DOCUMENT RESUME

ED 032 024 24 HE 001 103

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A Study of the Historical Background, Current Status, and Future Plans of the Developing State Colleges and Universities. Final Report.

American Association of State Colleges and Universities, Washington, D.C.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.

Bureau No-BR-8-0422

Pub Date Aug 69

Grant-OEG-3-8-080422-0034-010

Note-151p.

EDRS Price MF-$0.75 HC-$7.65

Descriptors-*Administrative Organization, *Curriculum, Curriculum Development, Faculty Recruitment, *Higher Education, Innovation, *Institutional Role, Instructional Innovation, State Colleges, *State Universities

The dynamic growth of the state colleges and universities (SCU) has resulted in critical problems regarding institutional identify and the functions and purposes of administration. This study was undertaken to determine the extent and kinds of changes which have taken place in developing SCUs in the past and to make projections for the near future. From 200 replies to a questionnaire survey of SCUs, data were acquired on: recent curricular developments and curricular plans through 1973; financial data including information on student costs and faculty-student ratios; state coordination plans and related problems; growth patterns, institutional size and changing patterns of organization; innovative instructional practices in use now and planned for the future. Information was also gathered from historical and statistical materials, reports from teacher certification sections of state departments of education, and site visits. The final report describes general characteristics of institutional changes during the past several decades, such as enrollment, purpose, degree programs, admissions policies, faculty staffing and salaries. Present and developing curricular programs, finance, and administrative organization are discussed, and profiles of 3 selected state universities are presented. (JS)

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A STUDY OF THE HISTORICAL BACKGROUND, CURRENT STATUS, AND FUTURE PLANS OF THE DEVELOPING STATE COLLEGES AND UNIVERSITIES

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August, 1969

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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PREFACE

The dynamic growth of the colleges and universities after World War II and to the present day has strained all sections of our higher educational system in the United States. In the face of the wave of students the people of the United States have poured increasing billions of dollars into the expansion of their educational institutions. However, the sudden growth has created serious stresses within most of these institutions. This growth, together with the expansion of institutional functions, has resulted in an almost insatiable need for funds. As with other social institutions which grow rapidly, specialization has developed to deal with many of these problems--more specialized professors, in subject matter to be taught, in facilities to be provided, in administrative personnel to be employed, and even in institutions themselves and the types of students who will be allowed to attend them.

In seeming contradiction to this trend toward specialization, the state colleges and universities have diversified in varying degrees. With this diversification have come all of the advantages and disadvantages of specialization. A few developing state colleges and universities have become almost indistinguishable from the so-called "federal grant multiversity," with its undergraduate impersonalism, inflexible disciplines, lack of communication, lack of concern for student needs, and the increased emphasis upon research rather than teaching as the primary function of the institution. The model for some of the larger state colleges and universities appears to be the multiversity which has developed in the last 30 to 35 years in order to meet (1) the expanding research needs of our society and, particularly, (2) the need for technological and basic knowledge which can provide the basis for the defense of democracy and the free world. Many private universities and public land grant universities which emphasized undergraduate teaching and service appear to have shifted their priorities. With billions of federal dollars being poured into the university-related research, the current model of a successful university is quite different from that which existed 30 to 40 years ago.

Our information from questionnaires to over 200 state colleges and universities throughout the United States plus site visits and other documentation lead us to emphasize the current problems of institutional identity and decision-making regarding function and purpose which are critical at this time in the history of many of these institutions. As the academic standards of the state colleges and universities have risen, these institutions have competed, with varying degrees of success, with

the more established universities, for the services of the new research-oriented Ph.D.'s being produced in the graduate schools of the nation. These young, well-educated faculty members, knowing only the university from which they came, and in many cases not understanding the needs of the United States for a number of different types of institutions, have worked to make over the state colleges and universities as somewhat pale carbon copies of the institutions from which they have so recently come.

The limited sources for educating college teachers have become a national tragedy, perhaps even a national disgrace. Many institutions appear to be less concerned for the needs of students. Young professors who must publish in order to be promoted have been forced to shut the office door and send their students to discuss questions with teaching assistants. Institutions which formerly were responsive to the needs of the local area have become more nationally oriented. At a time when the problems of our urban areas are very severe, the institutions which should be meetings these demands are actually going farther and farther away from the needs of the people and institutions in the regions. In-service education and public service to the region are dismissed on all sides as being an unfortunate "cafeteria approach" to higher education and deemed not appropriate for a truly sound intellectual and academic institution. The challenge is great for institutions which in the past emphasized the laboratory model in teacher education and the scientific approach to education as a discipline. However, it becomes much more difficult as more of the instruction becomes highly theoretical and intern experience or laboratory instruction is considered inappropriate for the undergraduate degree program in many academic fields. Finally, the flexible and very pragmatic approach of the state colleges has given away in some cases to a very rigid committee structure through which even the smartest faculty politician cannot weave a successful way in less than two or three years. At a time like this, the needs of students from underprivileged groups and the needs for broadening of our culture to include international education can hardly be met because the structure takes so long to accommodate itself to change.

As the institutions have grown to enormous size, individual students develop severe problems which may be described in a limited way as "territorial needs." With enormous numbers of students on small areas of ground in huge buildings, there is a lack of room to be alone, to study quietly, to do as one pleases occasionally. It is increasingly difficult for a person on a campus to be part of a group both small enough for active service and large enough to provide an outlet for a student's energy.

Student unrest and examples of violent reaction against the institutions and the educational system cover the front pages of our papers and our magazines. Where a few years ago university presidents had difficulty getting the name of the institution on television or in a newspaper, now they hope that a day will come when the confrontation on the campus will be mild enough so that the news will only place it on the second or fourth page. It has become a cliche at conventions that "only the best institutions have riots." However, the student unrest is prevalent throughout institutions of many sizes and types and the need for personal attention,

yes, even some love, from faculty members and administrative personnel may be needed to alleviate the alientation and even hatred which some of our students have developed for our nation's precious colleges and universities.

At such a critical time in our history, the developing state colleges and universities have an enormous opportunity for creativity and innovation in structure, curriculum, methods of instruction, evaluation of student growth, relationships between faculty and students, and between faculty and administration. In spite of incredible difficulties they have made significant contributions in some of these needed areas in the past. Their history shows constant adaptation and inventiveness in meeting changing needs. At the time this study was started there were approximately 2,400 varying, nonprofit institutions of higher education existing in the United States. Of these institutions, 284 constitute the group known as the "developing state colleges and universities." Over 260 of the 284 belong to their distinctive national organization, the American Association of State Colleges and Universities.* They are the fastest-growing baccalaureate degree-granting segment of higher education in the country. The U.S. Office of Education estimates that these institutions should experience an increase of 110 percent in total degree-credit enrollments from 1966 to 1975. During this same period, the projected increase for all institutions is 49 percent--46 percent for four-year institutions and 63 percent for junior colleges.

The basic purpose of this project has been to (1) determine the extent and kind of change which has taken place in the developing state colleges and universities in the past and (2) make projections for the near future. The project has involved two phases and six main sources of data collection. In September through November of 1967, Fred Harcleroad conducted the first phase, a questionnaire survey of AASCU institutions and those eligible for membership. Almost 200 usable replies were received. Primary data were secured on:

1. Recent curricular developments and curricular plans through the 1972-1973 academic year.

2. Financial data, including information on student costs and faculty-student ratios.

3. State coordination plans and the problems involved for developing state colleges and universities.

4. Growth patterns, institutional size and changing patterns of administrative organization.

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*Three different short forms are used in this study. "AASCU-type" relates to the 284 public institutions or the proportion of this number for which data are available. "AASCU" institutions refer only to those which are members of the American Association of State Colleges and Universities. "SCU" is used throughout the text as a short form, normally meaning AASCU-type institutions.

5. Innovative instructional practices in use now and planned for the future.

Following preliminary reports on this data, officials of the U.S. Office of Education suggested that the study be broadened and in March, 1968 approved support for its expansion. Final objectives of the project are to:

1. Determine and describe the general characteristics of institutional changes during the past several decades, such as institutional name, student enrollment, purpose, degree programs, student recruitment and admissions policies, faculty staffing and faculty salary.

2. Determine and describe current institutional characteristics such as size of institution, curricular programs, financial support and methods of funding.

3. Determine and describe projected plans for development of curricular offerings at the baccalaureate, master's, and doctoral levels.

4. Determine and describe currently developing forms of administrative organization, including patterns of state coordination and control.

5. Determine and describe current ideas and plans for innovative or experimental programs of college instruction.

6. Determine and describe the particular changes in programs for the education of elementary and secondary teachers which have resulted from major changes in the institutions.

During the second phase of the study the investigators secured data from five additional data sources: (1) historical materials of the U.S. Office of Education from 1870 through 1948, primarily the Biennial Surveys; (2) the "Blue Book" of American Universities and Colleges of the American Council on Education for 1956 and 1968 (based on data from 1954 and 1966); (3) reports from the teacher certification sections of State Departments of Education on teachers certified from approved institutions in 1954 and 1966; (4) site visits to a carefully selected sample of representative institutions; and (5) a significant number of institutional histories and source documents which have been helpful in determining and verifying trends.

A number of persons have influenced or assisted in the study, and the author-investigators are grateful to them. Allan Ostar encouraged the original study and arranged to fund and administer the expanded project. Carlyle Smith, Judith Schneebeck, and Carol Swaney contributed significantly to the location and organization of data and preparation of the report. Alden Dunham and Howard Bobren generously furnished data secured as part of the Carnegie Commission's current study of the future of higher education. Leo Munday, Lee Wimpey, and James Maxey provided valuable assistance

in organizing the computer operations and resultant tables. Jean Cornell read several parts of the report and suggested needed editorial improvements. Jane Landers helped continually in expediting operational aspects. None of them, however, should be held responsible for any deficiencies in the final product. The investigators hope the results will provide information useful in shaping future developments in these extremely important institutions.

SUMMARY

The basic purpose of this project has been to determine the extent and kind of change which has taken place in the developing state colleges and universities in the past and which is projected for the near future. The project has had two phases and six primary sources of data collection. In September through November of 1967, Fred Harcleroad conducted the first phase, a questionnaire survey of AASCU institutions and those eligible for membership. Almost 200 usable replies were received. Primary data were secured on (1)recent curricular developments and plans to 1972-1973, (2) financial data, (3) state coordination plans and problems, (4) changing patterns of administrative organization, and (5) innovative instructional practices and plans. Following preliminary reports on this data, officials of the U.S. Office of Education suggested that the study be broadened and in March, 1968 approved support for its expansion. Final objectives of the project are to:

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Apparent trends in the statistical data were double checked during 14 site visits to selected institutions. The selected institutions provided illustrative materials from (1) the various regions of the United States; (2) institutions with a variety of historical background and age; and (3) institutions with wide variations in size. In addition, these institutions provided a good representative sample of the institutions within the membership of the American Association of State Colleges and Universities.

At each institution data were secured on: (1) the success of the institution in carrying out its present functions; (2) changes in these functions foreseen for 1970, 1975, and 1980; (3) educational programs to be established at the institution by 1970-1975-1980; (4) the need for new resources to carry out proposed changes; and (5) problems in the fulfillment of present functions if new areas develop. Finally, (6) a specific and more detailed analysis of teacher education was undertaken covering points 1-5 just described. Particular attention was placed on the percentage of the total enrollment which was considered to be in teacher credential programs.

The resulting data and highlights of the findings follow.

1. In 1968, approximately 2,400 varying institutions of higher education existed, trying to meet the demand of increasing millions of students and of our pluralistic, technological society. Of these institutions, 284 constituted the group known as the "developing public state colleges and universities." Over 260 of them now belong to their distinctive national organization, the American Association of State Colleges and Universities.

2. They are the fastest-growing baccalaureate degree-granting segment of higher education in the country. (At the present time, 10 percent of the institutions are above 10,000; 18 percent are between 6,000 and 10,000; 18 percent are between 4,000 and 6,000; and 54 percent are below 4,000.) In terms of total degree-credit enrollments, estimates of SCU enrollments compared with those of the U.S. Office of Education indicate that these institutions should experience an increase of 110 percent from 1966 to 1975. During this same period, there will be an increase of 49 percent for all institutions.

3. Within the membership of the AASCU there are currently four types or models of institutions.

A. A few single-purpose, specialized institutions.

B. Teachers Colleges. Most of the graduates still go into teaching. The criterion is that the school is organized to train teachers rather than for a variety of goals. The aim of the faculty and the administration is to train teachers. It may be a teachers college even though called a state college.

C. Modern State Colleges, the category in which 170-180 SCU's fall, are instructionally-oriented institutions offering a wide variety of curricula at the baccalaureate level and, usually, at the masters degree level. Teacher education remains a major function even in the recently founded SCU's but many others professional and liberal arts curricula are available. Many of these institutions are growing rapidly and their student bodies vary in size from 2,000 to 10,000.

D. Regional State Universities are differentiated in curriculum, service, and applied research. Some attention to research distinguishes regional state universities from state colleges. Emphasis on "applied" research distinguishes these institutions from the comprehensive university-level institutions. SCU's have many of the resources of the fully-developed state or federal grant university but are oriented toward more immediate problems and concerns of the region, i.e., toward applied research, applied technical fields, developing emphasis on public service and emphasis on professions unique to the area. They receive relatively small federal support and have a variety of administrative structures for a variety of legal and traditional reasons. There are 25 to 30 of these institutions at the present and they constitute a most probable model for state colleges in the future.

4. Several diverse organizational patterns have developed to fit various institutional roles. Nevertheless problems of organization are critical for many SCU's. Increased complexity of function is the greatest strain upon the organizational structure, but is accentuated by increases in size. The development of an appropriate organizational structure has lagged behind the rapidly developing complexity and increasing breadth of function. SCU's have often been prevented by coordinating boards or legislative restriction from developing an appropriate university-level organizational structure of colleges and schools.

5. Organizational patterns appear to fit varying institutional roles. Specialized, single-purpose colleges tend to organize with departments. Teachers colleges and some smaller state colleges also have departments or have divisions corresponding to local fields of knowledge and to state credentialling patterns. New liberal arts type colleges with no professional tradition have a departmental and division organization which is equivalent to a university college of arts and sciences. Larger modern state colleges often have a combination of a departmental

or divisional organization with a School of Education. This status is only for a short period if the school is growing rapidly. The regional state universities have a wide variety of organizational forms with up to five vice presidents and a system of colleges and schools.

6. Although a dramatic increase has occurred in the number and variety of new programs, teacher education generally remains the largest single function for SCU's.

   A. With 21 percent of the total higher education enrollment, SCU's graduate almost half (46 percent) of the nation's newly certified elementary and secondary teachers.

   B. Data from selected states reveal that the percentage of all newly certified teachers produced by SCU's has remained constant over a twelve year period.

   C. A major role of SCU's is the "continuing education" of teachers. Graduate enrollment in SCU's increased 460 percent from 1954-1966. Four out of five graduate students (79 percent) were part-time and the vast majority of these were teachers in service, often working toward master's degrees for increased salary.

   D. In almost all institutions visited the major focus of public service and research activities continues to be the improvement of public education.

   E. At the present time the largest group of graduates at all levels is still in Education. Growth in business fields and other occupationally-oriented areas has often been similar to teacher education in that they have developed from less than baccalaureate level, e.g., nursing, engineering, social work and various technologies. Graduate education has grown dramatically from 1954 to 1966, by 460 percent. However, between 1967 and 1968 there was an even more dramatic increase of 89 percent in graduate enrollment, mostly at the master's level. Doctoral programs are developing in 10 percent of the institutions, again mostly for part-time students.

   F. At this time none of the SCU's appear to fit the parallel category of comprehensive federal grant universities. There will be a gradual need for a few more of these institutions and it is a potential model for a small number of SCU's.

7. In the area of curriculum, SCU's are highly diversified with five varied developments going on simultaneously.

   A. First, less-than-baccalaureate technical programs are offered by as many as 40 percent of these institutions and some land grant colleges and universities in 1968. In these two groups, 114 institutions offered such programs and 56 of the institutions planned to develop additional technical curricula by

1970, for a total of 753 separate curricula programs in the various institutions.

B. Second, at the baccalaureate degree level, extensive additions have been made on two fronts, majors in all fields of arts and sciences and majors in almost all occupational-professional areas.

C. Third, at the undergraduate level also, is adaptation and change in "general education programs."

D. Fourth, extensive development has taken place at the master's degree level in both professional fields and in a wide variety of fields in the arts and sciences. Although many of the arts and science majors have been provided for upgrading of the secondary school teachers, there has been small significant development of master's degrees in such fields as philosophy and anthropology.

E. Fifth, and finally, 10 percent of the SCU's (25-30) have developed or plan to have in effect by 1970, doctoral programs in a variety of fields. Although 70 percent of the doctoral degrees now awarded are in some field of Education, doctorates are developing in a wide variety of fields including such areas as engineering, English, and chemistry.

8. Most SCU's were established originally or developed early as part of the developing state control of education. They were local, more political, had little flexibility in use of funds, were too close to the state board. A lack of flexibility resulted since funds tended to come from a single source, largely state funds. It was therefore impossible to play one source against another. In addition, they tried to keep tuition low; they have not developed federal sources or foundations or gifts from citizens to the degree that fully developed comprehensive universities have.

   These institutions still tend to bear a different relationship to state government than fully developed state universities. They are less independent, less autonomous, have less support, and few have a constitutional base. Autonomy is the key. Historically the reason is that in many states these institutions were subcollegiate and at the time of their founding were part of the state department of education.

9. Since 1900 the costs per student have gone up continuously except for a slight decrease during the Depression. Since 1870 student-faculty ratio has gone down continuously except for a slight increase during the Depression. (This suggests the direct relationship between costs per student and student-faculty ratio.) These institutions are always short on funds. They are more dependent than are the large land grant and state universities on state legislation appropriations, with fewer sources of outside support. The percentage of E and G income from student

fees is quite high. Average for SCU's is 23 percent. The highest is nearly 95 percent.

10. SCU's have been able to provide for the flood-tide of students during recent years, but must receive significant new funds if projected enrollments are to be accommodated and needed programs developed.

    A. Total income for instruction and related activities (educational and general income) increased 617 percent from 1954-66, but income per student increased only 58 percent during the same period.

    B. The percentage of faculty holding the doctorate remained almost constant (33-35 percent) from 1954-66. However, this figure may indicate developing problems of quality because of the increase in graduate level instruction at most SCU's.

    C. The average number of volumes in SCU libraries more than doubled to 139,000 from 1954-66, but must be increased still further if the desired quality in graduate instruction is to be achieved.

11. As a result of the study a new approach to doctoral education has been developed and proposed for use in regional state universities or in other innovative universities with comprehensive programs balanced between applied and theoretical goals. The proposal would emphasize the Doctor of Philosophy as a research degree with a dissertation making a contribution to knowledge. Students earning the Doctor of Philosophy degree would be planning primarily to do basic research work in industry, research institutes or councils, or in research and doctoral training in those universities operating research institutes.

    For students who are primarily interested in applying their advanced knowledge, including application through college teaching, a variety of degrees would be offered in the graduate fields of arts and sciences. Four degrees would be (1) the Doctor of Science (D.Sc.), (2) the Doctor of Social Science (D.S.S.), (3) the Doctor of Fine Arts (D.F.A.), and (4) the Doctor of Humanities (D.Hum.) In addition, professional degrees such as the D.B.A., D.S.W., D.P.H., and D.Ed. would provide comparable programs in specialized fields.

12. A conceptual framework has been proposed for analyzing higher education institutions along two dimensions. The two dimensions are (1) emphasis on collegiate-undergraduate instruction versus university graduate-professional instruction and research, and (2) theoretical orientation of programs versus applied orientation of programs. In this educational universe, specialized institutions appear at the end of either the theoretical or applied continuum. Between the two specialized types of institutions, comprehensive institutions at either baccalaureate, beginning graduate, or doctoral levels will emphasize both theory

and its practical application.

Within this framework the regional state university emphasizes the application of knowledge through doctoral instruction and public service and discipline-oriented applied research. This developing institution represents a new type of university, a somewhat unique contribution by modern America to the higher education patterns of the late 20th century. In an increasingly urban-oriented civilization, these institutions can make a major contribution to the improvement of society both currently and in the future.

CHAPTER I

THE HISTORICAL DEVELOPMENT OF STATE COLLEGES AND UNIVERSITIES: 1693 - 1940

INTRODUCTION

Many diverse factors during the past 150 years led to the development of SCU's in their present form. A definitive history of their origins is difficult, if not impossible. Some of the institutional histories seem designed to evoke pleasant memories from alumni rather than to provide solid data for the analysis of developments in the institution. Similarly, data from governmental records often lack clarity, definition, or continuity. Many of the early institutions originated as subcollegiate schools, academies, or institutes. General histories of higher education have often excluded them from historical analysis. It was not until the 1920's that a significant number of SCU's achieved collegiate status and, then, primarily as single-purpose teachers colleges. The failure of historians to analyze this phenomenon is unfortunate since SCU's not only constitute a substantial segment of present-day American higher education, but also present a different pattern of institutional historical development.

The origin and development of SCU's may be divided into five periods:

1. the earliest beginnings, from 1693 (the founding of the College of William and Mary which is now a public SCU) to 1839;
2. the era of the normal school, from the founding in 1839 of the first public normal school at Lexington, Massachusetts, to 1900;
3. the era of the teachers college from 1900 until approximately 1946;
4. the era of the state college from 1946 until the mid-1960's; and
5. the period of development of a limited number of regional state universities during the 1960's.

The majority of present-day SCU's were founded during periods two and three. Periods two, three, and four represent the chronological stages of development of most SCU's. Still, the history of SCU's is not entirely the history of the development of the normal school and teachers college. A significant number started as agricultural, industrial, or

technical schools, seminaries, academies, junior colleges and YMCA or physical culture schools. Most of them became public teacher education institutions within the past century.

It is to this diversity of development as well as to the statement of the main themes that we now turn.

EARLIEST BEGINNINGS

The history of the developing state colleges and universities until recent years is tied closely to the history of teacher education in spite of the variety of institutions involved. Of course, the oldest institution in this category predates these beginnings by almost 150 years. The College of William and Mary, which became a state college in 1906, was founded as a private college in Williamsburg, Virginia in 1693. Instruction began in 1729, 36 years later, and the first baccaluareate degrees were granted in 1770.

None of the present state colleges and universities was founded during the eighteenth century. However, 12 institutions were established during the early nineteenth century prior to the founding of the first normal school at Lexington, Massachusetts in 1839. With the exception of the College of William and Mary, none of these institutions offered college level work at the time of its establishment. Seven of the schools were academies, including private, nonprofit, and proprietary institutions such as Holmes' Plymouth State College in New Hampshire.

Eleven other academies founded between 1840 and 1899 became SCU's, bringing the total with this origin to 18, or six percent of the 284 institutions now established. These schools provided education for those students continuing on to college. They taught a variety of practical subjects but functioned as teacher education institutions as well. It was the graduates of these academies, together with those few leaders who had attended college, who received any teacher preparation prior to the establishment of the normal schools. In many states, the academies remained as an important source of new teachers long after normal schools had been founded. One of the most important aspects of the academies was their location. The majority of these academies were located in New England. A few were established in the middle states and still fewer in the South. They tended to be located in the larger towns of the state rather than in the relatively secluded rural areas in which many of the private liberal arts colleges or the normal schools were established.

Almost all of these 18 institutions were taken over or purchased by the respective states and converted to normal schools prior to 1900. Thus, their history is part of that of teacher education rather than a separate pattern of development.

THE ERA OF THE NORMAL SCHOOL 1839-1900

The impetus for some form of public education occurred relatively early in the post-Revolutionary period. This movement was, in fact, a logical extension of the fundamental principles of the young democracy which promised equal freedoms and opportunities to all its citizens. Education had been left to the several states by the new federal constitution, and it is not surprising that pressure developed for rapid expansion of public education. However, it develcped with surprising force and gained momentum quite rapidly. The principal outcome of this movement was the common school whose purpose was to provide every child with a basic elementary education.

One of the first problems which confronted advocates of common schools was preparation of adequately trained teachers. Horace Mann, Albert Carter, Henry Barnard, and a number of other educational reformers had studied the Prussian system of education. They attributed much of the Prussian success to the teacher training provided in the normal schools. Furthermore, they became convinced that, if class distinctions were to be eliminated, all teacher preparation ought to be conducted under similar conditions. Therefore, they concluded, the normal schools ought to be public and under state control.

The principal opponents of the proposals represented two points of view. One group opposed the basic concept of common schools. The other group supported the idea of these schools but argued that existing academies should train the teachers. The arguments of the latter group resulted in state support of teacher training programs in academies in New York, Maine, and Wisconsin. However, such schools proved unable either to prepare enough teachers or to prepare them sufficiently well. Therefore, other forms of teacher preparation became necessary.

Opposition from these groups prevented the establishment of public normal schools until 1839, 12 years after the establishment of the first private normal school. Only six public state normal schools wer. founded prior to 1850 and a total of 15 by 1860 in 10 states. After th: time, more rapid development of the public normal school began. This rate of establishment grew steadily until the last 10 years of the nineteenth century when 31 public normal schools were started. Of the 284 institutions now defined as state colleges and universities, 103 were founded as normal schools between 1839 and 1900. The dates of the first establishment of state normal schools are as follows:

Massachusetts	1839	Minnesota	1858	Delaware	1866
New York	1844	Pennsylvania	1859	Nebraska	1867
Connecticut	1849	California	1862	West Virginia	1867
Michigan	1849	Kansas	1863	Utah	1869
Rhode Island	1852	Maine	1863	Missouri	1870
Iowa	1855	Indiana	1865	New Hampshire	1870
New Jersey	1855	Wisconsin	1865	Arkansas	1872
Illinois	1857	Vermont	1866	North Carolina	1876

Texas	1879	Florida	1887	New Mexico	1893
North Dakota	1881	Nevada	1887	South Carolina	1895
South Dakota	1881	Colorado	1889	Maryland	1896
Oregon	1883	Georgia	1889	Ohio	1900
Virginia	1884	Washington	1890	Kentucky	1906
Louisiana	1884	Oklahoma	1891	Alabama	1907
Arizona	1885	Idaho	1893	Tennessee	1909
Wyoming	1886	Montana	1893	Mississippi	1910

In general, the establishment of public normal schools followed the pattern developed by the common schools. The movement was from east to west with a few exceptions such as Pennsylvania which relied upon academies and private normal schools until nearly 1880. The three earliest public normal schools opened in Massachusetts in 1839 and 1840. Before the Civil War other states followed in rapid succession (Harper, 1939, p. 8) with New York establishing its first public normal school in 1844, Connecticut and Michigan in 1849, Rhode Island in 1852, Iowa and New Jersey in 1855, Illinois in 1857, Minnesota in 1858, and Pennsylvania in 1859. In some states the normal schools actually opened for classes several years after their founding; Ypsilanti, Michigan, for example, which was founded in 1849 began classes in 1853.

The first public normal school, founded at Lexington, Massachusetts in 1839, is today Framingham State College. The school was established under the direction of Horace Mann, lawyer and former President of the Senate of Massachusetts, (Mangun, 1928, p. 72) then serving as secretary of the Massachusetts Board of Education. For many years, while at Lexington and West Newton, the Framingham Normal School remained quite small. Less than 100 students were enrolled as late as 1880. (Mangun, 1928, p. 304) During this period most public normal schools were quite small and financing was quite limited.

The western normal schools (so-called because they were west of the Alleghenies) were much broader in scope than those in the East and South. Between the 1840's and 1900 the states of the Midwest, Rocky Mountain and Pacific Coast areas were opening up, being settled, and establishing territorial and then state governments. Normal schools were a prominent feature of governmental planning for state-wide education. Since no entrenched system of secondary education and higher education existed, the normal schools started in some cases as collegiate-level institutions responsible for the preparation of some teachers for the developing secondary schools. In some western states normal schools participated in the distribution of income from state lands and thus had stronger financial status. An outstanding and somewhat unusual example occurred in Illinois where there was no state university at the time (1857) and the establishment of the Illinois State Normal University placed it at the apex of the state education system. It was truly a "college" for the education of teachers and administrators for all types of schools. It was planned for 600 to 1,000 students with a fine arts gallery, a natural history museum, and "other such adjuncts as might serve the general purpose of a university." (Harper, 1939, pp. 80-84) Dramatically different from the Massachusetts normal schools, it and a few others somewhat like it, served as other examples for some states west of the Mississippi. Although individual circumstances in different states led to many separate

forms of development, the western normal schools had more responsibility for educating secondary school teachers and developed other educational areas of responsibility faster than most of those east of the Alleghenies.

The birth of the normal schools was marked usually by controversy over duplication of educational missions with some other type of institution. This has been present in all subsequent stages of development of the present state colleges and universities. In each instance, the state colleges and universities or their predecessor institutions were rebuffed in their first attempts to fulfill a particular mission. They were permitted to develop or to expand their functions only when the competitor institution proved unable to prepare enough graduates to meet the demand.

The earliest conflict was with the academy over the preparation of teachers for the common schools. In time, however, and particularly in the Midwest and West, the controversy extended to include the preparation of teachers for secondary schools. More recently, there has been disagreement over the offering of master's degrees in fields other than teacher education. At the present time, the issue has been joined over the question of which institutions ought to be permitted to award the doctorate. In each of these controversies, the records indicate that the state colleges and universities and their predecessors estimated correctly that competitor institutions would be unable to fulfill the various demands made upon them. Regarding the current situation, while some may doubt the necessity of doctoral programs in the state colleges and universities, history provides evidence that institutions of higher education have consistently underestimated the demands of society for graduates at every level.

Characteristics of many of the normal schools can be seen in the three original schools founded in Massachusetts. Some of these characteristics persisted in normal schools well into the twentieth century.

First, many of the early normal schools were noncollegiate. School teaching was considered a transient occupation. While many college graduates taught school, few did so for an extended length of time. The normal schools hoped to attract graduates of academies and high schools who would then pursue a course of study designed to train teachers. In fact, however, many of the early students were recent graduates of the common schools. As a result, the level of training in many of the normal schools was quite low. Some students, in fact, regarded the requirement that they must study as unfair. (K. White, 1967, p. 16)

From the outset, in some states the normal schools and teacher education were somewhat outside of the sequential pattern of elementary and secondary education followed by attendance at a four-year collegiate institution. Many other colleges and universities provided preparatory divisions for students needing additional secondary education. However, fairly clear distinctions existed between this preparatory work and the course leading to a baccalaureate degree. In the normal schools for many decades the teaching certificate programs were, in reality, equated with secondary education. And even though high school diplomas were generally required for admission by 1910, it was not until the 1920's and 1930's

that significant numbers of normal schools or teachers colleges were considered collegiate-level institutions. As late as 1908, the U.S. Commissioner of Education, examining relations between various institutions, noted that "the chief difficulty of adjustment from the side of the normal school arises from the fact that the normal school seems to be out of the main current of our scholastic life, which flows from the elementary school through the high school directly into the university." (Pangburn, 1932, p. 53)

A second general characteristic of the normal schools was state control. There were exceptions of course. Several large cities established normal schools as part of their city high schools, but only a few of these, e.g., Chicago State College, survived to become teachers colleges and eventually state colleges or universities. The basic relationship between state colleges and universities and the state was determined at the time of their founding as normal schools. For the most part these institutions operated either directly under the State Board of Education or under a Normal School Board. In either case control was exercised by the state government.

The location of new schools often reflected the political realities of the state and the pressure which a given community could exert. Where political influence was an insufficient guarantee of a normal school for an area, enterprising local officials frequently raised the sums of money necessary to capture the prize. The founding of the present Wisconsin State University at Whitewater in 1865 presents an interesting combination of the effect of money and political influence. It appears that a state senator, who was strongly in favor of a state normal school at Whitewater, used his influence to secure the appointment to the Board of Regents of a friend who was similarly inclined. "Together they helped convince the Regents that Whitewater's $29,000, though less than the amount offered by Racine and some others, was a better deal for the state than the other contenders in the district could claim." (Wyman, 1968, p. 57) Many other similar instances have been recorded.

Thus, despite state control, normal schools were essentially local in constituency, aspiration, and operation. From the beginning the community of Plateville, Wisconsin, for example, assumed the responsibility for the maintenance and repair of the normal school buildings and property. (Wyman, 1968, p. 23) The same conditions prevailed at New Britain, Connecticut and many others. (Fowler, 1949, p. 25) The local orientation is also evident in the decision of most states to establish several small normal schools rather than to expand existing institutions.

Third, by intention, the normal schools were single-purpose institutions. They were designed to prepare teachers for the common schools or, in a few cases, the secondary schools of the state. It is important to note that the normal schools were designed solely to serve the larger society collectively and not the individual student, except as he was trained for a useful vocation. The goal was to develop human resources for the service of society, not primarily to assist the individual to ful-

fill himself. In 1880, for example, it was the stated aim of Kirksville Normal School "to give culture and learning, not for the benefit of the student, but that it may be used in the education of the masses." (Borrowman, 1965, p. 187)

Fourth, despite their singleness of purpose, few normal schools were purist and devoted the entire curriculum to professional work in teacher training. One of the continuing debates in teacher education has been whether prospective teachers should first secure a proper education in the subject matter which they were to teach followed by training in how to teach or whether courses in teacher training should be accompanied by further study in subject fields. (Borrowman, 1965, p. 140) Although many favored the purist approach, the majority of normal school students who came with only a common school education were poorly prepared in the subjects to be taught. Thus, the normal schools were forced to devote a substantial part of the program to further subject matter education. Subjects such as arithmetic, algebra, natural science, chemistry, botany, art, agriculture, music, grammar, and geography formed the basis for the introduction of secondary school subject matter courses. Later they provided the foundation for movement to the teachers college and eventually to the development of multi-purpose institutions. Had these schools been able to attract students better prepared in the subject fields, the normal schools might have remained single-purpose, semi-professional institutions for a much longer period of time.

The common schools developed far more rapidly than had been anticipated. According to U.S. Office of Education statistics, the number of students enrolled in public schools nearly doubled from 7,561,000 in 1870 (the first year in which records were kept) to 14,379,000 in 1895. Although most of the growth was in the common schools, by 1895 significant growth had occurred at the higher level in the secondary schools. The number of teachers increased from 220,000 to 400,000.

Enrollment data are available for 69 of the institutions which were later to become state colleges and universities. The total enrollment in these institutions in 1890 was 29,866 or approximately 425 per institution. Despite the tremendous increases in the number of students attending public schools, normal school enrollment had increased by less than 12,000 (from 17,927 to 29,856) between 1880 and 1890. The average increase in size was from 315 students per institution in 1880 (for 57 institutions) to 425 in 1890 (for 69 institutions). (USOE, Commissioner of Education. Annual Report, 1880 and 1890) These figures illustrate the local or regional orientation mentioned earlier. Rather than expand existing institutions, more institutions were opened. This contributed to the rather slight increase in the average enrollment per institution. Of the 69 institutions reporting enrollments in 1890, only three enrolled more than 1,000 students; none enrolled more than 2,000. On the other hand, six normal schools still enrolled less than 100 students. (Table I-1)

In the typical normal school prior to 1900 a majority of the students were women. The average age varied from 19 to 25. (Mangun, 1928, p. 302) (Harper, 1939, p. 106) About one-half of the students had no more than a

TABLE I-1

The Size of AASCU Institutions: 1870-1940

Size	1870	1880	1890	1900	1910	1920	1930	1940
More than 15,000								
10,000 - 14,999								
6,000 - 9,999								1
4,000 - 5,999						2	3	
2,000 - 3,999				2	5	7	27	20
1,000 - 1,999			3	9	26	35	62	57
500 - 999	1	10	20	31	38	52	75	72
100 - 499	28	42	41	54	88	69	49	88
Less than 100	4	5	6	7	4	14	3	5
Number of Institutions	33	57	70	103	161	179	219	243

SOURCES: USOE, Commissioner of Education. Annual Report. (1870-). USOE. The Biennial Survey of Education in the United States. (1916/18-).

NOTE: For 1950 the data on teachers colleges were summary data rather than by specific institutions. Therefore a frequency distribution was impossible.

common school education. Most institutions required an entrance examination on the common school subjects but few expected a diploma from an academy or high school. The students had entered with a vocational orientation. However, teaching was typically not their long-term goal. Several studies suggest that only 20 percent of the men and 40 percent of the women expected to make teaching a career. (Some of the men planned to go into school administration, however.) Most of the students were from the local area and approximately 50 percent had previous teaching experience.

Because of the demand for teachers, whatever their qualifications, and for other reasons, fewer than 20 percent of the students completed their prescribed program of study.

Although studies indicate that few students expected to make teaching a career, most schools required that students sign a declaration of intent to teach in the public schools. (Fowler, 1949, p. 35) Some states, such as Minnesota, reimbursed the student for tuition if she taught for a period of two years following completion of the program. Comparison figures are not available from 1890, but in 1880 only 1,856 certificates and degrees were awarded out of a total enrollment of 17,927 in the 57 institutions surveyed. (USOE, Commissioner of Education. Annual Report, 1880 and 1890)

There was often more than one course of study, sometimes as many as three. A relatively common pattern in the early normal schools was to prescribe four years beyond the common school. Thus students with no secondary education would enroll in a four-year course, whereas those with two years of secondary school would take a two-year course. At Illinois State Normal University, on the other hand, the original course was three years in length and was based on a high school education. The content of the program varied with the amount of schooling possessed by the student and the number of years in the teacher certification program. A one-year course for persons with a secondary education might consist of nearly all professional education courses, whereas the four-year program for those coming from a common school consisted largely of elementary subject matter. Programs included lectures in mental and moral philosophy and in schoolkeeping, while observation and practice teaching in a "model elementary school" was usually part of the instruction. By 1890 there had begun to develop something approaching a body of knowledge about education which could be transmitted to students. Some of the programs had become highly formalized, as for instance the well-known Oswego and Herbartian movements. Very little of this knowledge had any empirical base save anecdotal observation but did represent an attempt to systematize what was transmitted to the student.

In some cases the faculty were not much better prepared than the students. For example, the history of Paterson State College states that most of them were graduates of the normal schools, some with little or no teaching experience. (K. White, 1967, p. 7) The student-faculty ratio was high, about 30-1, including the training school faculty. Teachers were expected to provide instruction in a variety of subjects. The principal was typically better educated, often a college or university

graduate.

The typical normal school was controlled by the State Board of Education or the State Normal School Board. The Board or department was treated as a code department by state government, received a line appropriation from the legislature, and often was subject to scrutiny and intense political pressure. In many states the normal school board was elected to ensure representation from immediate areas served by the school. Such representation often reinforced state control of the institution at the local level and reflected the desire of the state government and the board to subject the school to continuing supervision. Some states, such as Wisconsin, designated a person to be the resident regent, and in other states local committees were set up to supervise the institution between Board meetings.

The schools were financed essentially from state appropriations and some funds from student fees, although the fees were generally quite low. Some scattered data on financing are available prior to 1900 generally indicating the limited support provided. The U.S. Office of Education figures for 1900 show average institutional receipts of $27,500 and an average total expenditure of approximately $56 per student at the turn of the century. In 1900, 75 percent of the total receipts came from state appropriations. Facilities in the late nineteenth century consisted usually of one building which housed all classrooms, offices, and the model training school. (The building is typically still in use today.) Average library holdings in 1890 were 2,000 volumes per institution.

In spite of controversy, low financing, poor facilities, and frequent outside attacks, the normal schools by 1900 had made significant contributions to American life. A variety of curricula were available in many of the institutions, preparing for both elementary and secondary teaching and principalships. Fairly extensive electives in a number of normal schools made it possible for students to obtain some depth in a fairly large number of subject matter fields. The normal schools at Albany, New York required high school graduation for admission in 1890 and the Massachusetts normal schools did, likewise, in 1894. By 1900, 38 percent of the largest normal schools had at least one-fourth of their matriculants who were high school graduates. Although the quality of the normal schools was very uneven throughout the country as a whole, a significant number were well-recognized for their work as specialized institutions.

THE DEVELOPMENT OF TEACHERS COLLEGES 1900-1946

The transition from the normal school to the teachers college took place over a period exceeding half a century. The wide variety of normal schools and their great diversity of programs make it hard to pinpoint the actual move to true collegiate-level instruction by the majority of the institutions. Certainly, the forces for change were at work as early as the 1860's and culminated in the 1920's and 1930's. Three major factors

contributed to this change: (1) the rapid expansion of secondary education from 1880 to 1920; (2) the development of accreditation systems for secondary and higher education; and (3) the demand for secondary and higher education after World War I and during the Great Depression of the 1930's.

Development of Secondary Education

The development of public secondary education was important to the further development of the normal schools into teachers colleges for several reasons. In the late nineteenth century the United States turned to public secondary schools to provide necessary human resources in much the same way it had turned to the common schools earlier in the century. Although the first public secondary school was founded in 1821 in Boston, the significant development of public secondary education occurred after 1880. Between 1880 and 1930 enrollment in the public secondary schools increased from 110,000 to 4,399,000 students doubling approximately every decade.

The chief impetus to development of normal schools into teachers colleges was the increased demand for teachers prepared to teach in secondary schools. The aim of the common school was to develop the basic skills of reading, writing, and arithmetic and to transmit skills and subjects such as history and geography which were presumed necessary to all educated citizens. It was assumed that those who had mastered these skills and subjects in the common school could, with a limited amount of training in pedagogy, teach the same material to incoming students. Secondary education, in contrast, involved instruction in the same subject matters taught at the collegiate level and was presumed to demand a baccalaureate level of education for prospective teachers. Further, secondary education was forced to a higher level of teacher competence because the colleges could impose sanctions against those schools which failed to employ teachers with the required credentials.

As with the common schools, perhaps the most significant problem faced by secondary schools in the late nineteenth century was that of securing teachers with even minimal preparation. Faced with a shortage of teachers many of the smaller rural high schools began to recruit teachers from among those students preparing to teach in the common schools. Thus, the normal schools found themselves preparing secondary teachers even in states which had not adopted plans providing for such functions on a legal basis.

As with later challenges the normal schools willingly accepted the opportunities presented by the rapid development of secondary education. As early as 1875 the Department of Normal Schools of the NEA had recommended the establishment of higher normal schools to prepare teachers for the secondary schools. As noted previously, the normal schools possessed the foundation upon which to develop secondary teacher programs when the opportunity arose. Because of academic deficiencies in their students both eastern and western normal schools had offered instruction in subject fields for decades. Also, because of the emphasis upon mental discipline

as the basic approach to education, secondary level subjects had often been taught to teachers for the common schools because it was said to strengthen their mental faculties.

The normal schools were able to take advantage of the demand for teachers of secondary level occupational programs such as manual training and secretarial studies because of the lack of such programs in most existing colleges and universities. Some states, such as Wisconsin, established special purpose normal schools in fields such as industrial arts and physical education and other states such as New York permitted each normal school to develop in one or more subject areas. Just as with the introduction of subject matter studies into the normal schools, the introduction of teacher education programs in areas such as industrial arts and business education provided the base for later state college programs in various technological and business fields.

Initial expansion of the functions of normal schools into the preparation of secondary teachers was, as stated earlier, essentially a midwestern and, later, a western phenomenon. The eastern states were dominated by the older established universities and colleges which had the necessary power to prevent normal schools from developing secondary teaching programs. Midwestern normal schools developed at approximately the same time as the public universities and private colleges and were able to appropriate a larger share of the political power in the state.

Eastern colleges also graduated larger numbers of potential teachers and the demand for new institutions to prepare secondary teachers was somewhat less intense than in the Midwest.

Although the demand for secondary school teachers was evident, a combination of factors prevented normal schools in several states from developing into public liberal arts colleges similar to those established in the private sector. The normal schools were forced to remain as specialized institutions somewhat outside the mainstream of higher education and, in so doing, adopted an ideology of teacher education which influenced their programs well into the twentieth century.

The political fact was that, in many states, a combination of organized opposition from existing colleges and universities plus economy-minded legislators was able to prevent normal schools from becoming four-year, multi-purpose public colleges. Denied access to this status, and in some states threatened by their opponents with the loss of secondary teacher programs, normal school presidents often contended that preparation for secondary teaching demanded separate programs and, indeed, separate institutions. The argument was that subject matter should be organized and taught separately or differently to those who were going to teach the subject than to those who were pursuing a liberal education as an end in itself or acquiring knowledge for entry into developing professional fields.

The political necessity of this approach was illustrated in 1888 in a speech to the National Education Association when the president,

S.S. Barr, stated that "the distinction between academic knowledge of subjects and teaching knowledge of them is vital. If .t does not exist, there is no reason why the preparation of teachers should not be turned over to colleges and their chairs of didactics." (Borrowman, 1965, p. 95)* In addition to political necessity, the movement for the "professional treatment" of subject matter represented some of the best educational thinking of that era. It was based upon the thought of Pestalozzi, Froebel, and later, to some extent, John Dewey. The professional treatment position was strengthened also by the emergence of university trained teacher educators who dominated many of the normal schools of the 1890's and early 1900's. Unfortunately, however, this position became too rigid and the term "teachers college" became synonymous with low quality collegiate education in the minds of many. Although the normal schools continued to advance within their separatist framework, it appears that this philosophy set back the emergence of normal schools as teachers colleges for at least 20 years.

The strength of the opposition to the development of normal schools as collegiate institutions was so great that, although public secondary education experienced significant growth in the late nineteenth century, it was not until 1903 that the first normal school made the transition to become a baccalaureate degree granting institution. (The institution is now Eastern Michigan University at Ypsilanti.) And it was only after World War I that significant numbers of normal schools were changed to teachers colleges. More than two-thirds of these institutions made the transition between 1919 and 1932.

Accreditation

As early as the 1870's institutions such as the Universities of Michigan and Indiana had admitted the graduates of certain high schools without qualifying examinations. The real force of accreditation, however, was not felt until the development of the regional accrediting associations, beginning with the Middle States Association in the 1880's. The large public universities, in particular, realized that they could not advance if they continued to enroll students directly from the common schools, or from high schools in which the level of work was not much better. Hence, it was in the best interests of the universities to develop higher standards for secondary schools. Pressure for improvement of the high schools came also from business and organized labor, which saw the necessity for trained manpower. The accreditation movement was facilitated considerably by the fact that development of secondary schools resulted in a significant increase in college enrollments. This in turn increased the supply of potential teachers which made it somewhat easier to enforce increased professional standards.

By 1917 the North Central Association was accrediting teacher

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*The emergence of the professional treatment position is described in detail by Borrowman (1965, pp. 95-103).

education institutions separately. As one key requirement each accredited institution had to require high school graduation as a prerequisite for admissions. Such a requirement not only affected the secondary teacher preparation programs but helped also to advance elementary teacher preparation to the collegiate level.

Another outcome of the accreditation movement was the development of teacher specialization by subject field. Formerly, secondary teachers had been prepared in much the same fashion as elementary teachers, although in a four-year program there was additional emphasis on the various subject areas. Accreditation pressures, however, led eventually to specialization in not more than two or three fields such as English and social studies. This enhanced the collegiate standing of normal schools by forcing the institution to develop faculties of greater specialization. As an example, by 1917 the North Central Association required teacher education faculties to instruct only in their teaching specialty.

Many analyses of the history of teacher education have emphasized the role of certification. An historical comparison of teacher certification data with the statistics of normal schools and teachers colleges for several states leads to the conclusion that changes in state certification requirements, for the most part, tended to put into law what was already the case in most of the school districts of the state, particularly the larger ones. Certification certainly affected the development of teachers colleges but the impact appears to be less than the impact of the accreditation movement. Perhaps the chief outcome of changes in certification standards was the opportunity to delete, first subcollegiate and then, less than four-year programs designed to prepare elementary teachers.

Demand for Higher Education

The third pressure for collegiate status developed more slowly but eventually provided the push to the transition to teachers colleges and then to state colleges. Initially the pressure for additional opportunities for higher education did not arise from vast numbers of high school graduates clamoring for places. College age population (18 to 21) grew from 5,930,765 in 1900 to 9,753,537 in 1940, a gain of only 64 percent. (McQuery, 1952, p. 171) The real pressure arose for existing institutions to accommodate local high school graduates who lacked transportation facilities and were hampered by distance from attending other institutions. This phenomenon was particularly strong in the Midwest where the population was more dispersed and where the public universities and private colleges did not dominate the education scene as they did in the East.

Teachers Colleges, 1920-1940

The effect of these forces upon normal schools was not always immediate and varied considerably from region to region. Although over 100 normal schools had become teachers colleges by 1930, at that time the term

"collegiate" more aptly described regional rather than national trends. The teachers college movement was initially midwestern. The eastern normal schools remained two-year institutions with primary emphasis on elementary education, and many of the western and southern normal schools were just in the initial stages of development.

The classification of the members of the American Association of Teachers Colleges in 1920 graphically illustrates this point. Thirty-five teachers colleges were in Class A since they had by that date conferred baccalaureate degrees. Twenty-three were from the Midwest, plus five from Texas, two from New Mexico and one each from New York, Colorado, Virginia, Georgia, and South Carolina. Eleven institutions were in Classes B and C since they were authorized to confer degrees but had "not availed themselves of the authority." Five of these were from Oklahoma, three were from Washington and one each from Illinois and Nebraska. Fifteen of the 35 in Class A were still called "normal schools" and all of those in Classes B and C were still called "normal schools." (American Association of Teachers Colleges. Yearbook, 1922, pp. 16-18)

By the end of the 1930's and the beginning of World War II, major changes were again clearly evident. Although many of the present state colleges and universities were still called normal schools in 1940 (including three of the 14 site visit schools, Southern Connecticut State College, Eastern Montana State College, and West Georgia College which was a two-year college) most of the institutions had reached four-year status and a few offered graduate work. For example, Colorado State College had offered the doctorate since 1930.

In 1939, the centennial year of the first normal school, Harper summarized seven major developments in the state teachers colleges as they had evolved from the normal schools and played a major role in transforming teaching into a profession. (Harper, 1939, pp. 114-120)

1. The institutions helped develop a personal interest in students and a spirit of professionalism in teaching staffs.

2. They clearly demonstrated that teacher preparation institutions needed to remain close to the needs of the public schools and the public.

3. The need for in-service education and follow-up work became clearly established. The field service responsibilities to the surrounding region were a major factor in the development of these institutions.

4. The concept of professionalized subject matter was developed during this century. (As noted previously, this concept in the normal schools changed materially as they developed into teachers colleges and has been completely abandoned in present state colleges and universities.)

5. There was a notable emphasis on laboratory learning and the scientific approach to the education of teachers. Programs of teacher education adapted the methods of science to analyses of students and the teaching act. The laboratory approach, in contrast with the more sterile, theoretical approach, was strongly supported by the concerned public.

6. Many parts of the extracurriculum were included in the organized program of preparation for teaching, particularly speech, music, art, and drama activities. Their inclusion in the regular program of studies enhanced the cultural development of the youth of the country.

7. The normal schools and state teachers colleges exhibited an essentially pragmatic attitude; their organization made it possible to adapt, from any source, methods and materials which had a direct bearing on school problems.

In 1940, 251 of the present 284 SCU's were in existence, compared with 108 similar institutions in operation in 1890. Enrollment data from the U.S. Office of Education reports for 69 institutions in 1890 and 243 institutions in 1940 were compared. During the 50 year period enrollment grew from 29,866 to 226,104, a growth of 657 percent.

Of particular significance is the fact that enrollment gains in SCU's during this half century can be accounted for primarily by the development of new institutions, not the growth of already established institutions. The average SCU had barely doubled in size from an average enrollment of 425 in 1890 to 900 in 1940. Only one institution had a 1940 enrollment greater than 6,000 and only 21 (9 percent) enrolled more than 3,000. In contrast, 93 institutions (38 percent) enrolled less than 500 students. (Table I-1)

Although data for this era are difficult even now to secure, most of the schools were obviously local in character and tended to draw their students from within a radius of 50 to 100 miles. In 1940 the required admissions standard was high school graduation, rather than the common school diploma or entrance examination of 50 years earlier. Some colleges had become reasonably selective because of their location and because of their emphasis on collegiate level teacher education. Secondary school accreditation standards had brought about an emphasis on the baccalaureate degree. Perhaps 30 percent of the students actually completed their degree programs.

The stated purpose of most of these institutions became and remained teacher education but programs had changed considerably in 50 years. Between two-thirds and three-fourths of the institutions still maintained two-year elementary programs but the emphasis was decidedly upon baccalaureate level instruction. As indicated earlier the professional education and subject matter components of the program were being separated and specialization in areas such as social studies, science, and language arts

was developing. A few of the institutions, including two of the site visit schools, had embarked on graduate programs by 1940. All of these were in teacher education and included programs for principals, supervisors and critic teachers.

Increased standards, as well as specialization, had brought about a dramatic reduction in the student-faculty ratio from 28-1 in 1880 to 16-1 in 1940. According to gross U.S. Office of Education figures, a majority of the faculty members had earned master's degrees from accredited four-year institutions and probably 10 to 15 percent held doctorates, chiefly in education. The pattern of governance had changed relatively little from the 1890's to 1940. Most of the institutions were directly under state departments of education or state teachers college boards, although a few had come under state boards of higher education. Because of transportation difficulties and undoubtedly because of tradition, there was still some tendency to govern these institutions by means of local committees of boards or through resident regents, as in Wisconsin.

Internally, the institutions could be described as single-purpose colleges, although the effects of specialization in teacher education were beginning to be felt. In place of the normal school principal of 1890, the institutions typically had a president and a dean. Subject matter divisions and, in some cases, departments were emerging and, because of the shift in emphasis, professional education was often a single department within the institution. Substantial control over critical aspects of the teacher education program, such as methods courses and student teaching, often rested with the subject matter divisions. Even before most of the normal schools completed the transition to teachers colleges in the 1930's, forces were set in motion which diminished the emphasis on teacher education and contributed to the multi-purpose state institutions. The move away from the professional treatment of subject matter and toward a distinction between the professional and subject matter components was accelerated by accrediting agencies. They required that no secondary school instructors should teach in more than two or three fields. Thus, within the framework of the teachers college, divisions of social and natural science. and eventually departments, such as history and chemistry, emerged. At first the complete emphasis of these departments was upon the preparation of teachers. However, discipline-oriented faculty soon began to be attracted to these institutions.

Another important change was the relaxation of requirements that every student be committed to a career in teaching. As mentioned before, in the early history of many states normal schools had been required by state law to have their students sign a pledge that they would become teachers. Gradually the teacher education emphasis shifted to graduation requirements where a student could not receive a degree from the institution unless he had a teaching certificate. Later it was stipulated that each student must complete the teacher education requirements but could graduate without being certified. By 1940 some of the institutions had dropped the teacher education requirements for graduation entirely and the pattern for transition by other institutions was readily predictable.

CHAPTER II

THE DEVELOPING STATE COLLEGES: 1940 - 1968

The era of the developing state college can be divided roughly into two periods: (1) the 1940's, including the end of World War II and the 5-7 years immediately following, and (2) the period from the early 1950's almost to the present.

Little information is available about the SCU's during the years of World War II. Enrollments declined as students and faculty were drafted into the armed services or contributed to the war effort in other ways. State colleges were less affected by the war than were most other types of institutions because of the heavy emphasis in elementary education and the proportionately large enrollment of women. Many institutions (such as Ball State University and Colorado State College among those visited) conducted various armed forces training programs. However, many of the institutions lacked the necessary resources to enter actively into this phase of the war effort.

The war years permitted some institutions of higher education time for planning, one luxury which has been difficult to duplicate since that time. As a result some limited planning had been done for the returning flood of veterans and for the new and expanded functions which higher education was called upon to assume in the postwar years. How well higher education planned is open to discussion, but the situation would have been much worse had the time for planning not been available. State colleges, because they lacked the authorization to carry out new and expanded functions, were in many cases unable to translate into operational form the plans which contained realistic projections about the future. Consequently, many SCU's were ill-prepared for the immediate postwar years.

In the early postwar years the most fundamental concern of higher education was providing access to higher education. Aside from a few states where state colleges had developed prior to the war, state colleges in their new role as multi-purpose institutions were still viewed as teacher training institutions and were given relatively little attention as major vehicles for the expansion and upgrading of educational opportunity.

The general status of SCU's in 1946-47 was described by the President's Commission on Higher Education. "The great majority are called teachers colleges but increasing numbers are becoming state colleges or state colleges of education. Practically all grant the bachelors degree, many grant the masters degree, and several grant the doctors degree. Increasingly the teachers colleges, particularly those which

have become state colleges, are offering other curricula in addition to those for prospective teachers." (President's Commission on Higher Education, Vol. 3, p. 18)

Later in the report the Commission stated its conception of what teachers colleges should become. "Teachers colleges, while striving constantly to improve their primary and all important function of educating teachers, should also utilize their facilities wherever feasible to help carry on the other aspects of the higher education program." (President's Commission on Higher Education, Vol. 3, p. 70)

These passages constitute the most substantive references to SCU's in the Commission report. Possible additional functions of developing state colleges were recognized but community colleges, state and land grant universities, and private institutions were viewed as the major components of the higher educational system. However, during the 1950's and 1960's the state colleges grew so rapidly and expanded into so many new fields that the Commission Report was soon outdated.

The intensity of the cold war and particularly "Sputnik" in 1957 focused the attention of the nation upon higher education and especially upon teacher education. Scathing articles in national publications denounced the "scandal" in teacher education and major efforts were promoted to "take teacher education out of the hands of the teachers colleges." This of course did not happen and, in fact, SCU's today prepare almost as large a proportion of the nation's teachers than they have at any time in the past. However, the "crisis in teacher education" did focus the concern of the nation on the state colleges and resulted in significant strengthening of programs, especially in the subject matter fields. In particular, the increased emphasis upon content accelerated the trend away from the "professionalization of subject matter" in which courses in the academic disciplines had included instruction on how to teach those disciplines. Substantial preparation in one academic discipline was considered necessary for secondary school teachers and many institutions considered a degree of specialization in one area desirable for elementary teachers as well.

SCU's were affected significantly, however, by some of the forces which created the enrollment surge following World War II and which affected higher education generally. The immediate increase in enrollments in SCU's, while not as great as in most other institutions, was composed chiefly of males rather than females. Veterans, while receiving the benefits of the G.I. Bill, were in many cases not able to travel great distances to seek higher education. Consequently there was an immediate demand for regional opportunities in curricula other than teacher education. And this demand, coupled with significant educational planning in a number of states, resulted in a large number of teachers colleges becoming state colleges during the immediate postwar years.

SCU's were also affected by the increased attention given to education as a whole. The end of World War II brought with it an assessment of the future of the country. What was it that the war had been fought to preserve? The answer, in part, was an opportunity for a more full and richer life for all in a free and open society. This answer brought

with it an increased commitment to education as the path to this better life and to the preservation of a democratic soceity.

The postwar commitment to education thus affected SCU's not only as institutions of higher education but as institutions devoted primarily to the education of teachers. Indeed, the upgrading of programs for the preparation of teachers may well have done more to improve SCU's in the early postwar years than the addition of other occupational or liberal arts programs. Major programs for students planning to teach in secondary schools shifted from such divisional programs as the social sciences, language arts, and natural sciences to departmental programs in English, history, and biology. Elementary education shifted to a four-year program although many elementary teachers continued to be trained in two-year programs until the late 1950's. (See also Chapter V)

The changes are graphically illustrated by data published in the Blue Books of the American Council on Education for 1956 and 1968, which were based on data from 1954 and 1966. In addition data secured from the returns to the 1967 questionnaire confirm these findings from the Blue Books. In this section the authors detail the findings in the areas of enrollment growth, degrees granted, developments in curriculum and instruction, and recent innovative programs.

Enrollment Growth

Surprisingly, SCU's absorbed a relatively small proportion of the spectacular enrollment increases of the immediate postwar years. According to the President's Commission on Higher Education (Vol. 6, p. 21) in 1947, state colleges enrolled fewer students than in 1940. During the same period, the total enrollment in higher education had increased by approximately one-third. Data gathered from U.S. Office reports for the present study show only a slight increase in enrollment from 226,000 in 1940 to 299,000 in 1954.

The major acceleration in the development of SCU's occurred in the mid 1950's as the number of students attending college began to increase annually. Enrollment data show that SCU's increased in size from approximately 299,000 in 1954 to over 1,300,000 in 1966. This growth rate has accelerated since then. Such increases were brought about not only by added numbers of college-age youth but by an increase of between one half and one percent per year in the proportion of such youth attending institutions of higher education.

Present enrollment. The enrollment figures are rather gross and should be used primarily to describe and project major trends. An examination of the general enrollment trends for American higher education (Table II-1) reveals three major characteristics which have affected American higher education in general and SCU's in particular. These trends are (1) the significant growth in numbers (140 percent between 1954 and 1966); (2) the major growth during the same period in public as opposed to private institutions (82 percent); and (3) the accelerated increase in graduate enrollment (167 percent for all institutions and 282 percent for public institutions). In contrast to the late 1940's, SCU's

TABLE II-1

Opening Fall Degree Credit Enrollments 1966
Percent Increase 1954-1966 by Level, by Type of Institution, by Type of Control

Control and Type	Degree Credit Enrollments 1966						Percent Increase Between 1954 and 1966		
	Total Students Number	%	Undergrad. Stud. Number	%	Graduate Students Number	%	In Total Students	In U.G. Students	In Grad. Students
Public Institutions									
4-Year Institutions									
SCU	1,261,954	21%	1,111,688	20%	150,165	24%	266%	247%	460%
Other Public Universities	1,853,046	31%	1,564,312	29%	288,835	46%	137%	130%	233%
Sub Total 4-Year Institutions	(3,115,000)	52%	(2,676,000)	49%	(439,000)	70%	173%	160%	282%
2-Year Institutions	844,000	14%	844,000	16%	———	—	251%	251%	—
TOTAL Public Institutions	3,959,000	66%	3,520,000	65%	439,000	70%	189%	178%	282%
Private Institutions									
4-Year Institutions	1,880,000	32%	1,689,000	33%	191,000	30%	78%	77%	52%
2-Year Institutions	108,000	2%	108,000	2%	———	—	69%	69%	—
TOTAL Private Institutions	(1,988,000)	34%	(1,797,000)	35%	(191,000)	30%	82%	84%	52%
GRAND TOTAL	5,947,000	100%	5,317,000	100%	630,000	100%	140%	137%	167%

SOURCES: SCU data, Andersen, A Fact Book on Higher Education. "Enrollment Data," 1968, pp. 8005,8008, 8009, 8015, 8017, 8035. (Certain data computed by subtraction.) SCU data compiled from Singletary, American Universities and Colleges, 1968.

were the fastest-growing type of institution in American higher education between 1954 and 1966, with a total increase in enrollment of 266 percent. In 1954, the SCU's included in the study enrolled just under 300,000 students, or 13 percent of the total degree-credit enrollment. In 1966, they enrolled 1,261,954, or 21 percent of the enrollment.

The growth in numbers alone presented major challenges to SCU's. However, this quantitative growth was accompanied by an even more rapidly accelerating growth in complexity, as evidenced by the 460 percent increase in graduate enrollment from 1954 to 1966. (Table II-2) Had SCU's become large, basically undergraduate institutions, many problems and possibilities would not exist. The growth in size accompanied by growth in complexity has resulted in significant changes in the characteristics and goals of these institutions.

Enrollment trends for SCU's were further subdivided by size of institution and by region. These figures emphasize the growing diversity of SCU's. The mean size of the 262 SCU's included in the 1966 sample was 4,500. The majority of all students (57 percent) were enrolled in the 73 largest institutions, which enrolled more than 6,000 students. At the graduate level, slightly more than one-fourth of the institutions (28 percent) having the largest number of students enrolled over two-thirds (69 percent) of all SCU graduate students. At the other end of the scale, the 25 percent (64) of the institutions with enrollments less than 2,000 enrolled only 6 percent of the students, including only 2 percent of all the graduate students enrolled in SCU's. The percent increases in enrollment by size of institution are quite similar when the number of institutions in each category is taken into consideration. Although institutions of 10,000 to 15, 000 enrollments and those less than 1,000 had the greatest growth rate, these rates were affected significantly by the sizable number of new institutions falling in that enrollment category in 1966.

Growth in graduate education in SCU's was revealed as, essentially, continuing education undertaken by part-time students. (Table II-2) Part-time students constitute four out of five (79 percent) of all graduate students enrolled. Only in institutions of over 10,000 does the percentage of full-time graduate students rise to one-third or more. The corresponding percentage of part-time enrollment for all American colleges and universities would be about 56 percent. (Simon and Grant, 1968, p. 74)

The same data by region (Table II-3) indicated that undergraduate enrollment was relatively evenly distributed across regions and grew at a fairly uniform rate between 1954 and 1966. Graduate enrollment, on the other hand, was concentrated in two regions, with the West (28 percent) and the Northeast (32 percent) which enrolled 60 percent of all graduate students in 1966. The growth trends by size of institition and the trends by region are remarkably similar. The only exceptions are that graduate enrollment increased at a much faster rate in the Northeast and at a somewhat faster rate in the Midwest and Mountain/Plains areas. The slowest growth rates were in the West where, outside of the rapidly expanding California system, enrollment growth has lagged behind other regions.

TABLE II-2

Opening 1966 Fall Degree Credit Enrollment and Percent Increase 1954-1966
by Level, by Size of Institution

Size of Institutions	1966 Enrollment								Percent Increase 1954-1966			
	Number of Institutions		Total Enrollment		Undergraduate Enrollment		Graduate Enrollment[1]		In No. of Institut.	In Total Enroll.	In Undergrad Enroll.	In Graduate Enroll.
	Number	%	Number	%	Number	%	Number	%				
15,000+	8	3%	149,929	12%	112,031	10%	37,886	25%	33%	250%	236%	298%
10,000-14,999	17	7%	207,228	16%	184,047	16%	23,167	16%	70%	378%	367%	478%
6,000-9,999	48	18%	365,696	29%	324,291	29%	41,390	28%	26%	267%	253%	396%
4,000-5,999	48	18%	234,956	19%	208,447	19%	26,494	18%	12%	212%	200%	345%
2,000-3,999	77	29%	224,867	18%	206,662	19%	18,190	12%	31%	218%	197%	937%
1,000-1,999	47	18%	67,879	5%	65,586	6%	2,278	1%	38%	172%	167%	555%
0-999	17	7%	11,399	1%	10,624	1%	760	--	240%	469%	441%	---
TOTAL	262	100%	1,261,954	100%	1,111,688	100%	150,165	100%	34%	266%	247%	460%

[1]Includes part-time graduate enrollment.

TABLE II-3

Opening Fall On-Campus Degree Credit Enrollment 1966 and Percent Increase, 1954-66, by Level, by Region

Region	1966 Enrollment								Percent Increase 1954-1966		
	Number of Instit.		Total Enrollment		Undergrad. Enrollment		Graduate Enrollment		In Total Enrollment	In Undergrad Enroll.	In Graduate Enrollment
	Number	%	Number	%	Number	%	Number	%			
1 West	29	11%	210,174	17%	167,865	15%	42,326	28%	247	232	316
2 Mountain/ Plains	25	10%	78,560	6%	73,493	7%	5,084	4%	264	256	414
3 Southwest	31	12%	135,541	11%	124,754	12%	10,793	7%	225	229	194
4. Midwest	43	16%	305,788	24%	277,737	25%	28,067	19%	281	267	490
5 Southeast	59	23%	245,738	19%	230,578	21%	15,176	10%	227	223	315
6 East	75	28%	285,953	23%	237,261	20%	48,709	32%	265	222	714
TOTAL	262	100%	1,261,954	100%	1,111,688	100%	150,165	100%	266	247	460

[1]Includes part-time graduate enrollment.
[2]Includes data available for 1966 only for part-time graduates.

Enrollment in metropolitan areas. Urban expansion by SCU's has also been of great importance. Preliminary tabulations prepared for the Carnegie Commission (Bobren, 1968) indicate that 41 percent (115 of the 279 institutions in their analysis) are located in standard metropolitan statistical areas of 50,000 population or more. These urban institutions include 55 percent of all students enrolled in SCU's, 807,694 of a national total of 1,468,891. Urban institutions include 25 (86 percent) of the 29 institutions enrolling over 10,000 students. These figures verify the present investigator's contention that maximum service to the U.S. population is possible through regional SCU's, particularly those located in the larger metropolitan areas.

Future enrollment. Enrollment projections collected for 216 institutions by the American Association of State Colleges and Universities in 1966 were extrapolated to an estimated 300 institutions for 1975. The projections indicate that by 1975, SCU's will enroll 2,600,000 students or over one-fourth (28 percent) of the 9,100,000 students projected by USOE for the date. (USOE, 1967, p. 18) Projections for graduate students suggest that SCU's may enroll as many as 350,000 or one-third of the 1,100,000 graduate students projected for 1975.

As a general conclusion most SCU's will approximately double in size from 1966 to 1975. This conclusion holds for most size categories except new institutions of less than 1,000 which may quadruple in size during that period. The implications of this growth are significant. Many of the typical SCU's of approximately 4,500 enrollment in 1966 will be transformed into a potential university level institution of about 9,000 by 1975. Moreover, the trend toward the university level will be increased by the accelerated growth in graduate enrollment. The typical SCU in 1975, having an enrollment of 9,000 is likely to enroll over 2,000 graduate students, enough to provide the enrollment base for substantial programs in a number of fields. Even institutions projected to have an enrollment of less than 6,000 students by 1975 will enroll an average of 500 graduate students, enough to develop graduate programs in several fields.

Degrees granted

The data on degrees (Table II-4) verify the conclusions established in the enrollment figures and permit a further breakdown of emphasis at the graduate level. The data are subject to the same limitations as the enrollment figures and should be used only to indicate general trends. The figures for 1954 are somewhat understated. They are based on a smaller number of institutions although the missing institutions in existence at that time as SCU's were only small unaccredited schools. The data substantiate the shift to public institutions and the accelerating growth of graduate education. The data further reveal that graduate education in SCU's is almost entirely at the master's degree level. Although SCU's have made substantial increases in the number of doctoral degrees granted they still constitute a small fraction (3 percent) of all doctoral degrees granted.

Over 70 of the SCU's are designated as universities as of July, 1969. However, 25 of them offered doctoral degrees at the time of the question-

TABLE II-4

Earned Degrees 1954-1966
by Level, by Type of Institution

Type of Institution	Total		Bachelor's		Master's		Doctorate		Total	Bach.	Mast.	Doct.
	Number	%	Number	%	Number	%	Number	%				
Public												
SCU	197,272	27%	157,553	27%	39,341	29%	378	03%	286	264	397	448
Univ.	235,688	33%	178,747	39%	44,502	34%	10,714	56%	77	72	82	139
Total	432,960	60%	336,300	59%	83,664	63%	11,092	59%	135	128	159	143
Private	288,640	40%	233,700	41%	49,136	37%	7,708	41%	69	67	89	79
TOTAL	721,600	100%	570,000	100%	132,800	100%	18,800	100%	102	97	127	113

SOURCES: Andersen, A Fact Book on Higher Education. "Earned Degrees," 1967. USOE. Projections of Educational Statistics to 1976-77, 1968, p. 31. Singletary, American Universities and Colleges, 1968.

naire study in 1967 or planned to add doctoral programs by 1972. The only current SCU's producing a substantial number of doctorates in 1966 and 1967 were Colorado State College (96 degrees), North Texas State (34 degrees) and Southern Mississippi (24 degrees).

Another finding from the study of degrees granted is that despite much discussion SCU's were not major producers of specialist or intermediate degrees. Sixteen SCU's awarded a total of 179 specialist degrees in 1966-67. Unfortunately comparable figures are not available for other types of institutions, nor are data available for 1954.

Developments in curriculum and instruction

The primary function of SCU's is instruction and apparently will remain so in the foreseeable future. Despite the obvious interest in research among some faculty and administrators and the realization of the potential of public service in some institutions, instruction still occupies the major effort, creative abilities, and physical and financial resources of the SCU's. The instructional program is changing at an accelerating rate along with the other facets of the institution. Three major changes appear evident and affect almost every aspect of the educational program, (1) occupational pluralism, (2) undergraduate educational subject field disciplines, and (3) graduate and continuing education has developed very rapidly.

Occupational pluralism. A growing variety of baccalaureate and post-baccalaureate specialized programs have been developed to prepare students for rather specific occupations.

Despite increased interest in a variety of other occupations, teacher education will remain the single largest field of activity for most SCU's in the near future. At the undergraduate level at least in the 14 site visit institutions between 40 and 70 percent of the students were enrolled in some form of teacher education. Elementary education is still the largest single occupational program in most SCU's although secondary education (all majors combined) tends to enroll more students in the larger, more-diversified institutions. This trend is causing some concern to the teacher educators interviewed because the numerical demand for teachers is still greatest at the elementary level.

The present major enrollment growth apart from teacher education has come from the addition of occupational fields. Business is typically the first field to be added. Usually a strong emphasis in accounting or business is developed with business education. It is then often developed as a separate major in much the same way as the liberal arts disciplines have emerged from teacher education programs. This pattern has been verified in every data source, site visits, institutional histories and the questionnaire phase of the study. In two of the site visit institutions, education and other occupational majors accounted for more than 95 percent of the graduating seniors. Ten of the 14 site visit institutions have or will soon have undergraduate programs in business. One additional institution has such a strong accounting emphasis in business education that it could easily be developed into a business major. Business programs at the state colleges tend to be primarily

occupational and they tend to focus upon specific occupational areas such as accounting, marketing, and retail management rather than preparing students for graduate work in business. Business is the fastest growing new program at several of the site visit institutions and a still more diversified emphasis will undoubtedly develop in these programs as the number of students increases. Data processing and computer science are two business areas being developed at several of the larger site visit institutions.

Next to business, the most rapidly developing group of occupational majors is the social or helping services. Social work or social welfare programs at the undergraduate level were found at six site visit institutions and planned at two others. Nursing programs have been developed at eight institutions and are planned at two others. Other allied health professions such as medical technology, occupational therapy and physical therapy are in the planning or recent installation stage at several of the institutions. Library science and journalism are two additional programs receiving attention at site visit institutions.

In addition, at least four institutions have undergraduate programs in the public administration area. At present the programs are chiefly in law enforcement and recreation administration, but it is likely that other programs such as city planning will emerge at the baccalaureate level also.

A final major occupational area is engineering and technology which includes such fields as engineering, industrial technology and agricultural production majors of many types. Four-year technological programs have not been growing as rapidly as have programs in business, but their growth will accelerate as the number of students in two-year technology programs increases and the pressure for four-year degrees grows.

Some of the older four-year occupational programs share with teacher education the characteristic of having once been less than baccalaureate degree programs. With the number of technological and semi-professional specialities developing in the community colleges it is a logical projection that many of the specialities will eventually become four-year baccalaureate degree programs for at least some practitioners of the occupation. Production technology, supervisory occupation in business and industry, and various specialities in government would appear to be likely possibilities for development in the near future.

The findings from the site visits were confirmed by the responses from almost 200 SCU's to the author's 1967 questionnaire. These data revealed extensive additions of baccalaureate degree programs in occupational fields in 1965-67 and even more extensive plans for further developments by 1972. Examples of such existing programs or planned expansion are 34 new majors in business fields, plus nine in Business Education; 26 new majors in Nursing and 20 in other fields of the applied health professions, and 13 new majors in Engineering, in Recreation or Park Administration, 11 in Journalism, three in Library Science, and seven in Computer Science. Many others, very highly specialized, could be added to this list. These figures provide evidence that once again the SCU's have provided a major response to an evident need in the

society they serve.

Expansion of subject field disciplines at the undergraduate level is another major area of change. The sequential development of undergraduate curricula in the colleges has generally paralleled the enrollment pattern. Since the site visit institutions were chosen because they represent widespread geographic examples of general enrollment and academic trends, an analysis of their development gives some indication of recent trends and future directions in most SCU's.

As SCU's grow and achieve a total of four or five faculty in a given department, the immediate tendency has been to add a separate major in that discipline. Except in newly developed institutions, this major usually consist of additional advanced courses designed to prepare the student for graduate or professional school and to replace the required hours for secondary teacher certification. The actual number of students who do not complete the teacher certification requirements may be small but the addition of a separate major usually represents a shift in the focus of the department faculty. Such development generally takes place first in the secondary education fields of history, music, political science, mathematics, chemistry, foreign languages and biology, and later in such fields as physics, economics, sociology or psychology.

Because of a lack of potential majors and because SCU's are generally controlled rather tightly through formula budgeting, liberal arts fields such as anthropology or philosophy are seldom developed until the institution has 5,000 to 7,000 students and can afford to siphon off some of its resources to new areas. For this reason certain of the social sciences and the humanities have been grossly underdeveloped at most SCU's. This is a particular problem for graduate level development when there is no major in the academic discipline offered at the undergraduate level.

These findings have been corroborated by the heavy responses to curricular development questions on the questionnaire. In a number of fields it appears that several basic fields such as English and history had been added prior to 1965. However, majors in basic fields and all other fields of the arts and sciences have expanded rapidly or are currently being planned for by 1972. During this seven-year period there are listed 68 new majors in languages, including 16 in Russian; 49 majors in other Humanities fields, including 18 in History and 11 in Philosophy; 106 new majors in the Arts, including 42 in Speech and Drama, 3 in Dance, 23 in Art and 18 in Music; in the social sciences, 111 majors included 14 in Anthropology, 19 in Economics, 13 in Geography, 19 in Political Science, 24 in Psychology and 22 in Sociology; in the sciences, 104 new majors included 19 in Physics, 16 in Chemistry, and 30 in Geology and Earth Sciences; and 34 degree programs in inter-disciplinary fields included everything from 2 in African Studies to 2 in French-Canadian studies and 4 in Urban Studies.

Clearly, the expansion in majors in subject matter disciplines has been and will be extensive in this short seven-year period. And although many of them are taken by students who plan to become teachers, the percentage in some SCU's is probably no greater than is true in many private

or public colleges of liberal arts and sciences. This extensive development coupled with the important but lesser expansion in undergraduate professional curricula will materially alter conditions in the SCU's as they enter the 1970's.

Graduate and continuing education is the fastest growing of all SCU functions. Graduate enrollment in SCU's increased 460 percent from 1954 to 1966 and the number of master's degrees awarded increased by 397 percent. With reasonably well developed programs in most of the basic undergraduate fields, graduate education presents great possibilities for expansion in most SCU's. But because graduate education is a primary function of the established universities, the growth of SCU graduate programs is also the major immediate source of tension between SCU's and other elements of state educational systems.

Continuing education, or life-long learning, has become necessary for most occupations, particularly for the person who wishes to advance in his chosen field. This has resulted in an unprecedented growth in continuing education, particularly in the form of occupational master's degree programs. Continuing education has been a major activity in teacher education. In 1966 a significant number and variety of master's degree programs were offered in SCU's. (Table II-5) Limited growth in master's degrees in education is projected to 1972 and for the forseeable future. Major current M.A. fields of study which are likely to expand slightly (Table II-5) are (1) guidance and counseling (13 percent projected increase), (2) administration (12 percent projected increase), (3) curriculum and instruction (36 percent projected increase), and (4) educational psychology (15 percent projected increase). Although master's degree programs for exceptional children were not large in number in 1966-67, appreciable proportional increases are projected in programs for emotionally-disturbed and deaf children. However, the projected growth in all educational fields is small in comparison with projections in other professional fields or in subject matter disciplines. Future graduate growth is more likely in other occupations such as business, government and various social service professions, such as nursing and social work.

Graduate education in SCU's is chiefly at the terminal master's degree level. Although there are active or incipient doctoral programs in 9 of the 14 site visit institutions, and although there have been discussions of intermediate degrees, including the educational specialist degree, the terminal master's degree for teachers in-service and gradually for persons in other occupations is the chief vehicle for development of graduate education in SCU's. Nearly three out of four (74 percent) of the 262 of the SCU's included in the present sample offered master's degree programs in 1966 to 1967. (Table II-6) Most master's degree programs were found in the larger, more complex institutions, but 22 percent of the 194 master's degree granting institutions have total enrollments of less than 2,000.

Graduate education in SCU's has developed in a similar fashion to undergraduate education. Institutions often have entered into graduate education by offering a master's degree in elementary education or in "general teaching." Since the Second World War however, the entry of

TABLE II-5

Master's Degree Programs in Education,
1966 and Projected 1972

Specific Field	Number of Institutions Offering Programs				
	1966-67		Projected 1972-73		Percent Increase 1966-72
	N	%	N	%	
Physical Education	67	35%	68	33%	2%
Health Education	44	23%	45	22%	2%
Recreation	13	7%	13	6%	0
Exceptional Children	4	2%	5	2%	25%
Blind Children	1	.5%	1	.5%	0
Mentally Retarded Children	11	6%	11	5%	0
Emotionally Disturbed Children	2	1%	3	2%	50%
Deaf Children	5	3%	8	4%	60%
Speech and Hearing Problems	36	19%	36	18%	0
Crippled Children	1	.5%	1	.5%	0
Agriculture	6	3%	6	3%	0
Art	27	14%	27	13%	0
Business and Commerce	44	23%	44	22%	0
Retail Selling	1	.5%	1	.5%	0
Home Edonomics	8	4%	8	4%	0
Trade and Industrial Arts	28	15%	29	14%	4%
Music	41	21%	42	20%	2%
Nursery and Kindergarten	1	.5%	2	1%	100%
Early Childhood	10	5%	10	5%	0
Elementary	133	69%	140	68%	5%
Secondary	108	56%	109	53%	1%
Adult	8	4%	8	4%	0
General Education and Teaching	41	21%	46	23%	12%
Administration	77	40%	86	42%	12%
Guidance and Counseling	91	47%	103	50%	13%
Rehabilitation Counseling	9	5%	10	5%	11%
History, Philosopy and Comparative	9	5%	10	5%	11%
Curriculum and Instruction	22	11%	30	15%	36%
Educational Psychology	26	14%	30	15%	15%

SOURCES: 1966-67 data from Livesey and Robbins, 1967, and Singletary, 1968.

NOTE: 1972 Projections: Projections for approximately 200 institutions were contained in the returned questionnaires. Projections for the remaining institutions were obtained through extrapolation, using a factor of 1.3.

TABLE II-6

Master's Degree Programs by Broad Field, 1966 and Projected 1972

Broad Field	Number of Institutions Offering Programs				
	1966-67		Projected 1972-73		Percent Increase 1966-72
	Number	%	Number	%	
Agriculture	7	4%	8	4%	14%
Architecture	1	.5%	2	1%	100%
Biological Science	83	43%	99	48%	19%
Business and Commerce	58	29%	74	36%	28%
City Planning	1	.5%	8	4%	700%
Computer Science and Systems Analysis	3	2%	6	3%	100%
Education	192	99%	200	92%	3%
Engineering	18	9%	22	11%	22%
English and Journalism	91	47%	107	52%	18%
Fine and Applied Arts	78	40%	92	45%	18%
Folklore	--	--	--	--	--
Foreign Languages and Literature	49	25%	59	29%	20%
Forestry	3	2%	3	1%	--
Geography	29	15%	36	17%	24%
Health Professions	4	2%	12	6%	200%
Home Economics	32	16%	36	17%	13%
Law	1	.5%	2	1%	100%
Library Science	28	14%	29	14%	4%
Mathematical Subjects	79	41%	92	45%	16%
Military Science	--	--	--	--	--
Philosophy	18	9%	22	11%	22%
Physical Sciences	82	42%	98	48%	20%
Psychology	46	24%	60	29%	30%
Records Management	--	--	--	--	--
Religion	1	.5%	1	.5%	--
Social Sciences	91	47%	116	56%	27%
Trade and Industrial Training	38	20%	39	14%	3%

SOURCES: 1966-67 data from Livesey and Robbins, 1967, and Singletary, 1968. 1972 projections for approximately 200 institutions were contained in the returned questionnaires. Projections for the remaining institutions were obtained through extrapolation, using a factor of 1.3.

NOTE: These Broad Field categories are those defined for statistical use by the United States Office of Education.

TABLE II-7

Number of Broad Fields in Which Master's Programs are Offered

Number of Fields	Institutions	
	Number	Percentage of Institutions Offering Master's Degrees
Over 15	7	3%
10-14	17	29%
5-9	47	24%
2-5	40	21%
1	83	43%
TOTAL	194	100%

NOTE: Broad Fields are those defined by the U.S. Office of Education and are listed in Table II-6. The number of potential fields is 27.

SOURCES: Livesey and Robbins, 1967, and Singletary, 1968.

SCU's into master's degree programs has been increasingly through master's degrees in secondary education with concentration in the appropriate subject fields. As the enrollment and quality of programs in secondary education has increased, the institutions have added master's degree programs in the basic disciplines themselves. The addition of programs in the academic disciplines may be somewhat misleading. An extremely high percent of the students in these programs are teachers in-service and therefore do not constitute a new clientele. The emphasis continues to be directed toward secondary education.

The continuing education of elementary and secondary teachers has provided a major vehicle for the development of graduate programs at SCU's and is likely to do so in the immediate future. At the same time this limited source of graduate students constitutes a basic barrier to the development of genuinely comprehensive graduate programs. This basic characteristic of SCU graduate programs can been seen in Table II-6. Nearly half (43 percent) of the 194 institutions offering master's degrees offer them in only one of the 24 broad subject matter fields defined by the U.S. Office of Education. With few exceptions, this field is education. Most of these 194 institutions offer concentration in from three to six disciplines as part of their secondary education master's degree program. Forty of them offer programs in from two to five broad fields. These are the institutions which are shifting from master's degrees in secondary education to programs in the disciplines themselves. A third group of 64 institutions offer between five and 15 fields and are developing into regional state universities. The programs of these institutions generally include master's degree programs in several occupational specialities such as business and nursing, in addition to the teacher education oriented programs in the basic disciplines. Finally, seven institutions offer programs in more than 15 of the 24 broad subject fields and are regional state universities developing into comprehensive universities.

The general trend in the graduate programs of SCU's can be indicated further by describing the number of SCU's offering programs in each of the broadly defined USOE subject matter fields (Table II-6). All except two of the 194 master's degree granting SCU's offer programs in education. The shift from master's degrees in secondary education to degrees in the disciplines themselves is being followed by institutions presently at the baccalaureate level but planning to institute master's degree programs between 1967-72. Most of these institutions are planning to offer majors in the disciplines immediately rather than taking the initial step of a secondary education master's degree. For this reason the percentage of master's degree institutions offering programs in education is actually projected (Table II-5) to decline by 7 percent by 1973, from 99 percent to 92 percent. The second most popular majors are the basic disciplines taught in secondary schools which comprise the continuing education programs for most secondary school teachers. Thus, 47 percent of the SCU's offer programs in the biological and physical sciences, mathematics, English, fine and applied arts, and the social sciences.

The next most popular group of broad subject fields are chiefly occupational in nature and tend to be offered by the relatively newly developing group of regional state universities. These occupational

fields include business and commerce, (29 percent), trade and industrial training, including majors in the various technologies (20 percent), and home economics, (16 percent) and library science (14 percent).

Beyond the basic facts of enrollment, degrees, and programs there are few data available for all SCU's. Therefore, site visit data and impressions must be relied upon to provide a more comprehensive picture of the nature of graduate programs. The visits confirm the earlier conclusion that the chief forces shaping the development of graduate education in SCU's are the predominant emphasis on in-service training of teachers and the part-time continuing education nature of the program. Despite the obvious interest of many faculty, only two of the 14 site visit institutions could be called genuinely graduate-level institutions. In most SCU's graduate education has been developed as an appendage using undergraduate facilities. SCU's generally have not been able to enroll a sufficient number of full-time graduate students in any one department to permit the institutions to recruit faculty members who would teach essentially in graduate and advanced programs. Nor have many of them been able to construct libraries, laboratories, and other facilities designed for graduate instruction and research. In addition, too few daytime graduate classes have been scheduled to permit the recruiting of a nucleus of full-time graduate students precludes the development of substantial numbers of teaching and research assistantships which could in turn be used to recruit larger numbers of highly qualified graduate students.

The chief impetus to graduate level instruction thus is not simply the increased size of these institutions but the development of sufficient resources to attract full-time graduate students which in turn can be used to justify more resources and which will attract still more students. This is why the few institutions which have reached this point of sufficiency, e.g., some institutions in Texas, Illinois, New York, and California are developing at a rapidly increasing rate while the vast majority of SCU's remain somewhat frustrated in their graduate development. Nevertheless, it is projected that by 1975 perhaps as many as 75 SCU's will have reached the point where they can sustain full-time graduate programs. Their development as graduate institutions may be expected to accelerate from that point.

Recent Innovative Programs:

As a part of the questionnaire study institutions were asked to indicate their current status in a number of so-called "innovative" areas. Responses tabulated by size of institution reveal wide differences in such developments. (Table II-8) Of the 181 institutions replying in this area, 98 of them or 547 percent, had established Learning Resource Centers including some mix of services such as closed-circuit or broadcast television, audio carrels, independent study centers, radio programs, audio-visual libraries of materials and video carrels. Such facilities were available in 40-60 percent of each size of institution, with the exception of those below 1,000 in enrollment or those between 10-15,000.

TABLE II-8

Recent Innovative Programs by Size of Institution

Size of Institution (Number of Institutions)	-999 (12)		1,000-2,000 (30)		2,000-4,000 (51)		4,000-6,000 (40)		6,000-10,000 (36)		10,000-15,000 (7)		+15,000 (5)		Total (181)	
Programs	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Learning Resource Centers	3	25%	12	40%	31	61%	22	55%	22	61%	2	29%	2	40%	98	54%
Area Studies Program	1	8%	5	17%	12	24%	11	28%	9	25%	1	14%	3	60%	46	25%
Special Overseas Centers	2	17%	1	3%	6	12%	6	15%	5	14%	3	43%	2	40%	25	14%
Sister College or University Abroad	1	8%	2	7%	9	18%	4	10%	7	19%	1	14%	0	-	27	15%
Special Field Work or Intern Program	4	33%	4	13%	12	24%	16	40%	14	39%	4	57%	4	80%	65	36%
Computer Assisted Instruction or Learning	2	17%	4	13%	17	33%	8	20%	15	42%	0	-	1	20%	48	27%
Innovative Administrative Changes	3	25%	1	3%	5	10%	8	20%	7	19%	2	29%	2	40%	29	11%
Other Innovative or Experimental Programs	2	17%	3	10%	12	24%	6	15%	6	17%	3	43%	1	10%	35	19%

International education programs such as overseas centers or exchanges with sister institutions abroad existed in only 14-15 percent of the institutions. Area studies programs were noted by only 25 percent of the respondents. Computer-Assisted-Learning was reported by 48 institutions, 27 percent of the total. Special intern or field work programs existed in 36 percent of the institutions. Nineteen percent of the institutions indicated that other innovative or experimental programs were being tried but did not state what they were. Finally, 29 institutions, 11 percent of the total, were putting innovative administrative changes into effect.

Size apparently has little affect on such innovative developments. The largest institutions indicated no more activity of these types than do the smaller institutions. Actually, smaller institutions growing at a somewhat slower rate may have more time for attention to innovative approaches than the larger institutions which have been literally engulfed with students. The provision of new facilities and additional major fields of study in these institutions has been, by itself, an important innovation for the United States in the 1960's.

The many developments in SCU's during this period resulted in nearly all of the remaining teachers colleges becoming state colleges by the late 1950's and early 60's. Only three specialized and so-named teachers colleges are still in existence. The increasing emphasis upon master's degree programs in the disciplines together with the growth of baccalaureate programs in additional professional-occupational fields resulted in a growing number of state colleges actually functioning as regional state universities. The end of the decade of the 1960's thus ushered in another period in the development of these institutions. As 10 percent of them offer the doctorate and provide multi-purpose educational opportunities for large student bodies of 15-30,000 students, the move to becoming regional state universities and, for some, eventually becoming comprehensive universities is well underway.

CHAPTER III

SOME ASPECTS OF FINANCING THE STATE COLLEGES AND UNIVERSITIES: PAST, PRESENT, AND FUTURE

EARLY FINANCING

The finances of publicly supported institutions of higher education have always been intimately associated with state politics and state legislatures. Funds to support public institutions of many types come from tax sources which are never sufficient to meet all of the demands placed upon them. For example, the two chief figures associated with the funding of the very first normal school in the United States were James G. Carter, member of the Massachusetts House of Representatives and chairman of its Committee on Education, and Horace Mann, a long-term member of the legislature and President of the Senate of that state. The devoted concern of legislators must be secured in order to provide adequate financing for public higher education.

The gifts of interested and well-to-do lay citizens have been another characteristic of the beginning of many public institutions. Again, evidence of private support is found in the case of the first normal school in Massachusetts. Edmund Dwight, a well-to-do Boston merchant, and a member of the Massachusetts Board of Education, made a gift of $10,000 to encourage the legislature to match the amount to start the first "teachers seminary" in the United States. As another example, one of the large institutions in this group, the Ball State University, was finally made a state institution after several failures when Frank Ball, in 1918, gave the state of Indiana over 64 acres and two buildings in Muncie, Indiana. Institutes and academies which had previously used the grounds and buildings had failed several times. However, with the gift from the Ball family and later support of the State of Indiana, Ball State University became a very successful and productive institution in this same location.

As a result of the Northwest Ordinance of 1787, many midwestern and western normal schools and teachers colleges obtained support from federal land grants, often called "swamp lands." In some states land surveys were made at the height of the rainy season in order that excellent and usable soil might be designated as "swamp land" and made available for this purpose. An interesting example of the use of federal land grants occurred at Eastern New Mexico University which had 30,000 acres from the original reservation of federal grant lands in the state constitution. In 1932 it was able, through its United States congressmen, to secure an additional 76,000 acres of federal land. Although the institution had been established by the legislature in 1927, no funds had

ever been appropriated to begin instructional service. Money earned from these lands was finally appropriated after a great deal of legislative negotiation. The bill approving the beginning of instruction passed in 1933, receiving approval on the third vote after being defeated twice on the floor of the senate. (Mann, 1959, pp. 23-25)

The histories of institutions developed during this period of 130 years abound with almost unbelievable stories. The financing of every one of the institutions was difficult and required a great deal of legislative action and maneuvering. In a high proportion of public institutions in the American Association of State Colleges and Universities, the towns in which they were located made bids to the state in order to obtain the institution. They provided gifts of land, buildings, and sometimes part of the operating expenses. This was true in the 1830's and it continues to be true into the 1900's. Many towns, bidding against each other for the institutions, placed heavy tax burdens and demands for gifts on the local citizenry. Although each town or city which secured a college expected it to encourage business and to return local costs, this expectation was not always met. Funds from state sources were often delayed and students were sometimes quite slow in attending the institutions. The Missouri normal schools founded in the 1870's and 1880's at Kirksville, Cape Girardeau, and Warrensburg are good examples of such problems. The small city of Warrensburg spent $150,000 for the establishment of a normal school and waited ten years for the state to provide $10,000 for the completion of the first building.

> "In the meantime...teachers gave up part of their salaries to obtain money enough to finish rooms in which to teach and students gave entertainments to pay for the sidewalks. The annual appropriation to each of the three schools was reduced in 1877 from $10,000 to $7,500, and at Kirksville two thirds of that was held up by the auditor. As late as 1893, the state appropriations at Warrensburg lacked $5,000 of the amount needed to pay the teachers alone; and for over 25 years this school had no appropriations for library or apparatus, the necessary sums being eked out with small incidental fees, or with tuition from students not pledged to teach or coming from outside the state." (Learned et. al., 1920, p. 38)

A final example of costs for the financing of normal schools during the 1800's is possible because of the extensive and well-kept records of the Massachusetts normal schools. The cost per student enrolled is available in three-year periods since 1839. The second normal school, started at Westfield, operated on a cost per student per year of $18.88 during the three-year period from 1839-41. Although it rose during the 1840's it dropped in the late 40's and reached the low average figure of $13.11 for the three-year period from 1851 to 1853. By 1899 to 1901 the average cost per student per year had risen to $156.17, which was the median figure for all the students in the nine Massachusetts normal schools which were operating by that time. (Mangun, 1928, p. 335)

FINANCING FROM 1900 THROUGH 1966

The Massachusetts normal schools cited above were supported adequately in the year 1900, in comparison with many other institutions throughout the United States. Table III-1 shows the cost per student in AASCU-type institutions during designated years between 1900 and 1950. The average cost for all of the students in 1900 is shown as $56.00 per year, rising to $184.00 per year in 1920, to $319.00 in 1940, and to $846.00 in 1950.

There was a wide variation in costs among institutions. It is interesting to note for example the costs in the 1921-23 period for the four normal schools in Connecticut. (Meader, 1928, p. 89) At New Britain the average cost per student was $93.31; for New Haven $56.71; for Danbury $105.08; and for Willimantic $155.57.

With such low costs per student the student-faculty ratio was exceedingly high and the other services provided were very limited. The student-faculty ratios improved dramatically between 1870 and 1950. (Table III-2) A constant lowering of the number of students per teacher is evident over the 80-year period and is a major factor in the increase in cost per student evident in Table III-1. The Depression period resulted in the lowering of cost per student in 1935 as shown in Table III-1 and in the slight rise in the student-faculty ratio in 1930. However, by 1940 the cost per student had risen and the student-faculty ratio had gone down. Between 1940 and 1950 the rise in salaries and effects of inflation were evident in the cost per student of $846.00. The student-faculty ratio of 14 to 1 also indicates the increased attention and support of these institutions by 1950.

Costs between 1954 - 1966

A major part of this study of financing SCU's has involved a comparison for the schools between 1954 and 1966. One category of data for these years is related to finance and budgeting in the institutions and dramatically points up the changes from the time of the early normal schools. The finest (normal school) building by the end of the 1860's had been built for approximately $200,000 at the Illinois State Normal University. Ninety years later, in 1954, the book value of buildings, grounds, and equipment in 1954 existing AASCU-type institutions was close to one billion dollars ($989,912,000). Twelve years later in 1966 the number of institutions had risen to 262 and the book value had risen to fourteen billion dollars ($14,207,281,000.00). (Table III-3)

Income per student

In Table III-4 educational and general income per student in 1966 is shown for six different regions in the United States. Wide variations are apparent in income per student. For example, 10 percent of the institutions in the Northeast operated with an income per student of less than $500 per year. In the same region, five institutions, representing 7 percent of the total, had an income per student of over $2,000. Great

TABLE III-1

Cost Per Student 1900-1950

Year	Number of Institutions Included	Cost Per Student
1950	254	846
1940	243	319
1935	225	280
1930	219	306
1925	190	219
1920	179	184
1910	150	105
1900	103	56

NOTE: The cost per student has been calculated on the basis of total students and total receipts. This was necessary because there is no information on expenditures prior to 1920.

SOURCES: USOE. The Biennial Survey of Education in the United States. 1916/18- . USOE, Commissioner of Education. Annual Report. 1870- . The 1950 data on institutions which were not teachers colleges are from Irwin, American Universities and Colleges, 1952.

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SOURCES: USOE. The Biennial Survey of Education in the United States. 1916/18- . USOE, Commissioner of Education. Annual Report. 1870- The 1950 data on institutions which were not teachers colleges are from Irwin, American Universities and Colleges, 1952.

TABLE III-2

Student - Faculty Ratio 1870-1950

Year	Number of Institutions Included	Student - Faculty Ratio
1950	254	14-1
1940	243	16-1
1930	219	20-1
1920	179	19-1
1910	150	22-1
1900	103	25-1
1890	69	30-1
1880	57	28-1
1870	33	32-1

SOURCES: USOE. The Biennial Survey of Education in the United States. 1916/18- . USOE, Commissioner of Education. Annual Report. 1870- . The 1950 data on institutions which were not teachers colleges are from Irwin, American Universities and Colleges, 1952.

TABLE III-3

Book Value of Buildings, Grounds, and Equipment,
1966 and Percent Change 1954-1966 By Region

Region	1966					% Change 1954-66	
	Number of Institutions		Total Value (in thousands)		Value Per Student*	Total Value	Per Student Value
	N	%	N	%			
1	29	11%	$1,428,071	10%	$6,790	963	138
2	25	10%	643,972	5%	8,190	1,121	163
3	31	12%	1,722,579	12%	1,270	1,693	322
4	43	16%	4,438,783	31%	1,451	1,629	259
5	59	23%	2,067,880	15%	8,410	978	152
6	75	28%	3,905,996	27%	1,319	1,411	214
Total	262	100%	$14,207,281	100%	$1,080	1,335	242

*Student enrollments taken from Singletary, American Universities and Colleges, 1968.

TABLE III-4

Educational And General Income Per Student, 1966, By Region

E and G Income Per Student	1 West[a]		2 Mountain/Plains		3 Southwest		4 Midwest		5 Southeast		6 Northeast		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
$2000 +	1	4%	0	--	0	--	1	2%	1	2%	5	7%	8	3%
1750-1999	1	4%	0	--	0	--	1	2%	0	--	3	5%	5	2%
1500-1749	3	12%	1	4%	0	--	3	7%	2	4%	6	9%	15	6%
1250-1499	11	44%	1	4%	4	15%	8	19%	7	13%	15	22%	46	20%
1000-1249	7	28%	7	31%	0	--	10	24%	23	44%	11	16%	58	25%
750-999	1	4%	9	39%	11	41%	13	31%	16	31%	14	21%	64	27%
500-749	1	4%	5	22%	10	37%	4	10%	2	4%	7	10%	29	12%
0-499	0	--	0	--	2	7%	2	5%	1	2%	7	10%	12	5%
TOTAL	25	100%	23	100%	27	100%	42	100%	52	100%	68	100%	237	100%

[a] Number of institutions

discrepancies exist in the resources available to support the students in the AASCU-type institutions which cannot be accounted for by variations in purchasing power of the dollar in different regions of the country. In the West 44 percent of the institutions operated with an income per student between $1,250 and $1,499 per year. Support for these institutions is much better than for any other region in the country, although it is obvious that cost per student is going up materially all over the country. (TableIII-1) Table III-4 indicates that only 41 institutions were operating with less than $750 per student in 1966 where the average for all institutions in 1950 had been only $96 higher. Between 1954-1966 the average total income per institution increased by 617 percent. (Table III-5) This increase, which far exceeded the rate of inflation, reflects the growing level of financial support which SCU's have been receiving.

Student fees have always provided a significant portion of the income available for the support of these institutions, approximating 30 percent during many of the decades since the 1840's. In 1954 (Table III-5) the Northeast charged students the highest fees and the West the lowest fees. Between 1954 and 1966 major changes took place, however, in the fees which students paid. The percent in the West went down slightly from 14 to 12, the Southeast from 25 to 23, and the Northeast decreased materially, from 37 to 28. The other three regions raised the proportion of student fees significantly. The most dramatic increase is evident in the Mountain/Plains states which rose from 16 percent to 33 percent. A major change in support patterns of higher education has taken place in the Midwest, the Southwest, and the Mountain/Plains regions during the twelve-year period.

The proportion of educational and general income from student fees by regions in 1966 is shown in Table III-6 and these figures support those which were shown in Table III-5. The West, with 84 percent of the institutions obtaining less than 20 percent of their income from student fees, maintains the lowest tuition rates in the country. Interestingly, seven institutions in three different regions indicate that between 90 and 99 percent of their educational and general income comes from student fees. No other information received by the authors indicated such a high percentage of the cost being borne by students. Other information received from questionnaire data did indicate that some institutions received as high as 60 or 70 percent of their income from student fees. In any event, it is clear that in a number of institutions in the United States a very high proportion of the cost of attending some AASCU institutions is being borne very directly by the student and the parent.

Support for Libraries

The general expense budgets for nearly all SCU's have been relatively smaller and less flexible than those of the larger universities. Partially as a result, state colleges and universities' libraries have been inadequate. Only seven libraries held over 50,000 volumes in 1925 and only 15 in 1935. (Table III-7) As an indication of financial support it is important to note that major improvements have taken place in library holdings between 1954 and 1966. Large percentage gains have been evidenced in all six of the regions as shown in Table III-8,

TABLE III-5

Total, Per Student, Educational and General Income,
and Percent from Student Fees, 1954, 1966,
by Region

	1966						Percent Change 1954-1966		
Region	Number	Percent of Total Number	Total Income (in Thous.)	Percent of Total	Per Student Income	Percent from Student Fees	Total Income	Per Student Income	Percent From Student Fees
West	29	11%	268,199	19%	1,280	12%	805	103	-2%
Mountain/Plains	25	10%	71,806	5%	910	33%	440	15	17%
Southwest	31	12%	90,672	6%	670	26%	413	20	10%
Midwest	43	16%	388,393	27%	1,300	25%	728	75	8%
Southeast	59	23%	247,407	17%	1,010	23%	471	34	-2%
Northeast	75	28%	369,344	26%	1,380	28%	649	72	-9%
Total	262	100%	1,435,821	100%	1,137	23%	617	58	0

TABLE III-6

Percent of Educational and General Income From Student Fees, By Region in 1966

Per Cent From Student Fees	1 West		2 Mountain/Plains		3 Southwest		4 Midwest		5 Southeast		6 Northeast		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
90 - 99	0	0%	2	10%	1	4%	0	--	0	--	4	6%	7	3%
80 - 89	0	0%	0	--	0	--	1	3%	0	--	1	2%	2	1%
70 - 79	0	0%	0	--	1	4%	1	3%	0	--	1	2%	3	1%
60 - 69	0	0%	0	--	0	--	1	3%	1	2%	0	--	2	1%
50 - 59	0	0%	0	--	0	--	1	3%	0	--	2	3%	3	1%
40 - 49	0	0%	4	18%	0	--	3	8%	2	3%	6	9%	15	7%
30 - 39	1	4%	3	13%	6	22%	6	16%	16	31%	11	17%	43	19%
20 - 29	3	12%	10	45%	6	22%	12	32%	17	33%	18	27%	66	29%
10 - 19	14	56%	1	4%	12	44%	7	19%	11	21%	17	26%	62	27%
0 - 9	7	28%	2	10%	1	4%	5	13%	5	10%	5	8%	25	11%
TOTAL	25	100%	22	100%	27	100%	37	100%	52	100%	65	100%	228	100%

TABLE III-7

Library Holdings in AASCU Institutions, 1870-1935

Size of Institution	1870	1880	1900	1910	1920	1925	1930	1935
Over 100,000						1	1	3
75,000- 99,999					1	--	3	3
50,000- 74,999				1	2	6	3	9
25,000- 49,999			2	5	11	21	38	61
15,000- 24,999			4	14	32	34	66	82
10,000- 14,999			11	25	35	48	46	30
5,000- 9,999	2	2	22	47	49	48	29	27
1,000- 4,999	10	25	51	41	34	30	18	9
-1,000	9	19	6	11	9	2	--	1
All Institutions	21	46	96	144	173	190	204	225

SOURCES: USOE. The Biennial Survey of Education in the United States. 1916/18 . USOE, Commissioner of Education. Annual Report. 1870- .

NOTE: The Biennial Surveys of 1940 and 1950 do not include the number of volumes in college or university libraries.

TABLE III-8

Average Library Volumes, 1954, 1966 and Percent Increase, 1954-1966 by Region

Region	1954 Number of Institutions	1954 Mean Number of Volumes (in thousands)	1966 Number of Institutions	1966 Mean Number of Volumes (in thousands)	Percent Increase in Mean Number of Volumes 1954-1966
1 - West	15	113	29	178	58
2 - Mountain-Plains	20	59	25	102	73
3 - Southwest	22	64	31	149	133
4 - Midwest	35	85	43	179	111
5 - Southeast	43	57	59	126	121
6 - Northeast	60	41	75	114	178
Total	195	63	262	139	121

particularly in the Northeast. Although the library holdings in this region are still the lowest in the country, major gains have been made between 1954 and 1966. The same finding is true with regard to the size of institutions. (Table III-9) Very large institutions made dramatic increases in their library holdings during the twelve-year period. Smaller institutions are reasonably close to meeting American Library Association standards for minimum library size for a liberal arts college. Larger institutions do not progress in number of volumes as rapidly as the American Library Association's scale. However, there have been major improvements in the size of the libraries and this provides clear evidence of greatly increased financial support for these critical instructional resources.

Middle Tennessee State University may serve as the somewhat typical example of the growth patterns and the improvement in the state fiscal support for institutions during 1954-1966. (Cope, 1968, pp. 1-8) In 1958-59, the equated fall enrollment was 2,276 students. In 1967-68 the equated fall enrollment was 5,818. During this same period of time the state appropriation had increased from $765,000 to $5,348,000. Total income from student fees had increased from $343,000 to $1,564,000. The student portion of income had decreased from 28.73 percent of the total to 21.7 percent of the total. The library budget in 1958-59 had been $57,760 and in 1968-69 was $392,000. In proportion it had risen just slightly, but the total funds available made it a very significant difference in total support.

CURRENT AND FUTURE FINANCIAL PLANNING

The questionnaires sent to over 200 AASCU institutions in the fall of 1967 reveal significant data on three items which apply to finances: first, institutional size; second, the yearly cost per student; and third, the student-teacher ratio.

Data on institutions size were secured for 1966-67 and estimates were secured for 1967-68 and 1972-73. (Table III-10) Since the questionnaires were returned after fall enrollments were received in the fall of 1967, the figures for 1967-68 should be reasonably close to final enrollments. The figures for 1972-73 were estimated and in the main followed a linear projection of the institutional growth. The number of institutions returning answers to these questions in a useable form varied somewhat. Responses were received from 183 institutions for the year 1966-67, for 188 institutions for 1967-68 (the actual year of the questionnaire) and 135 institutions responded with an estimate for 1972-73. An excellent response was received from this question which paints a very interesting picture of the increasing size of the AASCU-type institutions.

Enrollment patterns

Major changes in enrollment patterns are visible from 1966 to 1967. (Table III-10) For example, five percent fewer institutions were in the grouping below 4,000 within just one year. And yet the big group showing growth in the one-year period is not the institutions showing enrollments between 4,000 and 6,000 (which show a decrease of 4.5 percent) but

TABLE III-9

Average Library Volumes, 1954, 1966 by Size of Institution

Size of Institution	1954		1966		Percent Change in Mean Number of Volumes, 1954-1966
	Number of Institutions	Mean Number of Volumes (in thousands)	Number of Institutions	Mean Number of Volumes (in thousands)	
15,000+	6	119	8	428	260
10,000-14,999	10	139	17	315	127
6,000-99,999	38	91	48	189	108
4,000- 5,999	43	60	48	138	130
2,000- 3,999	59	46	77	112	143
1,000- 1,999	34	34	47	59	74
-999	5	24	17	37	54
All Institutions	195	63	262	139	121

TABLE III-10

The Size of Institutions
in 1966-67 (Actual), 1967-68 and 1972-73 (Estimated)

Size of Institution	Number of Institutions 1966-67	Percent of Total	Number of Institutions 1967-68	Percent of Total	Number of Institutions 1972-73	Percent of Total
Below 1000	20	10.9%	17	9.0%	9	4.9%
1000 - 2499	41	22.4%	40	21.3%	20	10.8%
2499 - 3999	46	25.2%	43	22.9%	32	17.3%
4000 - 5999	45	24.6%	38	20.1%	43	23.2%
6000 - 7999	18	9.8%	31	16.5%	25	13.6%
8000 - 9999	5	2.7%	10	5.3%	21	11.3%
10000 -11999	--	---	2	1.1%	13	7.0%
12000 - 14999	6	3.3%	2	1.1%	15	8.1%
15000 - 20000	2	1.1%	5	2.7%	7	3.8%
TOTAL	183	100.0%	188	100.0%	185	100.0%

in the number of institutions in the group from 6,000 to 8,000 where numbers almost doubled in the one year.

Changes between 1966-67 and the estimates for 1972-73 further reflect this enormous increase in the size of the institutions. The number below 1,000 is estimated to be only nine institutions, less than half the number in this size group in 1966-67. In contrast, the number of institutions anticipating enrollments between 8,000 and 10,000 is expected to increase from five up to 21, over four times as many. Likewise, the number of institutions over 10,000 is expected to quadruple, from 4.4 percent of the total to 18.9 percent of the total.

From past indications these estimates of increasing growth seem quite reasonable. In fact, most estimates in the past have been low and it is quite conceivable that these estimates for 1972-73 are not optimistic in any way. They tend to support the estimates of the officials of the U.S. Office of Education who have indicated in the past that institutions of this type face the greatest demands for growth of any institutions in the United States.

The cost per student (Table III-11) for 1966-67 and estimated for later years continues to show the wide variations in support of these institutions. Over 5 percent were reported at less than $500 per student in the 1966-67 budget with no change during the years to 1972-73. In other cost ranges, however, big changes are anticipated in the coming years. The number of institutions being funded at the cost per student between $500 and $999 per year are anticipated to decrease from 43.2 percent in 1966-67 to 10.5 percent in 1972-73. It is estimated that the number of institutions with a cost per student between $1500 and $2000 per year will almost double between 1966-67 and 1972-73. The number of institutions operating on a cost per student of over $2000 per year is expected to increase by five times, from 4.1 percent of the total (seven institutions) to 21.8 percent of the total (29 institutions). Although some of these estimated increases in the cost per student result from inflation, much of the increase in cost can be attributed to improved services to students through improved student-faculty ratios and extensive addition of more expensive undergraduate and graduate degree programs. Rapidly expanding curricular offerings, especially new graduate programs, are directly reflected in these estimates in cost per student.

The improvements in the student-faculty ratios mentioned above are graphically reflected in Table III-12. Although the range of student-faculty ratios still includes very high ratios ranging up to 30-1, a definite trend toward lowering the student-faculty ratio can be seen in the table. At the high end, 4-5 percent of the institutions consistently indicate a student-faculty ratio above 25-1. Obviously, these have to be the same institutions which are indicating that their cost per student will remain below $500 per year. However, the number of institutions with a student-teacher ratio from 21-1 up to 25-1 shows a striking decrease between 1966-67 and 1967-68, from 28.3 percent of the total to 20.5 percent of the total. It is estimated that this number will continue to decrease dramatically and be less than 13 percent in 1972-73. At the same time, the number of institutions with student-teacher ratios at 15-1 and below showed a striking increase from 19.5 percent in 1966-67

TABLE III-11

The Cost Per Student in AASCU-Type Institutions

	Number of Institutions 1966-67	Percent of Total	Number of Institutions 1967-68	Percent of Total	Number of Institutions 1968-69	Percent of Total	Number of Institutions 1972-73	Percent of Total
Below 500	10	5.9%	9	5.3%	8	5.1%	7	5.3%
500 - 599	4	2.4%	2	1.2%	2	1.3%	1	.8%
600 - 699	11	6.5%	4	2.4%	4	2.5%	3	2.3%
700 - 799	21	12.4%	8	4.7%	4	2.5%	1	.8%
800 - 899	19	11.2%	21	12.4%	12	7.6%	4	3.0%
900 - 999	18	10.7%	14	8.3%	17	10.8%	5	3.8%
1000 - 1099	21	12.4%	27	16.0%	19	12.0%	6	4.5%
1100 - 1199	12	7.1%	18	10.7%	13	8.2%	10	7.5%
1200 - 1299	14	8.3%	19	11.2%	19	12.0%	22	16.5%
1300 - 1399	4	2.4%	10	5.9%	10	6.3%	4	3.0%
1400 - 1499	7	4.1%	4	2.4%	11	7.0%	10	7.5%
1500 - 1599	5	3.0%	6	3.6%	6	3.8%	15	11.3%
1600 - 1699	6	3.6%	6	3.6%	5	3.2%	6	4.5%
1700 - 1799	4	2.4%	5	3.0%	7	4.4%	7	5.3%
1800 - 1899	4	2.4%	4	2.4%	6	3.8%	1	.8%
1900 - 1999	2	1.2%	2	1.2%	3	1.9%	2	1.5%
2000 & above	7	4.1%	10	5.9%	12	7.6%	29	21.8%
TOTAL	169	100.0%	169	100.0%	158	100.0%	133	100.0%

TABLE III-12

The Student-Faculty Ratio In AASCU-Type Institutions
in 1966-7 (Actual) and 1967-8, 1968-9, 1972-3 (Estimated)

	Number of Institutions 1966-67	Percent of Total	Number of Institutions 1967-68	Percent of Total	Number of Institutions 1968-69	Percent of Total	Number of Institutions 1969-70	Percent of Total
Below 10 - 1	--	--	--	--	1	.7%	1	.8%
10 - 1	3	1.9%	2	1.3%	--	--	1	.8%
11 - 1	1	1.6%	--	--	--	--	3	2.3%
12 - 1	1	1.6%	3	1.9%	6	4.2%	5	3.8%
13 - 1	6	3.8%	5	3.2%	3	2.1%	4	3.0%
14 - 1	9	5.7%	10	6.4%	9	6.3%	5	3.8%
15 - 1	11	6.9%	18	11.5%	19	13.3%	19	14.4%
16 - 1	25	15.7%	20	12.8%	19	13.3%	19	14.4%
17 - 1	15	9.4%	15	9.6%	13	9.1%	8	6.1%
18 - 1	10	6.3%	11	7.0%	8	5.6%	20	5.1%
19 - 1	10	6.3%	8	5.1%	13	9.1%	9	6.8%
20 - 1	15	9.4%	26	16.7%	18	12.6%	15	11.4%
21 - 1	12	7.5%	9	5.8%	11	7.7%	1	.8%
22 - 1	13	8.2%	7	4.5%	5	3.5%	6	4.5%
23 - 1	7	4.4%	5	3.2%	2	1.4%	--	--
24 - 1	4	2.5%	4	2.6%	3	2.1%	3	2.3%
25 - 1	9	5.7%	7	4.5%	6	4.2%	7	5.3%
26 - 1	3	1.9%	2	1.3%	2	1.4%	--	--
27 - 1	2	1.3%	2	1.3%	2	1.4%	--	--
28 - 1	1	.6%	1	.6%	1	.7%	5	3.8%
29 - 1	2	1.3%	0	.0%	0	.0%	--	--
30 - 1	--	--	1	.6%	2	1.4%	1	.8%
Above 30 - 1	--	--	1	.6%	--	--	--	--
TOTAL	159	100.0%	156	100.0%	143	100.0%	132	100.0%

to 24.4 percent in 1967-68, with the expectation that this will continue to increase by an additional 5 percent of the institutions by 1972-73.

In 1950 the student-faculty ratio was figured at 14-1. By 1966-67 there had been a rise in the overall student-faculty ratio. It is apparent in Table III-12 that the rise in student-faculty ratio had been stemmed with an appreciable decrease between 1966-67 and 1967-68. The estimates of further decreases by 1972-73, requiring large increases in budgeted funds in the next two years, are questionable. With results of the legislative sessions for 1969 becoming apparent, the optimistic suggestions of 18 months ago are probably far too optimistic to be achieved.

Federal Support for AASCU Institutions

In the period following World War II, federal funds became increasingly important in the financing of all types of higher education. The federal support for education of veterans (the GI Bill) in the late 1940's and early 1950's provided an enormous stimulus to all colleges and universities and had a limited but important effect on the growth of the teachers colleges which were developing into state colleges and universities. The development of the National Science Foundation in the 50's and the passage of the National Defense Education Act in 1957 made a major impact. The 1960's have seen numerous additional federal acts supporting higher education and federal support for all colleges and universities is now a major factor in their financial planning.

The greatest growth has been evident between 1962 and 1969. Federal funds for grants and loans to be used for support of educational activities in educational institutions from elementary school through graduate school totaled $2,173,700,000 in 1962. Comparable figures for 1969 amounted to $9,162,031,000. Most of these funds, approximately 90 percent, were provided as grants to the institutions with the remaining amounts as loans. Grants for higher education alone were $1,210,300,000 in 1962 and $3,590,790,000 in 1969. (Simon, 1968, p. 107)

Members of the AASCU have not been supported by federal funds in proportion to the number of students attending the institutions or the increasing breadth of their educational programs. Two studies of participation in federal programs by AASCU-type institutions were published in 1963 and 1964. These studies indicated that a very small proportion of the federal funds were directed toward these institutions. The 1963 report, in summary, reported

> "The responses of the 166 institutions of the Association of State Colleges and Universities to the question of participation in selected federal programs indicated that:
>
> > 50.6 percent of the institutions submitted requests to participate in one or more of the selected programs.
> >
> > 37.3 percent of the institutions were approved for participation in one or more of the programs.

13.3 percent of the institutions were not approved for participation.

34.9 percent of the institutions did not request participation in any of the selected federal programs.

14.5 percent of the institutions did not respond to the questionnaire.

ASCU institutions participating in National Science Foundation sponsored research in fiscal year 1962 were:

Approved for 1 percent of the dollars,

Made up 5 percent of the participating colleges and universities,

Recipients of 2 percent of the grants and

Received $16,571 per grant which was 45 percent of the average NSF grant." (Rice, 1963, pp. 7-9)

The comparable report for one year later indicated a slight increase in federal funding. Comparisons of approved support programs of the National Science Foundation and selected programs of the U.S. Office of Education indicated that 2.4 percent of NSF funds were channeled to AASCU institutions and that 2.8 percent of the total funds in selected programs of the USOE were distributed to AASCU institutions. (Rice, 1964, p. 9) Obviously, this does not represent much federal support for institutions educating one out of every five baccalaureate degree holders in the U.S.

The National Science Foundation reports on federal support during 1963-66 indicate that not one AASCU institution is listed in the top 100 colleges and universities receiving the largest amounts of federal funds in either academic science or research and development funds (NSF, 1967, p. 137) Funding is also reported from the Department of Health, Education, and Welfare and the Department of Defense in a variety of different categories. In 1966 the Department of Health, Education and Welfare's list of 100 colleges and universities received large amounts including California State College at Los Angeles (81st); San Diego State College (86th); San Francisco State College (94th); and Ball State University (98th). (NSF, 1967, p. 55) The inclusion of four of the largest state colleges and universities indicates a modest change in the approach of federal agencies to the funding of AASCU institutions. The institutional grants program of the National Science Foundation, although small, has benefited a number of AASCU-type institutions.

"In 1966, 69 of the 284 state colleges and regional state universities received assistance under the NSF institutional grant program. In 1967, this number increased to 91 of the 284. In terms of dollars, the state colleges received

$825,708, or 5.5 percent of the total amount of the NSF institutional grants program." (Memo to the President, 1968, p. 6)

By 1966 federal support to state colleges and universities was six times the 1963 figure. At the same time, total national higher education support rose by 116 percent. Nevertheless, federal support of this type of institution has been very slow to develop and is far out of proportion to the instructional services provided to the people of the United States. With the proportion of taxing power available at the federal level of government, it appears inevitable that these expanding institutions will need and receive more financial support from federal sources to provide more opportunities for curricular and faculty development, and to expand research and public service activities at SCUs.

CHAPTER IV

CHANGING ADMINISTRATIVE PATTERNS OF ORGANIZATION AND COORDINATION

The external and internal organization of the state colleges and universities has varied enormously depending upon the period of their establishment and their geographical location. A few examples from different periods in history and different regions will illustrate most of the organizational plans which have existed and which serve as a basis for the problems of the institutions today.

The first normal schools in New England developed as part of the total movement to improve the "common schools" by providing a professional group of teachers. Simultaneously, the principles of state control of schooling, compulsory attendance, and compulsory support of the schools by general taxation were implemented. In many states the state board of education was established to coordinate and supervise the public schools of the state, including the normal schools.

The first of the normal schools, established at Lexington, Massachusetts in 1839, was actually established by the Massachusetts State Board of Education. This body, established by an enabling act of the Massachusetts Legislature in 1837, was given the authority and a portion of the money necessary to "promote the course of popular education in Massachusetts...in qualifying teachers for the common schools" and further resolved that gifts and appropriations received were "both sums to be expended under the direction of said board, in qualifying teachers for the common schools in Massachusetts." (Mangun, 1928, p. 95) The state board of education established a number of normal schools, developing "a board of visitors" for each normal school with the power to operate it and appoint a "principal" of the normal school. The principal was the chief administrative officer of the normal schools in Massachusetts and in all other normal schools established and operated for the next 25 years. One of the first chief administrative officers of the normal school to be designated "president" was Richard Edwards who became principal of the Illinois Normal University in September of 1862. He held the position for 15 years and in the middle 1860's his title was changed to that of president. In spite of this innovation most of the normal schools were considered the equivalent of academies and secondary schools and the term "principal" continued in use for the chief administrative officer well into the 1920's. It is interesting to note that the American Association of Teachers Colleges in its 1922 yearbook (p. 21) indicated that "a matter of great importance to the Association arose from the invitation of the National Council of Normal Schools Presidents and Principals" to join forces with the council to form a National Council of Teachers Colleges. For almost 100 years and until the high proportion of the institutions became actually of collegiate level in their opera-

tion, they were administered by "principals."

Teaching staffs during most of this period were quite small and the principal was in actuality the "principal teacher" carrying on the necessary business, registration, and personnel activities that were necessary for the operation of these very small institutions. Turnover was frequent in the principalship of a number of institutions, although some famous principals continued in their posts for periods from twenty to thirty years.

In the Midwest, a wide variety of organizational patterns developed, with one of the most interesting and unique developments taking place in Iowa. The Iowa Legislature in 1876 established only one normal school, the Iowa State Normal School, at Cedar Falls under the direction of a separate Board of Directors. Its regulations for the government of the normal school established the powers and duties of the principal and faculty in some detail.

> "The Principal shall teach the science of Didactics and conduct the department of methods and practice in the art of teaching and such other subjects as may be necessary. It shall be his duty to manage and govern the school, to exercise general supervision over all its departments, to report the condition of the school at each meeting of the Board, to sit as advisory member at the meetings of the Board, and to do all that may be required or implied by the position of Principal.
>
> The Professors and Teachers shall perform the duties and work agreed upon by contract under direction of the Principal and generally promote the best interests of the school both as regards discipline and instruction.
>
> The Principal and Professors shall prepare the course of study, recommend the text books, the rules and regulations for the various operations of the school and the management of pupils and report the same to the Teacher's Committee for adoption. They shall possess full power for the government and discipline of students. (Hart, 1951, p. 44)

Although Mr. Gilcrist, the first principal of the Iowa State Normal School at Cedar Falls, felt that he could introduce the study of Latin since he had been given the responsibility "to manage and govern the school," he found to his dismay that this was not true. He put Latin in the curriculum and after great debate the Board finally approved his action. However, they felt he exceeded his authority and two years later did not reappoint him.

Developments in Wisconsin serve as an example of a different method of operation. The Wisconsin Legislature set up a special Board of Regents with 25 percent of the funds from the "swamp lands" for the support of teacher training. From 1857 until 1865 these funds were used to support normal training departments in private colleges and academies.

When this proved unsuccessful, the Board of Regents developed a plan to establish a normal school in each of Wisconsin's six congressional districts, a relatively common plan followed in many states. By various forms of legislative logrolling, 10 normal schools were finally established under this one board of regents and regulations for their administration were developed by this centralized board. The group of institutions established by the Board of Regents continues to this day under the present designation (since 1964) as the Wisconsin State Universities.

An excellent example of change in organization because of changing needs can be seen in the developments in the Massachusetts Normal Schools in 1904 and in 1925, and in the Connecticut Normal Schools in 1923-24. The normal schools in these two states were established at varying periods of time as need for elementary school teachers grew with the population. Although established by the legislatures and normally administered by the State Department of Education each of the normal schools was quite independent and in practice determined its own course of study, standards, policies and type of organization. The members of the state board of education generally concerned themselves with the financial aspects,entrance requirements and the approval of teachers after the nomination by the principal or president. By the turn of the century the fear of central state offices had been overcome and the townships were willing to agree to more centralized control.

In Massachusetts state supervision had become relatively complete by 1904, management of the various state normal schools was definitely placed in the Board of Education, and the earlier organization of Boards of Visitors was no longer in use. In 1919 the Commissioner of Education and the State Department of Education in Massachusetts were also made responsible for the division of vocational education including the agricultural colleges, textile schools and the Massachusetts Nautical School.

During essentially the same period, an extensive three-year study was conducted in Connecticut which culminated in 1927 with the firm state requirement that all teachers in the public school have a minimum of two years of teacher training and a two-year certificate from a normal school. Within the Connecticut state department of education and working under the Commissioner of Education a department of teacher preparation was established with a full-time director. The principals of the normal schools were responsible to the Commissioner of Education. Within the normal schools the model school was continued with the director and building principals carrying out this part of the work. An Office of Student Welfare was established with a dean in charge. A registrar and secretary were established to take care of registration, records, and office routine. The normal schools were still small in enrollment and there was still no need for departmentalization.

Perhaps the most definitively and carefully documented early study dealing with administration of instititutions preparing teachers was conducted for the state of Missouri. The authors of this study reviewed the entire history of teachers preparation since the first normal schools and concluded the existing system of local normal schools administered by separate boards was badly in need of change. They recommended improving the administration of the normal schools by bringing several of them

under the control of one board such as existed in Illinois or the one previously described in Wisconsin. (Learned, Bagley, 1920, pp. 65-6.) The recommendations of this Carnegie survey committee were even more comprehensive than many of those developed in the past-World War II period. They recommended that all elementary, secondary, and higher education of the state be carried out under the direction of the State Board of Education, with two executive officers, one known as the Chancellor of the University responsible for all of higher education in the state and the other a Commissioner, equal to the Chancellor and responsible for all of the public elementary and secondary education in the state. In justifying this sweeping recommendation the authors stated that

> "the best American experience points to the conclusion that a single board of from five to seven members appointed or elected at large for long terms, unpaid, and representing high and varied ability, is the most successful form of educational control yet devised for a democratic community. But it must be so constructed and equipped that it will automatically obtain its educational advice from competent sources. These sources of technical advice must not compete with one another, but must be so disposed as habitually to find their point of view in the welfare of the state as a whole. The heads of independent state institutions for higher education do compete with one another, and from a point of view not usually chosen with regard to the welfare of the state as a whole...such institutional interests should therefore be brought under one supervision and be represented by a chancellor for the state's undertakings in higher education, all of which should be more or less firmly organized into what is called the university." (Learned, Bagley, 1920, p. 6)

By this plan it was expected that the excessive powers found to be existent in the office of the president of the normal schools would be changed, It assumed that the faculty needed more responsibility for policy making on the local campus and that serving as a part of the total "university" would contribute toward this development. The Learned and Bagley proposal in Missouri served as a forerunner to the extensive state coordination which has taken place, extensively, since the end of World War II.

In the 1920's and 30's, as the teachers colleges expanded their programs and grew in numbers of students, a need for completely different types of organization developed quite rapidly. Most of the colleges added registrars, first on a part-time and soon on a full-time basis. Sometimes the registrar was also the Dean of the Faculty or the Dean of Instruction. However, very soon it became necessary to have a person assigned the responsibility for instruction, another person responsible for business affairs, and Deans of Men and Women for Student Affairs.

The normal schools and teachers colleges, being single-purpose professional institutions, had a specialized administrative organization due to the presence of the training school or model school. The laboratory school was usually taught by a principal-teacher or a principal and one or two teachers. They were members of the small normal school

faculty but were often considered a separate unit. As the institutions grew larger a department of education was often established, with or without the laboratory school as a part of its responsibility. The American Association of Teachers Colleges reported an extensive study of organizational patterns in 1922 which included some specific data on this subject. Of 70 institutions responding to a questionnaire, 23 indicated that the head of the department of education was also principal of the training school. In 39 of the institutions the training school was separately administered. In eight institutions there was no head for the department of education and in one case, no training school. Cooperation between the training school and academic as well as education departments was a problem. Many of the teachers of academic subjects actually supervised the teaching of these subjects in the laboratory schools or training school. Thus, there was a critical problem of organization which called for very careful cooperative systems to be established.

As the institutions grew in size and in complexity another form of administrative organization gradually developed. Divisions were established in a number of colleges in the 1930's and during the 1940's and 50's. Divisional organization brought together in various ways groups of departments which had some type of cohesiveness. A divisional organization was usually based on the grouping of departments in the social sciences, humanities (sometimes including the arts), natural sciences (sometimes separated into biological sciences and physical sciences), and various professional divisions. Education divisions sometimes combined strange bedfellows, including such specialized subjects as home economics, physical education, business education, art education and often psychology. Some of these unusual combinations were the aftermath of the days when the institutions were solely single-purpose teacher-training institutions.

With the tremendous increases in institutional size in the last 10 to 15 years a number of the SCU's have moved into a university-type organization and in over 60 cases have been re-named as universities. In many SCU's unusual administrative organizations now exist. Divisions are side by side with separate schools of art and sciences, business, fine and applied arts, education and specialized professional schools. Where specialities have grown up (such as agriculture, social work, architecture, applied health professions or forest or marine sciences) separate schools are often established.

Since many SCU's have between 5,000-10,000 students, and a number will be much larger, a recent study of organizational patterns in institutions of this size has considerable pertinence. (Oliver and Miller, 1966, p. 52) In the later study the organizational charts were assembled for 54 institutions with between 5,000 and 10,000 students. Twenty-five of the 54 were AASCU-type institutions. The remainder were a wide variety of institutions ranging from large junior colleges to private universities and land grant universities. Although certain differences were quite apparent, the major one was the varying need for a vice president or high level official charged with development and fund raising. This position was found in many private universities but not in many of the public institutions. The organizational prototype suggested at the conclusion of the study recommended three vice presidents, one for academic affairs, one for student affairs, and one for business and finance. In addition,

it was suggested that the president should have an assistant and that the assistant should work directly with the director of public affairs. Each of these officials was assigned long lists of major functions. The vice president for academic affairs was assigned the responsibility for teacher education in all of the facets as one of many academic functions of the colleges or universities of this size.

As the SCU's have grown in size and diversified their curricula the administrative organization has changed materially in order to provide for the new functions. Although the preparation of teachers was the primary, and in many cases the sole, function from 1839 until, in some cases, the 1950's this is no longer true. Almost all of the members of the American Association of State Colleges and Universities and a few comparable institutions which are not in its membership have become multi-purpose institutions and the organization and administration have expanded at the same time.

STATE COORDINATION

A wide variety of organizational patterns have characterized the state provisions for administration and coordination of the developing state colleges and universities. Many of them have been a part of the coordinating systems of normal schools or of teachers colleges since their inception. Within these systems there have been a wide variety of control mechanisms established from complete laissez-faire independence to tightly controlled and highly centralized systems. In some cases extremely rigid financial controls have been characteristic of the systems while curricular controls have been much less binding or restrictive.

Phenomenal growth of higher education institutions during the post-World War II period has led to enormous increases in the costs of state supported programs. Simultaneously, the development of knowledge and of research activity as a critical part of our nation's economy and safety has placed great emphasis on higher education. These three important factors, the enormous growth, determining cost, and the critical importance of our universities and colleges have made long-range planning necessary for their development and forced increased coordination on the institutions. State-wide systems of public higher education have developed in many states primarily in the postwar period. A variety of methods of coordination are emerging and their effect on the developing state colleges and universities has been studied.

The American Association of State Colleges and Universities established a committee to examine centralized controls from state agencies and studied this problem over a period of four years. In the final report of the committee made to the Association in February 1967, the chairman, President Harold Hyde of Plymouth State College, reported that a sampling study had been made in each of the 39 states with AASCU members. Responses were received from 26 states with opinions about evenly divided as to whether outside interference is getting worse or better. Some presidents protested these externally imposed controls while others seemed to welcome them as a means of getting equitable treatment for the institutions. Following this initial sampling study a more complete

survey was undertaken in the fall of 1964 with 70 responses received. The most serious problems reported were usually found in connection with the budget, appropriations, restricted use of income, and very restrictive personnel administrative policies. There were indications in the study that the central state administration, representing the protection of tax payers' interest and the need for responsible and fair administration of tax money, was in direct opposition to institutional needs for autonomy, flexibility and recognition of academic and administrative freedom. An attempt was made to determine the problems which exist between administrations and their governing boards. Responses were varied and not easy to summarize. President Hyde reported that in general liaison with governing boards did not seem to be a source of major concern among administrators. On the other hand, another administrator experienced what he regarded as unfair, unnecessary and almost oppressive restrictions on his administrative freedom. Other presidents noted the frustration which frequently accompanied centralization, but doubted that centralized authority, per se, posed a serious obstacle to institutional operation and planning.

From these responses the wide variety of state coordinative systems and their relationship to the developing AASCU institutions are clear. In those states which have had very restrictive systems under the state board or department of education a new state coordinating board has often been very helpful and in some cases a "blessing." Some institutions which have been added to the university system have found greater flexibility under the constitutional autonomy of the university. In some states with coordinating boards, more fair and equitable treatment has resulted from legislative action as a result of recommendations of the coordinating board.

A recent comprehensive study of coordinating boards of higher education indicates clearly that this important and continuing development will vitally affect all of the SCU's. (Williams, 1967; supplement 1968) By December of 1968, 41 states had developed coordinating boards of higher education. Four additional states were studying coordinating systems, Alabama, Indiana, Vermont and Washington. In addition, a 46th state, West Virginia, had extensive discussion of reorganization of higher education carried on during its legislative session of 1968.

Some of the most important findings of this summary relate to problems of the authority of the coordinating board, its relationship to appropriations, to capital outlay, and to budget requests. In only 10 of the 41 states was the coordinating board solely "advisory." In 31 of the states it had specific management authority over the state universities, state colleges and all other public institutions of higher education. In eight of the states, appropriations were made to the board for allocation later to the institutions. In 33 states, appropriations were made directly to institutions but under the direct supervision of the board. All coordinating boards had the responsibility to review budgets and make recommendations to the legislature and the governor. Thirteen boards are charged with development of a state master plan and at least 18 states require the approval of the coordinating board prior to the addition of any curricula.

The coordinating board in some cases is a single board of regents for all of higher education (in some cases the original board of regents for the state universities) or commonly, it is a coordinating board or super board which has been superimposed between the boards of trustees for the different institutions or groups of institutions within the states.

The questionnaire sent out as part of the present study requested information on the coordination. The mixed replies on the questionnaire reports have been verified by other sources of information on coordination. Currently, most SCU's (70 percent) are governed by boards with responsibility for more than one institution. Only 85 (30 percent) of the 294 SCU's have individual boards. The predominant type of governance is the grouping of all SCU's in a state under one board. (Table IV-1) One hundred and nineteen (42 percent) of the SCU institutions are governed in this fashion. The remaining 80 institutions are evenly divided among (1) boards responsible for all public four-year or more institutions (40 institutions); and (2) boards for all public two-year and four-year institutions (40 institutions).

One-fourth (27 percent) of all SCU's are governed by boards responsible for 11 or more institutions and almost two-thirds (63 percent) are governed by boards responsible for five or more colleges and universities. (Table IV-2) When such multiple-institution boards are examined it is evident that the number of institutions per board has reached the point where it is reasonable to question the ability of the board to govern that many complex institution.

In only 31 institutions, representing a very small number of states, the SCU's submitted budgets directly to the legislature and worked directly with the legislature to obtain its approval. Reports on the questionnaires provide data from 48 states regarding the authority of institutions for construction of buildings and for purchasing major items. In the construction of buildings, the SCU's or their boards still have considerable responsibility in 27 states. In 21 states neither the institution nor its coordinating board has actual final responsibility for construction of buildings. (Table III-4)

There is even less institutional or board authority for making other major purchases for state colleges and universities. (Table IV-5) In regard to this problem 31 states have agency controls over the institutions, the governing boards or the coordinating boards. Obviously, the enormous amounts necessary for the construction of buildings and for purchasing major equipment and capital costs have led to tighter and tighter state controls over such purchases.

In the light of these developing boards, super boards and controls, the expectations of the presidents of the various SCU's are of considerable interest. The majority expect that the system of state coordination and control will continue to develop. One hundred and eleven of the 178 institutional responses (62 percent of the total) indicate that it will continue as it is for the near future. Less than 2 percent (5 institutions out of 178) expected the state university to absorb additional institutions within the state. In the remaining 62 institutions (35 percent of the total) there was expectation that there would be even

TABLE IV-1

Type of Governing Board

	SCU's		States	
	Number	%	Number	%
Individual Board[a]	85	30%	17	35%
All State Colleges and Universities	119	42%	15	31%
All Public 4-year Institutions	40	14%	11	22%
All Public 2- and 4-year Institutions	40	14%	6	12%
Total	284[b]	100%	49	100%

[a] Includes Virgin Islands and Guam.

[b] The data for this table are by state rather than by institution. This accounts for the total of 284 rather than 262 institutions. This is the number of colleges and universities eligible for membership in AASCU.

TABLE IV-2

Number of Institutions Per Governing Board

Total Institutions Per Board	Number SCU Institutions		Number of States	
	Number	%	Number	%
11 or more	77	27%	6	12%
8 - 10	58	20%	9	18%
5 - 7	45	16%	8	16%
2 - 4	19	7%	9	18%
1	85	30%	17	36%
TOTAL	284[a]	100%	49	100%

[a] The data for this table is by state rather than by institution. This accounts for the total of 284 rather than 262 institutions. This is the number of colleges and universities eligible for membership in AASCU.

TABLE IV-3

Method of Selection of Governing Board,
Data By States

Method of Selection	Number of States	Percent
Election	2	4%
Appointment by Governor	17	35%
Appointment by Governor and Confirmed by Legislature	29	61%
Total	48	100%

TABLE IV-4

Responsibility For Construction of State College and University Buildings
Data by States

Responsibility	Number of States	Percent
Institutional	27	56%
State Agency	21	44%
Total	48	100%

TABLE IV-5

Authority for Major Purchases for
State Colleges and Universities
Data, By States

Authority	Number of States	Percent
Institutional	17	35%
State Agency	31	65%
Total	48	100%

stronger control from the super board.

Findings regarding administrative organization and governance indicate that the need for tight public controls of massive public expenditures could lead to extreme frustration in developing state colleges and universities and other public institutions of higher education. With the trend toward large student bodies and widely diversified curricula, there will be need for enormous funds within the institution. The internal organization has grown more and more complex and as size increases SCU's have assumed the characteristics of universities with separate colleges and schools. External governance appeas definitely headed toward more state controls and increasingly complex forms of organization. The extremely large proportion of tax money going into the support of higher education had lead inevitably to even more stringent state control of expenditure of funds. Expansion of expensive curricula, likewise, will be seriously examined by state agencies and state legislatures. The prerogative of institutional faculty and administration to determine the ultimate purposes and curricular expansion of their institutions will become less and less if current trends are any indication of the future.

CHAPTER V

TEACHERS GRADUATING FROM AASCU-TYPE COLLEGES AND UNIVERSITIES

Previously, we have described in detail the post-war development of the state colleges and universities into large multi-purpose institutions with a wide variety of major fields of study. As additional socially-oriented and helping-service curricula have been developed in these institutions, students with a great interest in social services might easily have been drawn away from the profession of teaching. This possibility was considered one of the major hypotheses to be checked in this study and a major effort has been made to obtain data on the question.

In 1939, the teachers colleges produced more than 180,000 teachers each year. Charles A. Harper reported that, "although fewer in number than the colleges and universities by a ratio of over one to two, they furnish each year about 56 percent of the public school teachers. The preparation of teachers for the public schools is without question a function of the state, and the teachers college is the central factor in any twentieth-century state program of teacher preparation." (Harper, 1939, p. 153)

A valuable current source of more recent information for the years 1966, 1967 and 1968 is the series of statistical studies from the American Association of Colleges for Teacher Education, entitled Teacher Productivity. (AACTE. Teacher Productivity-1966. 1967) The data for 1966 indicate that 46 percent of the teachers prepared themselves at AASCU-type institutions, still a significant figure. However, planning for the future requires further information on current trends

In order to examine trends among the graduates of AASCU-type institutions, comparable data for the years 1954 and 1960 were requested from state departments of education in all of the 50 states. For these two years each state department was asked to provide (1) total data on the preparation of teachers within the state and (2) the number of persons earning teachers certificates at each of the approved institutions within each state. In addition to items specifically requested, a wide variety of materials were received from several of the states. One most interesting and somewhat unexpected set of findings was received from South Dakota. A thorough, 30-year study (1937-1967) indicated the number of people earning two-year teaching certificates in that state who had been placed in teaching positions during these three decades. The figure was relatively constant from 1937 until the year 1942 when the enrollments during World War II caused a large drop. Following the war there was an increase, and in 1954 the figures were essentially the same as for 1937, 350 persons per year. This number continued to increase regularly until 1960 when the highest figure was reached, 523 persons placed in one year.

Since that year there has been a steady decrease to a low figure of 107 two-year certificate placements in 1966. Also, the study revealed that 1966 only 2 percent of the two-year graduates were teaching out of the state as compared with 18 percent in 1960. The author of the study, Lee DeBoer, Director of Teacher Placement at Southern State College at Springfield, South Dakota, surmised that "the decrease in percentage is likely due to the fact that it is becoming more difficult to teach in other states with only two years of preparation." These figures provide dramatic evidence of a major change between 1954 and 1966 from reliance upon two-year certificates in many states. As a result there are increa ing numbers of students taking four and five year teacher education programs.

The responses from the state departments of education to the major questions were quite varied. Sixteen states provided usable data, which was comparable for the years requested. Many of the states have data fo 1966 but did not collect comparable data in the 1950's. Likewise, many states keep only a list of approved institutions and the grand total of certified teachers prepared yearly in the state. Nevertheless, the usab data from the 16 states proved to be geographically wide-spread and provided enough breadth to be quite useful.

Usable data were secured from the following states. In the New England-Middle Atlantic area, the states of Connecticut, Maine, Delaware and New Jersey; in the Southern region, including the Southwest, from th states of Georgia, North Carolina and Texas; in the Midwest from the states of Ohio, Kansas, Minnesota, and Nebraska; in the Rocky Mountain area from the states of Wyoming and Utah; and in the Far West from California, Oregon and Washington. Although the data serve adequately to interpret findings for these states alone, the totals for all of the states and the patterns of similarity between states suggest that the findings may be roughly comparable to the situation in the United States as a whole.

Eleven states provided the data exactly as requested for the years 1954 and 1966. In addition four states, California, Nebraska, North Carolina, and Washington, provided comparable data for 1955 and 1966 which differed only by the one year. In addition, Delaware provided comparable data for 1956 and 1966. The data are included for review fro Delaware which had no AASCU-type institutions, since the data is not large enough to distort the total findings.

In the 16 states (Table V-1) the state departments reported a total of 321 state approved institutions prepared teachers in 1954, 1955, 1956 (Table V-1) This number grew to 360 institutions in 1966, (Table V-2) a gain of over 12 percent. In the same period the number of approved AASC type institutions grew from 70 to 87, a gain of 24 percent.

The major valuable comparison in this area of study is the relationship between the last columns in Tables V-1 and V-2 respectively. The proportional figures in Table V-1 indicate that almost 41 percent of the teachers certificated that year in the 16 states were graduates of AASCU-type institutions. This is quite a drop from 56 percent in 1939. Using comparable figures for the same states in 1966 (Table V-2) 44 percent of

TABLE V-1

The Proportion of Teachers Certified by the AASCU-Type Colleges and Universities By State in 1954 (1955, 1956)

State	Number of institutions granting certification	Number of AASCU-type institutions granting certification	Number of teachers certified in all institutions	Number of teachers certified in AASCU-type institutions	Percent Col. 4 is of Col. 3
	1	2	3	4	5
Connecticut	5	4	520	484	93.08%
Maine	18	4	524	268	51.15%
Delaware (1956)	2	0	133	0	-
New Jersey	15	6	1,448	1,050	72.51%
Georgia	18	3	1,489	485	32.57%
North Carolina (1955)	32	8	3,298	1,365	41.39%
Ohio	48	5	5,170	1,017	19.67%
Kansas	25	4	6,076	2,531	41.66%
Minnesota	20	5	1,772	537	30.30%
Nebraska (1955)	22	4	1,697	599	35.30%
Texas	49	11	6,108	2,159	35.35%
Utah	4	0	797	0	-
Wyoming	1	0	108	0	-
California (1955)	36	10	8,361	4,720	56.45%
Oregon	12	3	734	299	40.73%
Washington (1955)	14	3	1,733	853	49.22%
Total	321	70	39,946	16,367	40.98%

TABLE V-2

The Proportion of Teachers Certified by the AASCU-Type Colleges and Universities By State in 1966

State	Number of Institutions Granting Certification	Number of AASCU-Type Institutions Granting Certification	Number of Teachers Certified in Institutions	Number of Teachers Certified in AASCU Institutions	Percent Column 4 is of 3
	1	2	3	4	5
Connecticut	5	4	1,107	953	86.09%
Maine	15	5	930	465	50.00%
Delaware	2	0	316	0	-
New Jersey	18	6	4,595	3,402	74.04%
Georgia	26	5	2,745	865	31.51%
North Carolina	40	10	5,117	2,246	43.89%
Ohio	51	6	14,049	3,183	22.66%
Kansas	24	4	8,145	3,960	48.62%
Minnesota	24	5	5,544	2,544	45.89%
Nebraska	16	4	2,916	1,289	44.20%
Texas	52	13	12,731	6,208	48.76%
Utah	6	2	2,409	294	12.20%
Wyoming	1	0	363	0	-
California	51	16	20,880	11,811	56.57%
Oregon	14	4	2,022	1,024	50.64%
Washington	15	3	3,873	1,492	38.52%
Total	360	87	87,742	39,736	45.28%

the teachers came from AASCU-type institutions, indicating a significant increase rather than a further decrease. It is interesting to note that in Connecticut the proportion of teachers prepared in AASCU-type institutions remained very high, dropping slightly from 93 percent in 1954 to 86 percent in 1966. Comparable figures for the following states are:

California	56-56
Georgia	33-32
Kansas	42-49
Maine	51-50
Minnesota	30-46
Nebraska	35-44
New Jersey	72-74
North Carolina	41-44
Ohio	20-23
Oregon	41-51
Texas	35-49
Washington	49-39

Although the overall percentage growth in the 16 states as a whole was only three percent from 1956 to 1966, in the judgment of the authors this is an extremely important change in direction. With the much broader curricula possibilities available during this period, the institutions continue to provide a large percentage of the teachers needed for our society. In addition the proportion of the teachers graduated by the higher education institutions in each state has grown by approximately seven percent during this period of just over a decade.

Some interesting changes should be noted in particular areas and states. In the plains states of Kansas, Minnesota, and Nebraska as well as the southwest state of Texas, AASCU-type institutions have made major increases in their teacher education programs during this period and are supplying much larger proportions of the total teachers coming from the institutions in those states.

The increase in the number of teachers certified is shown in column 1 of Table V-3 in each of the 16 states for the period from 1954 through 1966. Column 2 shows the same figures in AASCU-type institutions. Finally, column 3 shows the percentage of the total increase in AASCU-type institutions. In total, this increase is 46 percent which compares almost exactly with the findings for AASCU-type institutions in 1966 alone, as shown in the previously cited study of Teacher Productivity by the American Association of Colleges for Teacher Education.

The high degree of emphasis in SCU's on the preparation of teachers is illustrated further by a comparison of the proportion of SCU graduates in 1954-6 and 1966 who were certified to teach in each of these 16 states. (Table V-4) In 1966, the 16 states included 360 institutions which were qualified to certify teachers. Of these 360 institutions, 87, or 24 percent, were SCU's. However, in 1966 this 24 percent produced 45 percent of the teachers who were certified in these states. Nearly

TABLE V-3

Proportional Increases in Teacher Certification
In AASCU-Type Institutions From 1954 (1955, 1956) - 1966

State	Increases in teachers certified by state institutions from 1954 (1955, 1956) - 1966	Increase in teachers certified by AASCU institutions from 1954 (1955, 1956) - 1966	Percent Column 2 is of Column 1
	1	2	3
Connecticut	587	469	79.90%
Maine	406	197	48.52%
Delaware (1956)	183	0	-
New Jersey	3,147	2,352	74.74%
Georgia	1,256	380	30.25%
North Carolina (1955)	1,819	881	48.43%
Ohio	8,879	2,166	24.39%
Kansas	2,069	1,429	69.07%
Minnesota	3,772	2,007	53.21%
Nebraska (1955)	1,219	690	56.60%
Texas	6,623	4,049	61.14%
Utah	1,612	294	18.24%
Wyoming	255	0	-
California (1955)	12,519	7,091	56.64%
Oregon	1,288	725	56.28%
Washington (1955)	2,140	639	29.85%
Total	47,774	23,369	48.92%

TABLE V-4

Number of Teachers Certified by State Colleges and Universities in Selected States, 1966 and Percent Change, 1954-66

States	1966 Number of Institutions Granting Certification			1966 Number of Teachers Certified			1954-1966 Percent Change in Number of Institutions Granting Certification		1954-1966 Percent Change in Number of Teachers Certified	
	All Institutions	SCU's	Percent of SCU's	All Institutions	SCU's	Percent of SCU's	All Insitutions	SCU's	All Institutions	SCU's
Connecticut	5	4	80%	1,107	953	86%	--	--	113%	97%
Maine	15	5	33%	930	465	50%	-20%	25%	77%	73%
Delaware	2	0	--	316	--	--	--	--	138%	--
New Jersey	18	6	33%	4,595	3,402	74%	20%	--	218%	224%
Georgia	26	5	20%	2,745	865	32%	44%	67%	84%	79%
North Carolina	40	10	25%	5,117	2,246	44%	25%	25%	55%	65%
Ohio	51	6	12%	14,049	3,183	23%	6%	20%	171%	213%
Kansas	24	4	17%	8,145	3,960	49%	-4%	--	34%	56%
Minnesota	24	5	21%	5,544	2,544	46%	20%	--	213%	374%
Nebraska	16	4	25%	2,916	1,289	44%	-37%	--	72%	115%
Texas	52	13	25%	12,731	6,208	49%	6%	18%	109%	190%
Utah	6	2	33%	2,409	294	12%	50%	--	202%	--
Wyoming	1	0	--	363	--	--	--	--	236%	--
California	51	16	31%	20,880	11,811	57%	42%	60%	149%	150%
Oregon	14	4	29%	2,022	1,024	51%	17%	33%	176%	241%
Washington	15	3	20%	3,873	1,492	39%	7%	--	124%	75%
Total	360	87	24%	87,742	39,736	45%	12%	24%	119%	143%

NOTE: The earlier data for California, Nebraska, North Carolina, and Washington are for 1955; for Delaware the data are for 1956.

40,000 out of approximately 88,000 teachers who were certified initially in 1966 graduated from state colleges and universities.

In New Jersey, for example, the SCU's, which comprised only 33 percent of the institutions granting certification, graduated 74 percent of those students who were certified to teach in 1966. In Kansas, 17 percent of the institutions (SCU's) certified 49 percent of all new teachers in 1966. The 16 SCU's in California which included 31 percent of the certifying institutions produced 57 percent of the teachers certified for the first time in 1966. With a single exception the proportion of teachers produced by SCU's in 1966 in these 16 states exceeded their proportion of the total number of institutions granting certification. The exception is Utah where the (two) SCU's which were 33 percent of the number of certifying institutions in the state actually produced only 12 percent of the new teachers in 1966.

A comparison of the 1966 data for these 16 states with that of 1954 reveals that the SCU's experienced a higher percentage of growth during this period than the other institutions which certified teachers. While there was a 12 percent increase between 1954 and 1966 in the total number of institutions in these states granting certification, the number of SCU's increased by 24 percent. Similarly, the number of teachers certified by SCU's increased by 143 percent between 1954 and 1966. The average rate of growth for all institutions in the 16 states for which data was available was 119 percent.

A further check was made of the colleges and universities graduating the largest numbers of initially certified teachers in 1966. (Table V-4) During that year, 13 of the 25 institutions with the largest numbers of certified teachers were AASCU-type institutions. The 20 institutions initially certifying the most elementary school teachers included 11 out of 20 from AASCU-type institutions and, for initially prepared junior high school teachers, six out of the top 10. For initially prepared high school teachers, 11 out of the top 20 were AASCU-type institutions, and seven of the 20 institutions giving the largest number of graduate degrees in education (an area previously assumed to be served almost exclusively by large state or private universities). In this group Fresno State College was the second largest, Ball State University was fifth, and Colorado State College was eighth. In the area of education of nursery school teachers (a specialization which might have been more expected of AASCU-type institutions) only three of the top 10 were from AASCU-type colleges and universities.

As a result of these data, and on a national basis, it appears that SCU's have continued to provide teachers for the public elementary and secondary schools of the states shown, in spite of the extensive curricular expansion in these developing state colleges and universities. If present trends continue, there is every expectation that the supply of teachers from the SCU institutions will not decrease as a result of their development into multi-purpose institutions. On the contrary, there is every indication that the supply will be maintained in most cases. In a number of states there could continue to be an increase in productivity.

TABLE V-5

Institutions Graduating the Largest Numbers of Initially Certified Teachers 1966

Total Initially Certified

1.	Indiana University	1959
2.	Michigan State University	1889
3.	Fresno State College*	1669
4.	Western Michigan University*	1619
5.	University of Puerto Rico	1409
6.	Ohio State University	1396
7.	Illinois State University*	1248
8.	California State College - Long Beach*	1234
9.	Kent State University	1192
10.	Wayne State University	1182
11.	Ball State University*	1089
	San Jose State College*	1089
13.	University of Michigan	1060
14.	Central Michigan University*	1023
15.	California State College - Los Angeles*	1004
16.	CUNY - Hunter College	978
17.	Eastern Michigan University*	962
18.	Mankato State College*	933
19.	Northern Illinois University	931
20.	CUNY - Brooklyn College	922
21.	Southern Illinois University - Carbondale	921
22.	Bowling Green State University*	913
23.	North Texas State University*	912
24.	Brigham Young University	905
25.	Pennsylvania State University	896

Nursery School Teachers

1.	CUNY - Brooklyn College	186
2.	CUNY - Hunter College	137
3.	Newark State College*	88
4.	Mills College of Education	82
5.	CUNY - Queens College	72
6.	University of Maryland	64
7.	Southern Connecticut State College*	59
8.	University of Wisconsin - Milwaukee	56
9.	Towson State College*	55
10.	Utah State University	40

TABLE V-5

Elementary School Teachers

1.	Michigan State University	859
2.	Western Michigan University*	671
3.	University of Puerto Rico	632
4.	San Jose State College*	587
5.	Kent State University	562
6.	California State College - Long Beach*	524
7.	CUNY - Hunter College	520
8.	California State College - Los Angeles*	468
9.	Inter American University of Puerto Rico	450
10.	Wayne State University	449
11.	Ohio State University	440
12.	Central Michigan University*	436
13.	Glassboro State College*	427
14.	State University College at Oswego*	426
15.	Mankato State College*	420
16.	Northern Illinois University*	416
17.	CUNY - Brooklyn College	412
18.	Arizona State University	409
19.	Eastern Michigan University*	362
20.	San Francisco State College*	359

Junior High School Teachers

1.	Texas A. & M. University	117
2.	Gorham State College*	93
3.	University of Bridgeport	79
4.	California State College - Long Beach*	76
5.	Morningside College	64
6.	Glassboro State College*	63
7.	Salem State College*	60
8.	District of Columbia Teachers College*	58
9.	Olivet Nazarene College	57
10.	State College of Iowa*	48

TABLE V-5

High School Teachers

1.	Indiana University	1414
2.	Michigan State University	1030
3.	Western Michigan University*	948
4.	Ohio State University	940
5.	Ball State University*	787
6.	University of Puerto Rico	777
7.	Illinois State University*	722
8.	Purdue University	690
9.	Southern Illinois University - Carbondale	594
10.	Indiana State University*	577
11.	Montclair State College*	563
12.	SUNY at Albany*	555
13.	Central Michigan University*	553
14.	Indiana University of Pennsylvania*	552
15.	Brigham Young University	532
16.	Miami University (Ohio)	530
17.	North Texas State University*	515
	Northern Illinois University*	515
19.	Mankato State College*	513
20.	University of Texas	512

Total Graduate Degress in Education

1.	Teachers College, Columbia University	2073
2.	Fresno State College*	1348
3.	Indiana University	1255
4.	New York University	1015
5.	Ball State University*	910
6.	Michigan State University	863
7.	University of California - Berkeley	711
8.	Colorado State College*	668
9.	Wayne State University	612
10.	Temple University	610
11.	San Francisco State College*	563
	University of Michigan	563
13.	Boston University	552
14.	CUNY - Hunter College	519
15.	University of Southern California	510
16.	University of Wisconsin - Madison	509
17.	California State College - Los Angeles*	489
18.	Kansas State Teachers College*	483
19.	Harvard University	481
20.	North Texas State University*	479

*AASCU instituions or those eligible for membership

SOURCE: Teacher Productivity - 1966 (American Association of Colleges fo Teacher Education)

CHAPTER VI

THE PRESENT AND FUTURE ROLE OF THE DEVELOPING STATE COLLEGES AND UNIVERSITIES

Historically, the definition of roles of state colleges and universities has been a relatively easy task. Although often performing other functions, SCU's has specialized functions and could be classified rather accurately as normal schools, technical institutes, agricultural or commercial schools, teachers colleges, or regional state colleges. Current developments, however, have made generalized descriptions of these institutions extremely difficult. Educational leaders both inside and outside these institutions have referred to their present condition as involving an "identity crisis." Recent attempts to define the role of state colleges and universities often have been more successful in describing what SCU's are not, rather than what they are.

For several reasons precise description of these institutions presents great difficulty. First, there is the major obstacle of generalizing about 284 diverse and complex social institutions of any kind. Second, these institutions have occupied a "middle" position between the two year community college and the all-inclusive state university, and current descriptions of SCU's often emphasize functions not performed because they are present in other institutions. Thus, unfortunately, the uniqueness of the SCU's may appear to be negative rather than positive. Third, the various SCU's are in at least four different stages of development at the present time. A variety of pressures, both internal and external, have resulted in an accelerated rate of development which varies greatly between states. In addition, the rate of transition during the past 15 years can be expected to increase in the next 15 years. Fourth, there is great uncertainty over the goals of society and over its demands on its various social institutions. The relationship between education and society is changing. A primary goal of higher education may once have been the rather conservative role of transmitting the cultural heritage, but now it plays an active role in economic and social development.

Present conditions, however, do help in forecasting the future role of SCU's and the following characteristics appear to be most important.

1. SCU's, close to 300 in number, are extremely varied in many ways including breadth of functions in size, in financial support and in regional demands placed upon them. However, they are primarily regional in service rather than national in scope.

2. In the last two decades most of them have grown rapidly and become multi-purpose and more comprehensive in curricular offering. As community colleges have provided the educational "open door," SCU's in many states have limited entrants to students in the top 50 percent, or even to the top one-third of high school graduates.

3. Curricular developments have been quite varied, often depending on local or state circumstances. At the undergraduate level expansion has taken place on five fronts, simultaneously - (a) As the basic teacher education responsibility has broadened, majors in specific arts and science fields have been started at the B.A. - B.S. level. (b) At the same time occupational-professional majors have been added in order to meet needs for highly-trained manpower. State legislatures have usually been quite willing to provide funds for these programs. Occupational-professional majors often have cost more and required field work or intern programs which smack of the teacher education history of the institutions. Some arts and science faculties have opposed offering the programs at the undergraduate level and tensions developed on campuses. In addition, accreditation societies and associations have reflected discipline-oriented standards and opposed service-oriented undergraduate majors in such fields as engineering, chemistry and social work. Demands have risen from arts and science faculty for more research, "higher" standards and less "softness." (c) The undergraduate degree requirements of the institution as a whole are often still called the "general education" requirements and required of students taking all types of majors. Many of the basic freshman courses for "general education" or major fields do not reflect the extensive changes in secondary school courses since 1957 or the demands of present-day students for relevant, contemporary basic courses. This tends to be more true in arts and science courses and places them under attack. (d) Oddly enough, the SCU's (and land grant colleges) continue to develop less-than-baccalaureate technical programs in a number of states. In 1968 a questionnaire on this subject to 367 public colleges and universities was returned from 49 land grant institutions and 233 SCU's. Of these 282 institutions, 114 or 40.4 percent offered technical programs at less than baccalaureate level. Of the 619 different programs offered 575 were two years in length or less. Over 31,000 students were enrolled in these programs and 56 of the 114 institutions were planning to add an additional 134 programs by 1970. In addition, 13 more institutions plan for the first time to develop 40 technical programs of two years or less in length. (Martin, 1968, pp. 1-5) On some campuses this type of development has created even more concern than 4 year programs. (e) At the other end of the scale are the developments in a wide variety of masters degrees (see Chapter II) and at the doctoral level, as described in some detail later. Most of the doctorates (approx. 70 percent) in 25 the SCU's giving or planning them are in the field of education. No expansion is planned in older established professions such as law, medicine, divinity, pharmacy, or dentistry because of differentiation of function in state planning. Some professional masters degree programs have developed in SCU's in engineering, social work, agriculture, architecture, and applied health professions. But the greatest number of recent new masters programs have been in arts and sciences fields.

The varied curricular expansion of the SCU's has led to high tensions on many campuses, and with limited funds often for occupational-professional expansion, many difficulties have arisen. Part of the tension has developed and will undoubtedly continue because many of the new, younger faculty come from, and wish to emulate, the discipline and research-oriented federal grant university from which they recently graduated. The legal state functions of many SCU's are the opposite of the wishes of these faculty members. They do not agree that the stated functions are worthy and should be accepted. This fundamental conflict cannot be resolved without changes in state laws or changes in programs educating college professors. Hard as it may be, the latter will more possibly be accomplished in the coming decades.

4. A large number of SCU's are located in urban areas. Of the 29 Standard Metropolitan Statistical Areas of the United States with over one million persons, 17 have SCU's in their main city area or within a half hour drive. In addition New York has its own municipal university so 20 of the 29 areas should be served by the SCU institutions. Several are served by a number of institutions, such as Los Angeles with SCU's enrolling close to 100,000 students. However, many of these cities have received only limited response to their needs from their SCU's. Even preparation of teachers for the special needs of the urban areas has been very inadequate. The older institutions often have been slow to respond or have not diverted resources to make a maximum effort.

5. Promotion and tenure policies in SCU's are still based on the quality of teaching in many institutions but more and more emphasis is being placed on publication or recognition by professional associations. Research, as it develops, is often of an applied nature. When publication is required for, or an asset in, promotion and/or tenure it is often more professional writing than true disciplinary research of the type required in "publish or perish" universities.

6. Faculty teaching loads in SCU's are heavier than in research-oriented universities. Faculty in SCU's see the lighter teaching loads and often demand lighter loads for themselves, sometimes not realizing their impact on promotion and tenure. There is a serious question whether, along with a lighter teaching load, they would accept completely the rigorous standards for publication in their discipline and the longer periods in rank. The University of California, for example, has figures to show that its assistant professors take 13-17 years to catch up in actual salary earned by comparable appointments in the California State Colleges because of the faster easier promotions.

7. Tight state budget controls make it hard for SCU's to try out innovative ideas in instruction or curricular areas. In addition, extension and public service are primarily self-supporting or they are the first items cut when budgets are low.

8. SCU's have very limited sources for funds, mostly state appropriations and student fees. Foundations have been very slow to provide appreciable funds to public institutions of this type and so has the federal government.

9. The needs of society for educated manpower and the needs of students for relevance to contemporary situations and knowledge appear to demand a new type of graduate institution. The regional state university could be a new institution to provide programs and faculty to meet these needs.

10. The SCU's are almost without exception part of the developing state systems of higher education. They are no longer tied to the state department of education. However, the future of SCU's, and the meeting of problems mentioned above, depends on statewide decisions arrived at by the various coordinating boards of higher education. Therefore, we turn now to the remainder of this chapter which includes three main sections on (1) the age of the state educational system, (2) a proposed conceptual system for classifying SCU's and other types of higher educational institutions, and (3) a suggested new doctoral program.

THE AGE OF THE STATE EDUCATIONAL SYSTEM

Current educational needs of the nation have grown so complex that they require additional types of institutions. American higher education has moved in slightly more than a century from the "era of the college," through the "era of the university," and is now well into "the era of the state educational system." The systemization of American higher education affects the SCU as much or more than any other type of institution because of its position between the community college and the federal grant multiversity. The SCU experiences the greatest degree of overlap in function and most needs the differentiation and coordination of roles.

The place of state colleges and universities in an optimum state system of higher education is centered around two major issues: (1) the question of the SCU's becoming comprehensive institutions with clearly differentiated functions and (2) the related question of the degree of centralization within a state system of higher education.

Differentiation of function

Differentiation of educational function is of two types: (1) level and kind, and (2) emphasis. Historically, SCU's have been differentiated in the level and kind of programs they have offered, first as non-collegiate institutions, then as single-purpose colleges mostly for teachers, and most recently by the level of highest degree offered. At the present time, most SCU's are restricted by state statute and/or coordinating board decisions to less than doctoral level degrees. One-fourth of these institutions are restricted to offering degrees only at the baccalaureate level.

Differentiation in emphasis is much more difficult to define, perhaps even more difficult to enforce in practice. Nevertheless, agencies responsible for state-wide planning must include differentiation in emphasis as a major principle in the future. There has always been wide variation in educational programs carrying the same titles. Some have been theoretically oriented; others have been developed for high ability groups while others have been open to a wide range of student abilities.

The principle of differentiation in emphasis is apparent most often between theoretically-oriented versus applied or practically-oriented curricula. This type of differentiation may include the assumption that theoretically-oriented programs are more selective than those of applied orientation. This principle has received clear expression in the California State System of Higher Education and has been discussed in various reports, e.g., California State Department of Education, (1955, pp. 90-91) and, in a more general context, by McConnell, (1962, Chapter 4).

To illustrate the principle, both a state college and a university might offer programs in business administration. The program at the university would emphasize economic and management theory in order to prepare the student for positions of broad responsibility, or, more importantly in the eyes of the faculty, for advanced graduate work in business administration. The program at the state college would also include some emphasis on theory but would eventually focus on a more narrow, applied range of professional choices and essentially prepare the student for middle management positions in fields such as accounting, credit management or marketing.

To cite another field, students who do not have the interest in engineering research and development might take a four-year program in applied engineering or industrial technology. These programs would prepare them for production and sales positions involving considerable technical knowledge but without the advanced mathematical background and theoretical knowledge demanded of research and development engineers.

The principle of differentiation can be applied too rigidly. This appears to be the case in California at the present time where insufficient consideration has been given to the SCU's. Nevertheless, the investigators conclude that the general principle is sound and should be considered by state colleges which usually serve a wider range of students, including students of lower abilities, than their established state university counterparts.

The principle of differentiation applies even more importantly at the graduate level where state colleges offer many occupational masters degrees' which often are essentially continuing education programs. This has been done for many years in the field of education itself and is being extended rapidly to other fields.

Differentiated programs are being implemented at the doctoral level where most of the programs offered by SCU institutions are oriented toward applied professional work, particularly in the field of education, rather than toward the theoretical researcher. Differentiation at the doctoral level is the subject of much controversy, although it has taken place in the field of education and is now occurring in many other fields as well.

SCU's have generally been willing to accept differentiated status initially in order to gain new programs, but in too many cases they have moved as quickly as possible to modify these programs in order to conform to the aims and standards of the established comprehensive university.

Differentiation in emphasis may apply to research and to public service as well as to instruction. A sizable number of SCU's, with the encouragement of educational agencies, business, corporations and municipal and regional government are beginning to emphasize applied research and development. In many cases, these activities have been supported by federal funds. Public service of a rather practical nature has also been emphasized by these institutions. With such an orientation, optimum use is made of faculty and other instructional resources directed toward applied educational programs.

It should be emphasized that differentiation in emphasis does not imply the absence of theory or basic research, but rather suggests that the mix between theory and application might vary for different types of institutions.

Regionalism

Regionalism supplements differentiation of functions as a factor affecting SCU's in state systems. Since theoretically-oriented, advanced graduate programs often involve very expensive resources these programs usually are confined to a few established all-inclusive universities. Occupational and applied programs on the other hand often are dispersed on a regional basis. However, representatives of SCU's assert that since economics of scale have reached a point of diminishing returns in established universities functions such as advanced graduate education and basic research should be allocated to regional state universities as well as to the established state universities.

Regionalism can also work against the development of more comprehensive regional universities. In recent years coordinating boards and state systems such as those in California and Illinois, have chosen to limit the functions of some regional SCU's and to begin new institutions rather than to develop existing regional institutions into complete universities. Some experienced state educational planners feel that an optimum size for a regional state university approximates 12,000 students. After reaching 15,000 the institutions demand very expensive specialized research and doctoral programs and pay for it by diluting support of other existing programs. The choice between differing conceptions of regionalism constitutes one of the fundamental issues facing state systems of higher education. These questions must be answered on a state-by-state and, indeed, on a region-by-region basis.

The issue of university status

Ths issues of differentiation and regionalism culminate in a debate over actual university status for state colleges. The dispute over the name, "university," has been resolved in most states in favor of designating state colleges as state universities when the institutions are authorized to award master's degrees in fields other than education. California, Washington, Colorado, Minnesota and New York remain notable exceptions to this generalization. Recently, New Jersey has enacted a more restrictive definition of the term "public university." Nevertheless, over 70 former normal schools and teachers colleges now are names state "universities."

The basic question of university status revolves around those functions beyond the master's level which SCU's should undertake and what level of resources should be provided. The analyses of available data and trends suggest that relatively few of the SCU's under investigation are likely to become fully developed federal grant universities within the next 15 years. However, the analyses and projections show that many SCU's now have, or will develop in the next 8-10 years, a concentration of resources appropriate to some university level functions. Thus, the essential question becomes: What functions are appropriate to a differentiated regional state university?

Many critical social needs which now receive relatively little emphasis at fully-developed all-inclusive universities could be met to some degree through the full utilization of resources now available at many SCU's. While the debate over the proper role of established universities in these areas continues (Corson, 1967, for example) little attention has been given to the possibility of creating a relatively new type of university which would emphasize the applied areas of instruction, research and development, and service. This new type of university would thus free fully-developed universities to emphasize their more traditional roles of basic research, advanced graduate instruction in the basic disciplines and post-baccalaureate professions, and national public service at the highest levels of expertise. Many fully developed public universities, especially the land grant universities, would point to their long tradition and current interest in applied research and public service. However, the forces acting upon these institutions, both from within and from without, suggest that the movement in the developed universities will continue toward basic research and advanced instruction. The Jencks-Riesman conception of "professionalism" (1968) suggests that the nature of the disciplines themselves will further predispose established universities toward basic research and advanced instruction in the basic disciplines unless countervailing forces are applied from the outside.

The authors recommend and find developing a new, differentiated type of university, (a regional state university) with emphasis upon professional instruction, applied research and development and public service. Such an institution would make optimum use of scarce human and financial resources in the solution of immediate social problems and would work toward the long term advancement of society.

A PROPOSED CONCEPTUAL FRAMEWORK

A rather loose two-dimensional classification system is presented in order to summarize some of the issues and developmental possibilities facing SCU's. Such a system oversimplifies many of the complexities of modern educational planning, but does present an initial frame of reference for a more detailed discussion. The two dimensions are, emphasis on collegiate versus university functions, and an applied versus a theoretical orientation. In the first dimension, colleges concentrate on undergraduate instruction, with graduate instruction and research viewed generally as a secondary function. A university on the other hand emphasizes graduate and advanced professional instruction and research. In the second dimension, application-oriented institutions emphasize

occupational-professional major fields and applied programs of public service. Research is directed toward the solution of specific, immediate problems. In contrast, theoretically-oriented institutions emphasize basic theoretical knowledge and fundamental research. In this frame of reference, the outside vertical areas of the "educational universe" represent differentiated specialized institutions, one applied and the other theoretical. The larger middle area represents comprehensiveness with an emphasis on both theory and its practical application. (See Table VI-1)

The teachers college, (A) is an extremely differentiated collegiate level institution, with primary emphasis upon preparation for a rather specific application-oriented occupation. At the other end of the continuum one would find a liberal arts college such as St. Johns, (B) which emphasizes a fixed curriculum and a broad theoretical education without specific preparation for any particular occupation. At the university level, there is no exact analogue to the teachers college, although a highly specialized university stressing preparation for teaching, and specialized occupational programs at its highest degree and at other degree levels whould approximate it. (C) The university counterpart to the traditional private liberal arts college is found, to a certain degree, in several of the private federal grant universities. (D)

The middle area of the spectrum is the realm of the comprehensive institution. If a modern state college were at the master's degree level as a comprehensive institution, it would be to the applied side because of the emphasis in most SCU's on teacher education and preparation for specific occupations. (E) A fully-developed modern land grant university, (F) would be at the apex of comprehensiveness, if it emphasized equally its basic research and advanced graduate education and application of knowledge through experiment stations, undergraduate and graduate teaching and extension activities. The non-land grant, but fully developed, state university, (G) would be shown at the same level as the land grant university, but more theoretical in orientation because of its lack of emphasis on extension and service and less applied emphasis upon such areas as agriculture, engineering, and other baccalaureate professions. As examples of differentiation on the theoretical-applied axis and the collegiate-instructional/graduate-research emphasis, twelve varied institutions have been tentatively located on the chart on Table VI-2. The twelve institutions are described in brief capsule form as follows:

1. An undergraduate institution with bachelor's degree in fine arts and art education, including advertising, fashion and product design, painting, and illustration. Originally established as a Normal School of Art.

2. An undergraduate liberal arts college, established in 1960, offering only the B.A. degree. Postgraduate study leads to state teaching credentials. Plans later to expand into master's degree.

3. Primarily, an undergraduate liberal arts college. Offer B.A. programs in humanities, social sciences and natural sciences and a limited program for B.S. degree in engineering. Extremely limited master's degree programs in a very few fields. Graduate work in engineering

TABLE VI-1

A Two-Dimensional Framework
for Classifying Higher Educational Institutions

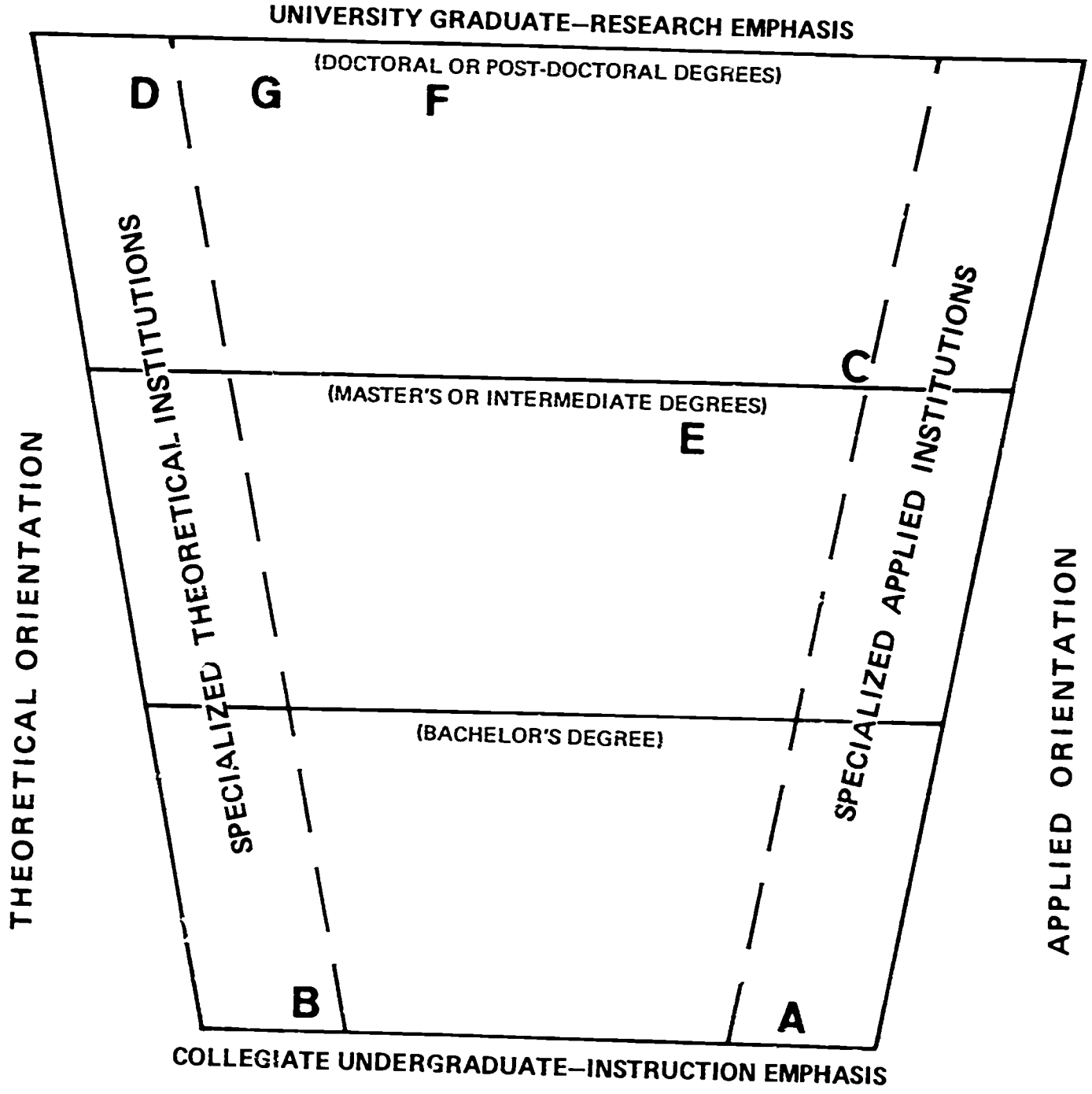
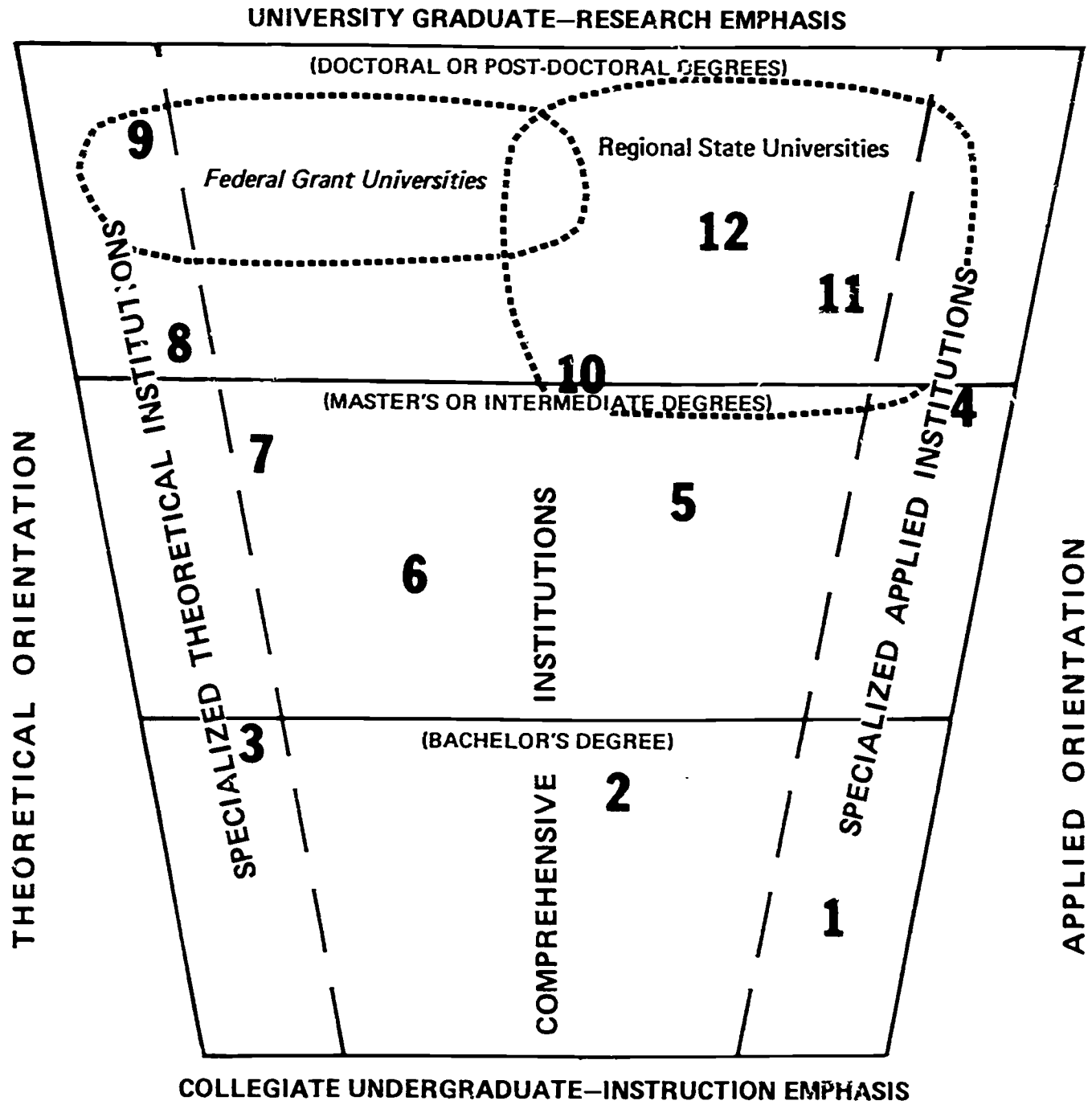


TABLE VI-2

Examples of Institutions
on a Two-Dimensional Framework
for Classifying Higher Educational Institutions



being phased out.

4. Technically-oriented institution baccalaureate degrees (approximately 1,000 per year) and graduate degrees (approximately 500 per year) high proportional of both in applied professional fields of business and engineering. Doctoral programs authorized recently.

5. University offering undergraduate and graduate instruction leading to B.A. and masters degrees. B.A. programs in liberal or vocational arts or in teacher education. Master's degrees and specialist degrees in the graduate school. Primary function still considered to be teacher education.

6. Former teachers college, now a state college emphasizing and putting resources into baccalaureate and master's degree programs in liberal arts and sciences. Still retains some teacher education programs and graduates a large number. Recently developed a related four-year liberal arts college.

7. Small university offers undergraduate and graduate instruction primarily in liberal arts fields but with a few undergraduate students receiving specialized degrees in law, music, or music education. Also, offers professional degrees in lae, master's degrees in education.

8. College offers undergraduate and graduate instruction in liberal arts and limited graduate professional work in business, engineering, and medicine. Has a small doctoral program, Ph.D. in a number of liberal arts fields and Doctor of Engineering. Undergraduate degrees still exceed graduate degrees by a ratio of 6-1 and the liberal arts-theoretical emphasis is strong at both undergraduate and graduate levels.

9. Institution granting 50 percent more graduate degrees than undergraduate degrees. Undergraduate degrees primarily sciences and engineering. Emphasis is in theoretical and graduate studies in engineering, sciences, management and architecture. High federal support for research and development. Emphasizes extremely advanced theoretical research.

10. One of the larger state colleges in the U.S. Very large undergraduate school (almost 3,000 graduates in 1967). 30 percent expect to continue in graduate or professional schools. Formerly a teachers college, it has changed radically. Extensive graduate study is offered in a number of professional fields, including engineering, business administration and social work. Doctoral degrees just developing in sciences.

11. University offering undergraduate and graduate degrees through the doctorate. Of almost 1,000 baccalaureate degrees two-thirds were B.S. degrees; 10 percent were B.B.A. degrees; 50 percent of graduates expect to continue in graduate or professional schools. Master's degrees primarily in professional schools of Business Administration, Education and Library Science. Doctorates essentially in Education.

12. College offers undergraduate and graduate degrees in School of Arts and Sciences and several professional schools. Greatly expanded liberal arts program, but still an applied professional emphasis. Large doctoral

program, mostly in fields of Education.

Left to their own direction, the natural development of most public institutions in upward and diagonal. A university is oriented toward advanced graduate instruction and research. Since graduate and advanced professional instruction and research become increasingly theoretical the development from college to university is normally toward the upper left hand level. The contention of the investigators is that the forces which pull a university into comprehensive balance are forces from the outside which insist upon the university providing trained manpower, knowledge, and services to meet the critical and more immediate needs of society.

FIVE MODELS OF EXISTING STATE COLLEGES AND UNIVERSITIES

Each of the currently distinguishable models of state colleges and universities can be explained to some degree by means of the proposed conceptual framework. No one institution fits the composite description precisely, but the composite is nonetheless useful as a means of highlighting the basic dimensions of institutional development. In addition, the models serve as composite pictures of institutional goals and can be used to describe the debate and discussion over the future of these institutions. Three are rather commonly accepted as descriptions of major types of SCU's. Five models are developed in this report, as follows: (1) the sincle purpose highly-specialized college, (2) the teachers college, (3) the state college, and (4) the regional state university. A fifth type of institution, the all inclusive nationally-oriented federal grant university, constitutes a possible alternative model for a limited number of SCU's in the future.

The single purpose, highly-specialized college

A very small number of publicly-supported single purpose, highly specialized institutions still exist. With carefully limited objectives they attract students with high motivation for their special curricula in such fields as art or maritime studies. The numbers of such single-purpose institutions are shrinking rather than expanding. New specialized studies now are added to existing multi-purpose institutions. As a type this model of institution can be expected to do no more than maintain its small numbers (no more than a dozen) and, perhaps, to gradually disappear.

The teachers college

The teachers college is an extremely differentiated application-oriented institution which is organized almost exclusively to prepare teachers, although it may award degrees in other fields. The distinction between a "teachers college" and a "state college" is the extent to which the institution and its programs are organized to facilitate the single goal of training teachers. By this definition, there are a number of state colleges, and private liberal arts colleges as well, in which as many as 75-85 percent of the students are preparing for teaching, and which, could be regarded as "teachers colleges."

A number of characteristics may indicate the existence of a teachers college. Interest and experience in teacher education is considered at least as important a characteristic in selecting faculty members as competence in the subject field. Some faculty in liberal arts departments hold doctorate degrees in fields such as science education, or English education, rather than in the academic field. Courses in fields such as English literature include discussions of how to teach the subject. (A complaint voiced by several students during site visits to these institutions was that some liberal arts courses devoted considerable time to discussion of educational methodology, making the course less valuable to non-teaching majors and seriously diluting the academic quality of the course.) The structure of general education, the requirements for a major and other academic requirements may reveal that the curricula is determined in substantial part by state certification and other teacher education requirements rather than by a coherent set of educational objectives for all students, regardless of occupational interest. Despite changes in titles and significant changes in the conception of teacher education itself, this number of SCU's seem to have remained essentially at the stage of development characterized by the historical development described previously in the 1930's or early 1940's.

At present, there are only three institutions in the entire AASCU membership which are designated officially as teachers colleges, but by the operational definition perhaps 35-40 institutions still should be so classified. Because of the selection of institutions to represent developmental trends, none of the 14 site-visit SCU's can be defined operationally as a teachers college. At least three of the institutions, however, could be considered in transition from teachers college to modern state college status and others still show the effects of their former identity.

The institutions classified as teachers colleges are mostly small institutions of less than 2,000 students. Most of these institutions are located in rural or semi-rural areas in New England, and South, and the Plains states. There are also a few urban institutions, chiefly in New England, whose development has been impeded by lack of funds and by strict legislative and state control. They are chiefly baccalaureate degree institutions, although some part-time programs are found at the master's level in elementary education and in secondary education teaching fields. As noted earlier, change in many SCU's was facilitated by the rapid addition of a large number of faculty thus eroding the power of the senior faculty. This did not happen or was curtailed in the smaller teachers college types so that senior faculty and teacher education oriented administrators retain curricular control.

One characteristic of these teachers colleges is their emphasis on elementary education. As a result, over two-thirds of the students are women. They are usually residents from within a radius of 50-100 miles. Some of these students are quite able and a number of the teachers colleges' student populations have higher composite ability scores than do those of other SCU's. The curricula tend to be restricted and often contain divisional concentrations in social studies and science rather than majors in academic disciplines. Although there is sometimes a plethora of faculty committees, the college organization tends to be hierarchical. Administrators of a number of these institutions have been drawn from public school

systems or state departments of education.

Because of the rather limited possibilities for growth, transition of the remaining teachers colleges to state colleges may be relatively slow. Some institutions will change more rapidly as strong presidents interested in a more comprehensive institution gain control of the rather centralized decision-making structure of these institutions or if coordinating boards decide to expand their functions to meet changing state needs.

The state college

The modern state college has expanded rapidly and offers a great variety of specialized curricula at the undergraduate level and, in about half of the institutions, at the beginning graduate level. (See Chapter II) Teacher education is still a major function but is only one of a number of important professional curricula available. (One of the significant problems for the department of education in a pluralistic state college is that the subject matter departments typically retain the responsibility for, but often have little interest in, the methods courses and supervision of student teaching.) Perhaps one-half to two-thirds of the undergraduates are preparing for some form of teaching. However, the student is seen as a future historian or chemist by the respective academic departments and as a future teacher of history or chemistry mainly by the department of education.

Business administration is often the next largest curriculum, enrolling perhaps 10-20 percent of the students. Many of the state colleges have developed majors in other undergraduate occupational areas, such as engineering, nursing, and social work. However, most of the state colleges are still too small to generate the critical mass of faculty and students to make more than a few such programs feasible. The remaining curricula are majors in various liberal arts fields, often in pre-professional areas leading to graduate school or transfer to a federal grant university.

More than half of the state colleges have graduate programs. The majority of these programs are part-time and summer session programs, with much of the enrollment coming from teachers in-service. A rapidly expanding number of colleges offer master's degrees in a wide variety of subject matter disciplines, although often the program began in secondary education. A significant number of institutions have begun to develop master's degree programs in areas such as business administration, engineering, and the applied health professions. In a small number of institutions liberal arts master's degrees have developed in such fields as philosophy and anthropology or area studies.

Instruction is the primary function in most state colleges. There is little expectation of research, although some state colleges have tried to facilitate research for those faculty that are interested. A few of these institutions which can be expected to grow quite rapidly in the next ten years are beginning to attract graduate and research faculty on the premise that the institution will become a regional state university in the near future. Extensive organized public service is not often found outside teacher education, although individual faculty may have significant commitment to public service and will spend considerable time on it.

The faculty of these institutions are much more diverse than the teachers college faculty. Depending on the state and pace of development, conflict may exist between the collegiate-oriented faculty and those actively seeking university status. Because of the pluralism of majors, educational decision making is more decentralized than in the teachers college, but the organization in many cases is dominated by the central administration and department chairmen.

Present data suggests that perhaps 170-180 of the 262 SCU's included in the present study should be classified as state colleges even though a number are called "university." The classification includes most of the 125 colleges enrolling from 2,000 to 6,000 students and many of the institutions enrolling from 6,000 to 10,000 students. Most of these colleges have more than doubled in size within the last 10 years. With the exception of those limited in enrollment by the mandate of a coordinating or governing board, they may be expected to double again in the next 10 years, to a median size of nearly 9,000. At that point, most of the institutions will be developing sizable graduate programs and seriously considering university status. The question of further expansion of these institutions to university status versus limiting enrollment and developing additional regional state colleges is a very real problem for most states. Some of the institutions, undoubtedly, should and will become universities, but the competition for this status will be much more intense than it is at present. State colleges are thus likely to find themselves in internal conflict and to be faced with increased external competition. The immediate future of most of these schools will be determined in large part by the way in which these questions are resolved by state commissions and coordinating boards of higher education.

The regional state university

The three classifications of single purpose college, teachers college, and state college account for approximately 235-240 institutions included in the present study. Approximately 25-27 of the larger institutions are classified as regional state universities. They are the most swiftly changing of all SCU institutions and represent a most likely path of development for the majority of the institutions classified as state colleges and perhaps eventually for the institutions now classified as teachers colleges. In the next ten years, a small number of this group of SCU's are likely to receive authorization to develop as nationally-oriented, comprehensive federal grant universities. But, at present, there appears neither the demand nor the resources, human or financial, to encourage the development of large numbers of these institutions into the existing university model.

Many significant problems currently confronting society could, however, be solved by this new type of educational institution, a regional state university. The tentative conclusion of this study is that for the next 10 to 20 years such institutions would serve society best by developing as university level institutions along a different path. A critical corollary is that society itself would be served best by rewarding this differentiated type of development, and not repeating the tragedy of many of the earlier teachers colleges by assigning second-rate status to their institutional functions.

The difference between the regional state university and a traditional fully developed university is essentially in emphasis. The tendency in developing a university in recent decades has been to emphasize research and scholarly activity of long-term significance. Such activity is of great importance. But as the institution becomes oriented increasingly toward basic research and advanced graduate instruction, it tends to ignore more immediate problems, many of which must be approached in a problem-solving manner rather than through a theoretical approach. More importantly, since many of these immediate problems do not serve as vehicles for basic research, they are consequently of little interest to many university discipline-oriented researchers. The optimum development of an educational system might differentiate between the long-term research needs of society and more immediate applied research and public service needs. The regional state university would emphasize these latter functions.

Institutions now or potentially classified as regional state universities are located in approximately 40 states. The federal grant universities tend to be located in the larger, faster-growing industrial states around the Great Lakes, and on the East and West coasts with a few in the Southeast and Southwest. The regional state universities are also located in the same areas except for the East coast. With a few notable exceptions, these institutions are located in or within 50 miles of major population centers. In 1966-67 almost every one of these institutions enrolled more than 10,000 students and many enroll more than 15,000. They can be expected to double in size in the next eight to ten years and to increase enrollment proportionately faster at the graduate than at the undergraduate level. The students are usually professionally-vocationally oriented, although more students are oriented toward graduate and advanced professional training than at the typical modern state college. The major programs are still in the occupational-professional areas, although major efforts are being made at most institutions to develop and strengthen the basic subject matter disciplines.

The students are drawn chiefly from the region although some institutions have significant numbers of students from out-of-state and from foreign countries. Because of the differentiated programs (such as nursing, social work, and industrial technology) which often are not offered at the other state universities, these students are drawn from outside the region and sometimes from outside the state. In SCU's outside metropolitan areas many of the students come from nearby or even distant large cities. Many come in addition because the developing regional state universities serve a wider range of student abilities while educating these individuals for more technically oriented occupations than will the federal grant and other traditional state universities.

Finally, it must be noted that the graduate programs are likely to constitute a smaller proportion of the total enrollment and fewer full-time graduate students than other state universities. The essential turning point in graduate education, and in other functions including service, will come when these institutions have enough graduate faculty and full-time students to pursue doctoral and other advanced graduate programs on a full-time basis.

Research is emerging as an important function for some of these institutions, although it has not approached parity with, or de-emphasized, instruction as it has at the developed universities. Usually there is some support for research, and for graduate faculty, a reduced teaching load permits some time for research. Research is sometimes developed around problems of specific school systems, industries, and municipal government. Although typically, research and other scholarly output is limited, the expectation of scholarly achievement is apparent at a number of institutions. In some cases faculty are advanced more rapidly in rank and salary if there is some evidence of professional writing, more so than actual published research in a discipline. For a handful of institutions service appears to be a major activity. Especially in education and other professional fields a few schools are linking research to service. Usually there are no state funds available for service activities, but a little federal support has enabled some institutions to begin to develop services in a limited number of areas. Some institutions have been very aggressive about seeking federal, matching, and other funds to supplement state funds used for service.

Many of these institutions have grown so rapidly that most of the faculty from state college days remain, but, unlike the state colleges the debate over function has been settled and often the university group is clearly in power in all but a few departments. A few institutions already maintain a dual faculty. It consists first, of those original state college and new master's degree faculty who are retained to teach undergraduates in large classes. This provides lower teaching loads and higher salaries for the newer university faculty who are recruited to pursue research and provide advanced graduate instruction. Unless carefully controlled at this stage the institution can move rapidly into what can easily become a very pale likeness of the inclusive, developed, federal grant university.

Organization is a major problem for regional state universities. Many of these institutions remain colleges by title, and either legislatures or governing boards have often mandated the retention of a single-college organizational structure. Only one-fourth of the members of the American Association of State Colleges and Universities (over 70 percent of 260 in July, 1969) are now titled "university." However, their size is so great and their operation so complex that rapid changes have been needed. Tight state or system-wide fiscal controls, usually on a line-item basis, have forced many institutions to use stop-gap measures in their organizational plans. Also, faculty organization often is inadequate or poorly coordinated. Many of the institutions are in transition from a highly centralized organization to a more typical de-centralized organization of larger complex institutions. Varieties of faculty backgrounds can lead to lack of concensus on the type of governance needed. In most of the regional state universities definite well-organized faculty governance has developed although the diversity of the faculty makes the development of faculty consensus on major issues difficult. If the regional state university is to meet its challenges successfully, the faculty senates must encourage innovative and experimental work. If they are totally resistant and conservative forces the institutions will be unchanging and pass up a great historical opportunity.

At the present time twenty-five of the institutions are offering doctorates or expect that they will be developed or implemented by 1972.

A high proportion of these doctorates (approximately 70 percent) are earned in the field of education. However, the number of degree fields is expanding rapidly and includes engineering (both civil and industrial), chemistry, English, biology, business administration, health, mathematics, philosophy, sociology, geology, microbiology, history, and economics. Doctorates in these fields are offered at only a few of the institutions. This move, however, represents a definite trend in the institutions toward the middle of the comprehensive area of Table VI-1.

Several of the institutions have been spearheading the development of an intermediate "specialist degree" between the master's degree and the doctorate. This is a relatively recent innovation in higher education and in many cases has been designed for prospective teachers in the community colleges, social welfare workers, conservationists, public health personnel, psychometrists, and certain other professional fields. Such a degree requires a year of advanced study beyond a master's degree. In a very special sense, this new degree can be considered an attempt to innovate in a special way to meet a new developing need in the society. It has been slow to develop and it remains to be seen whether it will be the answer to the need for additional graduate degree programs. The suggested graduate degree programs, which follow the discussion of the regional state university, may be a more acceptable alternate or replacement.

In developing both the specialist degree, and more particularly the doctoral degree, the developing state colleges and universities face real danger and real challenge. Large doctoral-granting institutions of this group can truly innovate if they are willing to consciously determine to prepare future college professors for the burgeoning lower division and upper division enrollments in their fellow institutions. If they are to do this, however, faculty must be not merely professional research workers, but must themselves be professors who teach.

In summary, state colleges and universities can be characterized broadly by means of a two-dimensional frame of reference. One dimension is composed of college versus university status: with emphasis on undergraduate and/or beginning graduate instruction with little attention to research versus an emphasis upon advanced graduate and professional instruction with additional major attention to research and, in some institutions, to high-level public service. The second dimension is applied or practical orientation versus a theoretical orientation. Institutions having the former characteristics tend to emphasize preparation for terminal occupations and applied research, and service involving solutions to immediate problems. Institutions characterized by a theoretical frame of reference tend to emphasize the basic liberal arts subjects and basic research with less attention to practical application. Institutions occupying the middle of this continuum can be characterized as comprehensive, because of their emphasis on both theory and application, but few can maintain such a balance.

This frame of reference can be used to classify and describe four models of SCU's: (1) The small single-purpose college with a very specialized program of courses; (2) The teachers college with applied collegiate-level programs oriented toward preparing a variety of teachers; (3) The modern state college which is a more comprehensive institution, though

still somewhat applied and practical, but oriented toward a pluralism of occupations with some additional emphasis on master's degree graduate instruction; (4) The "regional state university" which is a university-level institution with broad undergraduate function; focused at the graduate level, toward preparation for specific existing or developing professions, toward applied research and development, and to regional public service of a rather practical nature.

On the comprehensive axis of the suggested model, AASCU institutions would move from (1) single-purpose institutions such as the maritime schools, through (2) the institutions which offer only the undergraduate degree programs, to (3) institutions offering the master's degree and the intermediate specialist degree, and finally (4) to institutions offering a differentiated doctoral program which would prepare personnel for applied professional fields, including undergraduate teaching in their fellow institutions as well as community colleges, liberal arts colleges, their counterpart institutions and undergraduate arts colleges of the research institute or federal grant universities.

On the other axis ranging from highly theoretical to highly practical each institution should offer some highly theoretical training to students who should work in the arts and sciences as a part of the work for the college degree. Hopefully, the creative and experimental institution would provide, through appropriate limited faculty review, for the tryout on an experimental basis of a wide variety of potential curricula as needed to meet the changing needs of the society. At the present time, it should be possible for these highly theoretical courses to be made more real to our students by allowing them to be involved in field work and actual contemporary situations. Ethnic studies and international studies of all types, preparation for work in the applied health professions, and other helping services should grow out of the liberal arts and sciences with some attention to their connection with the needs of our society. Revolutionary ideas regarding course development, evaluation of student learning and faculty-student use of technological means of learning should be tried and carefully tested in undergraduate instruction.

SUGGESTED NEW DOCTORAL PROGRAMS

One hundred years ago, American society needed and provided funds for an additional type of higher education institution, modeled after the German universities. This followed by almost forty years the American development of another German institution, the normal school. Now, one hundred and forty years later, the demand for college teachers and for doctoral degrees in applied fields makes it essential that another new institution be developed. However, in place of using a model from another country, the United States must develop its own model for its own needs. The regional state universities could emphasize doctoral programs based on the application of knowledge, service research, and relevant, contemporary curricular and service approaches to the region surrounding it. The enormous numbers of future graduate students make it feasible financially and the differentiation could commend such a program to state coordinating boards.

The practice of offering a variety of doctoral degrees in the United States is of long standing. For example, the Harvard graduate department, first established in 1872, offered two different doctoral degrees. A recent review (1968) of earned doctoral degrees offered by 165 major colleges and universities (excluding law, theology, medicine, and dentistry) revealed the following patterns. The institutions offered 19 differing doctoral degree programs, and many of the largest and most prestigious established graduate schools offered multiple degrees. The University of Indiana offered eight different degrees; Harvard University and the University of California at Berkeley offered seven. Columbia University and the University of Southern California offered six. Sixteen universities offered four or five doctorates including Yale, Johns Hopkins, and Michigan from the original members of the Association of American Universities. The most frequently offered degrees aside from the Ph.D. were D.Sc (11); D.M.A. (18); D.B.A. (15); Ed.D (87); D.Engr. (7); D.P.H. (10); and D.S.W. (7). The D.F.A. is offered by Yale and the D.S.Sc. by Syracuse University.

A variety of proposals have been made for expanding the earned doctoral degrees to include an all-encompassing degree in the arts and sciences field, called the Doctor of Arts. This degree would be designed for undergraduate teaching, emphasizing subject matter, and preparation for undergraduate teaching. The Doctor of Philosophy degree would be offered as a research degree with a dissertation contributing new knowledge. Students earning the Doctor of Philosophy degree would be planning primarily to work in industrial research institutes or councils, government research service or in research and doctoral training in those universities operating research institutes.

Another plan somewhat broader than the Doctor of Arts degree proposes that the following doctoral programs be offered for those students who are primarily interested in applying their knowledge in a variety of ways, through government service, through geographic work or through teaching in colleges and possibly also in universities. In the graduate fields of arts and sciences four degrees would be offered:

1. The Doctor of Science degree (D.Sc.) for many science fields.

2. The Doctor of Social Science degree (D.S.S.) for all social science fields.

3. The Doctor of Fine Arts degree (D.F.A.) for the fine arts fields.

4. The Doctor of Humanities degree (D.Hum.) in literature, philosophy, languages, and possibly history.

The Doctor of Science degree is now offered by at least eleven institutions including Harvard, George Washington University, the University of Cincinnati, Tulane University, the University of Virginia, Washington University at St. Louis, the Johns Hopkins University, the Massachusetts Institute of Technology, the University of Pittsburgh, the University of Arkansas and New Mexico State University. The Doctor of Fine Arts degree is currently offered at Yale University and is under study at others. The Doctor of Social Science degree program has been offered for a quarter of

a century at Syracuse University by its Maxwell School of Citizenship and Public Affairs and has produced many distinguished graduates. The Doctor of Humanities degree is now awarded as one of a number of honorary degrees in this important area of knowledge. As with many others, it could become established as an earned degree, thus giving the faculty members in the fields of the humanities their own doctorate.

In addition to the four doctoral degrees in the arts and sciences, the professional schools of business, engineering, public health, public administration, forestry, education, social work, and all the rest, would continue to provide doctoral programs in specialized fields for those persons who wished to apply their knowledge in whatever way may be most appropriate. The Ph.D. would be available for those students who wish to make a contribution to knowledge and after graduation to carry on extensive research activity in these fields.

Certain students who complete the Ph.D. with an emphasis in research activity may actually become college teachers. Certain persons taking doctoral degrees with the intent to apply the field may end up doing research work. However, the opportunity to choose for doctoral programs with differing emphases should be available in, and is particularly feasible in the developing regional state university.

CONCLUSION

Forecasts of the colleges and universities of the future envision enormous changes in the next decade. If present projections are realized the average enrollment of our current state colleges will approach 6,000-8,000 students by 1975 and our current regional state universities will average 16,000 students. Some of them may reach 35,000 students. It is clear that at least five different models are necessary to describe the developing state colleges and universities. They are adaptable to the needs of our society and must in the long run be major contributors to the welfare of our nation and democracy in the world as we know it.

John Caffrey's careful analysis of the future academic community provided a rather thorough evaluation of those events which are most probable and most desirable within the next few years. He found that four items were considered in the top ten in probability and the top ten in desirability.

1. The great majority of high school graduates will take at least two years of instruction after high school.

2. Undergraduate curricula will undergo major revision along multi-disciplinary lines.

3. In most undergraduate curricula, the number of required courses will have declined to permit more electives and individualized programs.

4. Significantly more federal and state funds will go directly to students, as scholarships or loans. (Caffrey, 1968, pp. 132, 134)

One other item was marked in the top ten in probability although it was ranked in the bottom ten in desirability. This is the fact that the proportion of students enrolled in private institutions of higher education will decline at an even faster rate.

On the basis of these findings, it is obvious that public higher education will have to make significant changes in undergraduate curricula and it is estimated that it will probably do so. To make these changes the institutions must include faculty, students and administration on cooperative committees designed for experimentation and innovation. In addition public institutions will need optimum autonomy within the structure of the state coordinating for higher education. Freedom to expend funds in the most flexible way will contribute dramatically to the ability of the professional schools and the undergraduate colleges to adapt to changing needs and to changing discoveries.

Finally, the professional colleges and schools must build bridges into the communities which they serve. A significant proportion of the SCU's are in the middle of urban areas which are experiencing the most difficult social problems faced by the United States in its history. These institutions can make a major contribution through direct service programs and intern programs in the central cities. In place of studying about urban planning the students can learn the real problems and goals of urban planning and how to achieve them.

On September 18, 1936, Abbot Lawrence Lowell adjourned the meeting of the Harvard tercentenary until September 18,2036 with the following words:

> "If I read history aright, human institutions have rarely been killed while they retain vitality. They commit suicide or die from lack of vigor, and then the adversary comes and buries them. So long as an institution is conducive to human welfare, so long as the university gives to youth strong active methods of life, so long as its scholarship does not degenerate into pedantry, nothing can prevent its going on to greater prosperity."

The developing state colleges and universities of the United States have a rare opportunity in the next decade to go on to "greater prosperity" providing they are "conducive to human welfare," aware of and responsive to the needs of the society and giving to our youth the "strong, active methods of life."

BIBLIOGRAPHY

A. General

Allen, Harry Kenneth, and Axt, Richard G. Public Finance and State Institutions of Higher Education in the United States. New York: Columbia University Press, 1952.

A Manual on Certification Requirements for School Personnel in the United States. Washington, D.C.: National Education Association, 1967.

American Association of Colleges for Teacher Education. Directory/1967: Officers, Committees, and Members. Washington, D.C.: American Association of Colleges for Teacher Education, 1967.

*_____. Teacher Productivity--1966-____. Washington, D.C.: American Association of Colleges for Teacher Education, 1967- .

*American Association of Teachers Colleges. Yearbook, 1922.

American Council on Education. Accredited Institutions of Higher Education, September 1966. Washington: American Council on Education, 1966.

*Andersen, Charles J. A Fact Book on Higher Education. 1st issue. "Enrollment Data." Washington, D.C.: American Council on Education, 1968.

_____. A Fact Book on Higher Education. 3rd issue. "Earned Degrees." Washington, D.C.: American Council on Education, 1967.

Association of State Colleges and Universities. State Colleges and Universities Look to the Future; Proceedings of the Fifth Annual Meeting, Chicago, Illinois, 1966. Washington, D.C.: Association of State Colleges and Universities, 1966.

_____. New Opportunities for State Colleges and Universities in Federal Programs; Proceedings of the Sixth Annual Meeting, Washington, D.C., 1966. Washington, D.C.: Association of State Colleges and Universities, 1967.

_____. Proceedings of the Seventh Annual Meeting, Columbus, Ohio, 1967. Washington, D.C.: Association of State Colleges and Universities, 1968.

_____. Research Report 1. [Washington] Association of State Colleges and Universities, 1962.

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*Documents cited in the text

Barnard, Frederick A.P. Letters on College Government, the Evils Inseparable from the American College System. New York: D. Appleton, 1855.

Blauch, Lloyd E., ed. Education for the Professions. Washington, D.C.: Government Printing Office, 1955. Reprint. Ann Arbor, Michigan: University Microfilms.

* Bobren, Howard. "Preliminary Tabulations." Mimeographed. Berkeley, California: Carnegie Commission on the Future of Higher Education, 1968.

* Borrowman, Merle L. Teacher Education in America. New York: Teachers College Press, 1965.

* Caffrey, John. "The Future Academic Community." In The Future Academic Community: Continuity and Change. Washington, D.C.: American Council on Education, 1968.

Chandler, Marjorie O. Earned Degrees Conferred: 1966-67. Part A--Summary Data. Washington, D.C.: Government Printing Office, 1968.

* Corson, J. "Public Service and Higher Education: Compatibility or Conflict." In Whose Goals for American Higher Education, edited by Logan Wilson. Washington, D.C.: American Council on Education, 1963.

Eurich, Alvin C., ed. Campus 1980. New York: Delacorte Press, 1968.

Grant, W. Vance and Simon, Kenneth A. Digest of Educational Statistics. Washington, D.C.: U.S. Office of Education, 1967.

Hall, Samuel Read. Lectures to Female Teachers on School-Keeping. 1832. Reprint. Ann Arbor, Michigan: University Microfilms.

Harcleroad, Fred F., and Kilmartin, Alfred D. International Education in the Developing State Colleges and Universities. Washington, D.C.: Association of State Colleges and Universities, 1966.

* Harper, Charles Athiel. A Century of Public Teacher Education; The Story of the State Teachers Colleges as They Evolved from the Normal Schools, Told by Charles A. Harper. 1939. Reprint. Ann Arbor, Michigan: University Microfilms.

Hofstadter, Richard. Academic Freedom in the Age of the College. New York: Columbia University Press, 1961.

_____ and Hardy, C. DeWitt. The Development and Scope of Higher Education in the United States. New York: Columbia University Press, 1952.

Hofstadter, Richard and Smith, Wilson, eds. American Higher Education; A Documentary History. 2 vols. Chicago: University of Chicago Press, 1961.

Hoyt, Charles Oliver. and Ford, R. Clyde. John D. Pierce, Founder of the Michigan School System; A Study of Education in the Northwest. 1905. Reprint. Ann Arbor, Michigan: University Microfilms.

Hyde, Harold. "Survey of Effects of Centralized Controls on ASCU Members," reported in ASCU Studies No. 4. Washington, D.C.: Association of State Colleges and Universities, 1965.

*Irwin, Mary, ed. American Universities and Colleges. 6th ed. Washington, D.C.: American Council on Education, 1952.

_____. American Universities and Colleges. 7th ed. Washington, D.C.: American Council on Education, 1956.

Jencks, Christopher and Riesman, David. The Academic Revolution. Garden City, New York: Doubleday & Co., 1968.

Knight, Edgar Wallace. The Influence of Reconstruction on Education in the South. 1913. Reprint. Ann Arbor, Michigan: University Microfilms.

*Livesey, Herbert B. and Robbins, Gene A. Guide to American Graduate Schools. New York: Viking Press, 1967.

*McConnell, T.R. A General Pattern for American Public Higher Education. New York: McGraw-Hill Book Co., 1962.

_____. "State Systems of Higher Education," In Universal Higher Education, edited by E.J. McGrath. New York: McGraw-Hill Book Co., 1966.

McKeefery, William J. "The Shape of the Emerging University." Paper read at Presidents' and Deans' Workshop as a part of the Annual Meeting of the North Central Association, April 3, 1967. Mimeographed.

*McQuery, Elton K. and Reeves, Floyd W. Higher Education in the Forty-Eight States. Chicago: The Council of State Governments, 1952.

*Martin, Robert R. "Technical Education: Less-Than-Baccalaureate Level Programs in Higher Education." Mimeographed. Richmond, Kentucky: Eastern Kentucky University, 1968.

Maucker, J.W. "Aligning Priorities in State Colleges and Medium Sized Universities." In Current Issues in Higher Education, edited by G. K. Smith. Washington, D.C.: Association for Higher Education, 1965.

*Memo to the President from the American Association of State Colleges and Universities. 8, no. 13 (September 10, 1968).

* National Science Foundation for the Office of Science and Technology. Federal Support for Academic Science and Other Educational Activities in Universities and Colleges, Fiscal Years 1963-1966. Washington, D.C.: Government Printing Office, 1967.

* Oliver, Kenneth D., Jr., and Miller, Kathryn J. Organizational Patterns of Certain Colleges and Universities in the United States Enrolling 5,000-10,000 Students. Springfield, Missouri: Southwest Missouri State College, 1966.

Ostheimer, Richard H. A Statistical Analysis of the Organization of Higher Education in the United States, 1948-1949. 1951. Reprint. Ann Arbor, Michigan: University Microfilms.

* Pangburn, Jessie M. The Evolution of the American Teachers College. Teachers College, Columbia University Contributions to Education, No. 500. New York: Bureau of Publications, Teachers College, Columbia University, 1932.

Partridge, Arthur Ray. "The Rise of the University School of Education as a Professional Institution." Ed.D. dissertation, Stanford University, 1957. Ann Arbor, Michigan: University Microfilms.

* President's Commission on Higher Education. Higher Education for American Democracy. vols. 1 and 6. Washington, D.C.: Government Printing Office, 1948.

* Rice, David. "Participation in Selected Federal Programs by Institutions of the Association of State Colleges and Universities Fiscal Year 1961," reported in ASCU Studies No. 2. Washington, D.C.: Association of State Colleges and Universities, 1963.

* _____. "Successful Participation in Selected Federal Programs by Institutions of the Association of State Colleges and Universities Fiscal Year 1963," reported in ASCU Studies No. 3. Washington, D.C.: Association of State Colleges and Universities, 1964.

Rudolph, Frederick. The American College and University; A History. New York: Random House, Vintage Books, 1962.

* Simon, Kenneth A., and Grant, W. Vance. Digest of Educational Statistics, 1968 edition. Washington: Government Printing Office, 1968.

* Singletary, Otis A., ed. American Universities and Colleges. 10th ed. Washington, D.C.: American Council on Education, 1968.

Smith, Leo F., and Lipsett, Laurence. The Technical Institute. 1956. Reprint. Ann Arbor, Michigan: University Microfilms.

Smith, Joe. Challenge to Change--The State Colleges and Universities in a Time of Expanding Responsibilities; A Position Statement. Washington, D.C.: Association of State Colleges and Universities, 1965.

Tewksbury, Donald G. The Founding of American Colleges and Universities Before the Civil War, with Particular Reference to the Religious Influence Bearing Upon the College Movement. 1932. Reprint. Ann Arbor, Michigan: University Microfilms.

* U.S. Office of Education, Commissioner of Education. Annual Report. Washington, D.C.: Government Printing Office, 1870- .

* _____. The Biennial Survey of Education in the United States. Washington, D.C.: Government Printing Office, 1916/18- .

* _____. Education Directory, 1965-1966--Part 3: Higher Education. Washington, D.C.: Government Printing Office, 1967.

* _____. Projections of Educational Statistics to 1976-77. 1967 ed. Washington, D.C.: Government Printing Office, 1968.

Veysey, Laurence R. The Emergence of the American University. Chicago: University of Chicago Press, 1965.

Wahlquist, John T., and Thornton, James W., Jr. State Colleges and Universities. New York: Center for Applied Research in Education, 1965.

* Williams, Robert L. Legal Bases of Coordinating Boards of Higher Education in Thirty-Nine States. Chicago: The Council of State Governments, 1967.

* _____. Supplement to Legal Bases of Coordinating Boards of Higher Education in Thirty-Nine States. Chicago: The Council of State Governments, 1968.

Zimmer, Brother Agatho. Changing Concepts of Higher Education in America Since 1700. 1938. Reprint. Ann Arbor, Michigan: University Microfilms.

B. State and Institutional Histories

A Committee of the Alumni of the State Teachers College at Towson, Maryland. Seventy-Five Years of Teacher Education. Towson, Maryland: The Alumni Association, 1941.

Adams, Herbert Baxter. Thomas Jefferson and the University of Virginia. U.S. Bureau of Education. Circular of Information, 1, 1888. Washington, D.C.: Government Printing Office, 1888. Reprint. Ann Arbor, Michigan: University Microfilsm.

Angell, James Burrill. From Vermont to Michigan; Correspondence of James Burrill Angell: 1869-1871. With a foreward by his son, James Rowland Angell Edited by Wilfred B. Shaw. 1936. Reprint. Ann Arbor, Michigan: University Microfilms.

"Appalachian State Teachers College." Public Colleges of North Carolina, vol. 1, no. 1 Raleigh: North Carolina Board of Higher Education, 1964.

"A Presidential Report, 1955-1965: A Decade in Review." College Heights Bulletin, 32, no. 4 Bowling Green: Western Kentucky State College, 1965.

'A Short History of Western Washington State College." Mimeographed. [Bellingham, Washington]

A Study of the Need for Additional Centers of Public Higher Education in California. Prepared for the Liaison Committee of the California State Board of Education and the Regents of the University of California. Sacramento: California State Department of Education, 1957.

Bawden, William T. A History of the Kansas State Teachers College of Pittsburgh, 1903-1941. Pittsburgh, Kansas: Kansas State Teachers College, 1952.

Belsheim, Thomas Osbourne. The Story of Dickinson State; A History of Dickirson State College 1918-1968. Dickinson, North Dakota: Dickinson State College, 1968.

Boyden, Arthur Charles. The History of Bridgewater Normal School. 1933. Reprint. Ann Arbor, Michigan: University Microfilms. [Bridgewater State College, Bridgewater, Massachusetts]

Branom, Mendel E. "One Hundred Years of Teacher Education in the St. Louis Public School System, Part 1: The St. Louis Normal School, 1857-1904." Saint Louis Public School Journal, Research and Survey Series No. 20, vol. 11, no. 1. St. Louis: St. Louis Public Schools, 1958.

Brush, Carey W. In Honor and Good Faith: A History of the State University College at Oneonta, New York. Oneonta: State University Teachers College, 1965.

Burgess, John W. Reminiscences of an American Scholar: The Beginnings of Columbia University. 1934. Reprint. New York: AMS Press, 1966.

California. Joint Committee on Higher Education. The Academic State; A Progress Report to the Legislature on Tuition and Other Matters Pertaining to Higher Education in California. 1968.

*California State Department of Education. A Restudy of the Needs of California in Higher Education. Sacramento, California: State Department of Education, 1955.

California. University. Office of University Relations. A Brief History of the University of California. Berkeley: University of California, 1966.

Carter, Albert F. Forty Years of Colorado State Teachers College, Formerly the State Normal School of Colorado, 1890-1930. Colorado Teachers College Education Series, No. 11. Greeley: Colorado State Teachers College, 1930.

Cates, Edwin H. A Centennial History of St. Cloud State College. Minneapolis: Dillon Press, 1968.

Coffelt, John J. The Status and Direction of Oklahoma Higher Education. Oklahoma City: The Oklahoma State Regents for Higher Education, 1968.

Coleman, Charles H. "Eastern Illinois State College; Fifty Years of Public Service." Eastern Illinois State College Bulletin, No. 189 (1950)

Cooper, Frank A. The Plattsburgh Idea in Education, 1889-1964. Plattsburgh, New York: Plattsburgh College Benevolent and Educational Association, 1964. [State University of New York, College at Plattsburgh]

*Cope, Quill E. "A Ten Year Report 1958-1968, Middle Tennessee State University." Mimeographed. Murfreesboro, Tennessee: Middle Tennessee State University, 1968.

Cornette, James P. "A History of the Western Kentucky State Teachers College." Teachers College Heights, XIX, no. 1.

Curti, Merle, and Christensen, Vernon. University of Wisconsin: A History, 1848-1925. 2 vols. Madison: University of Wisconsin Press, 1949.

Dansby, B. Baldwin. A Brief History of Jackson College; A Typical Story of the Survival of Education Among Negroes in the South. Jackson, Mississippi: Jackson College, 1953.

Detroit Institute of Technology. . .Today, Tomorrow, and in the Generation Ahead; A Report to the President and the Board of Trustees of the Institute. New York: Academy for Educational Development, 1968.

Dew, Lee A. The ASU Story; A History of Arkansas State University, 1909-1967. Jonesboro: Arkansas State University Press, 1968.

Dingledine, Raymond C. Madison College; The First Fifty Years, 1908-1958. Harrisonburg, Virginia: Madison College, 1959.

"Draft of Academy History." Duplicated. Buzzards Bay, Massachusetts: Massachusetts Maritime Academy.

Education in North Carolina Today and Tomorrow; The Report of the State Education Commission. Raleigh: The United Forces for Education, 1948.

"Faculty Publications, 1968-1969." Appalachian State University Bulletin. Boone, North Carolina: Appalachian State University.

Falk, Charles J. The Development and Organization of Education in California. New York: Harcourt, Brace & World, 1968.

Farmerie, Samuel A. Clarion State College; A Centennial History. Clarion, Pennsylvania: The Alumni Association, 1968.

Farrand, Elizabeth M. History of the University of Michigan. Ann Arbor: Register Publishing House, 1885.

"Five Decades of Progress; Eastern Kentucky State College, 1906-1957." Eastern Kentucky Review, XLVII, no. 5 (1957) Richmond, Kentucky: Eastern Kentucky State College, 1957.

Fleming, Donald. Science and Technology in Providence, 1760-1914; An Essay in the History of Brown University in the Metropolitan Community. Providence, Rnode Island: Brown University, 1952.

Florida Atlantic University. Bulletin, 1967-1968, 3, no. 1. Boca Raton: Flordia Atlantic University, 1967.

*Fowler, Herbert E. A Century of Teacher Education in Connecticut; The Story of the New Britain State Normal School and the Teachers College of Connecticut, 1849-1949. New Britain: The Teachers College of Connecticut, 1949.

Gamble, Richard D. From Academy to University, 1866-1966; A History of Wisconsin State University, Platteville, Wisconsin. Platteville: Wisconsin State University, 1966.

Gannon, Robert I. Up to the Present: The Story of Fordham. New York: Doubleday and Co., 1967.

Gilbert, Benjamin Franklin. Pioneers for One Hundred Years; San Jose State College, 1857-1957. San Jose: San Jose State College, 1957.

Graver, Lee. "Beacon on the Hill; A Centennial History of Kutztown State College." The Kutztown Bulletin, 99, no. 1, 1966. [Kutztown, Pennsylvania]

Hanawalt, Leslie L. A Place of Light; The History of Wayne State University, a Centennial Publication. Detroit: Wayne State University Press, 1968.

Harris Teachers College. General Catalog, 1968-1969. St. Louis, Harris Teachers College.

"Harris Teachers College, St. Louis Public Schools, 1857-1966." Mimeographed. St. Louis: Harris Teachers College.

* Hart, Irving H. The First 75 Years; A History of Ideas Fundamental to the Development of the Iowa State Normal School (1876-1909) and the Iowa State Teachers College (1909-1951) Cedar Falls: Iowa State Teachers College, 1951. [University of Northern Iowa]

Hartman, William Frederick. "The History of Colorado State College of Education--The Normal School Period--1890-1911; Field Study No. 1." Ed.D. dissertation, Colorado State College of Education, 1951.

_____. "The History of Colorado State College of Education--The Teachers College Period--191101935; Field Study No. 2." Ed.D. dissertation, Colorado State College of Education, 1952.

Hawk, Grace E. Pembroke College in Brown University; The First Seventy-Five Years, 1891-1966. Providence: Brown University Press, 1967.

Hickey, Philip J. "Highlights of One Hundred Years of Teacher Education in the St. Louis Public Schools, 1857-1957." An Address delivered by Philip J. Hickey at the January 24, 1957, Commencement Exercises of Harris Teachers College.

Hoeglund, Harold A. History of Pueblo College, Pueblo, Colorado, 1953-1963.

Hubley, John E. Fountainhead of Good Teachers; A History of the First Ninety Years of Shippensburg State College. Shippensburg, Pennsylvania: News-Chronicle Publishing Co., 1964.

Johns Hopkins University. Celebration of the Twenty-Fifth Anniversary. Baltimore: Johns Hopkins University, 1902.

Kennedy, Gail, ed. Education at Amherst; The New Program. 1955. Reprint. Ann Arbor, Michigan: University Microfilms. [Amherst College, Amherst, Massachusetts]

* Learned, William S., Bagley, William C., McMurry, Charles A., Strayer, George D., Dearborn, Walter F., Kandel, Issac L., and Josselyn, Homer W., The Professional Preparation of Teachers for American Public Schools; A Study Based Upon an Examination of Tax-Supported Normal Schools in the State of Missouri. New York: Carnegie Foundation for the Advancement of Teaching, 1920.

Lentz, Harold H. A History of Wittenberg College (1845-1945). Springfield, Ohio: Wittenberg Press, 1946.

Lynch, William O. A History of Indiana State Teachers College (Indiana State Normal School, 1870-1929). Terre Haute: Indiana State Teachers College, 1946.

McAdow, Beryl. From Crested Peaks; The Story of Adams State College of Colorado. Denver: Big Mountain Press, 1961.

* Mangun, Vernon Lamar. The American Normal School, Its Rise and Development in Massachusetts. 1928. Reprint. Ann Arbor, Michigan: University Microfilms.

* Mann, Aubrey Eugene. "The History and Development of Eastern New Mexico University." Ed.D. dissertation, Colorado State College, 1959. Ann Arbor, Michigan: University Microfilms.

Mansfield Alumni-College Pictorial Bulletin; Centennial Issue, 1857-1957. [Mansfield State College, Mansfield, Pennsylvania]

* Meader, James Laurence. Normal School Education in Connecticut. 1928. Reprint. Ann Arbor, Michigan: University Microfilms.

Meriwether, Colyer. History of Higher Education in South Carolina with a Sketch of the Free School System. U.S. Bureau of Education, Circular of Information, No. 3, 1888. Reprint. Ann Arbor, Michigan: University Microfilms.

Mohler, Samuel R. The First Seventy-Five Years; A History of Central Washington State College, 1891-1966. Ellensberg: Central Washington State College, 1967.

Moore, D.E. The History of Sacramento State College (1947-1967); 20 Years of Higher Education. 2nd edition revised. Sacramento. Associated Students of Sacramento State College, 1967.

Morison, Samuel Eliot. Three Centuries of Harvard, 1636-1936. Cambridge: Harvard University Press, 1936.

Neyland, Leedell W., and Riley, John W. The History of Florida Agricultural and Mechanical University. Gainesville: University of Florida Press, 1963.

Overman, James Robert. The History of Bowling Green State University. Bowling Green, Ohio: Bowling Green University Press, 1967.

Peirce, Cyrus. The First State Normal School in America; the Journals of Cyrus Peirce and Mary Swift. 1926. Reprint. Ann Arbor, Michigan: University Microfilms. [Framingham State College, Framingham, Massachusetts]

Pierson, George W. Yale College: An Educational History, 1871-1921. New Haven: Yale University Press, 1952.

_____. The University College, 1921-1937. New Haven: Yale University Press, 1955. [Yale University, New Haven, Connecticut]

Pittard, Homer. The First Fifty Years. Murfreesboro, Tennessee: Middle Tennessee State College, 1961.

Report of the Master Plan Committee to the Illinois Board of Higher Education. Governing Structure. Springfield, Illinois: Illinois Board of Higher Education, 1966.

Report to the Board of Regents for the Biennium Ending June 30, 1968. [University of West Florida, Pensacola, Florida]

Rogers, Dorothy. Oswego: Fountainhead of Teacher Education; A Century in the Sheldon Tradition. New York: Appleton-Century-Crofts, 1961. [State University of New York--College at Oswego]

Rose, Harry Eugene. "The Historical Development of a State College: Morehead Kentucky State College, 1887-1964." Ed.D. dissertation, University of Cincinnati, 1965. Ann Arbor, Michigan: University Microfilms.

Shaw, Wilfred B. A Short History of the University of Michigan. Ann Arbor: George Wahr, 1937.

Slonaker, Arthur Gordon. A History of Shepherd College, Shepherdstown, West Virginia. Parsons: Shepherd College Foundation, 1958.

Smith, Morris Eugene. "A History of California State Polytechnic College; The First Fifty Years, 1901-1951" Ed.D. dissertation, University of Oregon, 1958. Ann Arbor, Michigan: University Microfilms.

Specht, Ellen L. History of the Wisconsin State University at Stevens Point. Stevens Point: The Alumni Association, 1969.

Towson State College. Centennial. [Bulletin] Baltimore: Towson State College [1966]

University of Michigan 1837-1887. The Semi-Centennial Celebration of the Organization of the University of Michigan, June 26-30, 1887. Ann Arbor: University of Michigan, 1888.

"University of West Florida." Biennial Report, 1964-66: 141-146.

Vasche, J. Burton. "The California State Colleges: Their History, Organization, Purposes, and Programs." California Schools, XXX, no. 1 (1959): 1-23.

White, Glenn. The Ball State Story; From Normal Institute to University. Muncie: Ball State University, 1967.

*White, Kenneth B. Paterson State College; A History, 1855-1966. Wayne, New Jersey: Student Cooperative Association of Paterson State College, 1967.

Wooster, Lyman Dwight. Fort Hays Kansas State College: An Historical Story. Fort Hays: Fort Hays Kansas State College, 1961.

Wright, David Sands. Fifty Years at the Teachers College; Historical and Personal Reminiscences. Illustrated Souvenir edition, 1876-1926. Cedar Falls: Iowa State Teachers College, 1926.

*Wyman, Walker D., ed. History of the Wisconsin State Universities. River Falls: River Falls State University Press, 1968.

ADDENDUM

PROFILES OF SELECTED COLLEGES AND UNIVERSITIES

Introduction

Apparent trends in the statistical data were double checked during 14 site visits by the investigations to selected institutions. The list of visited institutions included the following:

1. Ball State University, Muncie, Indiana
2. California State College at Long Beach, Long Beach, California
3. Colorado State College, Greeley, Colorado
4. Eastern Kentucky University, Richmond, Kentucky
5. Eastern Montana State College, Billings, Montana
6. East Texas State University, Commerce, Texas
7. Lowell State College, Lowell, Massachusetts
8. North Carolina College, Durham, North Carolina
9. Sacramento State College, Sacramento, California
10. San Diego State College, San Diego, California
11. Southern Connecticut State College, New Haven, Connecticut
12. University of Northern Iowa, Cedar Falls, Iowa
13. Western Washington State College, Bellingham, Washington
14. West Georgia College, Carrollton, Georgia.

The selected institutions provide illustrative materials from (1) the various regions of the United States; (2) institutions with a variety of historical background and age; and (3) institutions with wide variations in size. In addition, these institutions provide a representative sample of the variety of institutions within the membership of the American Assocaition of State Colleges and Universities.

With regard to size, they run from relatively small to the largest institutions in the Association. The Massachusetts State College at Lowell, Massachusetts is the smallest of the group, less than 2,500 students. Three institutions range between 2,500 and 5,000 students, namely, Eastern Montana State College, North Carolina College, and West Georgia College. Two institutions have between 5,000 and 7,500 students, Western Washington State College and Southern Connecticut State College. Three institutions have between 7,500 students and 10,000 students, the University of Northern Iowa, the Eastern Kentucky University, and East Texas State University. Two institutions have over 10,000 students and less than 15,000 students, Ball State University and Sacramento State College. Two California institutions have over 15,000 students, California State College at Long Beach and San Diego State College. The sample provides

examples of colleges at almost all of the sizes apparent in current studies of size of AASCU institutions. Since the study concentrates somewhat on developmental trends and characteristics, it analyzed more institutions having over 5,000 students than those having below 5,000.

The sample also provides information about institutions with a variety of backgrounds and ages. The North Carolina College originated as a private college with religious and liberal arts emphases. This has affected its program as it became a public state normal school in 1923, and in 1925 a liberal arts college with teacher education emphasis primarily for Negro students. West Georgia College provides an example of a junior college which expanded in 1939 to offer a three-year program for elementary teachers and in 1957 became a four-year institution providing a degree program for students planning to enter elementary education. Ball State University and East Texas State University illustrate those private colleges which became public normal schools, then public teachers colleges, public state colleges, and finally, public state universities. The largest group of institutions illustrates the most common pattern, namely, establishment as a public normal school and teachers college followed by growth into state college or state university status. These institutions are Colorado State College, Eastern Montana State College, Eastern Kentucky University, University of Northern Iowa, San Diego State College, Southern Connecticut State College, Western Washington State College, and Massachusetts State College at Lowell, Massachusetts. Finally, two California institutions illustrate the development of very recently established institutions. Sacramento State College, founded in 1947, started as an upper-division and graduate institution and later added the lower division. Finally California State College at Long Beach started in 1949 as a four-year and graduate institution.

The 14 colleges and universities represent each area of the United States as well. In the Northeast, the Massachusetts State College at Lowell is a product of the second wave of normal schools in the last part of the nineteenth century. The border states are represented by Eastern Kentucky University. The South is represented by colleges in North Carolina and Georgia. The Midwest is represented by colleges from Iowa and Indiana. The Southwest has a Texas representative. The Rocky Mountains have two representatives, Eastern Montana State College from the northern tier of states, and from the Central Rockies, Colorado State College. The Northwest is represented by a college from the state of Washington and three varied California State Colleges represent that section of the United States.

The visits followed essentially the same form in each case. A specific attempt was made to talk in small group or individual sessions with members of the student body, members of the faculty and with members of the administration. The composition of the student groups varied from college to college although, in almost all cases, they were considered representative of the student bodies as described by faculty and administrative officers. Most of the faculty members were active members of the

faculty government or influential in faculty decision-making processes. Key members of the administration were interviewed in all cases and in most cases the President and Academic Dean were a part of the group.

The interviews with each different person or group were conducted on a structured basis and a record was kept on a structured questionaire either during the interview or immediately thereafter.

The interviewers attempted to secure answers to a sequential group of questions including some of the following key items:

1. For what purpose or purposes was the institution founded?
2. What are the primary and secondary functions of the institution at present?
3. What factors led to the founding of the institution, to its particular location and its basic purpose?
4. Have there been major changes in the function of the institution since its founding, including the factors or forces which led to each change, and specific changes in programs, degrees, enrollment characteristics of students, characteristics of faculty, organizational structure, relationship with state boards and/or other institutions and shifts in emphasis in functions such as service or research?
5. What major problems were associated with these changes in functions and institutional characteristics?

Each person interviewed was requested to evaluate the success of the institution in carrying out its present functions and to attempt to describe any changes in these functions which could be foreseen for 1970, 1975, and 1980. They were also asked to estimate how present programs would grow in the next five to 15 years and which educational programs would be established at the institution by 1970-1975-1980. A variety of other questions were asked regarding (1) the need for new resources to carry out proposed changes, (2) problems in the fulfillment of present functions if new areas are developed, and (3) the staff of each institution's conception of its own mission. Problems associated with organizational forms including patterns of state coordination and organization were also asked about.

An attempt was made to secure data on the number of teacher credentials granted by or on recommendation of the institution and to secure historical records with which to evaluate growth and change in this function. In most cases, it was possible to secure estimates from the various campus groups. Particular attention was placed on the percentage of the total enrollment which was considered to be in teacher credential programs and any specialization which the particular institution may have had assigned to it for specialized teachers. When no exact data were available an attempt was made to see whether the faculty, administration and students had different feelings about the proportion of teacher education credential candidates in the make-up of the student body.

The following profiles of three different institutions from the Mid-

west, Rocky Mountains, and Far West present in capsule form samples of the data available to the investigators through the site visits to the different campuses. Interestingly enough, the two colleges offer th doctorate and the university does not. Two, and possibly all three of them would be classified as regional state universities.

UNIVERSITY OF NORTHERN IOWA

Cedar Falls, Iowa

1876-1969

The University of Northern Iowa, located in Cedar Falls, Iowa, in 1968 had a student body over 8,000 in number, a faculty of approximately 500 and a campus of 550 acres with 30 principle buildings. The University began in 1876 on a forty acre plot of land donated by the 3,500 citizens of Cedar Falls. The one building into which it moved at that time had been built in the late 1860's to serve as an orphans' home for children of soldiers killed in the Civil War. As the orphans grew to adulthood, the building became available for public use and served as the main trigger for the location for the new normal school in the present location.

Iowa joined the Union as a full-fledged state in 1846. Normal schools had been started in the state in 1849, but none had been successful until the establishment of the Iowa State Normal School in the soldiers' orphans home in Cedar Falls. Growth was slow but steady. A new building was needed in 1882 and funds were provided by the Legislature. Since they were inadequate, the faculty and the people at Cedar Falls raised the additional amount necessary to build the building, $5,000. A four-year college curriculum was approved in 1904 and five years later, in 1909, the institution was re-named the Iowa State Teachers College.

In 1961, the Iowa State Teachers College became the State College of Iowa and the bachelor of arts degree without certification to teach became available. Finally, in 1967, the institution was re-named the University of Northern Iowa with its function redefined as follows:

> The University shall offer undergraduate and graduate courses of instruction, conduct research and provide extension and other public services in the areas of its competence. It facilitates the social, cultural and economic development of Iowa. Its primary responsibility shall be to prepare teachers and other educational personnel for schools, colleges and universities and to carry out research and provide consultative and other services for the improvement of education throughout the state. In addition, it shall conduct programs of instruction, research and service in the liberal and vocational arts and sciences and offer such other educational programs as the State Board of Regents may from time to time approve.

Other public institutions of Iowa were involved in the education of teachers during this period of time. In fact, from 1855-1857, the Normal Department at the University of Iowa at Iowa City was the only division of the University which was operative. Gradually the University of Iowa moved into the education of secondary teachers leaving the education of elementary teachers for the Iowa State Normal School. The

Normal Department of the University was converted into a "department of pedagogy," then into a "school of education," and finally into its present form, "the College of Education." At the Iowa State University, the Department of Vocational Education became an Education department at an early date and recently became a College of Education in name as well as in function.

Shortly after the Iowa State Teachers College changed its name in 1909 normal training was begun in Iowa high schools. This lasted from 1911 until 1945 and was necessitated because of the shortage of teachers for the ten thousand one-room rural schools in Iowa. These programs in the high schools served as a supplement to the teacher education programs in the other three state institutions.

In 1968, the instructional departments of the University of Northern Iowa were grouped into four colleges: Humanities and Fine Arts; Business and Behavioral Sciences; Natural Sciences; and Education. Also a graduate college was established since the University offered, by this time, the following graduate degrees: Master of Arts; Master of Arts in Education; Specialist in Education; and Specialist in Business Education.

It became clear during the site visits that students, faculty and administration are in complete agreement that the original purpose for which the institution was founded was "entirely for teacher preparation." Although it is now called the University of Northern Iowa, the students made it clear that most of their fellows think of it still as "a teachers college, and one of the best in the United States." The students interviewed were worried somewhat that the change to University status might make the institution "a third or fourth class University" where it had been a "first class teachers college."

Students, faculty and administration also agreed that the primary responsibility of the institution is still the education of teachers, both on campus and throughout the state through its public service and extension work. Administrative members and faculty members interviewed both agreed that the liberal arts program continues to be an increasingly important function and that research is a very minor part of the work of the faculty at the University. The students felt that the faculty were trying to "change a little" and that a new Bachelor of Technology degree, basically for industry and/or vocational school teaching, represented a major move away from the education of teachers. The students also indicated that the University meets an important need by what they called a "good boy-girl ratio" but they emphasized that it was <u>not</u> a "party school."

It appeared clear from the interviews that the move to "university status" was not a unanimous choice of the faculty. However, it was hoped that it would help to retain good faculty who wanted to do graduate teaching and make the institution more competitive in the constant search for new faculty from major universities. Although considered a teachers college by students and an institution with a primary responsibility for the education of teachers by the faculty, students and administration, all three of the groups appeared to be in agreement regarding the level

of achievement required in the classes. Two of the students had transferred from other state universities in the Midwest and felt that it was "just as tough as the others." Members of the administrative staff pointed to the greater selectivity in the student body than in the other state institutions. As a specialized professional school, the institution had been allowed to raise its entrance standards to the top half of the high school graduates in the late 1940's. This did not become a formal policy for all other state institutions until the mid-1950's. In addition, the education of teachers has always been considered a campus-wide responsibility. All of the disciplines on the campus have an integral role in determining the level of work required to graduate from the institution and achieve the teaching credential. As another indication of the concern of the faculty, it was made clear that they are officially "on record not wanting to add graduate work which will hurt the quality of the undergraduate program." For example, graduate assistants are not allowed to teach undergraduate classes and senior professors have continued to work with all levels of instruction.

On the other hand, some students feel that the change to university status has led to "spreading too thin." More students interviewed reported that some required courses are now offered only in alternate semesters. As a result some students have not been able to get required courses and were required to attend additonal semesters in order to graduate. The students also reported that "for the same amount of work you can get a Ph.D. at many institutions for what it takes to get a master's degree here."

In evaluating the success of the institution in carrying out its functions, the faculty and administrators were in agreement that it was "good" and "quite successful." On the other hand, some students did not feel that it was as superior as it was a few years ago and that it would have been better if it had not diversified so much. They specifically suggested more professional internships and less work in the foreign studies and other general education areas.

A number of changes are anticipated in the future, primarily at the master's degree level during the next five years. New master's degrees in business, home economics, social work, business education, geography, library science, and sociology are anticipated. Both faculty and administrative persons interviewed anticipate the doctorate by 1975 in advanced fields of study in education, primarily educational administration and statistics. Beyond that time they estimated that doctorates in social science, English, and mathematics may be offered in the late 1970's. Also after 1975, there were estimates that there might be a new bachelor of arts degree in nursing.

All three groups agree that the basic need is for additional funds in order to make up for deficiencies in the following areas:

1. the library, including books and reading space,
2. lack of class and laboratory space,
3. educational media center,

4. bigger annual appropriations for operating each year.

With regard to state coordinating boards and relationships with the State Board of Regents, the students made strong statements. They blame the coordination system as the major barrier to overcoming difficulties in fulfilling present functions. They said that the University of Northern Iowa is "the third of three institutions, always the stepchild when it comes to support." They felt that it was distinctly unfair that students at the University of Northern Iowa should have to pay a higher tuition than students at the University of Iowa and Iowa State University. Faculty and administration on the other hand feel that the present system is highly desirable, including the voluntary coordination of the public institutions with the private institutions in the work of the Coordinating Council for Post-High School Education. Members of the faculty and administration both described the Board of Regents as trying hard to spend time on "major policy of educational importance" and in the main staying away from petty budget detail.

The students' gripes included the desire to buy "beer across the street" and they felt that the Board of Regents and the Legislature needed to make a major improvement in the overcrowding in the dorms. From an educational point of view, they felt that stronger financial support from the Board would improve the science and math offerings in particular and that shortages of funds were the primary problem of the University.

Finally, with regard to teacher certification and the number of people trained for teaching, all groups agreed on the general estimate that at present, 80% of all B.A.'s are currently planning to obtain teaching certificates. Up to 1960-62, 100% of the students graduating from the institution were eligible for certification and close to 100% obtained it. Neither a change in the baccalaureate degree in 1961 nor the change to university status in 1967 has lowered this dramatically. Eighty percent of the graduating students now earn teaching credentials and plan to teach. This has been a consistent pattern since 1965.

Although the name, the function and the form of the University of Northern Iowa has changed materially in the last decade, its primary purpose is still clear in the minds of most of the faculty and students on the campus. There is a growing number of younger faculty who wish to make a major change but, to date, it continues with its primary responsibility, the education of teachers and other personnel for the schools.

COLORADO STATE COLLEGE

Greeley, Colorado

1870-1969

The Colorado State College, established in Greeley, Colorado, in 1968 had a stucent body averaging over 8,000 students per quarter, a faculty over 300 (of whom over half had the completed doctorate), and a campus of 326 acres with buildings valued at approximately $40,000,000. The city of Greeley developed from the "Union Colony" a cooperative venture modeled after the ideas of Fourier. The Union Colony was organized in 1869 under the sponsorship of Horace Greeley and his agricultural editor, Nathan C. Meeker. The carefully selected members of the colony had a high degree of educational background and were extremely interested in a sound educational program. The colony began in 1870 and its members immediately opened the "common schools." They soon felt a need for carefully prepared teachers and were successful in pushing a bill through the Colorado Legislature to establish the State Normal School of Colorado in their city in 1889. Some of the support for the colony had come from English investors and the Normal School would not have been started without the support of the "English Company," known as the Colorado Investment Company of London. The Legislature approved the Normal School under the conditions that forty acres of free land and $15,000 would be provided to start the school. The state was to provide $10,000 from "monies not otherwise appropriated." However, since this money was not available, the Greeley residents put up the remaining sum in order to start the Normal School. The original class of 96 students were taught by the principal and four members of the faculty in downtown business buildings and churches until the first building could be completed. The east wing of Cranford Hall, the first building on the campus, is still in use. Until the turn of the century, the Normal School was considered the equivalent of a high school. However, in 1905, the Pd.B. (Bachelor of Pedagogy) and Pd.M. (Master of Pedagogy) were started. The Bachelor of Pedagogy degree was completed in two years by a high school graduate, the equivalent of the A.A. degree in a present day community college. The Master of Pedagogy degree took an additional year and was planned for students who wished to teach in high school. Two years later, in 1907, the Normal School was granted authority to offer the baccalaureate degree, and the first baccalaureate degree was granted in 1908. Shortly thereafter, in 1911, the name was changed to the Colorado State Teachers College and 11 students were first graduated with the A.B. degree. In 1913, the College began offering the Doctor of Philosophy degree in the Departments of Education and Educational Psychology. Since that date, the Colorado State College has granted over 800 doctoral degrees and is one of the primary sources of such graduates among all of the institutions which have progressed through the Normal School, Teachers College, State College development.

In 1935, the Legislature changed the name of the college to the Col-

orado State College of Education, and in 1957, changed the name to Colorado State College, its present formal name. In 1950, the bachelor of arts degree in liberal arts was authorized and in 1960 the bachelor of science degree.

The site visit to the Colorado State College included interviews with (1) several students from sophomore to graduate standing; (2) a number of college administrators in several different fields; and (3) a number of the faculty members from both old time members of the faculty and relatively new additions to the staff.

Members of the administration and both old and new members of the faculty were quite definite in stating that the original purpose of the institution was the education of teachers. Interestingly enough, the students were quite vague about the institution's original purpose although they had no question about its current primary purpose being teacher education. Everyone interviewed agreed that the primary function of the college at present is the education of teachers. However, other professional areas have expanded and include a new school of nursing. Likewise, increasing numbers of students are taking a liberal arts degree program and do not plan to teach. Students also indicated that a sizable group of their fellows were in pre-professional training courses leading to graduate work in such fields as law or medicine. The various members of the faculty and students attributed expansion in these other areas to a number of factors. For example, strong student demand developed in the 1950's for a program of preparation in the field of business without the teacher credential program. Members of the Education Department indicate that the expansion in liberal arts is a sound development resulting from the basi philosophy of the teacher education staff. Members of the teacher education faculty have felt for decades that "first of all the teacher needs to be well-educated in his or her content fields." There was some agreement among people in the various content fields that the liberal arts program had been vigorously pushed by the education faculty.

In addition to the important development in liberal arts, strong additional professional curricula are underway in "health professions" or the "helping services." Dietetics has been offered for many years as a part of the Home Economics program. Vocational rehabilitation has been a very important development on the campus as has the superior program offered in Special Education. Recently, the new school of nursing has been added with strong faculty support.

Faculty, administration and students agreed in the interviews that a large number of desirable major changes are taking place at the present time. Of course, the growth in numbers of students has been followed by growth in faculty. The faculty do not know each other as well as in the past and students do not know each other or the faculty as well as has been true in the past. More graduate students are attending during the regular years and the composition of the student body is changing materially both in age and in the diversity of academic goals. A need for reorganization of the faculty and of the college administration became apparent and the current reorganization seems to have met with general approval.

Both faculty and students agree that in the last five years, more and more subject matter specialists have been brought to the faculty. The curriculum has become more specialized and broader in scope and the students, themselves, can now specialize more. They feel that their broadening background and interests have led to a less conservative group of students being in attendance at the college. The new president, Dr. Darrell Holmes, has, according to the students, "brought back a spark to the campus." He has provided much "more elbow room for faculty and students to work positively with the administration to develop college policies." As an example, the students have now been allotted a seat on the Academic Affairs Committee of the college. The students are very serious about their education and dedicated to improvement of the college. A good example is the effort made by the student council in the 1967-68 year. At a time when the budget was very short, they took $7,000 from their budget to provide help to keep the library open for longer hours than were possible with the funding from the state Legislature.

A variety of major problems have developed as a result of the changes in the student body and the growing size of the institution. From the point of view of the students, they feel that the faculty "has had to take on a lot of committee work," which has made it difficult for them to spend time with the students. On the other hand, the large group of new faculty have brought with them "improved variety in teaching methods." Faculty and administrators both agreed that the major problem in the future is lack of proper state support because state colleges are in competition with the other state universities and because Colorado State College is associated with the other smaller state colleges. Organizational problems have developed and it is hoped that the new organizational structure will help to alleviate some of the problems of growth.

Evaluation of the success of the institution in carrying out its functions differed greatly from person to person and from group to group. The students, in general, felt that the college was improving but "still not putting out truly competent teachers who can adjust to modern-day problems." They felt that the "traditional Ed courses were still going on" with more theoretical "talk about teaching" and too little actual observation and practical experience. They indicated that the "intern program is best but it is still developing."

The visit to the campus took place shortly after the assassination of Martin Luther King. There was considerable concern about "relevance" and the adequacy of any college in its attention to "today's problems." The new college faculty senate was an object of hope for most of the faculty and administration. The students hoped that additonal student participation in college faculty committees could make the senior members of the faculty be more realistic and more attentive to their needs and the needs of current society.

In discussing changes in functions foreseen by 1970, 1975, and 1980, the faculty and administration were basically in agreement that "Colorado State College has always been responsive." There was a general feeling

that the college would adapt appropriately to coming social changes. New programs would be developed as needed and, in particular, there would be definite expansion in the program to prepare college teachers. The students suggested a number of very specific changes which they hoped would come true. They foresaw more liberal arts students coming to the campus and new degree programs in sociology, geography, anthropology, history, and languages developing in the very near future. They felt that these new majors and those currently available on the campus would evidence "more concern about national purposes and problems" than they felt existed at the present time. As the college grows, they said, "more people will bring more ideas" and the students "will demand a broader education." With regard to the education program, they felt that there would be a strong move toward more "interning in the teacher education program" and less emphasis on abstract "dull" theory. They further expected that there would be rather quick adoption of additional course work and programs in Afro-American culture including black or Negro history and culture. They felt that this was "such a major part of our society that the college will have to add it." They felt that in general "the faculty are open-minded and will support it."

The students further agreed that the concept of "student" and of "faculty" will be changed in the future. They predicted that "students" will be recognized as an important part of the society and important enough to be one of "two learners" in a situation rather than being in a teacher-learner relationship. Furthermore, on the campus they predicted that there would be "more latitude for student organization and for the faculty senate in developing mutually agreed upon operational policies for the college."

Future barriers at the present time are seen by administration, faculty, and students as the State Higher Education Commission and the need for additional money from state sources. Some of the faculty members were concerned about that old bugaboo, on-campus faculty "log-rolling" in faculty committees. There was general agreement that increased facilities were needed on the campus, particularly, (1) library capacity; (2) classroom capacity; (3) new technology for use in classroom teaching and research; and (4) in student housing. The faculty members felt the need for more specialization and more diversification of the curriculum and considered lack of funds the major threat to this felt need.

In evaluating the campus and its success, faculty, students and administration all felt that the "outstanding success of the college is be best indicated by the acceptance of their graduates in positions of responsibility and high regard." Although the campus is diversifying, there was general agreement that a high percentage of the people attending the institution still plan to become teachers. Of course, originally, 100 percent of the students planned to be teachers. The current students felt that it "used to be 90 percent, is now 80 percent and the percentage will go down to 65 percent in the next five to six years. This corresponds very closely with the judgment of the faculty members, although they felt it might continue to be as high as 75 percent within the next five years.

Colorado State College has had a reputation for being one of the best teachers colleges and state colleges for the education of teachers in the United States. It has also had a strong faculty in content fields and has been offering graduate work at the master's and the doctor's degree level for many decades. As it diversifies its curriculum into a wide variety of additional liberal arts and professional fields, the faculty, students and administration agree that this is highly desirable. The addition of many new majors will bring a greater diversity to the campus and thus provide a richer educational experience both in- and out-of-class for the student body.

There are definite fears on the campus regarding the problems of growth and the problems of increasing specialization. These problems, inherent in modern higher education as it grows, worry all of the people interviewed but they determined that they can work together to overcome them. The institution should continue to provide a very large number of teachers at all levels in the years to come from pre-primary to post-doctoral study. Under new and dynamic leadership, with a history of responsiveness to change, and a well qualified group of younger faculty members, it has a great potential for future service as a multi-purpose institution with much of its attention still going into the education of teachers at all levels.

SAN DIEGO STATE COLLEGE

San Diego, California

1898-1969

San Diego State College, in San Diego, California, had a student body of over 20,000 in 1968 and a faculty of over 1,200, close to half of them with the doctorate. In 1963 the college master planners designed a campus development program to serve 28,000 students in the mid-1970's, but past developments illustrate vividly the difficulty of doing adequate long-range planning for many decades in the future.

San Diego State College opened originally as the San Diego State Normal School in 1898 in rented quarters on the top floor of an office building in downtown San Diego. The first class of 90 prospective school teachers entered at that time. One year later the Normal School moved to a permanent building on a twenty acre site which was planned for "as many as 600 students." This was "viewed by many in the late 1890's as carrying far-sightedness to a wholly unrealistic extreme. 'How in the world,' they thought, 'can a city of less than 20,000 support a school for 600 school teachers?'" In 1925, 1,300 students were enrolled and the Legislature refused additional funds for buildings on the small site. After a four-year campaign, the city of San Diego passed a bond issue to buy a much larger site east of the city of San Diego and gave it to the State of California in exchange for the smaller site and the older buildings. The name of the college had been changed in 1921 to San Diego State Teachers College and at the same time four-year degree programs were offered for teacher-training candidates. Ten years later, in 1931, the San Diego State Teachers College moved to its new larger site and rapidly expanded its offerings. In 1935, the present name, San Diego State College, was adopted and the move toward a diversified, multi-purpose college began in earnest. Graduate work for teaching credentials was authorized in 1946. In 1949, the Master of Arts degree was authorized, but for education and credential majors only. In 1958, the State Legislature authorized the State Colleges to offer the master of arts degree in the fields of the arts and sciences thus lifting the restrictions which had previously limited master's degrees to majors in education.

In 1952, Malcolm A. Love, former president of the University of Nevada, became president of San Diego State College. He encouraged the development of a strong multi-purpose institution and in 1958, the School of Engineering was established. In 1959, a separate College of Arts and Sciences began operation with a separate Dean to concentrate on its development. In 1960, the first faculty senate in the California State College was officially established just prior to the adoption of the California master plan for higher education. Although sponsored research activity by the faculty began in the 1940's, San Diego State College expanded rapidly in this area in the 1960's. Two-year master's degrees in social work and business administration developed and finally, in 1965,

San Diego State became the first California State College to move into doctoral work. The first program was developed in the field of chemistry, in conjunction with the University of California Campus at LaJolla and the first doctorate was awarded in 1967. The college expanded its services overseas and provided major assistance to Brazil and Jamaica in the development of their school system. Faculty members have gone to Africa, Asia, Antarctica and South America on various educational and scientific projects for the Federal Government and foundations.

The site visit to San Diego State College included interviews with several students, several key administrators on the campus, and members of the faculty, including the chairman of the Academic Senate. The following materials are a result of these interviews.

Clearly, the primary purpose for which the institution was originally founded and its current primary functions are completely different. Initially, it was a normal school designed to serve the students of the local area and to prepare elementary teachers for the public schools of California. Most of the students (65-70%) are still from this area. However, since 1935 and thereafter, the functions have changed dramatically. One of the key academic administrators on the campus indicated that its primary emphasis is on liberal arts and the professional fields. He judged it to be strong in engineering, business, the sciences, social welfare, and education. The students described it as "more a liberal arts school", with five accredited professional schools. A faculty member in the School of Education indicated that its primary function was to "cover the waterfront with course work in all fields." As he put it, "we try to think that education is still important." Both faculty and administration indicated that the research and public service functions are increasingly important and that instruction in the arts and sciences and the professional fields receives less and less attention. From the students' point of view, the San Diego State College is "struggling for university status with its five schools on the campus, Engineering, Education, Business Administration, Social Work, and Fine Arts." Interestingly enough, the students agreed that a secondary but extremely important function of the institution at the present time is to serve as a "social school." It provides the students in the San Diego area with a "well-rounded opportunity for social education, plus cultural opportunities." They emphasized the breadth of opportunity, including the chance to go to the symphony and also to attend big-time football games. The College has been very successful in recruiting athletes and developing national champions in the "small" college area of competition. The students agreed enthusiastically that football "gives a big-time college feeling and atmosphere" to San Diego State and draws many of its students for this reason.

The 1966-67 annual report of the Dean of Arts and Sciences touches on another important trend. The recently developed program in the College of Arts and Sciences at that time graduated 30.6% of all of the baccalaureate degrees as against 41.1% for the applied arts graduates and 28.3% for those with bachelor of science degrees. The report states that this was "a sign of strength of the program hardly anticipated when we began," (in 1959). Total undergraduates in the program have shown an

increase to almost 4,000 students, approximately one third of all undergraduates with a declared major. At the time of the site visit several departments were discontinuing their applied arts and sciences degree, including physics and geology. Journalism had requested that it be allowed to shift to the liberal arts degree program and music and physical education were considering such a request. This represents a major change since the beginning of the College of Arts and Sciences in 1959.

The various students who were interviewed indicated that teacher education still constitutes a fairly large segment of the campus enrollment. They estimated that 15-20% of the men and 40-50% of the women planned to obtain credentials whether their fields of study are in arts and sciences or applied arts and sciences. With the advent of some specialized legislation in the early 1960's, entitled "The Fisher Bill," it became very difficult to keep accurate statistics on the number of students interested in becoming teachers. Therefore, it was not possible to check the student estimates but different students agreed on these percentages.

Students were very frank in giving their reasons for attending San Diego State. At first, when the area grew rapidly in population, there was no other college in the area. Now that other state and private universities have been established, it is still less expensive and cost is a major factor in encouraging its growth. Students are also drawn by the breadth of its academic program and, as mentioned before, by its football team and its social activities. One student indicated that it is considered one of the five top "party schools" in the United States in a prominent national magazine. The nearby University of California at San Diego has a very limited program and limited enrollment. Two private universities, California Western University (Methodist background) and the University of San Diego, (Roman Catholic background) are both considered quite strict from a disciplinary point of view.

San Diego State College has grown rapidly since 1955, and there was general agreement on the major problems associated with this growth. The divisional organization became unsatisfactory after the College reached 8,000 students, and since that time there has been a great need to develop separate schools with their own budgets and much greater autonomy. The old State College operation with most administrators working on nine month bases did not work and year-round administrators have become necessary. Some faculty members indicated that it has become extremely difficult to know the various programs and serve as a competent advisor to students. Students have noticed the increasing problem of size and lack of building construction to keep up with it. They also noticed as major problems (1) the salaries of the faculty and (2) the lack of interest of faculty in teaching, with research and public service activities drawing them away from the classroom.

On the other hand, when asked to evaluate the success of the institution in carrying out its current function, there was strong unanimity among administrators and students that it was "very good." Both admitted that the growth and relatively inadequate financial support had made this difficult to achieve. Students in particular felt that "since 1960,

the college has been upgraded enormously" and that "graduates feel very well prepared now" to leave the college and go into professional work. The students have a very high opinion of their college and feel that it is offering them an education which is "tremendous--one of the top five colleges in the United States!"

The students expect, very confidently, that university status and name will have come to pass within a decade. They expect that there will be many "more background master's degrees" and the graduate program will continue to receive emphasis by the faculty and the officials in charge of the institution. They indicated that what the students really want is a well-rounded baccalaureate education plus a graduate specialization. Although the standards of admission are relatively high and requirements in the classes are exceedingly high, they feel that this is highly desirable and that it is important that their degree "count for something." They indicated that students who worry about grades will go to the surrounding junior colleges where the competition is not quite as tough but where the instructors are as good or better at the lower division level. Although they felt that the instruction at San Diego State was relatively strong in the freshman and sophomore years, they felt the surrounding junior colleges did just as good a job as the state colleges. And once again, they emphasized the social side and the importance of the football program. They were all, in each case, looking forward to San Diego State playing UCLA in football in the near future.

Administrators at the college feel that the student evaluation is favorable although they do point to the problems of "academic indigestion from too many new faculty," needed to take care of the explosive growth. With regard to changes foreseen by 1970-1975-1980, faculty members and administrators agreed that there will be an expansion of the doctorate although little actual change in function. One faculty member stated and others agreed, that operational procedures will change. Programs will be conducted in a wider environment with more college classes in the urban centers and overseas.

Several members of the administration and some members of the faculty agreed that major new resources will be necessary to achieve the coming developments at the graduate level. In particular, the new library will be critical. Likewise, expenditures per student will go up as an increasing amount of work is at the upper division graduate and doctoral levels.

One of the major problems at the present time is faculty morale. Several new faculty were quoted as regarding the teacher education history of the institution as "degrading." Some of the faculty members feel that the institution is actually "their own institution" and not primarily for the students of the surrounding region or of the state. Along with this goes the feeling that the college should not meet the needs of the community, but should do basically whatever the current faculty feel is necessary for themselves. Some of the faculty feel that it is wrong to focus on student needs. Much of the undergraduate work has become preparation for future graduate work and several departments were specified as examples.

Several of the persons interviewed were concerned about the future lack of support from the people of the state and the Legislature as the departmental specialization becomes evern greater and the college ceases to meet regional needs. Already the college has too little fiscal autonomy, the building construction program is lagging, and the student load is increasing too rapidly. If the level of support from fiscal sources should decrease, it could become critical. The central office of the California State Colleges now "tries to lump all State Colleges together" even though the San Diego State College fills a different need and in a slightly different way than many of the other state colleges.

Finally, with regard to the size of the current teacher education program and its future potential, an appreciable descrepancy exists between the opinions of persons interviewed and the tabular materials which were secured during the site visits. Arts and sciences professors appear to feel that there are "still no fewer teachers coming out" and that the program is producing "better teachers and more of them." New state legislation was referred to often (the Fisher Bill) and it was indicated that numbers dropped for two or three years but have turned up within the past two years since 1966. Actual teacher credentials recorded for San Diego State College are shown in the following table:

1957-58	408
1958-59	522
1959-60	501
1960-61	514
1961-62	653
1962-63	727
1963-64	776
1964-65	930
1965-66	722
1966-67	384

For the first two terms of the 1967-68 reporting period, 124 credentials had been issued and it was hoped that there might be a total of approximately 500 for the year. However, this was optimistic and still indicates the dramatic decrease in credentials issued through San Diego State College to its graduates in recent years. Students thought, in general, that there would be a decreasing number coming from San Diego State College and particularly in those teaching fields which attract men. Obviously, in the case of this major institution the broad development of curricular and graduate expansion have led to a decrease, both in actual figures as well as in proportion, in the number of credentialed teachers educated in this large state college.