can and should go. Many aspire to be full-fledged universities; these aspirations particularly animate and agitate the faculties. These colleges are too big to be liberal arts communities and usually too small to be great university campuses. They are caught between the rapid growth in numbers of the community colleges and the rapid growth in prestige of the universities. They have an identity crisis.

As the largest of the state colleges in Colorado, with its primacy in the state and its leadership in the nation in teacher education programs at all levels through the doctorate, and because of the newness of the only other state colleges which could possibly aspire to university status in the near future--Metropolitan State College and Southern Colorado State College--Colorado State College alone has exemplified the "identity crisis" problem in this state.

In resolving this problem of identity the significant issue relating to Colorado State College is not what the institution is named; it is what role the institution is to play within the total educational resource of the state. This issue is rendered more complex by the possibility that the name could influence the mission. The critical need of the College, the governing board of the College, and the people of the State of Colorado is for a precise definition of what the people, through the Governor and the Legislature, with the advice of the Commission, desire this institution to be.

The issue relating to role is presented at this time primarily by the question whether CSC should offer the Ph.D. degree in fields outside the profession of education. There is question also concerning the extent to which undergraduate and graduate programs in specific occupational and professional fields other than education should be developed.

Ph.D. programs in the arts and sciences and in some of the professional areas (such as agriculture, business, engineering, and the performing arts) have been developed in the U.S. within the "comprehensive universities"--the original state universities and the newer universities which often were established as "land grant colleges." In Colorado these institutions are the University of Colorado and Colorado State University. Since World War II, in the nation as a whole and in Colorado these comprehensive university institutions have grown very rapidly in size, depth of program, and stature. Large national programs of financial assistance--to their graduate programs, their research efforts, their facilities--have contributed to major expansion. Since 1960 alone, the number of Ph.D. programs at CSU has nearly doubled (from 17 to 32) and at CU has grown from 35 to 52.

The Commission does not believe that at this juncture the state requires additional programs on the doctoral level in areas in which such programs are already available within the state. Though in specific areas there may be limited exceptions to this view, the Commission believes that doctoral programs now available can be more economically offered as larger numbers of students enroll in them. If and when additional instructional resources on the doctoral level are needed in Colorado the Commission believes that such resources should be provided in a commuter institution in Denver rather than in any of the residential colleges or universities.

The Commission notes that Greeley is thirty miles from Fort Collins over excellent roads and that CSC serves virtually the same area population as CSU. In this respect it is perhaps an unfortunate gift of history that these two institutions are so located. Nonetheless, to permit

CSC to expand the range of its doctoral programs and in this way and otherwise to develop into a third comprehensive university in Colorado would be to respond to yesterday's problems of educational opportunity, not to today's and certainly not tomorrow's. Tomorrow's needs for university education in Colorado do not lie in the Larimer-Weld area where baccalaureate and advanced degree studies now bring into the area four or five times as many students as the local population alone would produce.

The very proximity of CSC to CSU in Fort Collins does make possible cooperation in educational programming at all levels, and certainly at the doctoral level. The University of Colorado at Boulder affords additional possibilities of joint efforts. Pooling resources of these institutions could help sustain doctoral offerings on a cooperative basis which could not be justified in any of the institutions acting alone. The Commission encourages CSC, CSU and CU to explore the feasibility of joint programs particularly on the doctoral level in subject areas in which there is need in Colorado for additional graduates having such qualifications.

The Commission believes that CSC, under whatever name, approaches the size and the scope of program which should be maximum for the College. The current College Master Plan of 1967 shows that at 10,000 FTE, available land and facilities at both the Central and West Campus sites will be fully utilized. The 10,000 FTE number was also employed in planning for the library which is now under construction, a facility that is basic to the entire academic program. Present programs of the College will continue to evolve in response to new opportunities, new needs, new instructional methods, and other forces. Expansion of program at CSC should be anticipated in areas immediately contiguous to education but not in additional professional areas or in indigenous Ph.D. programs.

Colorado State College is the largest and most prestigeful of the state colleges and it is understandable that as sister institutions in some other states have been renamed as universities, CSC might wish to do so. The Commission believes that as is the case with the Colorado School of Mines, the name long associated with the institution at Greeley is more of an asset than a liability. Nonetheless the Commission believes that the basic problem is not the name but the role. So long as a state higher education agency is empowered to effectuate the role just described, the name of the institution is of secondary importance.

Expanding the State College System

The enrollment projections set forth in Chapter 1 together with the enrollment planning limitations indicated in Chapter 2 make it apparent that by 1980, unless policies are adopted to shift students within and among institutions or unless new colleges are established, the present state college system will be virtually filled. Restriction of enrollments at CSC, CSU, and CU within the next few years will accelerate further the growth trends projected in Chapter 1 in the other five four-year general colleges.

The Commission's reasons for recommending ultimate limitations in enrollments at CSC, CSU, and CU are stated in Chapter 2; they grow out of many factors, the principal one of which is the necessity during the next decade that educational opportunity be expanded in commuter-type institutions rather than in these residential colleges. It is the most heavily-populated urban areas that have lacked adequate provision for higher education in the past and it is in these areas that major development is required in the immediate future.

Within the state college system these needs imply major growth at Metropolitan State and Southern Colorado State Colleges. They imply deliberate action to clarify the mission and give prompt direction to the development of the four-year institution at Colorado Springs now operated as a branch of the University of Colorado. Developing enrollment pressures also call for the provision of programming on the baccalaureate level in the Grand Junction area.

In cooperation with the University of Colorado and El Paso Community College, in 1970 the Commission should propose programs and procedures to develop and improve curriculum, library, full-time professional faculty, facilities, administration, staff and other significant elements which are necessary to permit the Colorado Springs institution to become one offering high-quality upper division work with a small lower division program and selected offerings on the graduate level. Such proposals should include recommendations for the future governance of this institution.

Colorado Springs, one of the most populous and fastest-growing areas in the state, until 1965 lacked any significant provision for public higher education. The opening by the University of Colorado in 1965 of a branch at the Cragmor Sanitorium property which was deeded to the University for the purpose, followed efforts of the Colorado Springs Chamber of Commerce and of state officials to obtain educational programming in the Pikes Peak Region at the baccalaureate and graduate levels relevant

to the interests of certain industries which were considering locating (and subsequently did locate) in the area. The Center at Colorado Springs has grown rapidly; despite limitations in range of program and in facilities 2,349 students representing an estimated 1,269 full-time equivalents were enrolled in Fall 1969. The Commission's Enrollment Projection B (page 6) indicates that in 1970 the El Paso area will generate a demand for some 8,600 places in Colorado public and private institutions of higher education, and some 13,000 by 1975. Other studies underline the Commission's belief that this is a conservative estimate. While many of these persons will find the programs they seek at the Community College which has opened in Fall 1969 (and some will continue to do so at Colorado College and, of course other colleges in the state,) there is a large residual demand within the area, just as there will be a growing demand as size limitations slow and eventually halt the enlargement of some of the colleges and universities elsewhere.

The Commission recommends that the college at Colorado Springs develop primarily as an institution of arts and sciences with programs in education and business. With respect to areas related to engineering, special study will be required which recognizes the needs of local enterprise on the one hand, and the already-major investment of the state in engineering programs, on the other. The institution should not build course sequences of any kind in engineering without express approval of the Commission. In the later 1970's as enrollments in upper division programs make it feasible to offer quality programs on the masters level and as demand for additional such programs can be demonstrated, the Commission would expect to approve a deliberate expansion of such programs. The institution should be planned to attain a maximum size of 7,000-7,500 day FTE students, a number that probably would not be reached for more than twenty years.

The College should serve primarily as a commuter college for the El Paso area but subject to demonstrable future need, should provide housing for limited numbers of students.

The West Central area embracing Garfield, Mesa, Delta, and Montrose counties, by 1975 is expected to generate demand for as many places in the colleges of the state as the El Paso area generated in 1968. Moreover the restriction and ultimate limitation of growth at CU, CSU, and CSC will direct increasing numbers of students to other institutions by the mid-70's and potential students living in the western portions of the state, and particularly in the Grand Junction area, will be served best by a baccalaureate institution in that area. In addition by the later 1970's Mesa College will be forced by limitations of campus size and

facilities to restrict admissions, and while the College may reduce the numbers of out-of-district residents admitted in order to increase enrollments of local residents, the limitations may ultimately affect local residents as well.

In 1970-71 plans should be developed by the Commission looking to the establishment in the Grand Junction area of a state college offering undergraduate programs in the arts and sciences, education, and business, to admit its initial students in 1975. This institution should reflect an emphasis in upper division programs through close articulation with community junior colleges in Grand Junction and on the Western Slope. During the 1970's graduate offerings should be made available in this institution only through the extension services of the state universities and colleges. In later years, graduate work might be offered by the college as demand can be demonstrated and attendant development of faculty and facilities make it possible to do so on an efficient basis. The institution should be planned for an ultimate size of 7,500-8,000 day FTE students, a size unlikely to be attained for more than 30 years. Plans should be made for an initial phase of development of 2,000 day FTE.

The Commission believes that administration of the Colorado Springs and Grand Junction institutions ultimately should be undertaken by boards of trustees established for each institution. The Commission proposes that neither of these institutions should be developed as branches or centers of another institution.

While the sponsorship of the University of Colorado has aided in the establishment in Colorado Springs of a base for baccalaureate and selected masters-level programs, specific reasons lead the Commission to oppose operation of a senior college program in either Colorado Springs or Grand Junction as branches or centers of another institution. A basic point is that remote management is likely sooner or later to be inadequate management. Responsibility for planning tends to be confused between departments, academic administrators, and committees at the branch and at main campus. Moreover the goals and standards of the main campus tend to be enforced at the branch without regard to circumstances or needs indigenous to the branch institution and its immediate area, and while this is not always a negative factor, the effect is to reduce the ability of the branch to respond effectively to opportunities to serve local needs. Branches may fail to gain critical attention or requisite support of governing boards and of other support agencies equal to that given the parent; at worst they may become a convenient place of exile for the main campus.

It may be assumed that operation as branches will reduce costs

in the centers. Budget figures for the Colorado Springs and Denver Centers of the University may appear to support this assumption. However there are identifiable reasons for the cost differences, and the differences at present are more extreme than they can be in the future regardless of how the centers are governed. Currently the library collections at the centers are seriously inferior to those of the state colleges despite the wider and deeper range of programs offered in the centers; too large a proportion of instruction at both centers is provided by part-time faculty members whose primary allegiance may be to their full-time occupation rather than to the students. Recently-adopted policies of the regional accrediting association require that branches and centers be evaluated for purposes of accreditation as if they were independent institutions--a circumstance that will require expenditures for improvements in library, faculty, and facilities at the centers, however they may be governed in the future.

The current policy of the Regents respecting the centers which regards each center as an integral part of the main campus of the University of Colorado rather than as programs developed according to statewide plans and local needs, presents an important issue in statewide planning. Under the Regents' policy, both to the University and to the communities served these institutions are "universities;" they are the "University of Colorado." Whether these communities and the state need universities is a matter of crucial importance, and one that should be established through processes of statewide planning and action initiated by the state coordinating board and determined by the Legislature, not by the action of a governing board. It is true that the Commission has promulgated policies and procedures which provide that branches or centers shall be treated as independent institutions for purposes of program expansion, and the University of Colorado is cooperating fully in this respect. Nonetheless, community-wide understanding of institution role will be aided by steps which clearly establish the individual character of these units.

Anticipating steady growth in senior college facilities in Colorado Springs and the initiation of baccalaureate-level programming in the Grand Junction area in the mid-70's, it may become necessary by the late 1970's or early 1980's to plan for additional state college programs in the Denver Metropolitan Area. If this does prove necessary, steps to this end may be feasible through cooperative programs with community colleges in the area; or within the decade, technological developments may reduce the demands for on-campus instruction at least in some course areas, permitting redeployment of some spaces. The nature of the demands in relation to the supply of spaces will be carefully monitored by the Commission as well as by the institutions and it will be more feasible by the middle of

the decade to determine how well the array of institutions now foreseen is meeting the needs.

The University System

The term "university" is applied to higher education institutions of many sizes and kinds in America, and has no precise meaning. Most institutions so named offer graduate programs at the top levels of scholarship, expend substantial funds in support of research and public service activities, and offer undergraduate and advanced instruction in professional fields as well as in the arts and sciences. Many institutions which are not named universities have some of these attributes. The term "comprehensive university" is used in this report to describe institutions in which doctoral programs in many arts and sciences disciplines are offered, sponsorship of research is a major obligation of the institution, and undergraduate and graduate instruction through the doctorate is offered in several professions.

What may be referred to as the broader "university resources" of the state at this time comprise two public and one private comprehensive universities, two specialized institutions offering advanced programs in specific fields, and one branch of one of the comprehensive universities. These resources are as follows:

1. Comprehensive programs of instruction, research and public service at the University of Colorado in Boulder. The professional schools of the University include Architecture, Business Administration, Education, Engineering, Journalism, Law, Music, Pharmacy; and (at the Medical Center) Dentistry, Medicine, and Nursing. Doctoral programs are offered in 52 fields distributed across the arts, sciences, and professions. Strong boosts have been given programs in the sciences in the 1960's by major grants from the National Science Foundation and the National Institutes of Health. The University is the only member of the Association of American Universities in the Rocky Mountain states.

2. Comprehensive programs of instruction, research and public service at Colorado State University in Fort Collins, a "land-grant university" with programs at doctoral and advanced professional levels in 32 fields centered in the sciences and engineering. Professional schools include Agriculture, Business, Engineering, Forestry and Natural Resources, Home Economics and Veterinary Medicine. In the 1960's the University has grown dramatically in enrollments, range of curriculum, and scope of research program.

3. Comprehensive programs of instruction and research, and certain public service programs, at the University of Denver, a private institution. Doctoral programs are available in 23 fields through the College of Arts and Sciences and some of the professional schools which include Business Administration, Engineering, International Studies, Law, Librarianship, and Social Work.

4. Programs of instruction and research and a limited program of public service, all oriented to the mineral resources industries, at the Colorado School of Mines in Golden. Doctoral degrees in mineral engineering areas have been offered at the School for many decades, and graduate enrollments have been growing, especially in response to reorganization of the program within the past two years under which the first professional degree is awarded at the master's level.

5. Programs of instruction, research, and public service oriented to the profession of education at Colorado State College in Greeley. Doctoral degrees in education are offered in some two dozen sub-areas.

6. Programs of instruction and public service, and some research, at the Denver Center of the University of Colorado. The Center program leans upon faculty and other resources of the Boulder campus, especially in the sciences and engineering, but affords the nucleus of a university resource in downtown Denver. Its graduate and advanced professional offerings are at the master's level.

As is apparent from this brief characterization, the institutions offering instruction at the top levels differ one from another in program emphasis even though at the lower levels there are substantial similarities among CU, CSU, and DU. Colorado State College on the other hand is more specialized as the array of programs and courses and the occupational interest of its students attest. The Colorado School of Mines is even more specifically directed. The diversity among these institutions and the specialized character of two of them contribute to the total mix of educational opportunity in the state and help to reduce unnecessary duplication.

Institution Roles

The University of Colorado is a comprehensive university taking leadership in the arts and sciences and in selected professions. It is to be expected that development of any additional degree programs at the University will be in response to changes within fields of knowledge and to provide additional flexibility of program within the present structure.

In the future the University should give increasing stress to programs on the graduate and advanced professional level and to research. Graduate enrollments and the proportion of graduate students will rise accordingly. As two-year institutions are developed within easy access of most residents of the state, the numbers transferring to the University may be expected to increase and the proportion of upper division students will increase. Thus, the programs of the University will increasingly serve university-qualified students at the levels characterized by specialization, rather than students seeking an undergraduate education primarily as preparation for immediate employment.

Colorado State University is a comprehensive university taking leadership in the sciences, especially the biological, and in selected professions. It reflects the qualities of the land-grant colleges and universities which, with all their concern for science and scholarship, have given like emphasis to the application of knowledge in on-campus instruction and in public service including cooperative extension work. Their concern for the practical uses of knowledge--in agriculture, engineering, home economics, veterinary medicine, and other areas--gives these institutions a special place in higher education in this country and throughout the world.

Rapid advances in technology and the impact of automation especially since World War II have brought about basic changes in education for many of the professions. Greater stress is now placed upon education in the disciplines underlying the professions. As these changes occur, larger proportions of students, and larger amount of the programs of virtually all students, are to be found in the arts and sciences, and the old distinctions between the land-grant university and other state universities tend to disappear. Yet there are values in the land-grant emphasis which ought to be preserved. The roles of the land-grant and separate state university should be complementary. That implies that there will be continuous and increasing coordination and cooperation between them.

As at the University of Colorado, increasing stress will be placed in the 1970's upon offerings at the upper division and graduate levels at CSU. Colorado State University should continue to emphasize the sciences and professions relating to biology, engineering, and home economics.

At each of the comprehensive universities, because of resource limitations programs should evolve, during the 1970's, within the fields in which each is presently committed. At advanced levels in fields which are part of the special responsibility of other universities and colleges in the state, cooperative programs may be of mutual advantage.

The Colorado School of Mines serves in a special role in Colorado as an institution oriented to the mineral resources industries. A distinguished Task Force was appointed by the Commission in 1967 to assess the role of the School and to advise on appropriate courses of action.

In its report the Task Force indicated that in its undergraduate programs the School "has an excellent reputation" and almost alone among its peers has classes large enough to keep its per-student costs at a reasonable level. It stated that "The continuing need for mineral engineers and the low enrollment in these fields nationally combine to add urgency to the maintenance and development of presently healthy institutions" such as CSM (p.4). The Task Force found, on the other hand, that graduate programming had developed more slowly than in many institutions which had taken a pre-eminent position in education for the mineral resources fields. It advised that "should Mines continue to concentrate its educational program heavily on the undergraduate level, the world-wide reputation Mines earned in the past will be shifted rapidly to other institutions of higher education." [4]

The Commission responded to the Task Force report by affirming that the School is a valued part of the total Colorado system, and that the School should be supported by the state to permit, along with the efforts of the administration, faculty, and alumni of the School and with the help of the mineral industry, the progressive growth and strengthening of the graduate program consistent with the special character of the School. A broadening of program into the arts and sciences or into a general engineering program were specifically not envisaged. As at other institutions offering doctoral studies, cooperative programs might appropriately be planned with other institutions, particularly the University of Colorado or the University of Denver.

Throughout the United States the very large size to which comprehensive public universities have grown during the past decade has led state agencies and the universities themselves to institute controls on growth within which the universities concentrate their efforts on those programs and activities which universities alone can provide within a total system of higher education. As these controls are instituted, enrollments continue to grow on the graduate level, in upper division courses, and in professional areas unique to the universities, and enrollment limitations in other areas progressively redirect students to other institutions within the system where undergraduate and limited graduate instruction is available in arts and sciences and in some of the professions such as education and business.

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[4] Directions for the Colorado School of Mines, January 1968.

In Colorado, only recently have minimal controls been instituted at the University of Colorado and Colorado State University to permit these universities to give emphasis to those areas and levels of instruction which are their special strength. In fall term 1968, 58.5% of all instruction at CU and 63.5% of all instruction at CSU was in freshman-sophomore level courses, proportions similar to that at Adams State College (61.8%).

In the years immediately ahead, the two comprehensive universities and the specialized institutions should emphasize those programs and levels of study which are available only within these institutions. Such a policy will result in directing students within these institutions into relatively higher-cost areas of instruction while the students who are prevented from entering their lower-cost, lower-division programs enroll in other colleges. One of the principal reasons the universities have been slow to institute enrollment controls has been their concern, and it has been a legitimate one, that only by taking more students would they be funded for additional teaching personnel. Because upper division and graduate instruction is more specialized and involves more individual attention on the part of the faculty, the universities will be able to restrict enrollment at the lower levels and build enrollments at the advanced levels only if budgetary support is provided which takes account of the different conditions and requirements of advanced programs. Within the system as a whole, per student costs should not change on this account but within individual institutions, per student costs must change as the deployment of students among courses and levels changes.

Expanding the University System

The limitations proposed in enrollments at CU and CSU result from a conviction that such limitations will result in a strengthening of each institution as it focuses upon the programs and levels of instruction in which it specializes. The limitations also are intended to make it possible to initiate, in the later 1970's, a deliberate, progressive, planned expansion of university resources on a commuter basis in the large urban centers. The Commission strongly believes that further expansion of university resources in residential institutions in the Boulder-Larimer-Weld county area would not serve the state effectively, since expansion of such facilities there would unduly delay and perhaps prevent the expansion that will be needed in commuter institutions.

From a program point of view the Denver Center provides a logical base for the needed development in the Denver Area. It seems evident that if the University of Denver were so disposed it might have

provided a considerably stronger basis for this development. However, DU is effectively dedicated to strengthening its role as a private institution serving a national clientele, and while it is not unmindful of needs of its locality and in the state of Colorado it is primarily oriented to a national purpose. The Commission welcomes this dedication and acknowledges with appreciation the major and growing contribution which the University of Denver is making to the educational resources of the state.

The future development of the Denver Center cannot be considered from the viewpoint of the needs of the urban area without considering also the prospective development of Metropolitan State College. While the MSC authorizing legislation of 1963 indicates initial emphasis upon undergraduate instruction, the growth of its student body and faculty serve to bring together a cadre of professional people dedicated to meeting the instructional, research and public service needs of the urban community. Its activities to this end can, and they must, be meshed with those of the Denver Center where such programs as urban planning, engineering and law which will not be offered at the College will have relevant contributions to make as will the social service-oriented, technological, and other programs of Metro State.

It is the possibility of such meshing of programs and people which, along with the feasibility of sharing of certain facilities, makes the proposed Auraria Higher Education Center so compelling an idea. Location of Metropolitan State College and the Denver Center at points even a mile apart would present barriers to the joint enterprise out of which significant urban educational programming can come.

The Commission believes that Denver will need an urban public university, both because of the contribution such an institution makes to the leadership of a city and because experience in other cities makes it evident that students will go to an urban university who are unable to go to a "university in the country." To build a university is an ambitious undertaking. Colorado is fortunate that in the Denver Center and Metropolitan State College, together with the possibilities of cooperative interaction with the University of Denver, the state has in embryo the faculties, library resources, and programming which can be strengthened over a period of years to meet more fully the growing needs of the metropolitan area for university programming.

The Commission recognizes that the independent status of MSC and the Denver Center, operated by different governing boards, complicates the task of directing these institutions toward a long-range target of providing urban university resources in Denver. It is persuaded nonetheless

that if the idea is right, the mechanisms can be produced to accomplish it. These matters are considered further in the next chapter. The promising thing is that joint planning is well started within the context of the Auraria Higher Education Center idea, and the institutions as well as the Commission recognize that significant cooperative programming is both feasible and desirable.

Chapter 4

HIGHER EDUCATION OPPORTUNITY IN THE DENVER METROPOLITAN AREA

The inadequacies of post-secondary educational opportunity in the Denver Metropolitan Area were documented in a series of studies in the 1950's and early 1960's.

Though five of the six accredited private colleges and universities of the state are located in Denver, until 1965 there was no public college offering broad programs for commuting students. The result was evident both in the near-total lack of vocational education programs and in the low proportion of high school graduates who went on to advanced education. Against more than a 50 per cent progression from high school to college in those counties in which Adams and Western State and Fort Lewis Colleges, Mesa, Lamar, Northeastern, and Trinidad Junior Colleges are located, in Denver County the college-going rate in the early 1960's averaged 37 per cent. Denver stood well below the statewide median progression rate of 40 per cent. Every county in which a two-year or four-year public college was located was well above the median and far above Denver. [1]

Against this shortage of opportunity, there was a massive and rapidly-growing need. In the decade of the 1950's, 72 per cent of the new jobs which opened in the state were in the four-county Denver area. Population of the area grew rapidly; more than half of the people of the entire state lived here. The prospects were for continued growth of both population and job opportunity.

Remedial steps were initiated by the Legislature in 1963 when Metropolitan State College was authorized and initial planning funds for the College were appropriated. In the following year the Regents of the University of Colorado took steps to expand the program and enrollment at the Denver Center and to raise the standards of admission and instruction. In 1965, the Legislature funded the opening of Metro State.

That same year, voters in the Littleton-Sheridan School Districts approved the formation of Arapahoe Junior College as a local district institution; AJC opened in Fall 1966. But in Adams, Boulder, Denver and Jefferson counties, efforts to initiate comprehensive junior college programs through local authorization and funding failed; and initially Arapahoe Junior College gave little indication of interest in providing a comprehensive community college program including substantial

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[1] See Committee for Education Beyond High School, Enrollment Projection Manual, December 1964, p. 40.

work in vocational-technical fields.

As the Colorado Commission on Higher Education took its first good look at higher education in the Denver Area in 1966, it found a number of serious problems:

1. The appropriate roles and relationships between the University's Denver Center and Metropolitan State College were undefined.

2. Metropolitan State College, described in the act establishing the college as part of the "state general college system," was vigorously engaged in developing programs not only in the arts and sciences and pre-professional areas but also in a wide spectrum of vocational-technical fields. Its efforts in the latter areas were in response to an objective stated in the legislation creating the college: "To provide and offer programs of instruction in semi-professional technical education in science and engineering technology on a terminal basis, either on its own campus or through contracts with public school districts" within the four counties.

3. Metropolitan State College interpreted "semi-professional technical education in science and engineering technology on a terminal basis" to imply the full range of occupational programming needed throughout the area by youth and adults, including in such areas as agriculture, applied and graphic arts, business and office occupations, health occupations, personal service occupations, and public services. There is ample indication of a broad public expectation that Metro would offer such programs, and indeed the College was criticized for not doing even more. Nevertheless, it seems evident that Metro State was not clearly envisioned as a two-year community junior college or as the center for the establishment of branch colleges throughout the area. The fact is that its intended role did not emerge clearly in the authorizing legislation. It appeared that Denver, in Metro State, had a part of a community college and--provided the Legislature so authorized--a four-year general college as well. But the area lacked a genuine community college system which would emphasize occupational programs for all youth and adults on an open-door basis.

Recommendations and Legislative Actions, 1967

Confronting this combination of needs and of partial steps toward solutions, the Commission gave major attention to the Denver Area in its 1967 proposals for "Strengthening Higher Education in Colorado." One of its leading proposals was that, within the state system of community colleges which it recommended, three such colleges be authorized

within the four-county area.

It recommended further that Metropolitan State College should be a four-year college offering undergraduate programs in the arts and sciences and in designated technical and professional fields. Metro should, as the background for the college indicated, "reflect and take full advantage of its urban setting." But the Commission advised that as the two-year schools become operative, these institutions should take over the two-year occupational programs and Metro State should focus on baccalaureate programs and on occupational and technical programs of more than two years. Moreover when the community colleges were available to provide an "open door," Metropolitan State College should establish admission standards that would give reasonable assurance that admitted students could succeed in its programs.

With respect to the Denver Center, the Commission proposed a role that would "emphasize progressively course offerings on the junior, senior, and graduate levels," with strict limitations upon entering freshmen and lower division transfer students. It noted its agreement with the University Regents that the Denver Center was not to be in any respect an independent university; it would serve as an urban center for the University, affording opportunity in University programs for residents of the core area and as a downtown "laboratory" for relevant programs centered in Boulder.

The 46th General Assembly enacted legislation to create the recommended State Community College System. It authorized establishment of a three-campus Community College of Denver, with units to open in the Fall of 1968, 1969, and 1970. It authorized Arapahoe Junior College to enter the State System either within or outside the Community College of Denver according to the College's preference. It authorized Metro State to proceed to institute junior- and senior-level programming in 1967-68 and 1968-69.

The Commission developed agreements with the Regents under which not more than 500 full-time-equivalent entering freshmen would be admitted at the Denver Center in each calendar year, nor transfer students with fewer than 45 semester credits acceptable in the program which such students wished to enter. The effect of these limitations was to make freshman admission in Denver somewhat tougher than in Boulder, and to reduce enrollments somewhat during 1967-68 and 1968-69.

Confronting the Unfinished Business

In the months following these actions of early 1967, with new community colleges in formation and with Metropolitan State College growing rapidly in program offerings and enrollments and entirely housed in rented space, planning for the Denver Area remained an acute problem. It was necessary to assess the prospects for enrollment growth in the several institutions, and the likely impact of the one upon the others. The respective roles of the several institutions, and especially the allocation of responsibilities for occupational programming among the high schools, community colleges, Metro State, and Emily Griffith Opportunity School, required delineation, and possibilities of cooperation in programming and in the sharing of resources of faculty and facilities needed exploration. Planning for development of permanent campuses was essential, and such planning needed to take into account the locations of other elements of the area's higher education resource.

Within the Metropolitan Area of Denver a wide range of post-high school educational opportunities is required to meet the needs of the residents and of public and private enterprise:

- Occupational education ranging from short courses of a few days or weeks to train for particular vocational skills, to programs of four years having technical and semi-professional job goals.

- Programs in the arts and sciences, for general education including areas of learning directly related to occupational goals, and for preparation for the baccalaureate degree and for professional and graduate study.

- Advanced graduate and professional study and related research.

The needed opportunities can be provided effectively and economically only if the roles and objectives of area institutions are clearly defined and interrelated. To this fundamental element of planning for the Denver Area, the Commission addressed itself in cooperation with the governing bodies of the institutions concerned.

Role Statements - Community College, State College, and University Center

Definitions of the roles and relationships of Metropolitan State College and the Community College of Denver are particularly crucial

because of the orientation of each to the urban community and to occupational programming. Statements of the roles of each institution were developed by the Commission and have been endorsed by the governing bodies of each. The detailed statements for these two institutions, and also for the Denver Center of the University of Colorado, appear in Appendix C.

These statements provide that the Community College will offer programs of up to two years beyond high school suited to the needs of youth and adults for both (a) "occupational, technical, and community service programs" and (b) "general education, including college transfer programs." The Community College "should be the principal institution in the Denver area emphasizing programs of occupational education beyond high school level." It should "have unrestricted admissions for high school graduates or students with comparable qualifications," and as provided by law, any person should be able to enroll in any courses that he "can reasonably be expected to successfully complete."

Metropolitan State College is defined as "an urban-oriented four-year college offering baccalaureate programs in the arts and science programs of more than two years in semi-professional technical education on a terminal basis, and programs in selected professions including business, education, and approved areas of the public and social services." Its offerings should relate on one hand to the lower division programming of the Community College and on the other "to graduate programs at the Denver Center of the University of Colorado without development of graduate programs at the College." Close liaison in the development of two-year occupational programs between Metro State and the Community College is anticipated and as the two-year colleges come into full operation the transfer of two-year applied science programs from Metro to the Community College is foreseen. Moreover as the "open door" community colleges are fully established, "admission requirements at MSC should be adjusted to provide reasonable assurance that admitted students can succeed in its programs. This will imply graduation in the upper two-thirds to upper half of the high school graduating class, or equivalent."

The role of the Denver Center would also evolve as the Community College and Metropolitan State College grow. "The needed long-term role for the Denver Center," the Commission states, "is that of a downtown University branch offering programs of instruction, research, and public service which are particularly relevant to the downtown location and which cannot be met through the Community College of Denver and Metropolitan State College. While undergraduate instruction will be available in Denver in some fields only through the Denver Center (for

example, engineering or architecture or pharmacy), the progressive development of the program at Metropolitan State College will make possible the further evolution of the Denver Center program and role to that, primarily, of a graduate center directly tied to programs in Boulder . . ."

Other Institutions and Programs

Arapahoe Junior College, formed as a local district-controlled, state-aided institution, serves an area-wide purpose, drawing about half of its students from outside the sponsoring district.

Since its opening in 1966, and as plans for enlarged facilities in a permanent campus near downtown Littleton have been developed, the College has extended its planning for occupational programming to that of a comprehensive community college, with differentiation of vocational-technical programs appropriate to a needed "mix" of such programs within the total metropolitan area. As these plans have evolved, the College and the State Board for Community Colleges and Occupational Education have agreed that Arapahoe Junior College should serve as an integral part of the total community college resource within the Denver Area. As authorized by the Legislature AJC is expected to enter the State Community College System in July 1970. In this changing role, Arapahoe Junior College will continue to serve the five counties of the Denver SMSA and adjacent counties, with large numbers of its students expected to come from the high schools of its immediate area.

Occupational education. Formation of the Colorado Community College System, with its strong occupational education thrust, has come at a time when interest in expanded vocational-technical programming has been growing rapidly in the high schools and for adults, as well as in some of the state colleges. The need for statewide planning for the orderly expansion of occupational programming is acute, in order that priorities may be established among needed program expansions, geographic areas, clientele groups to be served, and the like.

Within the Denver Area an important step has been taken through the establishment of the Coordinating Council for Occupational Education comprising representatives of the Denver Public Schools, Arapahoe Junior College, Community College of Denver, and Metropolitan State College. This Council has identified distinctive roles of the institutions represented and criteria for the planning and development of programs within the several educational levels and institutions concerned.

Independent Colleges and University of Denver. The three independent colleges of the Denver Area--Loretto Heights, Regis, and Temple Buell--and the University of Denver represent an invaluable higher education resource to the area and to the state. All give emphasis to the liberal arts and sciences and to professional preparation for teaching; Loretto Heights in addition offers a baccalaureate program in nursing, and the University of Denver offers undergraduate and advanced professional as well as graduate programs in many areas typical of a comprehensive university.

In the past and until the later 1950's, to a degree the University of Denver served as a "streetcar college" in Denver, much as urban private universities have done in other major cities. However in the course of the 1950's, the program and student body of the University of Denver came to reflect the growing national role of the University. Rapidly-increasing tuition charges served, particularly in the absence of a state student aid program, to restrain enrollment of local residents. By the 1960's the University of Denver was clearly a national institution in the complexion of its student body as well as its faculty. Public institutions were needed in Denver to fill the void that to some extent the University had been able to fill in the past.

Loretto Heights, Regis, and Temple Buell Colleges also enroll large numbers of students from other states, particularly from the Central and Western United States. Regis College attracts a substantial number of commuting students. While Regis anticipates some expansion in enrollments during the next decade it is apparent that the private institutions taken together will be unable to make a large quantitative contribution in providing needed places. Nonetheless given the opportunity, the private colleges and the University of Denver can make an even larger contribution in the future than they are making at present in the absence of any attempt on the part of the state to utilize their resources.

It seems possible that some of the programs and facilities at the University of Denver can serve needs of the state if arrangements suitable to the University and the state can be developed, in lieu of providing facilities and faculty in public institutions in Denver. Such areas as hotel management, social work, librarianship, and engineering are illustrations worthy of special consideration. It seems likely also that all of the private institutions in the area might be able to enroll larger numbers of local residents if appropriate financial arrangements could be made through contract or otherwise. The Commission is exploring such possible avenues of cooperation.

Links among the private and between the public and private institutions in both instructional and administrative-managerial areas also hold promise. The participation of the private institutions in the Colorado Higher Education Systems Sharing (CHESS) information system should contribute significantly to this end.

Planning for Campus Development

The development of public higher education in Colorado over many years left the metropolitan areas as great vacant spaces, excepting Pueblo with its two-year institution, until the 1960's almost concurrently with the great increase in college enrollments that occurred as the "tidal-wave of post-war babies" began to turn 18 years of age. The establishment of Southern Colorado State College in 1961, Metropolitan State College in 1963, and of the three-campus Community College of Denver and El Paso Community College in 1967 were important actions urgently required to fill significant portions of the urban void. Providing for the development of their programs and planning for their appropriate siting and facilities has represented a top current priority for the state.

The key to planning for appropriate facilities for the public institutions in the Denver Area--including the changing programs of the Denver Center, Community College of Denver, and Arapahoe Junior College--is the location of Metropolitan State College. In breadth of program and in enrollments, this institution is expected to be the largest to be located in one campus area (the ultimate enrollments of all units of CCD may surpass those of Metro State).

Moreover, MSC has grown rapidly and gives promise of continuing to grow so rapidly that there is the greatest urgency in providing permanent facilities for this institution. By 1969 it had become extremely difficult and costly to provide additional space within walking distance of the present facilities. Rental costs approach $1 million per year. Originally targeting its occupancy of permanent space in the Fall of 1972, the College has been forced by the pace of planning and site acquisition to push its expected occupancy date back to Fall 1973 and possibly to Fall 1974. For these reasons the determination of the campus site for Metropolitan State College and the preparation of construction plans is urgent.

The College developed, in 1966, a procedure for site selection which began with delineation of the goals of the College; identification of criteria and appropriate weighting of the criteria to be applied to various

site proposals; preliminary review of a large number of sites, and intensive study of the most promising of them from the standpoint of traffic access and circulation, population characteristics, centers of employment, site environment, existing conditions on the site, proposed land use, zoning, utilities, soils and grading, and cost. A nationally prominent planning firm was retained by the College to assist in the site selection process. The studies eventuated in the recommendation, approved by the Trustees of the State Colleges in Colorado in mid-February 1968, of a site in the original settlement area of Denver known as Auraria, immediately to the west of the downtown business and commercial area.[2]

In independent studies undertaken for the Downtown Denver Master Plan Committee by John Dempsey and Associates and by the Planning Office of the City and County of Denver, the Auraria area had previously been identified as the most promising of possible sites within the City. The College's own study confirmed these findings.

It was a condition of Trustee approval that the Auraria site be an Urban Renewal area, since on any other basis site acquisition costs were deemed to be excessive. The necessary applications were submitted by the Denver Urban Renewal Authority in spring 1968.

The Higher Education Center Concept

Coordination of planning efforts of Denver Area institutions with respect both to their programs and their needed facilities was undertaken by the Commission in cooperation with the area institutions through the Metropolitan Denver Council on Higher Education, a group appointed by the Commission in October 1967.

At a meeting of this Council July 30, 1968, a new concept for the possible development of the Auraria area emerged. The Denver Center of the University and the Emily Griffith Opportunity School are virtually "across the street" from the Auraria site where MSC desired to locate. The idea was broached that these institutions together with the Community College of Denver should explore the possibility that there might be developed at Auraria a Higher Education Center that would link these institutions in appropriate ways, and would involve sharing of certain programs and facilities to the advantage of all concerned.

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2 See Albert C. Martin and Associates, Metropolitan State College Site Selection Study (1968).

Exploration of the Higher Education Center idea proceeded within the framework of the Metropolitan Denver Council, with Commission leadership. A "Working Committee" representing the executive heads and planning officers of each institution, with the directors of the Denver Planning Office and Regional Council of Governments as ex officio members and with the Commission director as chairman, undertook an intensive study of the idea. In September 1968, with the encouragement of the Working Committee, the Commission employed Lamar Kelsey Associates of Colorado Springs to study the feasibility of locating such a Center at Auraria, having reference particularly to the physical characteristics of the site as they would bear upon the large operation that such a Center would represent.

Kelsey presented his findings in early November. They served strongly to confirm the potential of the Higher Education Center concept and to indicate that the Auraria site could readily accommodate such a Center.[3]

Approval of the Auraria urban renewal application by the U.S. Department of Housing and Urban Development in mid-January 1969, and reservation of $12.4 millions representing the federal share of the cost, has given a strong boost to the project. The Colorado Commission on Higher Education, in late January 1969, endorsed the Higher Education Center concept and committed itself to work for state participation, with local governmental and private persons and agencies, in developing the needed site acquisition funds. It acknowledged that the Center promises to make a contribution to higher education in this state that can be made in no other way. Seen from the not-so-distant year 2000--or even from 1980--such a Center holds the promise of providing a range and quality of educational programs, and of an economy of resources, that geographically-dispersed institutions could never attain.

Planning for 1980 and Beyond

It is planning for 1980 and beyond that presents, in 1970, the challenge and the opportunity to Colorado higher education institutions, the Governor and the Legislature. The fact is that planning that is started in 1970 could not produce physical accommodations for educational programs

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3 Higher Education Center, Auraria Area, Denver, Colorado (December 1968).

prior to 1975 at the earliest. Metropolitan State College was, in a beginning sense, "planned" in 1962 and 1963 when its establishment was authorized by the Legislature. The earliest date at which Metro State can occupy an initial complement of permanent buildings at Auraria or elsewhere will be Fall 1973, more than ten years after the legislative authorization of the College, because of the time required for initial start-up, master planning and program planning, physical planning of specific buildings, and construction and furnishing of the structures. Thus in 1970, planning for 1980 is short-range or at most, intermediate-range planning. Though it is obvious that a great many eventualities may alter the shape of things to come, it is essential that current thinking and planning be projected even beyond 1980.

A great deal has been accomplished in the Denver Area since the mid-1960's to provide a base for a new level of higher educational service, as earlier pages have indicated. To summarize: Metropolitan State College was authorized in 1963 and opened in 1965; the program of the Denver Center of the University of Colorado was broadened and strengthened through action of the Regents in 1964 and 1965; Arapahoe Junior College was opened in 1966, and campuses of the Community College of Denver in 1968 and 1969 (with a third to follow in 1970); definitions of purpose which serve to differentiate the programs of these institutions have been worked out by the Commission and governing boards concerned; and extensive study has been given to the possibility that a higher education center be developed at Auraria, a downtown site, offering a wide range of programs and involving cooperation and sharing of some programs, personnel, and facilities by the Community College and four-year institutions.

Yet, the planning which has been done is heavily rooted in assumptions derived from past experience and in projections from data that come from institutions and activities operating in the past. Of course this is the sound and the conservative way to plan for the future. However it should be apparent to all that higher education in Denver in the past provides inadequate guidelines for the future. It is scarcely an exaggeration to say that there was no public higher education in Denver in the past to provide a base for projecting into the future.

Planning for the Community College of Denver undertaken within the past six months by consultants whose assumptions were based upon experience in other cities and states as applied to population and employment data in the Denver Area indicate a demand for community college enrollment substantially larger than that projected by the Commission. A similar current projection by a second firm for El Paso Community

College in Colorado Springs produces comparable results. There seems little doubt, in light of the tremendous response to the new community colleges in both Denver and Colorado Springs that these new kinds of institutions are meeting a demand which has long been unrecognized because of the absence of any such opportunities. The urban commuter community colleges are here to stay. These new institutions will make a significant impact upon the total higher education system through expanding the range and availability of educational opportunity rather than through deflecting enrollments from some institutions to others.

But other changes lie ahead. As earlier chapters have pointed out, some of the four-year residential-type institutions have attained a size at which further growth would require costly efforts to enlarge the campuses and to provide academic structures at greater density. At the least, it can be said that most of the older four-year colleges and universities have attained a size which permits efficient levels of operation and a range of programming adequate to their missions. The older argument that these institutions must grow in order to afford an appropriate breadth of program is now outdated. Limitations upon growth at some of these institutions must be instituted soon. This is an entirely new condition in higher education in Colorado, and it contributes to the changing circumstances in which planning for 1980 and beyond must be done.

More significantly still, the response of Colorado students to the new commuter colleges indicates that the commuter institution serves needs that the older residential college system failed to serve. The most fundamental state goal in higher education--the expansion of educational opportunity for all groups--can best be achieved through a progressive slowing down of enrollment growth in residential colleges, of which Colorado has an excellent variety and distribution, and appropriate expansion of opportunities in commuter-type schools. This idea and possibility is also new in Colorado and underlines the importance of planning that is relevant to 1980 and beyond.

All of these new elements as well as the older components of our higher education system are affected by new technologies in education and in communication which also may have major effects upon the structuring and operation of educational institutions. It is true that the possibilities of major breakthroughs in communication and teaching techniques cannot be foreseen with a degree of clarity which permits current planning based upon entirely new systems. Yet the advent and the impact of television in the twenty years after the War suggest how significant a change may be brought about even by techniques which may now appear to hold little promise. This possibility puts a premium upon planning which leaves room for change.

Planning for higher education in the Denver Metropolitan Area needs to take account of all these elements, as well as the prospects for area growth that will profoundly affect where and how people live, work, learn, play, and move about from place to place.

In confronting this prospect of continuing rapid growth and change, it seems evident both from the history of the community colleges in other states and from the response to these institutions here, that the program offered in the comprehensive community college will meet a continuing need. Since these institutions are relatively small and require relatively less investment in physical plant than larger four-year institutions, it will be relatively simple to adapt them to changing conditions. A community college which in 1970 emphasizes one area of programming can emphasize a different program area in 1980 with little difficulty, if changing employment opportunities or student clientele suggest such change.

A second area of continuing need for educational programming will undoubtedly be that offered by the four-year colleges--baccalaureate and advanced degree programs in the arts, sciences, and professions. The historic concern for the advancement of knowledge through research and public service functions associated with the four-year colleges and universities can also be expected to be a continuing need in any technologically advanced society. Thus the need in the Denver Area for the types of programming now extended by Metropolitan State College and the Denver Center of the University of Colorado will surely continue, though changes must be expected in the areas of chief interest and importance and undoubtedly in the manner in which such programming is offered. Planning for the longer-term future should regard the efforts of both institutions as complementary parts of a single educational program which now is organized in two separate institutions but which over time can afford possibilities of other forms of organization.

The concept of a Higher Education Center at Auraria permits a wide range of alternative lines of development both in the near future and in the long run. It seems apparent that the Auraria concept of cooperating institutions provides greater flexibility for future development than an alternative which would scatter the present institutions in other locations. Three institutions utilizing facilities in a common area may organize their programs in very different ways in the future while continuing to put all of the available facilities to use. If one institution grows more rapidly than expected while another grows more slowly than expected, the needs of one can be met in the under-used spaces of another. One may establish an outpost campus, or operate portions of its program in "storefront" classrooms, or even move from the site altogether

without jeopardizing the use of facilities for the educational programs which remain. Contrariwise, if the present institutions are accommodated in self-contained campuses scattered through the metropolitan area, the institutions and their neighboring communities will develop vested interests in their continuation which will restrict the possibility of flexible response to changing conditions and opportunities.

The Commission and the institutions cooperating in the study of the Auraria Higher Education Center concept propose that the Center encompass the full range of programming represented today by the offerings of the Community College of Denver, Metropolitan State College, and the Denver Center of the University of Colorado, with participation in selected areas by the Emily Griffith Opportunity School. Such a Center makes possible the sharing of programs, personnel, and certain facilities which will greatly improve the opportunity and the quality of education for the student at least cost to the student, parent, and taxpayer. This cooperative endeavor provides an open-ended opportunity for the three institutions to develop programs and facilities which no one of them alone could provide. The sharing efforts of today may be extended or changed tomorrow, depending upon changing conditions, needs, and opportunities. On the other hand, separate locations for Metro State and the Denver Center would virtually assure continuing pressures for both to develop a full range of undergraduate programs and ultimately, of duplicative graduate programs as well; and a location for Metro State entirely separate from any of the Community College campuses would remove the possibility of sharing of occupational programs and facilities that could extend opportunities available to students and reduce costs in both institutions.

The Commission and the institutions cooperating in the Auraria Center study are interested also in planning for permanent campus locations for the Community College elsewhere in the Metropolitan Area which will be sufficiently large and appropriately located to accommodate selected programs of MSC and the Denver Center as well. Through such developments the range of programming available within the Metropolitan Area can be significantly expanded at the same time that some of the growth that would otherwise occur at the central site can be decentralized. The Community College site in Jefferson County is suited to this expanded concept of service and any future permanent campus site for the Community College should similarly be planned to make this kind of development possible.

Colorado has undertaken major commitments since 1963 to provide in the Denver Area the range and extent of post-secondary educational opportunity long needed by its public and private enterprise and by

its citizenry, young and not so young. Performing on these commitments by providing the facilities required to house the new programs for the thousands of youth and adults who are availing themselves of these opportunities, remains to be accomplished. Failure to provide such facilities will lead to pulling the doors shut once again, and to costs in rents and larger construction charges which are growing more severe every year.

Seen from the perspective of 1980 and beyond, any such failure to respond to the needs and the opportunities of 1970 cannot fail to loom as a principal cause of a progressive decline, rather than a continued growth in attractiveness and strength, of the major population center of the state.

Chapter 5

COORDINATION, PLANNING, AND GOVERNANCE OF HIGHER EDUCATION IN COLORADO

The Colorado Commission on Higher Education was created by the Legislature in 1965 and came into operation in June of that year. Its establishment followed a good many years of consideration and experimentation as to ways and means of providing for a unified and long-range view of higher education in the state. Such a view was essential in order to assess current efforts, needed support levels, and desirable expansions. Over a period of years the Joint Budget Committee and the Legislative Committee for Education Beyond High School made significant efforts to fulfill this needed role. In the early 1960's in addition to these efforts, state funds were allocated for a staff directorate for the Association of State Institutions of Higher Education in Colorado, the voluntary association of public four-year college and university presidents, which made further and important contributions to this end.

But at no time was a structure devised that was universally acknowledged to be satisfactory. The establishment of the Commission was, in this context, an additional step in the search for an optimum structure. There is every reason to expect that the search will continue, in Colorado as it continues in most states, for even if a particular structure were deemed perfect in a given time and place, the system of higher education is growing and changing so rapidly that any structure must change or fall behind the needs of the times.

The Colorado Commission on Higher Education

The Act establishing the Commission provided for a bi-partisan body of seven laymen appointed by the Governor with the consent of the Senate to have responsibility for planning for the further development of post-high school educational opportunities, and for coordinating the present institutions, "with due consideration of . . . the ability of the state to support public higher education"--all of this to be accomplished with recognition of "the constitutional and statutory responsibilities of duly constituted governing boards of institutions of higher education in Colorado." The Act provided for an Advisory Committee comprising designated representatives of both Houses of the General Assembly and of the several governing boards. The Commission was authorized to employ an executive director to serve at its pleasure, and the director in turn, to

employ staff within approved budgets.

The principal assignments of responsibility and authority to the Commission are these:

1. The Commission reviews operating budget requests of the institutions of higher education, and provides comments and recommendations including judgments concerning priorities, to the Governor. It does substantially the same with capital construction requests. While this "authority" is recommendatory only, the role of the Commission in budget-building is the principal source of its influence with governing boards and institutions, and it is of major importance in its relations with the Legislature as well.

2. The Commission is empowered to approve preliminary planning for state-supported capital construction projects and for long-range planning more generally.

3. The Commission reviews and may approve or deny any "new degree program" proposed to be offered in any of the colleges supported by the State.

4. By implication from these and other powers conveyed in the Act, a major responsibility of the Commission is the preparation of plans for the development of higher education in the state, within which the roles of present institutions are specified.

5. By Executive Order and by virtue of the Reorganization Act, within a framework of planning which encompasses all state agencies the Commission reviews plans and operations of institutions of higher education relating to automatic data processing.

6. The Commission serves as the state agency to administer the federal Higher Education Facilities Act and several other federal programs as assigned by the Governor.

Other functions of the Commission are advisory in nature--such as reviewing existing programs, roles, and functions of the colleges, recommending on the establishment of new institutions, making studies and reports relative to plans and policies for higher education, and cooperating with the controller, auditor and other state agencies in various fiscal and administrative matters.

The Reorganization Act of 1968 created the Department of Higher

Education and designated the Executive Director of the Commission as its head. It brought the Commission and the institutions of higher education and their governing boards within the Department but left unchanged their relationships to executive and legislative agencies, including the head of the Department. It also brought into the Department the State Historical Society, Council on Arts and Humanities, and Scientific Development Commission with provision that the Executive Director's authority respecting these three divisions would be the same as that assigned by the Act to other heads of executive departments.

The Colorado Commission on Higher Education is, in broad strokes, an agency intended to help the Governor and Legislature see the big issues in higher education and hopefully to make the right decisions, whether in the establishment of new institutions, the closing out of old programs, the funding of new buildings, the establishment of support levels for regular operations. It is an agency whose only reason for being is to strengthen the total system of higher education, an agency which must nevertheless disappoint some of the aspirations of individual institutions, and of individual communities, and of individual legislators, in the interest of proceeding according to priorities of the state.

The Initial Years

When the Colorado Commission on Higher Education was established in 1965, the four boards having governing responsibility for the state colleges and universities acknowledged the need for a coordinating mechanism, but the implications of assigning to a new coordinating board some of the functions and authority previously exercised by the governing boards, or left unassigned, could be only imperfectly foreseen.

Developments since 1965 within the structure of the governing boards have affected the higher education organization in Colorado significantly.

1. In 1965 the Trustees of the State Colleges in Colorado acted in effect as five boards, serving individually as a board for each of the state colleges. There was no Board staff until 1962; in 1965 there was only the Secretary and his clerical support. Institution administrations gave staff services to the Board, with the Secretary providing a "secretariat" function as distinguished from a planning or management function.

Since 1965 this condition has changed and the change has markedly affected provisions for coordination of higher education in

Colorado. The Board has taken a number of steps to deal with the colleges as a unified group of institutions. It considers such matters as the development of new programs, formulation of budget requests, and faculty and student personnel policies for the five colleges as they interrelate within a system rather than on a discrete basis for each college. To accomplish these policy and procedural changes the Board has leaned increasingly on a growing central staff as well as on systemwide committees staffed by central office personnel.

2. The State Board for Community Colleges and Occupational Education has been created; it is organized in two Divisions and the Secretary's office. The Division of Occupational Education is essentially the office of the former Board for Vocational Education. The Secretary serves a "secretariat" function relating to meetings of the Board and performs services of Board representation. The Division of Community Colleges is the central office for the new State Community College System and successor to the junior college office of the State Board of Education respecting the local district junior colleges. This office exercises the full range of coordinating and governing tasks of the Trustees of the State Colleges. Like the State College Trustees, this board has been expanding its coordinating role concurrently with the Commission.

3. Some limitations inherent in the structure of other boards have become more evident since 1965. Operation of Fort Lewis College by The State Board of Agriculture, the governing body of Colorado State University, was appropriate when Fort Lewis was a specialized two-year "A&M" institution, but there appears to be no special rationale for its governance by the board for Colorado State University since Fort Lewis has (in 1962) become a four-year state college.

4. Suggestions for changes in the Board of Trustees of the Colorado School of Mines were made by the Task Force appointed by the Commission to study the role of the School, in the Task Force report of January 1968: "The Task Force recommends that the term of continuous service of individual members be limited and that the board have better representation from non-alumni and from other activities than the mineral industry. A somewhat larger board might also provide a means whereby the voice of the general community can be heard."

5. Since 1965, limitations in arrangements respecting the Regents of the University of Colorado have been apparent. The small size of the Board combined with its selection in partisan elections brings into undue prominence issues that divide the Board. The constitutional provision that the University's chief executive officer is also the Board's presiding officer forces this officer into the untenable position, when the Board is split, of determining issues of policy that are the responsibility of the Board.

At the state coordinating level there have been significant changes since 1965 also. Steps have been taken by the Colorado Commission on Higher Education to spell out plans for the statewide development of the public system of education beyond high school and to delineate the roles and functions of institutions and groups of institutions within the overall system. Coordination of institution programs, and controls over institution growth to be consistent with institution roles within the statewide plans, have been initiated. The development of a comprehensive system of information about enrollments, physical facilities, and instructional output is well advanced, upon the basis of which more detailed and authoritative policies and guidelines relating to current performance and needed directions of development and financial support can be based.

Since the establishment of the Commission there have been several proposals for modifying the structure of higher education coordination and governance, and in the 1969 legislative session a wide range of proposals was advanced. It has been proposed in each of the past three years that a single board of regents or trustees be created to govern all of the senior colleges and universities. A proposal introduced in 1969 is that Colorado State University, the Colorado School of Mines, Colorado State College at Greeley, and the centers of the University of Colorado be made "campuses, centers and branches" of the University of Colorado at Boulder under a Board of Regents appointed by the Governor. Under another, these same units would become components of the University of Colorado governed by the Regents as now constituted. Yet another idea is that CSC be administered by the State Board of Agriculture along with CSU, and that Fort Lewis College be transferred to the State Colleges board. Still another is that the state abandon altogether its efforts to plan and coordinate in higher education and abolish the Colorado Commission on Higher Education.

Goals for Higher Education Organization

Though there is no national "model," there are certain goals for a higher education system and means for fostering such a system which are broadly accepted in Colorado and throughout the country.

First, higher education that is relevant to the needs of a highly diverse population, to education for effective citizenship and to the requirements of our varied public and private enterprise, must include a wide span of learning opportunities. Higher education today has to be a far cry from that of the early 1800's, when law, medicine, college teaching and the ministry were the only pursuits for which a college

education was expected.

Thus, second, the development of an effective overall program of higher education is a many-sided task. No single institution can excel across the wide and varied range of needed programs.

As in other areas of human enterprise, this means, third, that specialties have developed among higher education institutions. In the mid-19th century, so far as public education institutions are concerned there were only the universities. Later the land-grant colleges and the normal schools and state colleges developed, meeting needs quite different from those fulfilled by the universities; and in recent years the two-year community junior colleges have emerged as a major and rapidly-growing component of the total system of education beyond high school. In most states today in the public sector of higher education there are comprehensive universities, general colleges which typically have developed out of the former normal schools and teachers colleges, two-year community junior colleges, and occasionally, specialized institutions such as the Colorado School of Mines.

To take the basic responsibility for fostering, evaluating, and determining the policies governing public higher education institutions in America, the board of lay citizens has acted as an intermediary between the political officers of government (executive and legislative) on the one hand and the professionals who actually operate the institutions (faculty and administration) on the other. The usefulness of lay governing boards is proven in the unparalleled development of post-high school educational opportunities in this country as compared to any other. Without claiming that the lay board is the only factor in this development, it seems evident that the lay governing board has been an effective liaison between the institutions and political officers who are directly answerable to the majority will within the framework of our constitutional system. The lay governing board represents a fourth characteristic or principle which helps point to a desirable organization structure.

It is notable that the essential tasks of the lay board involve the setting, within a statewide policy framework, of major policy guidelines for institutional growth, the development of needed support, and the selection of the professional leadership. Lay boards discharging essentially these same tasks have been used in America to operate the public schools as well as individual colleges and universities and systems of colleges and universities.

To be effective, fifth, lay boards comprising citizen members

whose full-time occupations demand most of their energies, require professional staff assistance in the formulation and follow-up of the board's business.

A sixth characteristic or principle affecting higher education structure is that a single lay body within each state is usually found to be insufficient to operate a large number of institutions responsible for a wide span of educational programming. With so many educational components, a single board can devote little time to the affairs of any, and the board staff rather than the board itself becomes the critical agency for policy making. In most states there are separate boards concerned with the public schools, the post-secondary education system, and post-high school institutions or groups of institutions within that system.

Seventh, it is natural and appropriate that the professional head of each institution be essentially single-minded in his loyalties and dedication to the objectives of his own institution. His partisanship is partially duplicated in the board he serves, but as a citizen group drawn from the wider community the board should be sensitive to the wider needs and goals of the state.

With the institution head dedicated to the focused goals of the institution, and with the governing board charged with fostering and determining the guiding policies for an institution or group of institutions, it is essential, eighth, that means be provided for the effectuation of an overall view of educational needs and goals of the state and for an overall assessment of performance. In the past when higher education was a much smaller segment of state activity, governors and legislative committees attempted to fulfill this function. Under present circumstances, virtually all states have found it necessary to provide for public higher education the kind of overall planning and coordination by a lay board and staff which for many decades the states have provided for public school affairs.

Organization of Higher Education Coordination: The Alternatives

The twin functions of operating the higher education institutions and of planning for needed new programs within a state are organized in almost as many different ways as there are states in the Union.

In all the states, boards comprising laymen (sometimes with governmental officers added, ex-officio) are vested with responsiblities of operating the existing institutions of higher education. Typically, boards of trustees (sometimes called regents or overseers or visitors or by

other titles) are empowered by law to hold property, approve courses of study, prescribe qualifications for admission of students, appoint institution officers including faculty members, fix salaries, provide the buildings, award degrees and diplomas, and generally to have direct operating responsibility for the institution or institutions governed. Many of these functions are delegated to administrative and faculty officers and groups, though the legal responsibility is vested in the board.

Such boards of trustees may, and particularly in the public sector of higher education often do, administer more than one institution. Boards which have legal responsibility for the operation of higher educational institutions are characterized as governing boards.

In the past 20 years a second type of board, known as a coordinating board, has become common among the states, particularly in states having substantial numbers of and variety among its public higher educational institutions. Coordinating boards are assigned a statewide responsibility, usually applying to all of the existing two-year and four-year public (and sometimes the private) institutions, but extending to a concern for those postsecondary educational needs of the state that are not yet met by the present institutions and programs. Coordinating boards thus have responsibilities both to coordinate the present institutions and to assess statewide needs and develop plans for meeting such needs.

The two functions--governance and coordination--are closely interrelated. Institutions can hardly function effectively without awareness of the statewide needs and of activities going on in other places. Planning and coordination, on the other hand, must take account of current efforts and needs in the existing institutions.

To organize the total higher educational system so as to foster the individuality of institutions which meet differing aspects of the total need, without promoting local and partisan influence that will obstruct the accomplishment of statewide objectives and priorities--this is the task the states face in developing structures for governance and coordination. Major alternatives, appropriately polarized to highlight distinctions among them, are characterized below.

1. The Single Governing Board for Higher Education

One statewide board of higher education, appointed by the governor with senate confirmation, would carry out the functions of planning and coordinating and of governing all of the institutions of higher education. It might also operate various federal programs of statewide assistance.

The single governing board has the advantages, and the limitations, that go with central planning and control. A single governing body has the virtue that lines of authority are readily understood--they run exclusively to the governing board, except as that body shares its authority by delegation to the institutions governed. Since there would be no separate coordinating board, there is no confusion of function or authority between the governing board, with its operating responsibilities for the institutions, and a coordinating body having superior powers in the areas of evaluation and planning relative to statewide goals.

With a single board responsible for all of the institutions, centralized planning and direction for institutional development would be possible. Needless duplication of programs, staffing, or facilities can readily be avoided.

The single governing body has a number of limitations:

1. It involves as lay persons in the planning and development and support of higher education only the limited number of its own members. The limited number of laymen involved reduces the effectiveness both of lay control and of lay representation to the public of the nature and the needs of higher education.

2. The single governing board which has responsibility for eight or ten or more colleges and universities has too wide a variety and too numerous a group of institutions to be able to establish a deep knowledge of any one of them. This reduces the board's ability to respond effectively to the request of the president of any institution for guidance; or to have the knowledge necessary to determine issues arising between institutions or between any of the institutions and the board's own staff.

3. It is possible that a single governing board might operate the two-year as well as the four-year institutions, though proposals advanced in Colorado in recent years have not placed the community junior colleges within the proposed central structure. To include the junior colleges is likely to increase the number of institutions governed to unmanageable proportions and to risk the overshadowing of their unique programs by the more traditional four-year schools; to leave them out is to create a need for a separate body to coordinate the two-year and senior college systems.

4. To get its work done a single governing body must either delegate large elements of authority to the institutions, in which case its potential for centralized planning and control is reduced; or it must lodge this authority in the board's staff. The latter practice creates a kind of

super-presidency and a central bureaucracy upon which the board necessarily depends, but which is a long step removed from direct knowledge of the campuses. The effect of a single governing board is to reduce the power of laymen to control higher education either by vesting that power in a central staff or by leaving the development of the institutions largely to the presidents.

5. The single governing body may lend itself to an excessive standardizing among the institutions governed. The gains in rational procedure and commonality of practice may be more than offset by losses in initiative and innovation which are the natural product of individual freedom and enterprise.

6. Operating functions and planning functions appear too often to be mutually exclusive responsibilities of single executives and boards of trustees. While forward planning is a major responsibility of any executive person or body, the difficulties executives have in finding time for study and reflection relative to the future are well known. Planning is the central responsibility of a coordinating board.

II. A Governing Board for Each Institution Within a Structure of Coordination

Opposite in concept from the single governing board is the plan under which each institution has its own governing body and all of the governing boards are subject to the coordinating powers of a central planning and coordinating body such as the Colorado Commission on Higher Education.

Under this alternative, the head of the institution and his staff ordinarily constitute the only staff that the governing board has or needs. When boards operate groups of several institutions they require a central staff of their own to review and report upon institution proposals and performance indicators. Thus, though providing a separate board for each institution might appear to be a proliferation of boards, this plan actually reduces the numbers of staff members needed to serve the boards.

The advantages of providing a governing board for each institution within a structure of coordination include the involvement of a large number of lay persons in the development of higher education and the provision of a knowledgeable group of laymen who are committed to the well-being of each institution and to the review of policies and programs advanced by the college administration. Lay control is emphasized.

Disadvantages include the possibility of a fragmented growth

of higher education through excessive competition among institutions and local pressure in behalf of particular institutions or programs.

Whether the disadvantages can be avoided and the advantages realized will depend upon the authority assigned to and the effectiveness achieved by the coordinating mechanism. With adequate authority and staff to permit the coordinating board to give effect to its standards and policies, this arrangement may attain the unity and direction of the statewide governing board system while preserving the strengths inherent in institutional governing boards.

III. Governing Board for Major Sectors Within a Structure of Coordination

Something of a middle ground between the single governing board of Alternative I and the decentralized-but-coordinated system represented by Alternative II is the proposal that the structure of higher education comprise governing boards for (a) university, (b) college, and (c) community college sectors, with a coordinating commission. Each of the three boards would be in some respects a "coordinating-governing" board. In Colorado at the present time a single board governs five of the six state colleges and another governs all institutions in the state community college system.

Such an organization of the governing structure for higher education might give emphasis to the special qualities of each of the major sectors of higher education--the comprehensive, open-door feature of the community colleges; the teaching emphasis which characterizes the state colleges; the particular emphasis upon advanced levels of instruction and upon research at the universities. Since one board would be governing all of the institutions of a kind, this plan might also serve to tighten up control over program development, to encourage the sharing of resources, and to avoid needless duplication within each sector.

Possible disadvantages include the following:

1. "Coordinating-governing" boards must have staff assistance to review information and proposals coming from the institutions and to prepare recommendations for the board; such boards can hardly exercise their responsibilities of evaluation and decision-making without staff support. However, review at the governing board level does not remove the need for a subsequent review at the coordinating board level, where systemwide and statewide criteria must be applied. Thus overlapping of authority and duplication of staff effort are inevitable.

Commission Recommendations

The basic question facing the state is whether a system of statewide governing or of statewide coordination is most desirable.

The Commission favors a system built upon the principle of coordination. It believes that the needed functions of statewide evaluation and planning will get more attention from a coordinating board than from a statewide governing body weighted down with the problems of operating a great many institutions. It believes that institutions will exhibit greater imagination and capability in dealing with their special opportunities and problems when a maximum of authority consistent with systemwide goals and priorities is left at the institution level. Institution identity and aspirations are in truth the "engine" that drives the higher education machine. In addition, freedom from partisan interference is better assured when power is decentralized; and higher education without that freedom is no higher education at all. Moreover a system of coordination does not require the scope and size of central staff needed by a statewide board which has actual governing and operating responsibilities for the several institutions of higher education.

If the state were starting fresh to organize higher education, the Commission would recommend that each institution have its own board of governors and that a state coordinating body be empowered much as the Commission is, though with limited extensions of authority over programs and fiscal matters. In the Colorado system as it has developed over the years, three of the five governing boards superintend groups of institutions and in some respects act as coordinating bodies in their own sectors, sometimes competing with or duplicating efforts of the statewide coordinating board. Because of the difficulties inherent in this arrangement the Commission would not recommend the expansion of responsibility of the present boards which operate several institutions. It would recommend that any four-year institution which is created or reorganized in the future have a governing board of its own. At the same time, the Commission believes that working relationships have been developed between the coordinating-governing boards and the Commission which upon the whole have been effective and that definitions of respective areas of responsibility are being developed in ways that give promise that coordination rather than central governance can be successful in strengthening the system of higher education in Colorado.

Appendix A, Table 1

Off-campus credit extension courses and enrollments, 1968-69, in 20 counties of largest population

	County	Population 1/	Courses	Fields	Enrollment	Institutions 2/
1	Denver	482,309	126	14	2,463	ASC, CSC, MSC, CU, CSU
2	Jefferson	219,303	78	12	1,854	ASC, CSC, WSC, CSU
3	El Paso	196,700	281	17	4,149	ASC, CSC, SCSC, WSC, AJC, CU, CSU
4	Adams	169,484	22	4	892	ASC, CSC, WSC
5	Arapahoe	140,540	23	7	620	ASC, CSC, CSU
6	Pueblo	124,564	28	6	570	ASC, SCSC, WSC, CSU
7	Boulder	112,060	46	7	700	CSC, CU, CSU
8	Weld	81,085	3	2	226	CSC, CSU
9	Larimer	80,842	24	6	290	CSC, CSU
10	Mesa	57,838	24	7	300	WSC, CU, CSU
11	Otero	26,807	12	5	185	ASC, WSC, CSU
12	Fremont	21,286	82	14	1,263	ASC, SCSC, WSC, CSU
13	Montrose	20,818	7	4	107	WSC
14	Logan	19,750	4	1	140	ASC, CSC, CSU
15	Morgan	19,683	4	4	146	CSC
16	La Plata	18,171	1	1	1	CSU
17	Las Animas	16,800	16	1	203	ASC, CSU
18	Delta	15,872	4	2	79	WSC
19	Garfield	15,232	4	2	69	WSC, CU
20	Montezuma	13,242	8	3	178	ASC, CSU, CU

1/ Est. of Colorado State Planning Office in Population Projections, 1960-80.
2/ Additional course enrollments by Aims College were reported too late for inclusion.

Appendix A, Table 2

Off-campus credit extension courses and enrollments, 1968-69
10 counties of largest enrollment

	County	No. Courses	No. Enrollments
1	El Paso	281	4,149
2	Denver	126	2,463
3	Jefferson	78	1,854
4	Fremont	82	1,263
5	Adams	22	892
6	Boulder	46	700
7	Arapahoe	23	620
8	Pueblo	28	570
9	Mesa	24	300
10	Larimer	24	290
	Total, 10 counties	734	13,101
	Total, all (40) counties	875	15,604
	Per Cent 10 counties of total	83.9	84.0
11	Weld	3	226
12	Pitkin	12	215
13	Las Animas	16	203
14	Otero	12	185
15	Montezuma	8	178
16	Routt	10	154
17	Morgan	4	146
18	Logan	4	140
19	Montrose	7	107
20	Lake	6	103
	Total, 20 counties	816	14,758
	Total, all (40) counties	875	15,604
	Per Cent 20 counties of total	93.3	94.6

Appendix A, Table 3

Off-campus credit extension courses, 1968-69,
20 counties with largest proportion of population enrolled

	County	1968 Pop. (est.)	Courses	Enrollment	% enroll. of pop.	Institutions
1	Pitkin	3,163	12	215	6.80	CMC, CU
2	Fremont	21,286	82	1,263	5.93	ASC, SCSC, WSC, CSU
3	Routt	66,670	10	154	2.31	ASC, WSC
4	El Paso	196,700	281	4,149	2.11	ASC, CSC, SCS C, WSC, AJC, CU, CSU
5	Custer	1,265	2	26	2.06	WSC
6	Montezuma	13,242	8	178	1.34	ASC, CU, CSU
7	Baca	6,277	6	80	1.28	ASC
8	Las Animas	16,800	16	203	1.21	ASC, CSU
9	Lake	9,172	6	103	1.12	WSC
10	Jefferson	219,303	78	1,854	0.85	ASC, CSC, WSC, CSU
11	Yuma	8,539	2	70	0.82	CSC
12	Conejos	8,917	4	70	0.79	ASC
13	Grand	4,257	3	32	0.75	RC
14	Morgan	19,683	4	146	0.74	CSC
15	Logan	19,750	4	140	0.71	ASC, CSC, CSU
16	Otero	26,807	12	185	0.69	ASC, WSC, CSU
17	Rio Grande	12,428	5	80	0.64	ASC, CU
18	Boulder	112,060	46	700	0.63	CSC, CU, CSU
19	Chaffee	11,035	4	67	0.61	WSC, CU
20	(median) Jackson	1,678	1	10	0.60	WSC

Appendix B, Table 4

FALL 1968 HEADCOUNT ENROLLMENT
COLORADO PUBLIC COLLEGES AND UNIVERSITIES
(BY RESIDENT AND NON-RESIDENT)

	GRADUATE					UNDERGRADUATE					TOTAL				
	Resident		Non-Res.		Total	Resident		Non-Res.		Total	Resident		Non-Res.		Total
INSTITUTION	No.	%	No.	%	No.	No.	%	No.	%	No.	No.	%	No.	%	No.
CSM	120	44.6	149	55.4	269	862	63.1	505	36.9	1367	982	60.0	654	40.0	1636
CSU	891	44.9	1093	55.1	1984	9399	74.2	3275	25.8	12674	10290	70.3	4368	29.7	14658
CU - Boulder	1490	43.6	1924	56.4	3414	9228	62.3	5575	37.7	14803	10718	58.8	7499	41.2	18217
- Colo. Sprgs.	438	70.1	187	29.9	625	1262	68.4	584	31.6	1846	1700	68.8	771	31.2	2471
- Denver	1417	75.5	459	24.5	1876	3870	91.6	354	8.4	4224	5287	86.7	813	13.3	6100
CU - Sub-Total	3345	56.6	2570	43.4	5915	14360	68.8	6513	31.2	20873	17705	66.1	9083	33.9	26788
Universities Total	4356	53.3	3812	46.7	8168	24621	70.5	10293	29.5	34914	28977	67.3	14105	32.7	43082
ASC	193	81.1	45	18.9	238	2109	84.2	397	15.8	2506	2302	83.9	442	16.1	2744
CSC	836	64.1	468	35.9	1304	5765	79.4	1499	20.6	7264	6601	77.0	1967	23.0	8568
WSC	105	82.0	23	18.0	128	2429	81.9	536	18.1	2965	2534	81.9	559	18.1	3093
Ft. Lewis						1395	81.0	328	19.0	1723	1395	81.0	328	19.0	1723
MSC						4463	96.4	166	3.6	4629	4463	96.4	166	3.6	4629
SCSC						5112	94.6	289	5.4	5401	5112	94.6	289	5.4	5401
4-Yr. Col.'s Total	1134	67.9	536	32.1	1670	21273	86.9	3215	13.1	24488	22407	85.7	3751	14.3	26158
State CC's Total						4322	89.7	494	10.3	4816	4322	89.7	494	10.3	4816
Dist. CC's Total						8921	95.7	403	4.3	9324	8921	95.7	403	4.3	9324
Colorado Public Grand Total	5490	55.8	4348	44.2	9838	59137	80.4	14405	19.6	73542	64627	77.5	18753	22.5	83380

APPENDIX C

Role Statement - Community College of Denver

Program: The Community College of Denver should be oriented to the City of Denver and to the entire metropolitan community with programs of two years beyond high school suited to the needs of youth and adults for both (a) "occupational, technical, and community service programs, with no term limitations," and (b) "general education, including college transfer programs" (HB 1448, 1967). The Community College of Denver should be the principal institution in the Denver area emphasizing programs of occupational education beyond high school level. To this end it should develop close working relationships with vocational programming in the public schools of the area, on the one hand, and with the baccalaureate programs in occupational areas at Metropolitan State College on the other.

Geographic Area Served: The Community College of Denver is a community-oriented institution serving the five counties of the Denver Standard Metropolitan Statistical Area and adjacent counties. Especially pending the development of a community college system available generally to Colorado residents, existing community colleges will offer some occupational programs that are not available elsewhere in the region or in the State, and accordingly will attract some students from outside the geographic area principally served. It is to be expected that the Community College of Denver will offer a number of such programs, possibly indefinitely into the future.

Admissions Policy: The Community College of Denver "shall have unrestricted admissions for high school graduates or students with comparable qualifications. In addition, any person, regardless of any previous academic experience, may be enrolled in any courses which he can reasonably be expected to successfully complete" (Section 10, HB 1448).

Student Services: As an urban college oriented to the Denver Metropolitan Area, Community College of Denver should develop competent services of counseling and of financially and otherwise assisting students with innate talent for its programs but with learning disadvantages. It is not expected that the Community College of Denver will provide student housing accommodations. It should develop strong intramural programs in physical education and recreation, and should not develop programs of intercollegiate athletics.

Role Statement - Metropolitan State College

Program: Metropolitan State College should be an urban-oriented four-year college offering baccalaureate programs in the arts and sciences, programs of more than two years in semi-professional technical education on a terminal basis, and programs in selected professions including business, education, and approved areas of the public and social services. It should contribute to the understanding and resolution of urban problems through programs of public service and research appropriate to its instructional goals. Its offerings should relate to lower division programming at the Community College of Denver, and to graduate programs at the Denver Center of the University of Colorado without development of graduate programs at the College.

This definition of program, which the Commission believes to be in accord with law and with its recommendations in 1966 and early 1967 for establishment of a community college system, anticipates close liaison in the development of two-year programs of occupational education between MSC and the Community College of Denver, and the timely transfer to the Community College of operating responsibility for such programs. As the Community College of Denver becomes fully established in appropriate locations in the Denver Metropolitan Area, presumably in Fall 1970, the phasing out of associate degree programs at Metro State should be initiated by closing admission of first-time students to these programs and, as may prove practicable, by transfer of operating responsibility for such programs to the Community College of Denver. In and after the academic year 1972-73, two-year applied science programs would be offered at MSC only in exceptional cases approved by the Commission.

Geographic Area Served: As one of the State Colleges, MSC will serve the entire State. However the urban emphasis in its programming and methodology will link this institution most intimately to Denver and the Metropolitan Area; most of its students will come from this area and most of its graduates may be expected to enter or remain in employment here.

Admissions Policy: The open-door policy in effect at MSC should remain until the early 1970's when the Community College system is in operation in the Denver Area in which area residents may find a wide range of programs available to all who seek to learn. At that time, admission requirements at MSC should be adjusted to provide reasonable assurance that

admitted students can succeed in its programs. This will imply graduation in the upper two-thirds to upper half of the high school graduating class, or equivalent.

Student Services: As an urban college oriented to the Denver Metropolitan Area, MSC should develop competent services of counseling and of financially and otherwise assisting students with innate talent for its programs but with learning disadvantages. It is not expected that MSC will provide student housing accommodations. It should develop strong intramural programs in physical education and recreation, and should not develop programs of intercollegiate athletics.

Role Statement - Denver Center of the University of Colorado

Program: With a fully-established community college and a four-year state college well-integrated with the community college, the needed long-term role for the Denver Center is that of a downtown University branch offering programs of instruction, research, and public service which are particularly relevant to the downtown location and which cannot be met through the Community College of Denver and Metropolitan State College. While under graduate instruction will be available in Denver in some fields only through the Denver Center (for example, engineering or architecture or pharmacy), the progressive development of the program at Metropolitan State College will make possible the further evolution of the Denver Center program and role to that, primarily, of a graduate center directly tied to programs in Boulder and working closely not only with other colleges in the area but with institutions throughout the state in developing programs in Denver in arts, sciences, and professions, beyond the baccalaureate degree.

As the Community College provides a broad range of programming, open to all, in several campus locations, and as Metropolitan State College in the light of the capabilities of the Community College limits its occupational programs sharply, restricts admission, and strengthens the range and quality of its work in the upper division, many opportunities now available only at the Denver Center will be available also at Metropolitan State College. With appropriate articulation of programs and sharing relationships, the University can progressively orient its programming in Denver to the graduate and advanced professional level. This should be done in the interest of strengthening the resources of each of the Area institutions in those tasks each is uniquely able to provide.

Geographic Area Served: The Denver Center should continue to serve residents of the Denver Metropolitan Area. While some programs of the University may appropriately be based in Denver rather than in Boulder, the Denver Center should serve primarily as a Denver branch for the convenience of persons who live or work in Denver.

Admissions Policy: Policies restricting admission of entering students should continue pending redefinitions appropriate to the evolving program indicated above.

Student Services: As an urban branch of the University, the Denver Center should develop appropriate services of counseling and of financially and otherwise assisting students. The Denver Center should not develop student housing accommodations. It should afford opportunity for physical education and recreation experiences and should not develop programs of intercollegiate athletics.

THE COLORADO COMMISSION ON HIGHER EDUCATION WAS ESTABLISHED BY THE GENERAL ASSEMBLY IN 1965. A COORDINATING RATHER THAN A GOVERNING BOARD, IT WORKS IN COOPERATION WITH BOARDS OF REGENTS AND TRUSTEES WHICH HAVE DIRECT RESPONSIBILITY FOR OPERATING THE TWO-YEAR AND FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES IN THE STATE. THE COMMISSION IS CHARGED WITH DEVELOPING LONG-RANGE PLANS FOR AN EVOLVING STATE PROGRAM OF HIGHER EDUCATION; WITH THE REVIEW OF OPERATING AND CAPITAL BUDGET REQUESTS OF THE COLLEGES AND UNIVERSITIES AND RECOMMENDATION TO THE GOVERNOR AND JOINT BUDGET COMMITTEE OF THE GENERAL ASSEMBLY AS TO PRIORITIES FOR FUNDING; WITH REVIEW AND DECISION RELATING TO PROPOSED NEW DEGREE PROGRAMS IN ANY OF THE INSTITUTIONS OF HIGHER EDUCATION; WITH RECOMMENDATION TO THE GOVERNOR AND JOINT BUDGET COMMITTEE ON THE ESTABLISHMENT OF STATE-SUPPORTED INSTITUTIONS OF HIGHER EDUCATION; AND WITH STUDY AND RECOMMENDATION IN OTHER AREAS OF PROGRAMMING AT THE POST-SECONDARY LEVEL. THE COMMISSION SERVES AS STATE AGENCY FOR ADMINISTRATION OF TITLE I OF THE HIGHER EDUCATION FACILITIES ACT OF 1963 AND SEVERAL TITLES OF THE HIGHER EDUCATION ACT OF 1965.