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ABSTRACT

Based on questionnaire responses by regional state colleges and universities for 1967, 1970, and 1972, a comparison of the data indicates trends, draws inferences, and permits a better understanding of the changes occurring within this group of institutions of higher education. Chapters cover the developing state colleges and universities, 1968; institutional size and enrollment patterns; degree programs; recent innovative programs; libraries; and finances. Appendices include institutional name changes, 1966 to 1973; information on the American Association of State Colleges and University member institutions, questionnaires, and an overview of the current status of proposed degree programs and enrollment at the Pennsylvania state colleges and university. (MJM)

The Regional State Colleges and Universities

ENTER THE 1970s

FRED F. HARCLEROAD
C. THEODORE MOLEN, JR.
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Published by The American College Testing Program

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INTRODUCTION

The rapid growth in size and the curricular expansion of the public regional state colleges and universities during the third quarter of the Twentieth Century represents one of the major educational achievements of American society. In this process, nearly 200 former teacher education colleges have been transformed into comprehensive institutions of higher education. As states have begun new institutions of this type or have taken over various municipal and private institutions, the total number of regional state colleges and universities has risen to approximately 330 with 303 of them (over 90%) belonging to the American Association of State Colleges and Universities. The great majority of them have expanded into graduate education at the master's degree level, and approximately 10% of them now offer some programs at the doctoral level.

The objectives of the first study (1968), *The Developing State Colleges and* Universities,[1] were 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 admission policies, faculty staffing and faculty salaries.

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

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[1]F. F. Harcleroad, H. B. Sagen, and C. T. Molen, Jr., *The Developing State Colleges and Universities: Historical Background, Current Status, and Future Plans*, (Iowa City, Iowa: The American College Testing Program, 1969).

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.

To that end 235 questionnaires were sent to AASCU-type institutions in August 1967 (see Appendix II for a sample copy).[2] One hundred and ninety-four (194) usable replies were received, and these data served as the basis for the 1968 study.

By 1970 the comparatively brief 1967 questionnaire had evolved into a more comprehensive form, which was coded to facilitate computer analysis of the data (see Appendix II for a sample copy). In late 1970 this questionnaire was sent to 277 institutions. Two hundred and thirty-one (231) usable responses were received.

Finally, in 1972 a brief supplementary survey was conducted to supply follow-up data for comparison with that of the 1970 questionnaire. The critical data supplied by the 1972 survey concerned enrollments, student/faculty ratios, and the establishment of new degree programs (see Appendix II for a sample copy). Two hundred and thirty-one (231) of these postcard questionnaires were sent to those institutions from which we had received usable responses to the 1970 questionnaire. One hundred and seventy (170) usable responses were received.

The responses to these three questionnaires provided the bulk of the data used in the current analysis. By its very nature this type of data is rather "soft," and thus it was felt that sophisticated statistical analysis would not be appropriate. For this reason most of the data has been displayed in table form in such a way that: (1) the data can be readily compared with data in similar tables from the 1968 study, and (2) rather gross trends can be readily observed.

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[2]AASCU-type institutions refers to the regional state colleges and universities. The American Association of State Colleges and Universities (AASCU) is the national educational organization of which nearly all of these institutions are members.

Our approach in the current study has been to utilize the 1967 data as the baseline for comparisons. A comparison of the 1967, 1970, and 1972 data permits one to observe trends, make inferences, and in general gain a better understanding of the changes which have been occurring within one group of institutions of higher education. It is hoped that the current study will enable college and university administrators to better understand regional and nationwide trends and, thereby, facilitate more effective institutional planning.

Chapter I

THE DEVELOPING STATE COLLEGES AND UNIVERSITIES: 1968

One of the major findings of the 1968 study was that the over 300 state colleges and universities (SCUs) could be grouped into four basic categories.

The *first type* is the *single-purpose, highly-specialized college*. A very few institutions of this type still exist. They have carefully limited objectives which are intended to attract students with a high degree of motivation to their specialized curricula, such as art or maritime studies. The number of institutions of this type is decreasing, and in 1966 was less than a dozen. At that time there was no indication that this trend would be reversed.

The *second type* of SCU is the *teachers college*—an application-oriented institution organized with the primary purpose of preparing teachers, even though degrees are often granted in other fields. Whether an institution is or is not a teachers college has little relationship to its official name. The fundamental criteria are whether or not the institution and its programs have been organized with the basic purpose of preparing teachers and the proportion of its graduates who become teachers. In the teachers college, even when degrees are offered in the fields other than education, there is usually an emphasis on how to teach the subject. The faculty in the so-called academic disciplines frequently hold advanced degrees in fields such as science education or English education. There is often an emphasis on elementary education, in contrast to other levels. The students are usually drawn from a geographical area not far from the college. The college administration tends to be organized in a clearly hierarchical fashion. There are still perhaps as many as 35 to 40 institutions which could

be classified as teachers colleges.[3] Most of them are small (less than 2,000 students), are located in rural or semi-rural areas, and frequently offer only the baccalaureate degree. In the 1968 study we suggested that, in the future, the transition from a teachers college to a larger and more diverse institution would probably be more difficult than in the recent past.

The *comprehensive state college or university* is the *third type* of institution. Included in this group are nearly two-thirds of the SCUs. The typical comprehensive state college or university has grown rapidly both in enrollment and in its curricula. Most of them offer rather specialized academic majors at the undergraduate level and, in nearly one-half of them, at the graduate level as well. Teacher education is still a major function but is only one of several professional and liberal arts curricula. Many of their graduate students are teachers-in-service who have chosen to attend graduate school on a part-time basis. Instruction and interpretive scholarship are the primary functions in most comprehensive state colleges and universities. There is much talk about the importance of basic research, especially by faculty, but little fundamental research is actually done. Virtually all of the research which is carried out is of an applied nature. Public service is important, although its organized form most often involves teacher education. The faculties at the comprehensive state colleges and universities tend to be more diverse than at the teachers colleges. At these comprehensive institutions more faculty had doctorates and degrees in their teaching fields than did those in the teachers colleges.

Fourth, between 25 and 30 institutions were classified as *regional state universities.* Most of them were located in or close to an urban center. In 1966 nearly all of these institutions had enrollments exceeding 10,000 and a few had more than 15,000 students. It was anticipated in 1966 that these institutions would double in size by 1975. We also projected that the graduate enrollment at these universities would increase at a faster rate than the undergraduate.

The students attending the regional state universities tended to come from within the given state, but represented a greater geographical area than the other types of SCUs. In many of these institutions there were significant numbers of out-of-state and foreign students. The majority of students attending these universities had a professional-vocational orientation, as is the case with most of the SCUs. However, a significantly higher percentage of the students at the regional state universities were oriented toward

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[3]Garland G. Parker, "College and University Enrollments in America, 1972-73: Statistics, Interpretations, and Trends," *Intellect,* 101:2347, February 1973.

graduate and advanced professional training than at the typical comprehensive state college or university.

Research, primarily applied, was becoming an increasingly important function in 1966. There was frequently some support for applied or basic research, for graduate faculty members, and a reduced teaching load. There was also a growing concern for publication of research.

In 1966 many of the regional state universities were having serious organizational problems. Many of them were still officially named "colleges" and were required to retain a single-college organizational structure. But they had grown so rapidly in size and complexity that some rather fundamental changes were needed. These changes were made difficult by tight state or system-wide fiscal controls, including line-item budgeting. Problems related to organizational change were also evident in academic administration. Many of these universities were changing from the highly centralized administrative structure of the teachers college era to a more decentralized organizational structure typical of large complex institutions. The organization of the faculty in most of these institutions was inadequate or poorly coordinated. Although most of the faculty from the teachers college days remained, the research-publication-oriented professors were in positions of power in many departments.

The emphasis on graduate education is evident in the fact that 25 of the regional state universities were awarding doctorates in 1967 or expected to be doing so by 1970. Not surprisingly, considering their institutional background, a high percentage (70%) of the 1967 doctorates were in the field of education.

In 1966 the regional state universities were changing more rapidly than any other SCUs, and they represented a probable path of future development for the other types of state colleges and universities. We concluded that the regional state universities, in many ways like the largest public institutions, could best serve society in the future by continuing to emphasize regional concerns and the teaching-learning process rather than national concerns and research. If the Doctor of Arts degree is developed, as recommended by the Carnegie Commission on Higher Education, these institutions would be ideal for this purpose.

A second important finding in the 1968 study was that a two-dimensional grid was a useful way of classifying the various types of postsecondary educational institutions. The first vertical dimension identifies the relative emphasis on undergraduate level instruction versus graduate level research. The second horizontal dimension deals with the degree to which

an institution has a theoretical or an applied orientation (Figure I-1). While such a model oversimplifies many of the complexities of modern educational planning, it does present an initial frame of reference for a more detailed discussion. In the first dimension, colleges concentrate on undergraduate instruction, with graduate instruction and research viewed generally as a secondary function if offered. 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, interpretive scholarship, and applied programs of community and public service. Research activities are directed toward the solution of specific, immediate problems. In contrast, theoretically-oriented institutions stress basic theoretical knowledge, less specialized majors, 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 a varying emphasis on both theory and its practical application.

On the accompanying table, the teachers college (A) was, and in a few cases still exists as, 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, would 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. In between A and B, at the 2-year level, is the comprehensive, diversified community college (H). 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 SCUs 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 is more theoretical in orientation because of its

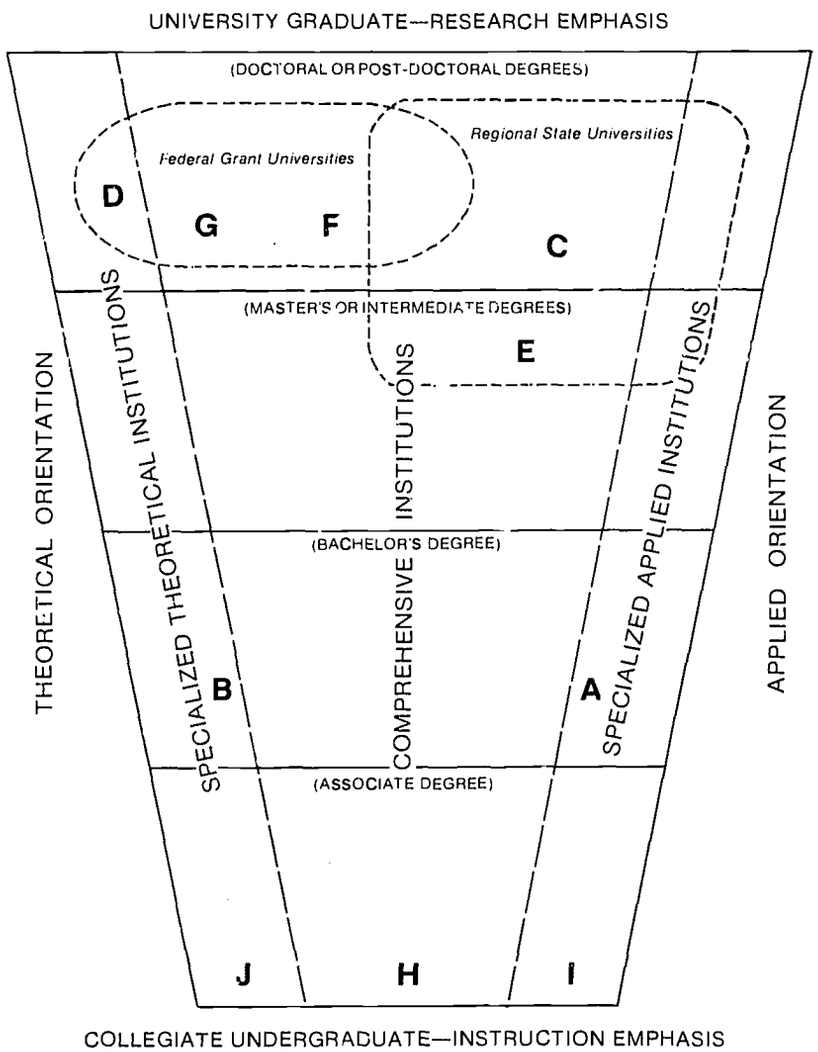

Fig. I-1. A two-dimensional framework for classifying higher educational institutions.

lack of emphasis on extension and service, and less applied emphasis upon such areas as agriculture, engineering, and other baccalaureate professions.

At the associate degree level, as shown previously, a comprehensive community college (H) offers a wide variety of sub-baccalaureate programs, including the allied health fields and transfer curricula to 4-year institutions. While nearly all associate degree-granting institutions have an applied orientation, the comprehensive community college is much less so than the vocational-technical school (I) in which nearly all of the curricula are specialized and applied. In addition, a significant number of community or junior colleges, in the main those which are privately supported (J), tend to be more specialized in theoretical or academic orientation.

As examples of differentiation on the theoretical-applied axis and the collegiate-instructional/graduate-research emphasis, 12 varied institutions at the baccalaureate level and above have been tentatively located on the chart in Figure I-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 BA degree. Postgraduate study leads to state teaching credentials. Plans later to expand into master's degree.

3. Primarily an undergraduate liberal arts college. Offers BA programs in humanities, social sciences, and natural sciences, and a limited program for BS degree in engineering. Extremely limited master's degree programs in a very few fields. Graduate work in engineering being phased out.

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

5. University offering undergraduate and graduate instruction leading to BA and master's degrees. BA 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.

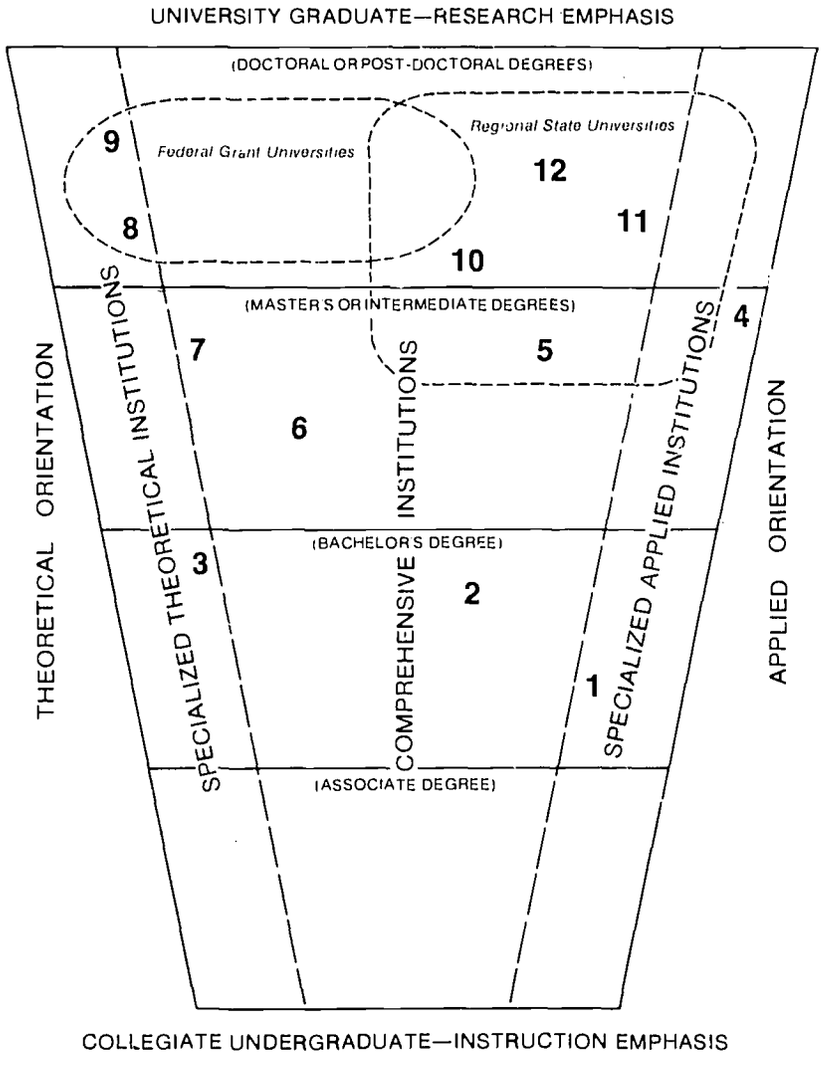

Fig. I-2. Examples of baccalaureate institutions on a two-dimensional framework for classifying higher educational institutions.

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 4-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 law and 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, PhD 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% 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% 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 BS degrees, 10% were BBA degrees; 50% 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 still somewhat applied and practical but oriented toward a pluralism of occupations with some additional emphasis on master's degree graduate instruction.

It became evident rather quickly in 1968 that meaningful generalized descriptions of the almost 300 state colleges and universities were very difficult, if not impossible. At earlier stages in their development the definition of the roles and functions of these institutions had been relatively easy. Most of them had specialized as normal schools, technical institutes, agricultural or commercial schools, or teachers colleges. For several reasons such simple generalizations are no longer valid. These institutions have become increasingly diverse in their goals, functions, and programs offered.

There is little doubt that the single most important reason for the changes which have occurred in all types of state colleges and universities is the astonishing growth in enrollment which has occurred since the end of World War II. By 1966 the SCUs had become the fastest-growing baccalaureate degree-granting segment of higher education. They enrolled approximately 20% of all students in colleges and universities. Even so, the size of most SCUs was considerably smaller than the large multiversities. Over half of the SCUs had enrollments of less than 4,000. Approximately 20% had enrollments between 4,000 and 6,000, while another 20% had between 6,000 and 10,000 students. Only 10% of the SCUs exceeded 10,000 students in 1967.

In 1967 the post-World War II rapid rate of growth was expected to continue. The United States Office of Education had estimated that from 1966 to 1975 the total enrollment in all traditional colleges and universities would increase by 49%. Community and junior colleges were expected to grow by 63%. And although the total student population in all 4-year institutions was projected to increase by 46%, the anticipated rate of growth for the SCUs was 110%.

Accompanying the increase in size of SCUs have been the twin phenomena of specialization and diversification. As previously mentioned, historically these institutions have been highly specialized. In one important field, elementary and secondary school education, specialization was still apparent in 1967. In that year, for example, although the SCUs enrolled only one-fifth of the students in higher education, they graduated nearly one-half of the elementary and secondary school teachers. It was also discovered that the percentage of school teachers in the U.S. produced in the SCUs had remained constant since 1954. The emphasis on teacher education was also evident at the graduate level. Nearly 80% of the graduate students in the SCUs were teachers in service who were also part-time graduate students.

Specialization, however, had occurred in many fields other than education. With the increasingly specialized training required for many jobs, there arose the demand for more specialized courses and specially-trained

professors to teach them. In many institutions, these developments necessitated specialized facilities for interpretive scholarship, applied research, experimentation, and conferences, plus trained personnel to administer the specialized programs which had developed.

At the same time that many SCUs were becoming more specialized, their curricula became more extensive. The number of majors had increased considerably. A few of the larger SCUs appeared to have adopted the federal grant multiversity as their model. It was possible to discern some of the general characteristics of these institutions in the larger SCUs including, (1) an almost unlimited number of course offerings, (2) a concern to expand the size of the institution, (3) increasing control of the internal institutional decision-making apparatus by the faculty in the basic art and science disciplines, and (4) an emphasis on research as the primary function rather than teaching and continuing scholarly study.

We noted several examples of curricular diversification which were occurring simultaneously:

1. Significant numbers of less-than-baccalaureate technical and occupational programs were being offered at approximately 40% of the SCUs.

2. At the baccalaureate degree level, majors were being offered at nearly all institutions in most of the arts and sciences fields. There were majors in most occupational-professional fields. The so-called general education programs had become much more common.

3. At the master's degree level, extensive development had occurred both in professional fields and in a wide variety of subjects in the arts and sciences, primarily those taught in secondary schools.

4. Approximately 10% of the SCUs had doctoral programs in 1967 or planned to have them in effect by 1970. It seemed noteworthy that, although most of the doctoral degrees were being awarded in education, new doctoral fields at the SCUs included chemistry, engineering, and English.

The effects of the rapid increase in institutional size together with the simultaneous processes of specialization and diversification have had substantial effects on many SCUs. No doubt the increase both in depth and breadth of subjects taught was desirable. But the increased competition for facilities and funds which occurred as a by-product contributed to high tensions in some SCUs among faculty, between faculty and administrators, and between institutions. Critical among the tensions were those arising from the conflict between the stated legal functions of the institutions and the professional goals of many of the new, younger faculty

who had recently received doctorates at federal-grant, research-oriented universities.

At most SCUs, in 1967, promotion and tenure policies had been based in the past on the quality of classroom teaching. But we noted the increased emphasis which was being placed on publishing and on recognition by professional associations. Nevertheless, most of the research in the SCUs and the publications resulting from it were of an applied rather than a theoretical nature. Related to the emphasis on teaching is the fact that faculty teaching loads were heavier in SCUs than in the research-oriented universities. And while many SCU faculty members looked with envy at the lighter teaching loads in the research-oriented institutions, most of them were unaware of the relative speed and ease of promotion in the SCUs in comparison with the larger and more prestigious institutions.

The percentage of faculty at SCUs holding the doctorate remained at about 34% between 1954 and 1966. This fact, combined with the fact that graduate enrollments quadrupled, raised some important questions about the quality of education being offered at SCUs. We also observed that although the average number of volumes in SCU libraries doubled to 139,000 volumes per institution between 1954 and 1966, this number remained far short of the resources available in many of the colleges or universities offering graduate degrees.

The governance and fiscal base of most SCUs were also included in the 1968 study. We noted that most SCUs were established originally or soon became part of the developing state system of public education. The fact that most funds were from state appropriations seriously limited flexibility. In addition, the tuition was intentionally kept low. By 1967 most SCUs still had not developed federal sources or foundations or gifts from citizens to the degree that fully developed comprehensive universities had done. The financial flexibility within SCUs thus continued to be limited.

Most SCUs have had a different relationship to state government than the fully developed state universities. They have been less independent, less autonomous, have had less support, and no constitutional base. The most important variable appears to have been lack of autonomy. The historical explanation is that in many states these institutions were originally normal schools and early in their existence became part of a state department of education.

Concerning the financing of SCUs, during this century costs per student have increased nearly continuously, while the student/faculty ratio has seen an almost continuous decline. The sole exception to each of these trends was during the Great Depression of the 1930s. Since the SCUs have had little access to outside support from the federal government and

foundations, their main source of support has been state legislative appropriations. It was not surprising, therefore, that the percentage of educational and general income from student fees was quite high, much higher, in fact, than in the larger state universities. The average for all SCUs was 23%, with one institution obtaining 95% of its educational and general income from student fees in 1967.

Furthermore, rather tight budget controls on these institutions reduced flexibility and made meaningful innovations even more difficult. In many SCUs the extension and public service work has been required to be self-supporting. When this was not the case, these activities were usually among the first items to be eliminated when budget restrictions occurred.

Although SCUs had been able to provide room for the flood of students from 1945 on, we stated that significant new sources of funding would have to be found if the projected enrollments were to be accommodated and important needed programs developed. In support of this contention, we noted that, while the total educational and general income in SCUs increased by over 600% from 1954 to 1966, the income per student increased less than 60% during the same period.

By 1967 American higher education had passed from the "era of the college," through the "era of the university," into the "era of the state educational system." The systemization of American higher education affected SCUs perhaps more than any other type of institution because of their close state control and their position between the community college and the federal multiversity. The SCUs had the greatest degree of overlap in functions and were most affected by the differentiation and coordination of roles.

Differentiation of educational function is of two types: (1) level and kind, and (2) emphasis. Historically, SCUs have been differentiated in the level and kind of programs they have offered, first as noncollegiate or lower division normal schools, then as single-purpose teachers colleges, and most recently by the level of highest degree offered. In 1967 most SCUs were restricted by state statute and/or coordinating board decisions to less than doctoral level degrees. One-fourth of these institutions were restricted to offering degrees only at the baccalaureate level.

Differentiation in emphasis has always been difficult to define and even more difficult to enforce in practice. Nevertheless, agencies responsible for statewide planning had to include differentiation in emphasis as a major concern. There have always been wide variations in educational programs with the same title. Some have been theoretically-oriented, while others have been practical. Some programs have been developed for high ability students, while others have been open to a wider range of student abilities.

The principle of differentiation in emphasis is apparent most often between theoretically-oriented versus applied-oriented curricula. This is a difference only in emphasis—not the absence of one or the other. This type of differentiation may include the assumption that theoretically-oriented programs are more selective than those which are applied. This is not necessarily the case.

As an illustration, we hypothesized that both a state college and a major federal grant university might offer programs in business administration. The program at the university in some cases would be purely graduate, or if undergraduate would likely emphasize economic and management theory in order to prepare the student for advanced graduate work. The program at the state college would also include some emphasis on theory, but might focus on a more applied range of professional choices and prepare the student for middle management positions in fields such as accounting or marketing. The emphasis of the two programs would be different. But it does not follow that a student must be more capable to succeed in one than the other.

The principle of differentiation has been most evident in SCUs at the graduate level. Master's degrees have traditionally been of an occupational nature. This is equally true at the doctoral level where the emphasis most often has been on applied professional work rather than theoretical research. SCUs generally have been willing to accept a differentiated status initially in order to gain new programs, but then often have moved quickly to modify these programs to adapt to the differing goals of the more research-oriented universities.

Regionalism is another factor in addition to differentiation of function which had affected SCUs in their role as part of state systems. Since theoretically-oriented, advanced graduate programs are normally expensive, these programs had usually been confined to a few established all-inclusive universities. Occupational and applied programs, on the other hand, often had been dispersed on a regional basis. Recently, however, representatives of SCUs have asserted that economics of scale have reached a point of diminishing returns in established universities and, therefore, functions such as advanced graduate education and some research activity should be allocated to regional state universities as well as to the established state universities.

In some cases regionalism worked against the development of more comprehensive regional universities. In several states it had been decided to limit the size and functions of some regional SCUs and to begin new institutions rather than to develop existing SCUs into comprehensive universities. In 1967 the choice between differing conceptions of regionalism constituted one of the fundamental issues facing state systems of higher education and the SCUs which are members of the system.

The issues of differentiation and regionalism have culminated in a debate over actual university status for SCUs. The dispute over the name, "university," as opposed to actual university status, has been resolved in many states. It is now common practice to designate an institution as a state university when it is authorized to award master's degrees in fields other than education. The more basic question of university status revolves around which functions beyond the master's level SCUs should undertake and what level of resources should be provided. We concluded that relatively few SCUs were likely to become comprehensive federal grant universities within the next 15 years. However, many SCUs had in 1967, or expected to have by 1975, a concentration of resources appropriate to *some* university level functions. Thus, the essential question became: What functions were appropriate to a differentiated regional state university?

We concluded that 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 which were available at many SCUs. While the debate over the proper role of established universities in these areas was continuing, little attention had been given to the possibility of creating a relatively new type of late Twentieth Century university which would emphasize the *applied* areas of instruction, interpretive scholarship, research and development, and community service. We suggested that this new type of university would free fully-developed universities to emphasize their more traditional roles of theoretical 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, suggested to us that the movement in the developed universities would continue toward basic research leading to new knowledge and advanced graduate and postdoctoral instruction. The common conception of "professionalism" suggested that the nature of the disciplines themselves would further predispose established universities toward basic research and advanced instruction in the basic disciplines unless countervailing forces were applied from the outside.

As a result of our 1968 study, we supported the concept of a regional state university which would emphasize professional instruction, interpretive scholarship, applied research and development, and community-oriented 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.

Chapter II

INSTITUTIONAL SIZE AND ENROLLMENT PATTERNS

The growth rate in the state colleges and universities between 1954 and 1966 was much more rapid than in any other group of 4-year institutions, public or private. This included both total degree credit enrollment and earned degrees awarded. Since 1966, however, the growth rate in SCUs has slowed considerably in both areas. An examination of the data since 1966 (Tables II-1, II-2, and II-3) yields the following observations and trends.

Undergraduate Enrollment and Earned Degrees

Between 1966 and 1970 *undergraduate enrollment in SCUs increased by only 25% while all other public 4-year institutions increased by 33%* (see Table II-1). This is a clear reversal from the early 1960s when the SCU undergraduate enrollment rate was increasing nearly as rapidly as enrollments in 2-year institutions and more than twice as fast as all other institutions combined. The rate of increase in baccalaureate degrees earned in SCUs has also dropped markedly since the late 1950s and early 1960s. Between 1954 and 1966 SCU institutions experienced a 264% increase in the number of baccalaureate degrees earned while all other 4-year public institutions grew by 72% and private institutions grew by only 67%.[4] However, between 1966 and 1970 the increase in number of baccalaureate degrees earned in SCUs was 53% while public universities boasted an increase of 66% (see Table II-2). It is evident that both the rate of increase in undergraduate enrollment and in number of baccalaureate degrees

[4]Harcleroad, Sagen, and Molen, *The Developing State Colleges.*

TABLE II-1

Opening Fall Degree Credit Enrollments 1970
Percent Increase 1966-1970 by Level, by Type of Institution, by Type of Control

Control and Type	Degree Credit Enrollments 1970						Percent Increase between 1966 and 1970		
	Total Students		Undergraduate Students		Graduate Students		Total Students	Under-grad. Students	Grad. Students
	Number	%	Number	%	Number	%	%	%	%
Public Institutions									
4-year Institutions									
SCU	1,703,076	23	1,392,495	21	247,098	26	35	25	65
Other Public Universities	2,463,924	32	2,085,022	32	378,902	40	33	33	3[illegible]
Subtotal 4-Year Institutions	4,167,000	55	3,541,000	53	626,000	66	34	32	43
2-Year Institutions	1,375,000	18	1,375,000	21	——	——	63	63	——
Total Public Institutions	(5,542,000)	73	(4,916,000)	74	(626,000)	66	40	40	43
Private Institutions									
4-Year Institutions	1,957,000	26	1,637,000	24	320,000	34	4	-3	68
2-Year Institutions	109,000	1	109,000	2	——	——	1	1	——
Total Private Institutions	(2,067,000)	27	(1,746,000)	26	(320,000)	34	4	-3	68
Grand Total	7,608,000	100	6,662,000	100	946,000	100	28	25	50

Sources: 1966 data, Harcleroad, Sagen, & Molen, *The Developing State Colleges and Universities*, Table II-1, p. 33. 1970 data, American Council on Education, *A Fact Book on Higher Education*, 1971, pp. 71.15, 71.17, 71.35.

awarded in the state colleges and universities has decreased considerably from the rapid growth rate of the late 1950s and early 1960s.

Graduate Enrollment and Earned Degrees

The rate of growth in graduate enrollment in SCUs between 1966 and 1970 was 65%. This was more than twice the growth rate in other public institutions (31%), but was slightly less than the rate of increase in private institutions (68%) (see Table II-1). Though the percentage of graduate students enrolled in SCUs has increased slightly since 1966 (from 24% to 26%), the percentage of total graduate degrees earned in SCU-type institutions has decreased. This suggests that SCUs may be playing a larger role in such programs as continuing education and professional improvement. As a result, there has been an expansion in their share of total graduate enrollment; but there has not been a commensurate increase in the number of graduate degrees awarded.

Total Enrollment and Earned Degrees

A comparison of enrollment data from the 1968 study with Table II-1 indicates that public institutions have increased their percentage of the total enrollment in higher education from 66% to 73%. This increase has been at the expense of private institutions, which have declined from 34% of total enrollment in 1966 to 27% in 1970. Every type of public higher education institution increased its percentage of the total U.S. postsecondary school enrollment during this period. The largest increase was in the 2-year institutions which increased their percentage of the total from 14% to 18%. The state colleges and universities increased their percentage from 21% to 23% while the total enrolled in all other public 4-year institutions increased slightly from 31% to 32%. These data confirm the trend which was identified in the 1968 study, the major growth in public rather than private institutions.[5]

Another trend which was pointed out as being significant in the 1968 study is also borne out by data in Table II-1. Between 1966 and 1970 the rate of increase in graduate enrollment was exactly double the rate of increase at the undergraduate level (50% as opposed to 25% for all types of institutions). SCUs and private 4-year institutions have led the way in graduate enrollment increases with 65% and 68% increases respectively (see Table II-1), while other public 4-year institutions have experienced

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[5] *Ibid.*

TABLE II-2

Earned Degrees 1966-1970 by Level, by Type of Institution

Type of Institution	Total		Bachelor's		Master's		Doctorate		Percent Change 1966-1970			
	Number	%	Number	%	Number	%	Number	%	Total %	Bach. %	Mast. %	Doct. %
Public												
SCU	289,945	27	240,602	29	48,467	23	876	3	47	53	23	132
Universities	402,770	38	297,573	36	86,884	42	18,313	61	71	66	95	71
Total Public	692,715	65	538,175	65	135,351	65	19,189	64	60	60	62	73
Private	379,866	35	295,147	35	74,036	35	10,683	36	32	26	51	39
Total	1,072,581	100	833,322	100	209,387	100	29,872	100	49	46	58	59

Sources: American Council on Education, *A Fact Book on Higher Education.* "Earned Degrees," 1971. National Center for Educational Statistics, *Earned Degrees Conferred: 1969-1970,* U.S. Government Printing Office, 1970.

only a 31% increase in graduate enrollment. In addition, in the non-SCU public 4-year institutions the undergraduate enrollment increased more (33%) than that at the graduate level (31%).

Analysis of Opening Fall Enrollment by Region

No significant regional changes have occurred in the relative sizes of the SCU institutions since the 1968 study. The West and Midwest continue to enroll a disproportionately large number of students in a relatively small number of institutions. Consequently, these institutions have an average enrollment of nearly 10,000 students compared to an average of from 4,000 to 6,000 students in the other regions (see Table II-3).

Increases in total enrollment between 1966 and 1970 were by far the largest in the Western part of the United States, where a 53% increase was recorded. The Southwestern region experienced a 38% enrollment increase, while all other regions had enrollment increases of less than the national AASCU average increase of 35%.

Increases in undergraduate enrollment tended to mirror increases in total enrollment with the West and Southwest regions which were experiencing the most growth (46% and 31% respectively, compared to the national AASCU average of 25%).

The most striking single enrollment statistic is at the graduate level. It reveals a rapid cutback in the graduate enrollment increase in the Northeastern region. While the Northeastern state colleges and universities were experiencing the fastest growth rate in the enrollment of graduate students among comparable institutions between 1954 and 1966 (a 714% increase compared to the national AASCU average of 460%), they have also experienced the slowest growth rate of any region between 1966 and 1970 (23% increase in enrollment as compared to the national AASCU average of 65%). In 1966 the Northeast region enrolled 32% of all AASCU graduate students, but by 1970 the percentage had dropped to 24%. During the 4-year period, the Midwest and the Southeast regions experienced gains of 5% and 4% respectively, in their share of the national AASCU graduate enrollment. One might speculate as to the causes for the precipitous drop in graduate enrollment increase in the Northeast region. The Northeast often tends to react first to various socioeconomic and other conditions which are later experienced by the other regions. Further, it has the largest proportional graduate enrollments in private higher education and pressure not to allow public institutions to cut into this area. Among other causes, the following appear to be of particular importance:

1. The winding down of the war has lessened the pressure on male students to enter graduate school.

TABLE II-3

Opening Fall Degree Credit Enrollment 1970
Percent Increase 1966-1970, by Level, by Region

Region	1970 Enrollment								Percent Increase 1966-1970		
	Number of Institutions		Total Enrollment		Undergraduate Enrollment		Graduate Enrollment		Total Enroll.	Undergrad. Enroll.	Grad. Enroll.
	Number	%	Number	%	Number	%	Number	%	%	%	%
1) West	30	11	330,215	19	253,154	18	64,958	26	53	46	48
2) Mountain/Plains	28	10	116,574	7	100,701	7	12,099	5	32	22	112
3) Southwest	24	9	145,073	9	126,075	9	16,129	7	38	31	93
4) Midwest	46	17	428,342	25	359,523	26	59,096	24	31	26	97
5) Southeast	63	24	329,597	19	277,214	20	33,964	14	26	13	110
6) Northeast	76	29	353,275	21	275,828	20	60,852	24	22	15	23
Total	267	100	1,703,076	100	1,392,495	100	247,098	100	35	25	65

Source: George H. Wade, *Fall Enrollment in Higher Education, 1970 Supplementary Information: Institutional Data*, United States Government Printing Office, Washington D.C. 20402, 1971.

2. An increased emphasis on vocationally-oriented education has reduced graduate enrollment increases.

3. The glutted market of overqualified professional personnel has begun to affect graduate school enrollment.

4. The recession of the late 1960s and early 1970s may have affected accessibility to graduate school.

Analysis of Opening Fall Enrollment by Institution Size

The trend of increased enrollments in SCUs, highlighted in the 1968 study, is continuing. In 1966, SCUs of 6,000 or more students enrolled 57% of all the students attending state colleges and universities. By 1970, this figure had increased to 71%. Furthermore, institutions of 15,000 students or more have experienced the largest percentage increase in total enrollment (170%) of any size interval (Table II-4). As a result, it is not surprising that institutions in the 1,000-2,000 and 2,000-4,000 enrollment intervals have experienced decreases in the percentage of total students which they enroll. It is evident that SCUs are moving toward a modal size which will exceed a total enrollment of 4,000 students.

Undergraduate and graduate enrollment increases between 1966 and 1970 closely parallel the increases in total enrollment. Major increases in enrollment at both the undergraduate and graduate level tended to occur in the relatively large institutions. Those colleges which enroll less than 4,000 students are experiencing a decrease in their percentage of total SCU students at both the undergraduate and graduate level.

If one compares the percentage enrollment increases by level for the total of all SCU institutions with the corresponding data for each of the different size intervals, it becomes apparent that the only size intervals which experienced enrollment increases greater than the national average for SCUs were those institutions with more than 10,000 students. Clearly this is the major growth area.

Institution Size Based on FTE Enrollment Data

The questionnaire data has provided us with rather complete full-time equivalent enrollment figures and projections (Table II-5). Between 1966 and 1970 the following changes have occurred:

1. The percentage of AASCU institutions with FTE enrollments below 6,000 decreased from 82% to 64%.

TABLE II-4

Opening Fall Degree Credit Enrollment 1970
Percent Increase 1966-1970, by Level, by Size of Institution

Size of Institution	1970 Enrollment: Number of Institutions		Total Enrollment		Undergraduate Enrollment		Graduate Enrollment		Percent Increase 1966-1970: Number of Insts. %	Total Enroll. %	Undergrad. Enroll. %	Grad. Enroll. %
	Number	%	Number	%	Number	%	Number	%				
15,000-Up	20	7	404,435	24	311,735	22	77,658	31	67	170	178	105
10,000-14,999	32	12	374,441	22	295,672	21	60,633	25	88	81	61	162
6,000- 9,999	54	20	423,433	25	347,022	25	61,199	25	13	26	7	48
4,000- 5,999	53	20	268,481	15	230,117	16	32,795	13	10	24	10	24
2,000- 3,999	60	23	173,045	10	153,432	11	12,468	5	-22	-23	-26	-31
1,000- 1,999	31	12	45,484	3	43,725	3	2,322	1	-34	-30	-33	2
0- 999	17	6	11,757	1	10,792	1	23	0	0	3	2	-97
Total	267	100	1,703,076	100	1,392,495	100	247,098	100	2	35	25	65

TABLE II-5

The Size of Institutions in 1970-1971 (Actual), 1972-73 and 1975-76 (Estimated) (Based on Full-Time Equivalent Enrollment)

Size of Institution	Number of Institutions 1970-71	Percent of Total	Number of Institutions 1972-73	Percent of Total	Number of Institutions 1975-76	Percent of Total
Below 1,000	11	4.8	10	4.3	7	3.1
1,000- 1,999	28	12.3	23	10.0	16	7.0
2,000- 2,999	35	15.4	33	14.3	27	11.8
3,000- 3,999	23	10.1	25	10.8	17	7.5
4,000- 4,999	19	8.3	21	9.1	20	8.8
5,000- 5,999	29	12.7	19	8.2	21	9.2
6,000- 7,999	22	9.6	32	13.8	28	12.3
8,000- 9,999	29	12.7	22	9.5	27	11.8
10,000-11,999	11	4.8	15	6.5	20	8.8
12,000-14,999	11	4.8	15	6.5	19	8.3
15,000-19,999	8	3.5	11	4.8	16	7.0
20,000-above	2	1.0	5	2.2	10	4.4
Total	228	100.0	231	100.0	228	100.0

2. The number of institutions in the 10,000 to 12,000 FTE size interval increased from 0 (zero) to 11.

3. The percentage of AASCU institutions with FTE enrollments of 10,000 or more increased from 4% to 14%.

The largest percentage of AASCU institutions still enroll fewer than 6,000 students (Figure II-1). It is important to note, however, that the percentage of institutions at every size interval below 6,000 was less in 1970 than in 1966. At the same time the percentage of institutions at every size interval above 6,000 had increased. This suggests that the equivalent of 6,000 full-time students may be a rather pivotal size for the state colleges and universities and may represent a "critical mass" or "critical size."

Finally, we have compared the FTE enrollment projections for 1972 which were made in 1966 and 1970, respectively, with the actual FTE enrollment figures for 1972 (Figure II-2). These data indicate that in the past AASCU administrators have predicted their future enrollments with a rather high degree of accuracy.

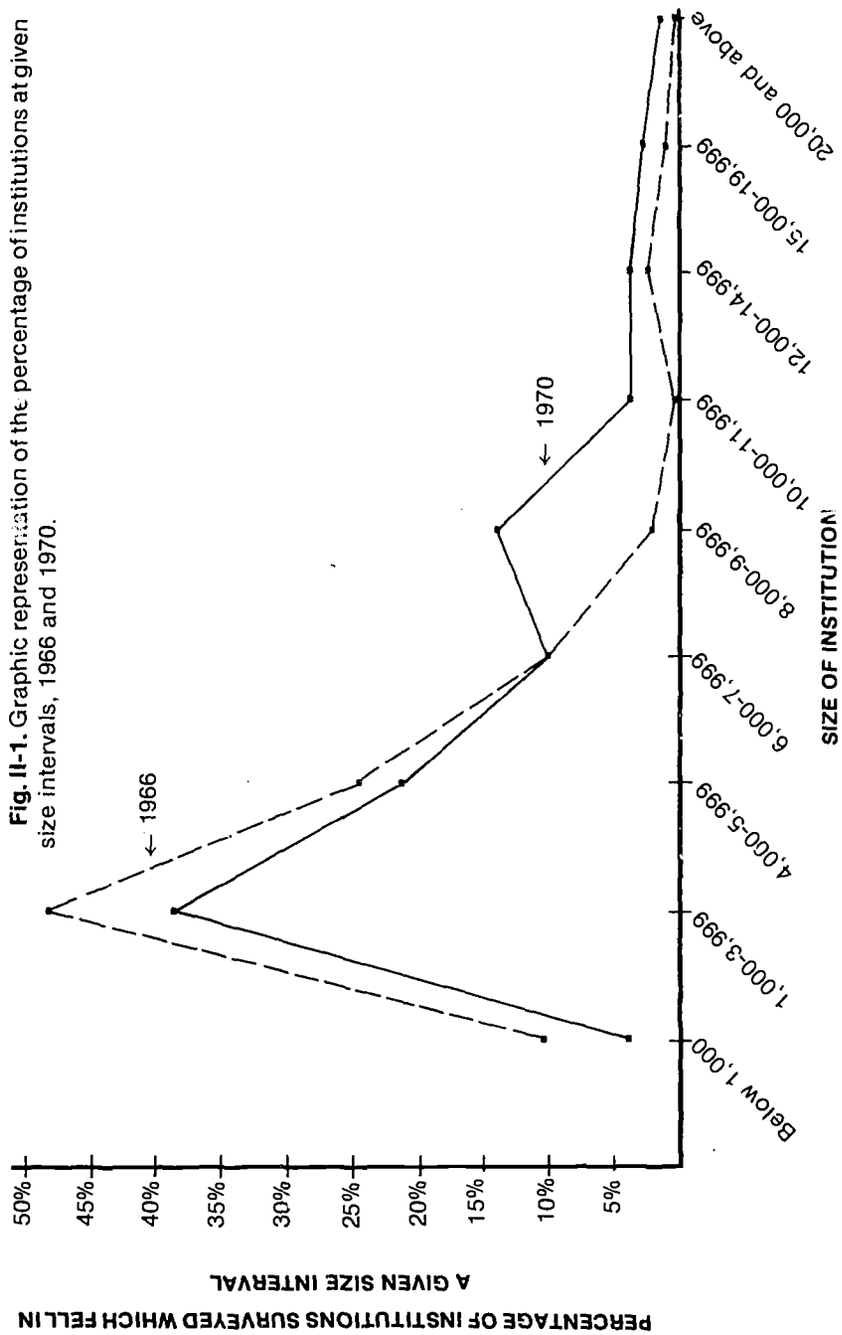

Fig. II-1. Graphic representation of the percentage of institutions at given size intervals, 1966 and 1970.

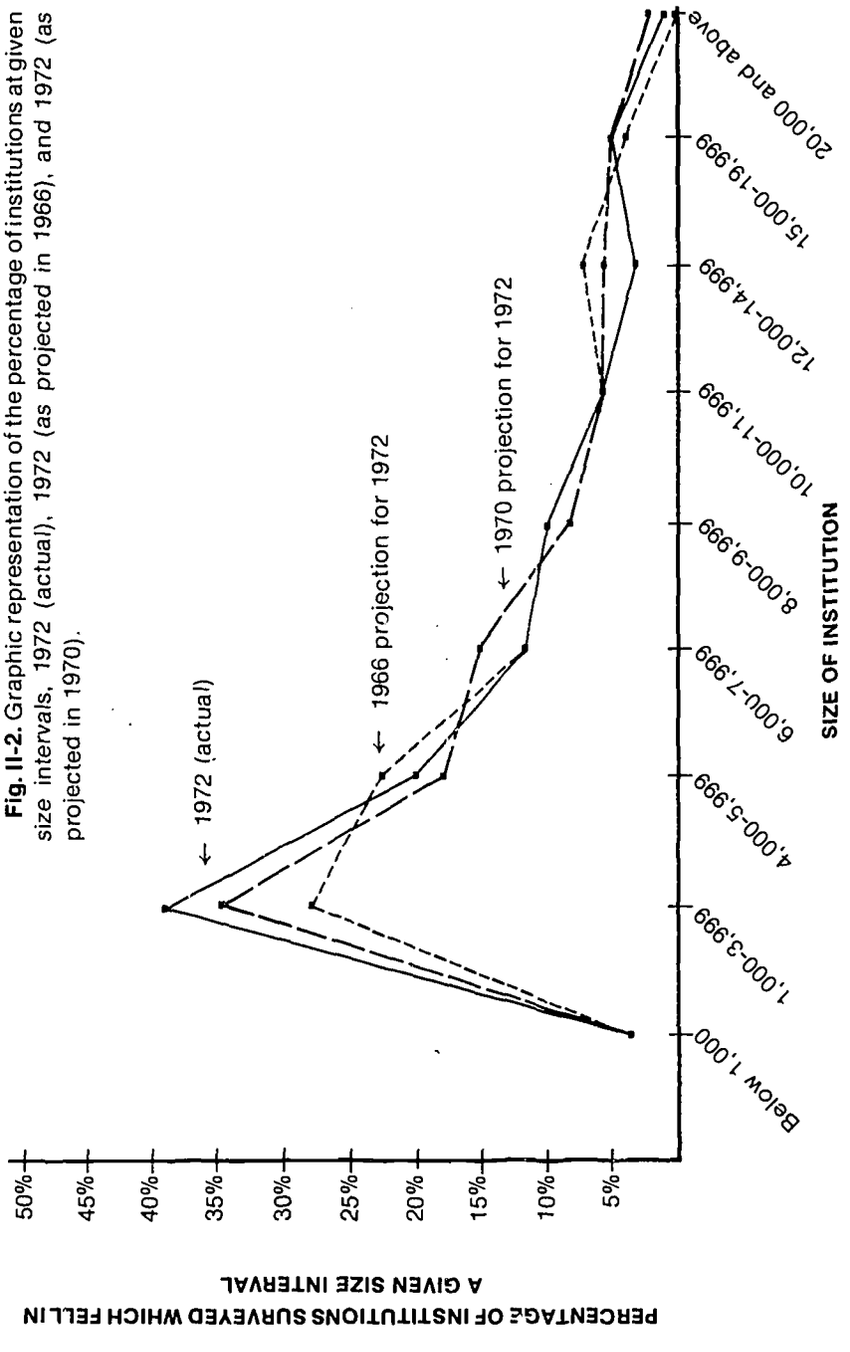

Fig. II-2. Graphic representation of the percentage of institutions at given size intervals, 1972 (actual), 1972 (as projected in 1966), and 1972 (as projected in 1970).

Chapter III

DEGREE PROGRAMS

In 1968 we described the developments in curriculum and instruction as follows:

> The primary function of SCUs 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 SCUs. 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) the rapid development of occupational pluralism, (2) the expansion of undergraduate educational subject field disciplines, and (3) the continued rapid development of graduate and continuing education.

In most ways these observations seem as relevant today as they were 5 years ago. If anything, the data collected in the past 5 years tend to substantiate and lend even further support to our 1968 observations concerning developments in curriculum and instruction. In this chapter we (1) present the data we have collected over the past 5 years regarding developments in degree programs in SCU institutions and (2) relate these data to the 1968 observations cited above.

Occupational Pluralism

One of the most significant trends verified through the collection of degree program data is the phenomenon aptly described as "occupational pluralism." A growing variety of sub-baccalaureate, baccalaureate, and post-baccalaureate specialized programs have been developed in the SCUs

in the past 5 years (see Tables III-1, III-2, and III-3). This development highlights the continuing response by SCUs to an increasing demand for postsecondary education in a wide variety of occupational fields.

Teacher education remains the single largest field of instruction at most state colleges and universities. Nevertheless, there continues to be an increased interest in and expansion into a variety of programs in other vocations. Our site visits in 1968 indicated that usually the first occupational field added when SCUs began to expand their curriculum to include other professional vocations was in the business area. Data collected since 1968 concerning the establishment of new degree programs support this conclusion.

Business

Of the 191 AASCU-type institutions with comparable data, 8 implemented new baccalaureate level degree programs in business and commerce by 1972. Another 13 implemented new baccalaureate level degree programs in computer science and systems analysis. Taken together, these two business-related fields represent the area of largest baccalaureate level degree program growth in AASCU-type institutions in the past few years (see Table III-1).

Further expansion into business fields is suggested by the establishment in 1972 of some 13 new sub-baccalaureate level degree programs in the following business-related areas: accounting, business, computer science, data processing, hotel management, marketing and merchandising, office management, public administration, and touristry management (see Table III-2).

Finally, 9 new master's level business-related degree programs were implemented in 1972 (see Table III-3). Thus, at the sub-baccalaureate, baccalaureate, and master's levels, business fields accounted for a total of 45 of the new degree programs implemented in the 191 AASCU-type institutions surveyed for the year 1972.

Health Sciences

As was true in 1966, another of the most rapidly developing groups of occupational majors continued to be the health sciences. Of the 191 institutions surveyed in 1972, 10 implemented new baccalaureate level degree programs in the "health professions" while 5 implemented new baccalaureate level programs in nursing (see Table III-1). This represents a significant expansion of the role of AASCU-type institutions in the professional preparation of personnel in the health sciences field.

TABLE III-1

Analysis of Baccalaureate Level Degree Programs at 191 AASCU Institutions

Field	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)
Agriculture	1	0	0	1	1
Architecture	0	0	0	—	—
Biological Science	3	3	100	3	6
Business and Commerce	6	1	17	7	8
City Planning	3	2	67	2	4
Computer Science and Systems Analysis	20	11	55	2	13
Engineering	0	0	0	2	2
English and Journalism	2	1	50	2	3
Environmental Studies	0	0	0	5	5
Ethnic Studies	0	0	0	3	3
Fine and Applied Arts	7	5	71	3	8
Folklore	1	1	100	1	2
Foreign Languages and Literature	6	4	67	1	5
Forestry	0	0	—	0	—
Geography	5	2	40	0	2
Health Professions	14	2	14	8	10
Home Economics	0	0	—	—	—
Law	0	0	—	—	—
Library Science	2	0	—	—	—
Mathematical Subjects	4	3	75	3	6
Military Science	2	0	—	—	—
Music	0	0	0	2	2
Nursing	0	0	0	5	5
Philosophy	9	6	67	3	9
Physical Sciences	1	0	—	6	6
Psychology	7	4	57	0	4
Records Management	0	0	—	0	—
Religion	5	2	40	1	3
Speech, Theatre and Drama	0	0	—	7	7
Social Sciences	2	1	50	11	12
Trade and Industrial Training	2	1	50	1	2
Miscellaneous Fields	3	1	33	13	14
Total	95	50	53	92	142

TABLE III-2

Analysis of Sub-Baccalaureate Degree Programs at 191 AASCU Institutions

Field	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)
Accounting	4	2	50	—	2
Auto Mechanics	2	1	50	1	2
Aviation	2	1	5	—	1
Behavioral Science	—	—	—	1	1
Business	3	1	33	2	3
Chemical Technology	3	—	0	1	1
Commercial Graphics	1	—	0	—	—
Community Service	—	—	—	1	1
Computer Science	1	—	0	2	2
Construction Technology	2	1	50	—	1
Cosmetology	1	1	100	—	1
Criminal Justice	2	2	100	—	2
Data Processing	7	1	14	—	1
Day Care Management	1	—	0	—	—
Dental Hygiene	3	2	67	1	3
Drafting and Design	2	1	50	—	1
Engineering Technology	1	—	0	1	1
Environmental Technology	1	1	100	—	1
Fire Technology	1	1	100	1	2
Food Service	2	2	100	—	2
Forest Technology	—	—	—	1	1
General Science and Technology	1	1	100	1	2
Hotel Management	3	1	33	—	1
Laboratory Science	—	—	—	1	1
Law Enforcement	—	—	—	3	3
Liberal Arts	—	—	—	1	1
Machine Work	1	—	0	—	—
Marketing and Merchandising	4	1	25	—	1
Mechanical Technology	1	1	100	—	1
Medical Technology	6	2	33	—	2
Mental Health	—	—	—	1	1
Metal Work and Welding	2	2	100	—	2

[Continued]

TABLE III-2 [*Continued*]

Field	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)
Nursing	9	5	56	1	6
Office Management	3	1	33	—	1
Physical Science	1	1	100	—	1
Plumbing	3	—	0	—	—
Public Administration	2	1	50	—	1
Radiology	2	1	50	3	4
Recreation and Parks	—	—	—	1	1
Stenography	1	—	0	—	—
Touristry Management	1	—	0	1	1
Water and Wastewater Technology	—	—	—	1	1
Total	81	35	43	28	63

Expansion in the Liberal Arts and Sciences

A second major area of curricular change in the SCUs has continued to be the expansion of liberal arts and science fields at the undergraduate level. As these institutions have grown and the faculty size in a given department has increased to four or five persons, the tendency has been to add a separate major in that discipline. Except in newly-developed institutions, this major has typically consisted of additional advanced courses designed to prepare the student for graduate or professional school work 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 has taken 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. The data presented in Table III-1 substantiate the trends outlined above. In 1972 significant growth took place in the implementation of new baccalaureate level degree programs in the fields of mathematics (6 new programs), biology (6 new programs), chemistry and physics (6 new programs in the physical sciences), political science and history (12

TABLE III-3

Analysis of Master's Degree Programs at 191 AASCU Institutions 1972

Field	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)
Agriculture	2	1	50	0	1
Architecture	4	1	25	0	1
Biological Science	10	3	30	0	3
Business and Commerce	9	5	56	0	5
City Planning	4	1	25	0	1
Computer Science and Systems Analysis	5	2	40	0	2
Engineering	2	0	50	1	1
English and Journalism	8	3	38	2	5
Fine and Applied Arts	4	—	0	—	0
Folklore	2	2	100	0	2
Foreign Languages and Literature	7	1	14	0	1
Forestry	—	—	—	—	—
Geography	3	—	0	—	—
Health Professions	3	1	33	—	1
Home Economics	7	3	43	0	3
Law	—	—	—	—	—
Library Science	5	2	40	—	2
Mathematical Subjects	14	6	43	2	8
Military Science	—	—	—	—	—
Philosophy	1	1	100	—	1
Physical Sciences	7	2	29	1	3
Psychology	12	3	25	2	5
Records Management	—	—	—	—	—
Religion	—	—	—	—	—
Social Sciences	9	2	22	5	7
Trade and Industrial Training	2	2	100	—	2
Miscellaneous Fields	1	0	0	4	4
Total	121	41	34	17	58

new programs in the social sciences), foreign languages (5 new programs in foreign languages and literature), geography (2 new programs), music (2 new programs), and psychology (4 new programs) (see Table III-1). In most cases these new liberal arts and science majors have grown out of secondary education programs in the same fields. Degree programs in other liberal arts fields which are not usually associated with secondary education have usually developed more slowly in state colleges and universities. In the 1968 study we explained this phenomenon as follows:

> Because of a lack of potential majors and because SCUs 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 SCUs.

In light of these observations, it was not surprising that the number of baccalaureate level degree programs in several of these "underdeveloped" disciplines has grown considerably in the last few years. The data indicate that 9 new philosophy degree programs were implemented in 1972. In addition, 7 new degree programs were implemented in speech, theatre, and drama, and 8 new programs were implemented in fine and applied arts. Since growth in these "underdeveloped" disciplines is somewhat dependent on institution size and SCU institution average size has now increased to about 5,000 students (see Chapter II), the recent expansion of the so-called "underdeveloped" disciplines appears logical.

The trend seems unmistakably clear; the state colleges and universities are continuing to rapidly expand their subject field disciplines. In 1972 alone, more than 140 new baccalaureate level degree programs were implemented in the 191 institutions surveyed.

Sub-Baccalaureate Occupational Fields

Perhaps the best indicator of the degree to which occupational pluralism has affected AASCU-type institutions is the diversity of new sub-baccalaureate level degree programs which were implemented in 1972. In the helping services area, new 2-year programs have been implemented in the following areas: (see Table III-2)

Community Service
Criminal Justice
Dental Hygiene
Fire Technology
Food Service
Law Enforcement

Medical Technology
Mental Health
Nursing

Of the 191 institutions surveyed, 63 new sub-baccalaureate level degree programs were implemented in 1972 alone. This represents a significant expansion into occupational fields which heretofore have not looked to SCUs for such technical training. These findings verify several of the broad trends which were outlined in the Rowlett study entitled, *Less-Than-Baccalaureate Level Technical Education Programs in Higher Education.*[6] Conclusions from that study which have been verified by our data appear below.[7]

1. Member institutions and eligible nonmembers of the AASCU (and the National Association of State Universities and Land-Grant Colleges) are involved to a considerable extent in less-than-baccalaureate technical programs and, furthermore, their involvement increased sharply during the 1967-71 period.

2. The less-than-baccalaureate level programs offered in the participating institutions were mainly 2-year programs, but there was a broad range of individual program titles.

4.[8] If all the (97) programs planned are implemented by 1975, this would be a substantial increase in the number of programs presently offered, although not nearly so great as the increase from 1967-71.

On the basis of the data we have gathered, it appears that a growing variety of specialized programs at all levels have been developed and are continuing to be developed in SCUs at the sub-baccalaureate level to prepare students for a widening range of rather specific occupations.

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[6]John Rowlett, *Less-Than-Baccalaureate Level Technical Education Programs in Higher Education*, (Richmond, Ky.: Eastern Kentucky University, June 1971).

[7]It should be pointed out that the IKU study included data from both AASCU and NASULGC institutions and thus is not strictly comparable to the AASCU data utilized in our study.

[8]This number sequence corresponds to that in the Eastern Kentucky University study referenced in footnote 6.

Graduate and Continuing Education

Graduate and continuing education continue to be the fastest growing of all SCU functions. Between 1966 and 1970 graduate enrollment in the state colleges and universities grew nearly twice as rapidly as it did in other public institutions (see Chapter II). During the same period SCU graduate enrollment increased more than twice as rapidly as SCU undergraduate enrollment. With most of the basic undergraduate fields now reasonably well developed, graduate education has continued to be an area of great expansion.

Continuing education, or life-long learning, has become necessary for most vocations, particularly for those persons who wish to advance in their chosen professional fields. This has resulted in an unprecedented growth in continuing education, particularly in the form of occupational master's degree programs. Continuing education has long been a major activity in teacher education.

Master's degree programs were offered in 1970 by a significant number and variety of SCUs (Table III-4). Though enrollment growth rates at the master's level in education fields has not been great, there has been a considerable increase of offerings in some specific fields. The data indicate certain important trends (Table III-4). There has been a substantial growth in the number of master's level degree programs in the field commonly referred to as "special education." There have been substantial percentage increases in program offerings in the study of education of exceptional children, emotionally-disturbed children, and crippled children. Similarly, large increases in the number of programs in the fields of blind children, mentally retarded children, and deaf children seem significant.

There are also data (Table III-5) regarding the implementation of other master's level degree programs in 1972. Areas of significant growth in 1972 have been in the fields of early childhood education and educational administration. Other fields where a modest number of new degree programs have been implemented include business education, guidance and counseling, health education, nursery and kindergarten, and physical education.

The data related to master's level degree programs by broad field (Table III-6) seem to be somewhat less conclusive than those for master's programs in education. Though fields like architecture, city planning, computer science and systems analysis, and religion have large percentage increases or decreases, these changes are probably not significant because of the very small base number of institutions involved. The most significant changes suggested by this table are in the broad field of education and in the health professions as a general field.

TABLE III-4

Master's Degree Programs in Education
1966 and 1970

	Number of Institutions Offering Programs				
	1966-67		1970-71		Percent Increase 1966-1970
Specific Field	N	%	N	%	%
Physical Education	67	35	137	59	69
Health Education	44	23	82	35	57
Recreation	13	7	56	24	243
Exceptional Children	4	2	53	23	1050
Blind Children	1	.5	10	4	700
Mentally Retarded Children	11	6	82	35	483
Emotionally Disturbed Children	2	1	40	17	1600
Deaf Children	5	3	23	10	233
Speech and Hearing Problems	36	19	81	35	84
Crippled Children	1	.5	13	6	1100
Agriculture	6	3	16	7	133
Art	27	14	106	46	229
Business and Comm. (Bus. Ed.)	44	23	95	41	78
Retail Selling	1	.5	18	8	1500
Home Economics	8	4	80	35	775
Trade and Industrial Arts	28	15	70	30	100
Music	41	21	124	54	157
Nursery and Kindergarten	1	.5	66	29	5700
Early Childhood	10	5	69	30	500
Elementary	133	69	172	74	7
Secondary	108	56	160	69	23
Adult	8	4	12	5	25
General Education and Teaching	41	21	98	42	100
Administration	77	40	84	36	-10
Guidance and Counseling	91	47	106	46	- 2
Rehabilitation Counseling	9	5	18	8	60
History, Philosophy and Comparative	9	5	55	24	380
Curriculum and Instruction	22	11	60	26	136
Educational Psychology	26	14	57	25	79

Sources: 1966-67 data from Harcleroad, Sagen, & Molen, *The Developing State Colleges and Universities.* 1969. 1970-71 data obtained from 231 questionnaires returned in 1970.

TABLE III-5

Analysis of Master's Degree Programs in Education at 191 AASCU Institutions

Field	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)
Administration	6	3	50	2	5
Adult	2	1	50	—	1
Agriculture	1	1	100	—	1
Art	4	2	50	—	2
Blind Children	—	—	—	—	—
Business and Commerce	1	1	100	2	3
Crippled Children	0	0	0	—	0
Curriculum and Instruction	2	0	0	1	1
Deaf Children	3	1	33	—	1
Early Childhood	9	9	100	—	9
Educational Psychology	2	—	0	—	—
Elementary	—	—	—	1	1
Emotionally Disturbed Child	3	0	0	—	0
Exceptional Children	4	2	50	—	2
General Education and Teaching	—	—	—	1	1
Guidance and Counseling	3	2	67	1	3
Health Education	3	3	100	—	3
History, Phil. and Comparative	1	—	0	—	—
Home Economics	—	—	—	—	—
Mentally Retarded Children	4	1	25	—	1
Music	3	0	0	2	2
Nursery and Kindergarten	4	2	50	1	3
Physical Education	2	2	100	1	3
Recreation	5	2	40	—	2
Rehabilitation Counseling	1	—	0	—	—
Retail Selling	—	—	—	—	—
Secondary	—	—	—	—	—
Speech and Hearing Problems	4	1	25	—	1
Trade and Industrial Arts	1	1	100	—	0
Other	2	0	0	9	9
Total	70	34	49	21	54

TABLE III-6

Master's Degree Programs by Broad Field 1966 and 1970

	Number of Institutions Offering Programs				
	1966-67		1970-71		Percent Increase 1966-1970
Broad Field	N	%	N	%	%
Agriculture	7	4	10	4	0
Architecture	1	.5	3	1	100
Biological Science	83	43	96	42	- 2
Business and Commerce	58	29	68	29	0
City Planning	1	.5	2	1	100
Computer Science and Systems Analysis	3	2	2	1	-50
Education	192	99	154	67	-32
Engineering	18	9	21	9	0
English and Journalism	91	47	104	45	- 4
Fine and Applied Arts	78	40	77	33	-18
Folklore	—	—	1	.5	—
Foreign Languages and Literature	49	25	57	25	0
Forestry	8	2	4	2	0
Geography	29	15	41	18	20
Health Professions	4	2	13	6	200
Home Economics	32	16	40	17	6
Law	1	.5	1	.5	0
Library Science	28	14	29	13	- 7
Mathematical Subjects	79	41	95	41	0
Military Science	—	—	—	—	—
Philosophy	18	9	23	10	11
Physical Sciences	82	42	80	35	-17
Psychology	46	24	72	31	29
Records Management	—	—	3	1	—
Religion	1	.5	3	1	100
Social Sciences	91	47	99	43	- 9
Trade and Industrial Training	38	20	24	10	-50

Sources: 1966-67 data from Harcleroad, Sagen, & Molen, *The Developing State Colleges and Universities*, 1969. 1970-71 data obtained from 231 questionnaires returned in 1970.

If the data concerning education programs are correct, one might assume that a significant number of SCUs are moving away from the traditional master's degree in education. Indeed, our survey data showed a 32% drop in the number of institutions offering master's degrees in education between 1966 and 1970. Though some decrease here is possible, we seriously doubt that these data provide a true picture of the number of SCU-type institutions offering master's degrees in education. It seems more likely that a number of the institutions sampled may have erred in completing the survey.

The most significant positive change is in the field of the health professions, where 200% more institutions were offering master's degrees in 1970 than in 1966. As we have suggested previously, new degree programs in the health professions represent a major area of SCU growth.

Doctoral degree programs have been offered by a number of the AASCU-type institutions for decades, but only in recent years have they developed in a significant number of these institutions. Twenty-seven of these institutions (those shown in Table III-7) were offering doctoral degrees at the time of the Chase-Burnett study of the total number of doctor's degrees awarded in the decade of the 1960s. Over 100 doctoral degrees had been awarded by seven of the institutions by that time including the largest, the University of Northern Colorado (1,033), and North Texas State University (344), University of Southern Mississippi (212), Ball State University (167), East Texas State University (144), Texas Woman's University (124), and Northern Illinois University (104). During the last 5 years of the decade, AASCU institutions awarded an increasing percentage of the total doctorates conferred in the United States, awarding 598 (2% of the total) in 1969-70.

Since that time, a number of additional institutions scattered throughout the United States have begun to offer doctoral programs, including the University of South Florida, Idaho State University, Middle Tennessee State University, Georgia State University, Stephen F. Austin State University (Texas), Tennessee Technological University, Indiana University of Pennsylvania, East Tennessee State University, the University of Texas at Arlington, and programs have been authorized recently at the University of Texas at Dallas.

A number of the programs in the AASCU-type institutions are the newly-developing Doctor of Arts degree programs. In the studies made by Robert Koenker, Dean of the Graduate School of Ball State University, 20 institutions were offering the Doctor of Arts degree in the fall of 1972. Five of these institutions were from the group being studied—Ball State University, which offered the DA in music with 30-35 students, many of them full time; Idaho State University with degree programs in English, mathematics, biology, and government; Middle Tennessee State University with

TABLE III-7

Total Number of Doctor's Degrees Awarded by AASCU Type Institutions, by Aggregate U.S. Institutions, and AASCU Percentages of the U.S. Aggregate 1960-61 through 1969-70 (AASCU Institutions Arranged by Descending Order of Total Degrees, or Alphabetically When Tied)

Institution	Total Degrees	1960-1961	1961-1962	1962-1963	1963-1964	1964-1965	1965-1966	1966-1967	1967-1968	1968-1969	1969-1970
1	2	3	4	5	6	7	8	9	10	11	12
Univ. of Northern Colorado	1,033	49	78	71	81	78	101	100	191	137	147
North Texas State Univ.	344	16	6	20	23	26	32	34	34	56	97
Univ. of Southern Miss.	212	0	0	13	9	10	11	24	31	60	54
Ball State University	167	0	0	0	6	9	16	17	28	37	54
East Texas State Univ.	144	0	0	0	2	4	6	20	20	38	54
Texas Woman's Univ.	124	6	6	5	9	7	12	13	15	21	30
Northern Illinois Univ.	104	0	0	0	1	2	10	12	31	26	22
University of Akron	87	8	8	6	9	4	7	10	7	14	14
Virginia Commonwealth U.	56	1	5	4	8	0	3	7	9	8	11
Illinois State Univ.	53	0	0	0	0	0	0	10	13	12	18
Bowling Green State U.	49	0	0	2	1	1	1	2	2	10	30
University of Toledo	44	0	0	1	0	2	5	7	7	7	15
Newark Coll. of Engineering	22	0	0	0	0	1	4	5	5	4	3
Memphis State Univ.	19	0	0	0	0	0	0	0	1	8	10
Western Michigan Univ.	18	0	0	0	0	0	0	0	0	2	16
Indiana State Univ.	16	0	0	0	0	0	1	4	3	3	5
Lowell Technological Inst.	13	0	0	0	1	3	2	2	4	1	0

New Mexico Institute of Mining & Technology	12	0	1	1	0	0	1	0	2	3	4
McNeese State Univ.	7	0	0	0	0	0	0	0	0	0	7
*Michigan Technological U.	7	0	0	0	0	0	0	0	0	4	3
Wichita State Univ.	6	0	0	1	0	0	1	0	1	1	2
Cleveland State Univ.	5	3	0	1	1	0	0	0	0	0	0
*New Mexico Highland U.	2	0	0	0	0	2	0	0	0	0	0
North Carolina Central U.	1	0	0	0	1	0	0	0	0	0	0
Northeast Louisiana State College	1	0	0	0	0	0	0	0	0	0	1
San Diego State College	1	0	0	0	0	0	0	1	0	0	0
*South Dakota School of Mines & Technology	1	0	0	0	0	0	0	0	0	0	1
AASCU Totals	2,548	83	104	125	152	149	213	268	404	452	598
Aggregate U.S.	183,988	10,575	11,622	12,822	14,490	16,467	18,239	20,621	23,091	26,189	29,872
% AASCU Totals are of U.S. Aggregate	1.38%	0.78%	0.89%	0.97%	1.04%	0.90%	1.16%	1.29%	1.74%	1.72%	2.00%

*Indicates AASCU Nonmembers.

Source: John L. Chase and Elfrida L. Burnett, *Doctor's Degrees Conferred by All U.S. Institutions: By State, Academic Field, Sex, and Institution 1960-61 Through 1969-70,* HEW, Office of Education, Washington, D.C., January 1972.

TABLE III-8

Summary Analysis of AASCU Degree Program Planning 1970-1972

Level	Proposed in 1970 for 1972	Proposed in 1970 and Implemented in 1972	% of Programs Proposed in 1970 for 1972 Which Were Actually Implemented	Implemented in 1972 But Not Proposed in 1970	Total Programs Implemented in 1972 (Proposed or Not)	% of Programs Implemented in 1972 Which Had Not Been Proposed in 1970	% of Programs Implemented in 1972 Which Had Been Proposed in 1970
	1	2	3	4	5	6	7
Sub-baccalaureate programs	81	35	43	28	63	56	44
Baccalaureate programs	95	50	53	92	142	35	65
Master's programs (Education)	70	34	49	21	55	62	38
Master's programs (Non-Education)	121	41	34	17	58	71	29
Education Specialist programs	34	19	56	—	19	100	0
Education Doctorate programs	3	1	33	—	1	100	0
Doctor of Arts programs	11	5	45	—	5	100	0
PhD programs	19	7	37	—	7	100	0
Totals	434	192	44	158	350	55	45

degree programs in English, history, and physical education: the University of Northern Colorado with seven DA majors in botany, chemistry, geology, history, mathematics, physics, and zoology; and Stephen F. Austin State University.

Eleven of the respondent institutions in the 1970 survey had expected to be offering the DA degree, and 5 of them were doing so in 1972. In Dean Koenker's fall 1972 study, 3 additional AASCU institutions indicated that they definitely planned Doctor of Arts programs and were planning to offer them, pending approval by their appropriate state boards. These institutions were: Appalachian State University (North Carolina), planning to offer DA majors in sciences, social science, and mathematics in 1974-75; Northern Arizona University, planning to offer Doctor of Arts majors in history and political science in 1975; and Western Illinois University, planning degrees in biological science and geography in 1974-75. These programs may have been delayed, but they were planned for implementation at the time of the survey. If the latter 3 institutions should move forward with the proposed programs, the total of 40 of the AASCU-type institutions, distributed widely throughout the United States, will be offering graduate work at the doctoral level, with most of them accepted as members of the Council of Graduate Schools.

Degree Program Planning

A large portion of the 1970 questionnaire was devoted to degree program planning in the state colleges and universities. By comparing that data with comparable data from the 1972 questionnaire, it was possible to judge how effective institutions have been in planning new degree programs. A summary of this data is presented in Table III-8. Though for the most part we have elected to present the data and allow the reader to draw his own conclusions, one trend seems obvious. It appears that degree program planning has not been very effective. Of the 434 degree programs planned in 1970 for implementation in 1972, only 192 or 44% were actually implemented. Ineffective planning is also suggested by the fact that no 1970 plans had been made for 158 of the 350 new degree programs that were implemented in 1972 (see Table III-8). These data do, however, emphasize the flexibility of AASCU-type institutions in meeting regional needs as they develop.

RECENT INNOVATIVE PROGRAMS

Attempting to survey the nature and extent of the development of "innovative programs" in the state colleges and universities is nearly an impossible task. On the one hand, many educators have become cynical about the use of the term "innovation." They suggest that there is no such thing as innovation in the field of higher education. Everything which might be called innovative has been tried, and nearly everything has met with only limited success. Additional changes would be merely modifications, at the most.

On the other hand, those who believe there is something which might be properly termed an "innovation" can rarely agree on how to define it. One person's innovation often times seems to be another person's cliche. Likewise, a list of innovative ideas considered representative or fairly complete at one time may be incomplete later. This is true of the list of innovative program ideas surveyed in these studies in 1966 and 1970. Since that time new emphases dubbed "innovative" have surfaced—such as time-shortened degrees, pass-fail grading, credit by examination, credit for work experience, modular learning, and external degrees by long-distance means, mostly home correspondence study. Most of these are not new and truly innovative but represent a recycling of ideas tried many times in the past in higher education in the United States. Our surveys included mostly those innovative ideas based on really new technology, or programs or teaching methods based on major improvements in communication or transportation capabilities (such as overseas study). In any case, any survey analysis of innovative programs must be looked upon with some degree of healthy skepticism; and our current analysis cannot be excepted.

As a part of the questionnaire follow-up study, AASCU institutions were asked to indicate their current status in a number of so-called "innovative"

areas. The responses, tabulated by size of institution, have been recorded for 1966 and 1970 (Tables IV-1 and IV-2). In making comparisons between these two tables, it should be pointed out that the sample sizes are not the same. For that reason, most of the discussion involving comparison and contrast between these 2 years is based on percentages rather than absolute numbers. The observations which follow are conclusions and inferences based on a comparison of these data.

Based on the list of innovative programs included in the questionnaire, the percentage of institutions of all sizes currently involved in the administration of "innovative programs" has increased for all types of programs except (1) computer-assisted instruction or learning and (2) "other" innovative or experimental programs. These two program areas have experienced slight percentage decreases since 1966 (see column 8 in Tables IV-1 and IV-2 respectively).

The percentage of all AASCU institutions surveyed offering "area studies" programs has increased from 25% in 1966 to 39% in 1970 (see column 8 in Tables IV-1 and IV-2). This percentage increase is the largest of the eight program areas surveyed and clearly indicates the significant expansion of area studies programs in state colleges and universities. Undoubtedly, this increase reflects the widely-expanded efforts of AASCU's Committee on International Programs and its Office of International Programs.

A cursory inspection of the data might indicate that size apparently has little affect on such innovative development. That was a conclusion in the 1968 study. However, if the mean number of innovative programs per institution is calculated by institution size (see Tables IV-1 and IV-2), it becomes apparent that the number of innovative programs per institution does correlate directly with size of institution. That is, the larger the institution, the more innovative programs that institution is likely to have in operation. For example, in 1970 the average number of innovative programs in operation per institution at institutions with enrollments of less than 999 was 1.09, while that same statistic for institutions with enrollments of 15,000+ was 3.70. By and large, institutions whose size fell somewhere between these two extremes had a mean number of programs per institution statistic which fell somewhere between 1.09 and 3.70 (see Table IV-2). The data in Table IV-1 indicate that a similar situation also existed in 1966, although we overlooked this trend in our 1968 study. In these two surveys, institutional size and the number of innovative programs in operation are direct correlates.

A few of the specific size relationships appear particularly significant. Larger institutions, above 6,000 students in 1970, have learning resource centers in 60%-68% of the various size groupings. Since modular instruction and increased opportunity for individualized study often accompany the development of such learning resource centers, this provides some

TABLE IV-1

Recent Innovative Programs by Size of Institution (1966)

Size of Institution (Number of Institutions)	(1) 0-999 (12)		(2) 1,000-2,000 (30)		(3) 2,000-4,000 (51)		(4) 4,000-6,000 (40)		(5) 6,000-10,000 (36)		(6) 10,000-15,000 (7)		(7) +15,000 (5)		(8) 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

[Continued]

TABLE IV-1 [*Continued*]

Other Innovative or Experimental Programs	2	17	3	10	12	24	6	15	6	17	3	43	1	10	35	19				
Total Number of Programs	18		32		104		81		85		16		15		373					
Mean Number of Programs per Institution*	1.50		1.07		2.04		2.03		2.36		2.29		3.00		2.06					

*The Mean Number of Programs per Institution was calculated by dividing the total number of innovative programs in operation in all institutions of a given size by the total number of institutions of that size.

TABLE IV-2

Recent Innovative Programs by Size of Institution (1970)

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
Size of Institution	**0-999**		**1,000-2,000**		**2,000-4,000**		**4,000-6,000**		**6,000-10,000**		**10,000-15,000**		**+15,000**		**Total**	
(Number of Institutions)	**(11)**		**(28)**		**(58)**		**(48)**		**(51)**		**(22)**		**(10)**		**(228)**	
Programs	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Learning Resource Centers	4	36	15	54	29	50	26	54	31	61	15	68	6	60	129	57
Area Studies Program	2	18	6	21	12	21	22	46	28	55	11	50	9	90	90	39
Special Overseas Centers	0	0	1	4	5	9	8	17	12	24	6	27	8	80	40	18
Sister College or University Abroad	0	0	2	7	9	16	10	21	12	24	3	14	2	20	38	17
Special Field Work or Intern Program	5	45	6	21	13	22	27	56	25	49	9	41	5	50	90	39
Computer Assisted Instruction or Learning	0	0	9	32	13	22	8	17	15	29	7	32	5	50	57	25
Innovative Administrative Changes	1	9	7	25	7	12	14	29	13	25	5	23	2	20	49	21

[*Continued*]

TABLE VI-2 [*Continued*]

Other Innovative or Experimental Programs	0	0	3	11	4	7	8	17	13	25	7	32	0	0	35	15				
Total Number of Programs	12		49		92		123		149		63		37		528					
Mean Number of Programs per Institution*	1.09		1.75		1.58		2.56		2.92		2.86		3.70		2.40					

*The Mean Number of Programs per Institution was calculated by dividing the total number of innovative programs in operation in all institutions of a given size by the total number of institutions of that size.

evidence of planned attempts to individualize learning opportunities as AASCU institutions grow larger. Larger institutions also appear to work more frequently with special overseas centers—another important result of the AASCU international education programs mentioned earlier. Particularly significant are the 80% and 90% positive responses of institutions with over 15,000 students regarding special overseas centers and area studies programs.

Further evidence of the wide variety of developments considered innovative programs appeared in the answers to the open-end question about "other" innovative programs being developed. Forty-five institutions provided responses to this part of the survey, with many of these institutions designating a number of "other" innovative programs. Approximately 40 widely-differing types of programs were named. They varied from a special Master of Arts degree in Aeronautical Systems given at the University of West Florida under contract with the Navy Department to a marine sciences laboratory and field station operated cooperatively by five institutions from the California State University and College System; from a continuing education program for women at Eastern Washington State College to a special weekend and evening college at Metropolitan State College in Colorado; from teaching load credit for faculty advising at Ramapo College of New Jersey to a special governmental and labor relations program at West Liberty State College.

A number of these additional or "other" innovative programs were developing on many campuses and often at widely scattered places in the United States. Twelve institutions listed special programs for disadvantaged students, Upward Bound and special laboratory or remedial programs for students admitted with special needs. As might be expected, seven of the institutions specified special programs in various phases of teacher education (including emphases on teaching of Indians, Head Start students, and Teacher Corps programs in particular) and special cooperative programs with area public schools, often emphasizing urban problems. Six institutions had newly-developed honors programs or special independent study programs. Six various institutions also had developed special organizational and curricular programs by forming experimental colleges or cluster colleges. Ten institutions had developed special programs for particular groups in our society, including Black studies, Mexican-American studies (including bilingual education), Indian or Native American studies, minority studies, and migrant studies. Seven institutions had developed consortia arrangements with different types of educational institutions. Eight special programs had been developed in urban education, environmental studies, or general studies programs which provided a great deal of flexibility. The wide diversity evidenced in the

responses to this item emphasizes the adaptability of AASCU-type institutions as well as the great differences in opinion regarding what is "innovative" at any given time.

One further consideration that must be kept in mind in any analysis of innovation is the motivation behind the implementation of innovative programs. This current analysis deals only indirectly with motivation. Other experience and analysis lead to the theory that educators tend to look on innovation as being motivated by some sort of "activist" spirit to further improve educational institutions. On the contrary, innovation more often seems motivated by reaction rather than action. True innovations in higher education probably have resulted from the various crises (economic, social, political) which have affected American colleges and universities, rather than from any altruistic drive for improvement. With this in mind, the 1970s may well be a decade of innovation, particularly in light of the financial crisis which higher education now faces.

LIBRARIES

It was pointed out in the 1968 study that historically "the general expense budgets for nearly all SCUs have been relatively smaller and less flexible than those of the larger universities. As a partial result, state college and university libraries have been inadequate." In the same study, however, it was also found that major improvements had taken place in library holdings between 1954 and 1966. Our 1970 data indicate that improvement in SCU libraries has continued at a rapid rate since 1966.

As a whole, SCU-type institutions experienced a 50% increase in library holdings (in mean number of volumes) between 1966 and 1970. The greatest increase was experienced in the West region, where the mean number of volumes per institution increased by 108%. That region now has the largest average library size (370,000 volumes) of any group of state colleges and universities (see Table V-1).

The growth rates in the regions which experienced excessively large percentage increases in mean number of library volumes between 1954 and 1966 seem to have leveled off between 1966 and 1970. For example, the Northeast region, which experienced the largest increase between 1954 and 1966 (178%), experienced an increase of only 34% between 1966 and 1970 (see Table V-1). Conversely, the West region, which had the largest increase (108%) between 1966 and 1970, experienced the lowest growth rate (58%) between 1954 and 1966. These trends suggest that AASCU library holdings are becoming more uniform across regions, but a glance at a graphical representation of the data (Figure V-1) indicates that just the opposite is true. This graph presents a comparison of the mean number of library volumes for the years 1954, 1966, and 1970 by region. It seems obvious from this graph that the disparity in library holdings between the various regions has increased sharply since 1954. The relatively flat 1954 curve (Figure V-1)

is indicative of the fact that library holdings in the six regions were quite uniform at that time. The difference between the highest and lowest mean number of library volumes by region was only 72,000 volumes. By 1970 this difference had jumped to 217,000 volumes. The dramatic peaks and troughs in the 1970 curve clearly indicate that variance in library holdings between regions has increased substantially since 1954.

Certainly some of this inter-region variance can be explained by the differential enrollment growth rates across regions. For example, one would expect library size to increase more rapidly in regions that have experienced rapidly expanding enrollments. Figure V-2 illustrates the relationship which existed in this regard between 1966 and 1970. As might be expected, the West region, with the most rapid rate of enrollment increase, also experienced the most rapid increase in library holdings. But the correspondence between enrollment trends and library holdings is less clear in the other five regions. The statistics from the Southwest region indicate that just the opposite is happening. In that region the rate of enrollment increase was greater than the rate of increase in library holdings. This trend should be of concern to college administrators, particularly those in the Southwest, since AASCU-type institutions have often been criticized because of their inadequate library facilities.

The growth of library holdings in AASCU institutions by size is summarized in Table V-2. These data indicate, as would be expected, that institutions in the 10,000 to 15,000 size range have increased their library holdings the most since 1966, while institutions in the 1,000 to 2,000 size range have experienced little or no increase in library holdings.

Finally, data are presented on the mean size of AASCU libraries for the years 1954, 1966, and 1970 and compared to the *ALA Standards for College Libraries* of the same size (Figure V-3).[9] Though it is obvious from this graph that AASCU libraries are still not up to the ALA standards set in 1959, each year has seen an improvement in library holdings at every size level. By 1970 substantial gains had been made in closing the gaps between ALA standards and the actual library holdings in nearly all types of AASCU institutions.

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[9]*ALA Standards for College Libraries*, The Association of College and Research Libraries, 50 East Huron Street, Chicago, Illinois, 1959.

TABLE V-1

Average Library Volumes, 1954, 1966, 1970 and Percent Increase, 1954-1966 and 1966-1970 by Region

Region	1954		1966		1970		Percent Increase in Mean No. of Volumes	
	Number of Institutions	Mean No. of Volumes (In Thous)	Number of Institutions	Mean No. of Volumes (In Thous)	Number of Institutions	Mean No. of Volumes (In Thous)	1954-66 %	1966-70 %
1) West	15	113	29	178	28	370	58	108
2) Mountain-Plains	20	59	25	102	25	146	73	43
3) Southwest	22	64	31	149	19	197	133	32
4) Midwest	35	85	43	179	42	256	111	43
5) Southeast	43	57	59	126	56	194	121	54
6) Northeast	60	41	75	114	63	153	178	34
Total	195	63	262	139	233	209	121	50.4

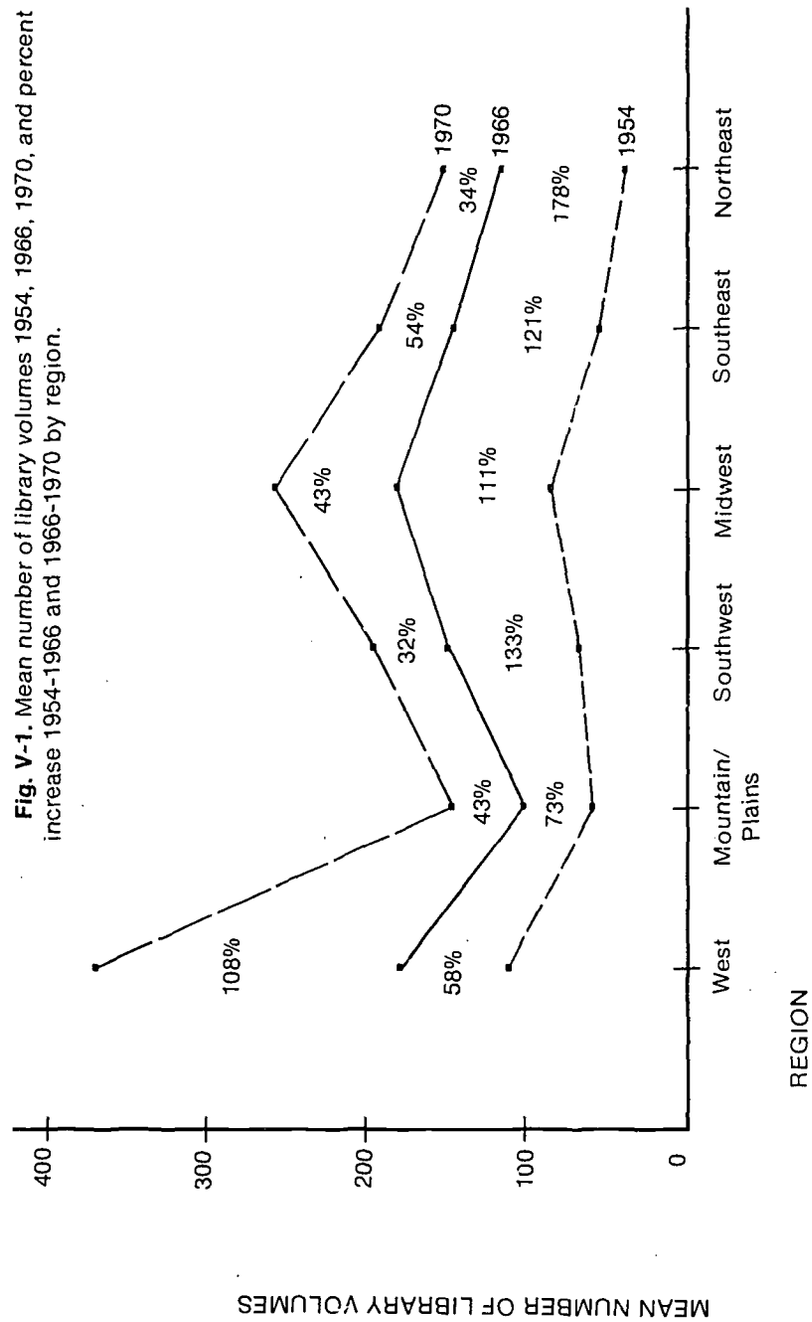


Fig. V-1. Mean number of library volumes 1954, 1966, 1970, and percent increase 1954-1966 and 1966-1970 by region.

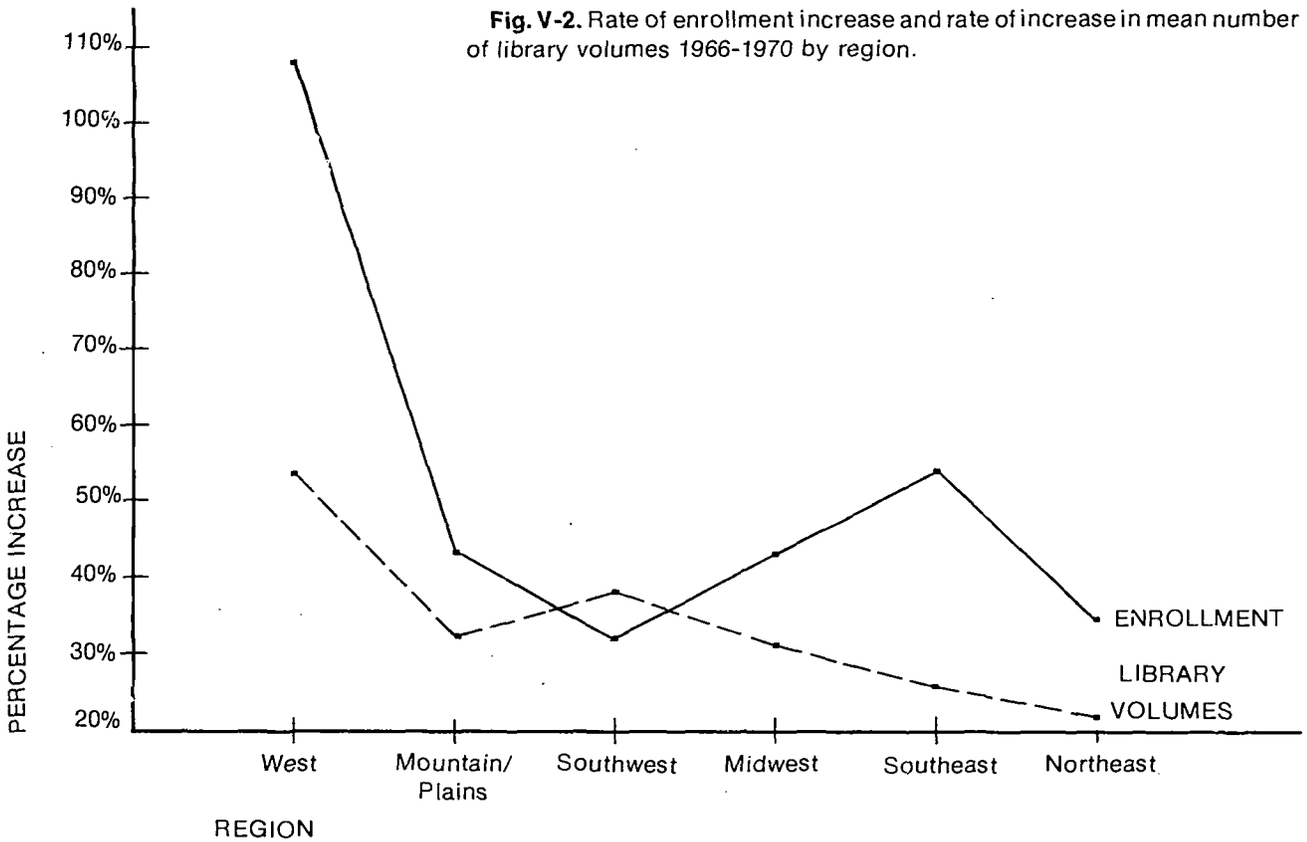


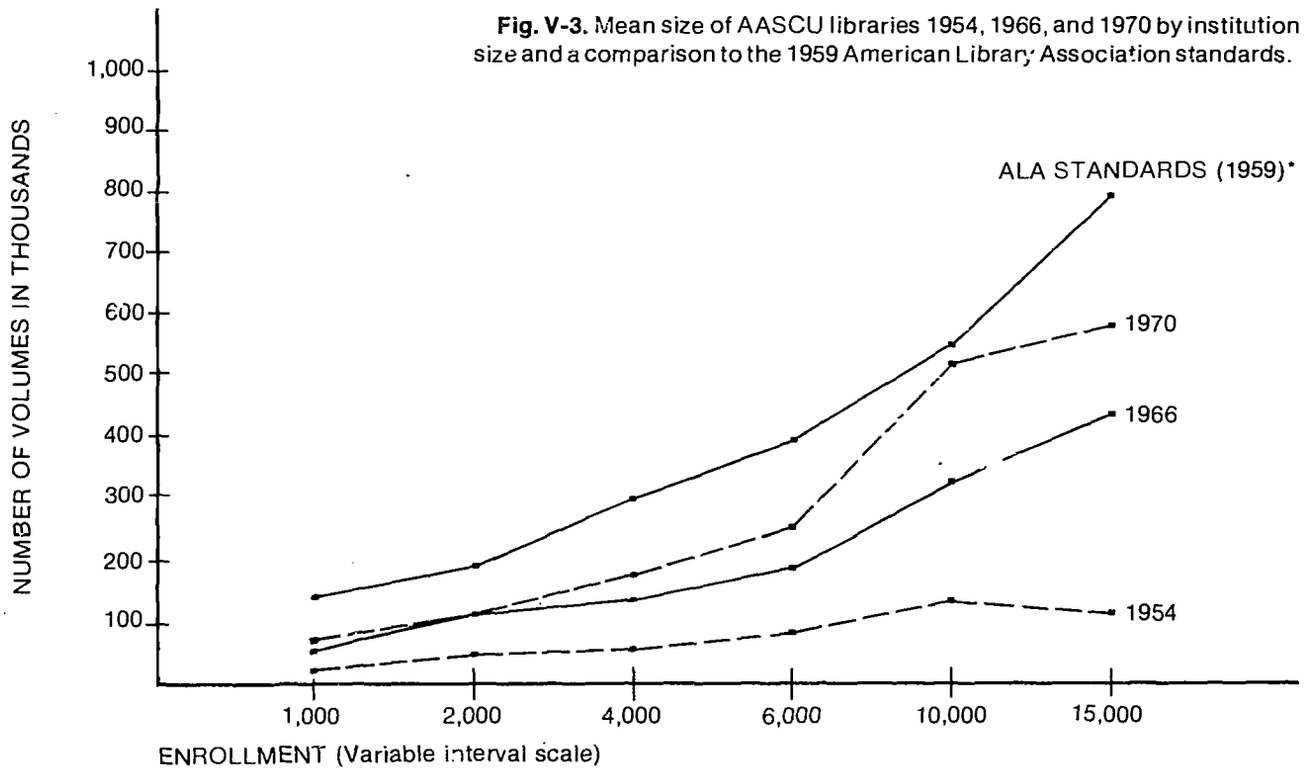
Fig. V-2. Rate of enrollment increase and rate of increase in mean number of library volumes 1966-1970 by region.

TABLE V-2

Average Library Volumes, 1966, 1970 by Size of Institution

Size of Institution	1966 Number of Institutions	1966 Mean Number of Volumes (In Thousands)	1970 Number of Institutions	1970 Mean Number of Volumes (In Thousands)	Percent Change in Mean Number of Volumes 1966-1970
15,000+	8	428	9	573	34
10,000-14,999	17	315	22	517	64
6,000- 9,999	48	189	49	256	35
4,000- 5,999	48	138	45	177	28
2,000- 3,999	77	112	52	112	0
1,000- 1,999	47	59	24	65	10
0- 999	17	37	9	49	32
All Institutions	262	139	210	212	53

Fig. V-3. Mean size of AASCU libraries 1954, 1966, and 1970 by institution size and a comparison to the 1959 American Library Association standards.



ALA Standards for College Libraries, The Association of College and Research Libraries, 50 East Huron Street, Chicago, Ill., 1959.

Chapter VI

FINANCES

Financial data from the 1970 and 1972 surveys have been analyzed in several financially-related areas. The data in the three following areas have been compared with the results of our 1968 study.

1. Student/Faculty ratios (S/F ratios).

2. Total educational and general income and educational and general income per student (and regional comparisons).

3. Percent of educational and general income from student fees (and regional comparisons).

While other areas of comparison were important (e.g., book value of buildings, grounds and equipment, and federal support for AASCU institutions), strictly comparable data were not available in these areas and, thus, they have not been included in this chapter.

Student/Faculty Ratios

There has been small but significant change in the Student/Faculty ratio of AASCU-type institutions since 1966. A wide variety existed at that time with some institutions operating at S/F ratios as low as 10 to 1 and others as high as 32 or 35 to 1. Those that were 12 or 13 to 1 and below are going up, and many that were 26 or 29 to 1 and above are going down. Although 55% of the institutions were staffed below a 20 to 1 ratio, the reciprocal is also true—45% are above that figure, including 77 institutions which were over 25 to 1. The modal S/F ratio has gone up from 16 to 1 in 1966 to 17 to 1 in

1970. However, in 1966-67 the respondents projected that it might reach 20 to 1 in 1972; but mean S/F ratio has hovered steadily at about 18.5 to 1 for the past 6 years (see Table VI-1). One interesting trend, however, is the decrease in S/F ratio variability which has taken place over that same 6-year time period. In 1966, 51% of all AASCU-type institutions surveyed fell in the S/F ratio range of 15 to 1 to 20 to 1. By 1970, 64% were included in this range. By 1972 the figure percentage had increased to 70%. This modal ratio seems to apply to all four types of institutions—with no consistent special treatment for institutions called either "college" or "university." Neither does there appear to be a truly significant consistent difference if institutions offer graduate programs. It appears that AASCU-type institutions have found this to be the maximal or optimal S/F ratio which legislatures will support, at least through the late 1960s and into the early 1970s. This stabilization of the S/F ratio suggests that there is probably little chance that economies of scale will accrue to SCUs in the near future as a result of increases in S/F ratios. Student/faculty ratio fluctuations, as a consequence, are not likely to cause significant changes in most institutions' financial planning in the immediate future. If state legislatures force larger cuts in levels of support, the mean S/F ratio will be larger and the possibility of smaller S/F ratios in the near future appears to be almost nil.

Total Educational and General Income

Total educational and general income rose 45% nationally in AASCU institutions between 1966 and 1970. However, during this same period enrollment also rose by some 35%. Thus, the actual per student increase in educational and general income was only 30% (see Table VI-2). If one considers the national rate of inflation during this time period, which averaged 26.93%, it becomes apparent that educational and general income increases in AASCU institutions have barely kept pace with the national inflationary trend.[10]

The situation looks even less optimistic when one compares the per student income increase by region to the national rate of inflation as represented by the consumer price index increases for services.[11] Only the Southeast and Southwest regions have experienced increases in educational and general income per student that have outstripped the national inflation rate. This

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[10]U.S. Department of Commerce, *Statistical Abstract of the United States 1972*, Table No. 565, "Consumer Price Indexes, by Commodity Groups: 1920 to 1971" (section concerning all services), p. 348.

[11]Ibid.

trend is even more distressing considering the fact that the Northeast and West regions of the country have probably suffered somewhat more from inflation than the others. The Northeast region, with the smallest mean increase per student in educational and general income (17%), has suffered greatest as a result of inflation (26+%).[12] If this trend continues, it will mean that proportionately less real funding will be available to AASCU institutions in this region in the future. One can only speculate as to what effect such a cutback in funding will have on the quality of instruction and services at the institutions in this region.

Educational and General Income per Student

A comparison of the data on the educational and general income per student for 1970 (Table VI-3) with the comparable data from our 1968 study suggests that there has been a general rise in educational and general income per student since 1966. Where 17% of AASCU-type institutions surveyed in 1966 had educational and general income per student of $750 or less, only 1% of these institutions fell in this range in 1970 (see Table VI-3). Likewise, those institutions with an educational and general income per student range above $1,750 increased 20% in number during this brief time period. The national modal range of educational and general income per student for state colleges and universities increased substantially from $750-999 in 1966 to $1,250-1,499 in 1970.

The most substantial increase in educational and general income per student has been experienced in the Northeast region where educational and general income per student for the modal group of institutions has shifted from the "$1,250-1,499" range to the "over $2,000" range. Thirty-two percent of AASCU institutions in the Northeast region (17 institutions) had educational and general income per student of over $2,000 by 1972. Though other regions have also experienced a general upward trend in educational and general income per student, these increases seem to have been somewhat less dramatic than those in the Northeast.

The mean educational and general income per student (as opposed to the previously discussed modal educational and general income per student) for 1970 in all AASCU-type institutions was $1,489. This represented a 30% increase over 1966, when educational and general income per student was $1,137. By region, educational and general income per student seems to be generally higher in the East and West and lowest in the Southwest.

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[12] Ibid., p. 349.

TABLE VI-1

The Student-Faculty Ratio in AASCU-Type Institutions in 1966-67, 1970-71 (Actual) and 1972-73, 1975-76 (Projected)

	Number of Institutions 1966-67	Percent of Total	Number of Institutions 1970-71	Percent of Total	Number of Institutions 1972-73	Percent of Total	Number of Institutions 1975-76	Percent of Total
Below 10 - 1	—	—	1	.5	1	.5	—	—
10 - 1	3	1.9	1	.5	1	.5	2	.9
11 - 1	1	.6	1	.5	—	—	—	—
12 - 1	1	.6	2	.9	3	1.4	3	1.4
13 - 1	6	3.8	2	.9	2	.9	2	.9
14 - 1	9	5.7	7	.3		.4		1.9
15 - 1	11	6.9	20	9.4	20	9.4	23	10.8
16 - 1	25	15.7	25	11.7	30	14.1	25	11.7
17 - 1	15	9.4	27	12.7	18	8.5	21	9.9
18 - 1	10	6.3	22	10.3	22	10.3	29	13.6
19 - 1	10	6.3	17	8.0	23	10.8	21	9.9
20 - 1	15	9.4	26	12.2	37	17.4	44	20.7
21 - 1	12	7.5	16	7.5	14	6.6	8	3.8
22 - 1	13	8.2	13	6.1	14	6.6	8	3.8
23 - 1	7	4.4	12	5.6	6	2.8	4	1.9

24 - 1	4	2.5	5	2.3	7	3.3	5	2.3
25 - 1	9	5.7	8	3.8	9	4.2	10	4.7
26 - 1	3	1.9	5	2.3	1	.5	2	.9
27 - 1	2	1.3	1	.5	1	.5	—	—
28 - 1	1	.6	—	—	—	—	1	.5
29 - 1	2	1.3	1	.5	1	.5	1	.5
30 - 1	—	—	—	—	—	—	—	—
Above 30 - 1	—	—	1	.5	—	—	—	—
Total	159	100.0	213	100.0	213	100.0*	213	100.0

*Totals may not equal 100% because of rounding.

TABLE VI-2

Total, per Student, Educational and General Income, and Percent from Student Fees 1966-1970 by Region

Region	1970						Percent Change 1966-1970		
	Number of Inst.	Percent of Total Number	Total Income[1] (In Thousands)	Percent of Total Income	Income per Student[2]	Percent from Student Fees	Total Income	Income per Student	% from Student Fees
1) West	27	12	$456,336	22	$1,536	10	70	20	-17
2) Mountain-Plains	25	12	119,450	6	1,138	30	66	25	- 9
3) Southwest	18	8	116,907	6	1,074	16	29	60	-38
4) Midwest	37	17	541,542	26	1,572	25	39	21	0
5) Southeast	55	25	422,294	20	1,468	27	71	45	17
6) Northeast	57	26	428,884	20	1,619	33	16	17	43
Total	219	100	$2,085,413	100	$1,482	24	45	30	4

[1]Income figures from 1970 Follow-Up Questionnaire, Harcleroad.

[2]Enrollment figures used for computation of income per student were taken from George H. Wade, *Fall Enrollment in Higher Education, 1970 Supplementary Information: Institutional Data*, United States Government Printing Office, Washington, D. C. 20402, 1971.

TABLE VI-3

Educational and General Income per Student 1970 by Region

	1 West		2 Mountain-Plains		3 Southwest		4 Midwest		5 Southeast		6 Northeast		Total	
Per Student	N	%	N	%	N	%	N	%	N	%	N	%	N	%
$2,000+	3	12	0	0	0	0	3	9	4	7	17	32	27	13
1,750-1,999	4	15	1	4	0	0	5	14	4	7	11	21	25	12
1,500-1,749	5	19	1	4	0	0	9	26	8	15	4	8	27	13
1,250-1,499	10	38	6	24	2	11	9	26	24	45	5	9	56	27
1,000-1,249	3	12	9	36	6	33	8	22	9	17	12	22	47	22
750- 999	1	4	8	32	9	50	1	3	5	9	3	6	27	13
500- 749	0	0	0	0	1	6	0	0	0	0	1	2	2	1
0- 499	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	100	25	100	18	100	35	100	54	100	53	100	211	100

Percentage of Educational and General Income from Student Fees

In the state colleges and universities as a whole there was a 4% increase in the percentage of educational and general income coming from student fees between 1966 and 1970. The Northeast experienced the most substantial increase in the percentage of total income from student fees in our earlier study. In the Northeast institutions, student fees made up 33% of total income in 1970. This was a 43% increase in the percent of total income being derived from student fees since 1966. Since the 1968 study, however, in the West, the percentage of income from student fees has continued to decline and only 10% of total income was obtained from student fees. The most substantial decrease in student fees as part of general income came in the Southwest where the proportion of student fees as part of general income fell from 26% in 1966 to 16% in 1970, a drop of 38% (see Table VI-2).

One of the most interesting trends indicated by the data (Table VI-2) concerns the Southwest region. In that section of the United States, the per student income has increased by 60% since 1966, the most rapid increase of any of the regions. At the same time that this increase in per student income has occurred, there has been a corresponding decrease by 38% in the percentage of total income which has come from student fees. This suggests an overwhelming increase in public support for higher education in this region. This development could reflect a number of social, economic, and political realities of the Southwest which is now one of the fastest-growing regions of the country in population and in economic development. Thus, while other regions were already experiencing diminished public support together with an increasingly critical public attitude toward higher education, the Southwest in 1970 may still have been riding the crest of the higher education wave which hit the West and Northeast earlier in the 1960s.

In 1970 there had developed a much higher degree of homogeneity within regions regarding the percentage of educational and general income from student fees (Table VI-4). In 1966, for example, there were institutions in every region except the West which relied on student fees for over 60% of educational and general income. In that year the total number of institutions in all regions relying on student fees for 60% or more of their total income was 14. By 1970 only one region, and a single institution within that region, was relying that heavily on student fees.

The West region is unusual, however, because student fees there continue to represent only a small portion of its educational and general income relative to other regions (Table VI-4). This reflects the continued relatively high degree of public support of higher education which has been characteristic of the West.

TABLE VI-4

Percent of Educational and General Income from Student Fees by Region in 1970

	1 West		2 Mountain-Plains		3 Southwest		4 Midwest		5 Southeast		6 Northeast		Total	
Student Fees	N	%	N	%	N	%	N	%	N	%	N	%	N	%
90-99	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
80-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
70-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
60-69	0	0	0	0	0	0	0	0	1	2	0	0	1	0.5
50-59	0	0	0	0	0	0	1	3	3	6	10	21	14	7.0
40-49	0	0	3	13	0	0	3	8	3	6	7	14	15	7.0
30-39	0	0	6	26	0	0	5	14	14	26	7	14	32	16.0
20-29	3	11	11	48	4	22	17	47	19	36	10	21	64	31.0
10-19	9	33	2	9	4	22	7	20	12	22	7	14	41	20.0
0- 9	15	56	1	4	10	56	3	8	1	2	8	16	38	18.5
Total	27	100	23	100	18	100	36	100	53	100	49	100	206	100.0

In spite of the move toward homogeneity, available data (Tables VI-2 and VI-4) make it possible to rank the regions from those relying least on student fees as a source of educational and general income to those relying most heavily on student fees. The rankings are as follows:

1. West	*Least*
2. Southwest	↑
3. Midwest	
4. Southeast	
5. Mountain/Plains	↓
6. Northeast	*Most*

Predictions of Future Financial Conditions

Obviously, AASCU-type colleges and universities had reached funding plateaus in 1972. They were not unique since this was true of almost all institutions, both public and private and in most states of the United States. Projections by the institutions of their expected Student/Faculty ratios in 1975-76 give some idea of predictions of future financial conditions within the institutions (see Table VI-1 and Figures VI-1 and VI-2). Since the predictions were received from over two-thirds of the AASCU-type institutions and the size characteristics are relatively comparable for the remainder of the institutions, these projections undoubtedly are representative of expectations throughout the Association membership. In addition, since faculty salaries are a major part of the total cost of financing AASCU-type institutions, this one single characteristic can have more effect than any other comparable one.

A very few institutions expected to improve their S/F ratio in the group at 15 to 1 or below, a total of 15.9% in this category for 1975-76 as compared with 14.1% in 1972. In the other major categories expectations regarding the S/F ratio are indicative of cutbacks in the level of financing. For example, there are expected to be fewer institutions with S/F ratios in the 16 or 17 to 1 range, a range in which there has been a decreasing number of institutions in 1966-67, in 1970-71, and in 1972-73, with the expectation of an additional drop in 1975-76. In contrast, the 18 and 19 to 1 group and the 20 and 21 to 1 group have grown consistently during these same years and are expected to increase in numbers in 1975-76. In the range of 22 and 23 to 1, a consistent decrease has taken place in 1966, 1970, and 1972, and a further decrease is anticipated in 1975-76. Institutions with S/F ratios of 24, 25, or 26 to 1 and

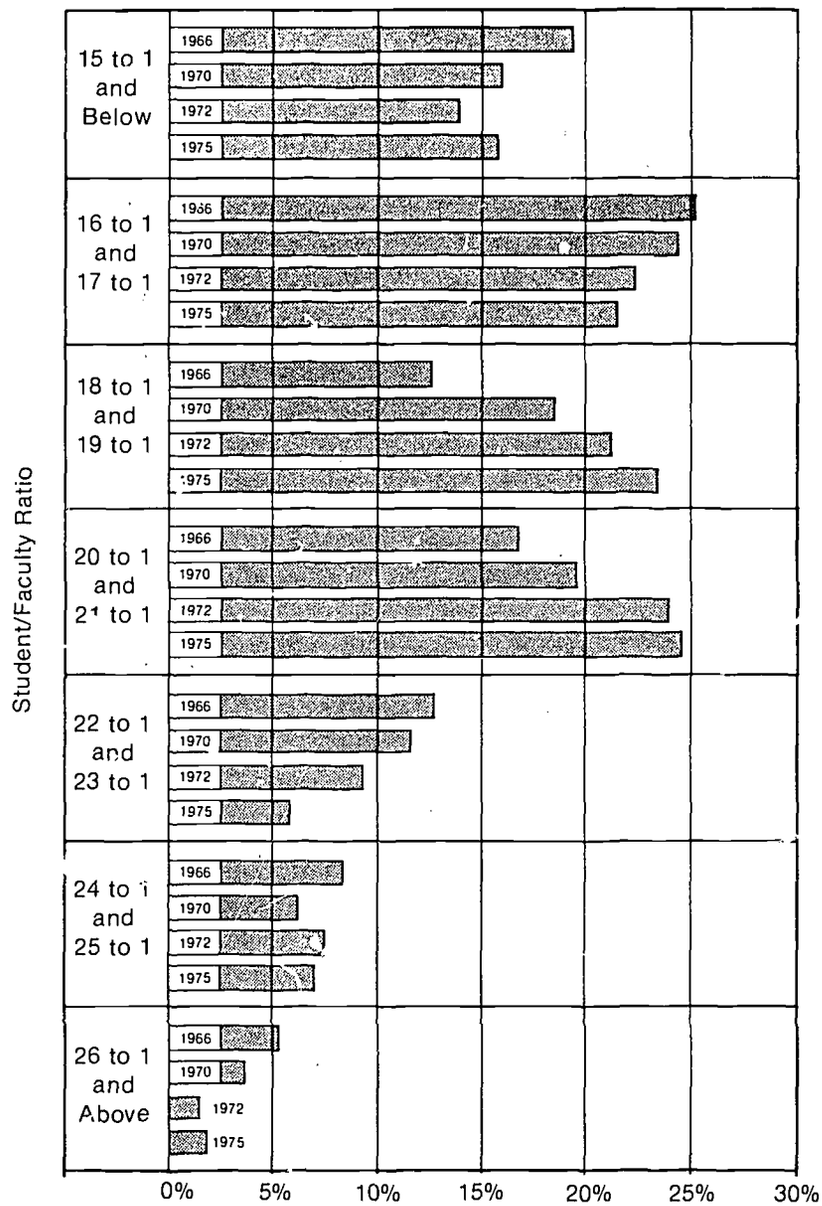


Fig. VI-1. Percentage of the Total Number of AASCU Institutions surveyed which fell into given Student/Faculty Ratio Intervals, by Year 1966, 1970, and 1972 (Actual), 1975 (Projected).

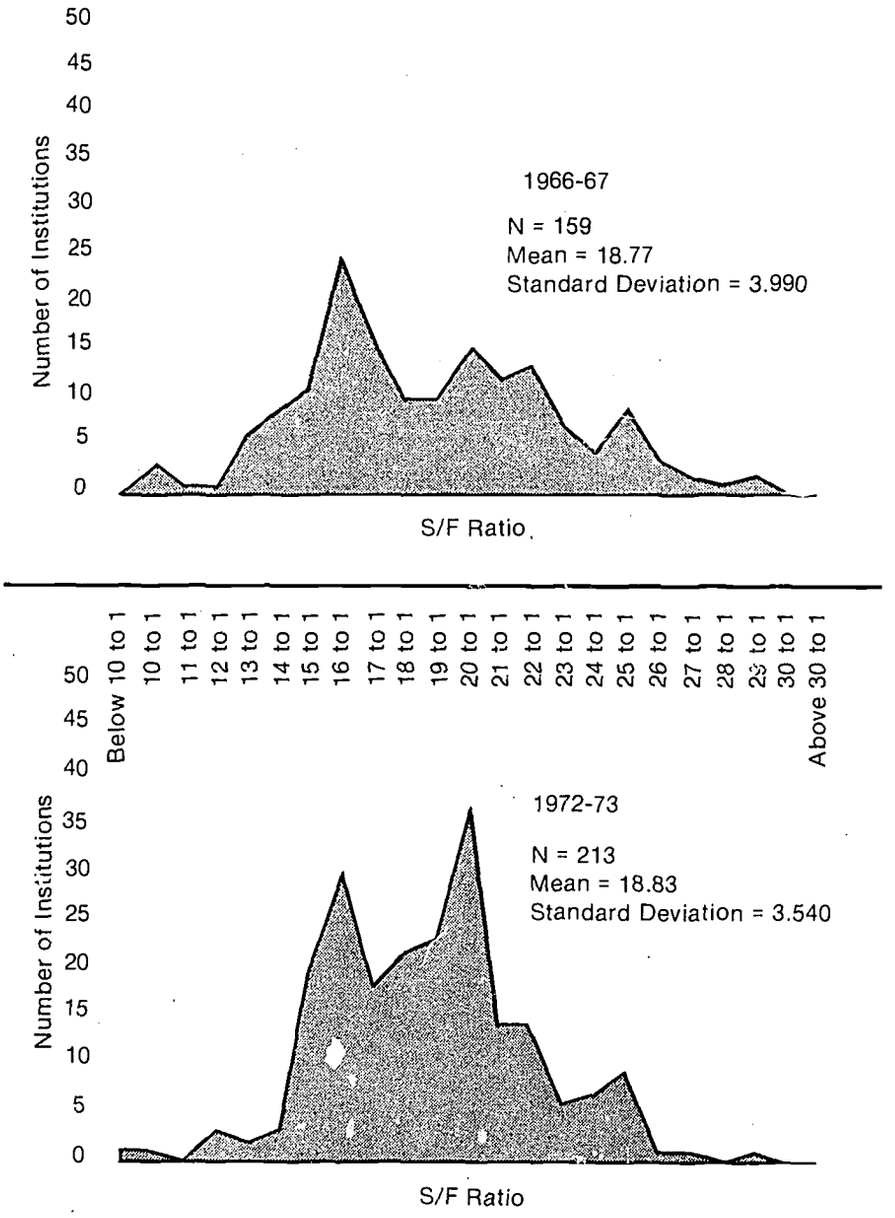
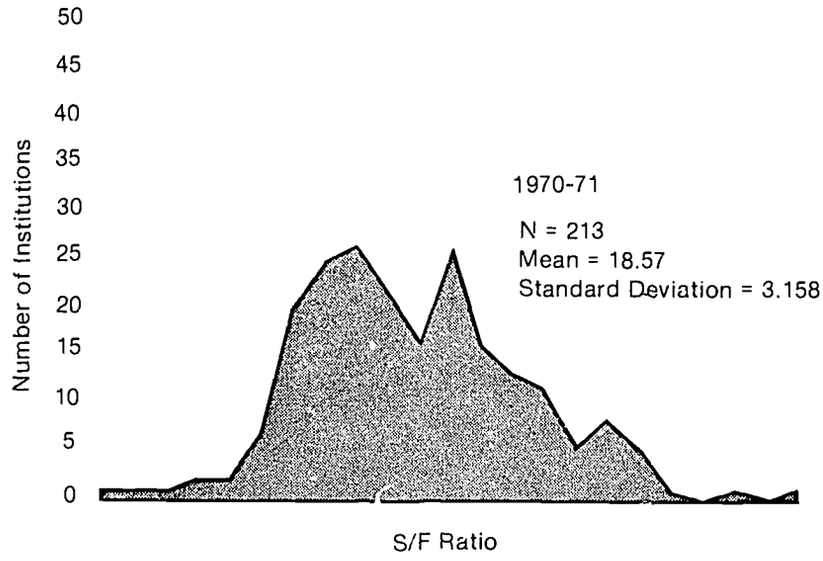


Fig. VI-2. Frequency Distributions of the Student/Faculty Ratio in AASCU-Type Institutions in 1966-67 and 1970-71 (Actual) and 1972-73 and 1975-76 (Projected).



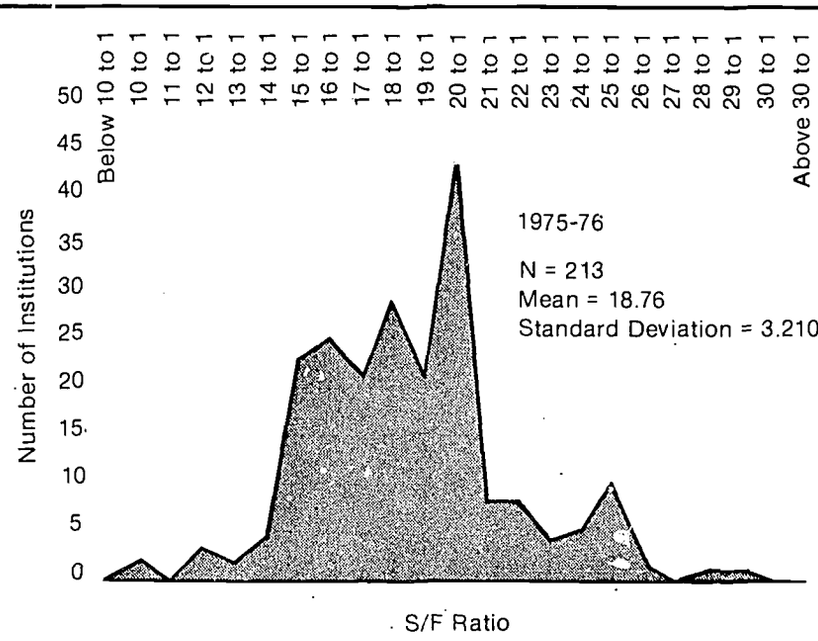


Fig. VI-2 [*Continued*]

above constitute a small portion of the total institutions and have decreased overall since 1966. Although a few institutions expect to continue to be financed at 25 to 1 or higher, this is not a major factor in considering the total financing picture for all of these institutions. Thus, modest overall increases are expected in the S/F ratio in the years between 1972 and 1975, apparently a very optimistic prediction of relative financial condition in this period of modest growth in student bodies.

SUMMARY

Just a decade ago, the fledgling "Association of State Colleges and Universities" was established and determined that it would encourage the efforts of its member institutions to change, both rapidly and efficiently, to meet the new demands and needs of the society which originally conceived them and had supported them for 135 years. This summary describes briefly three major studies of the institutions in the past decade and some of the current trends and developments which pose challenges for the future.

In 1964 and 1965, Joe Smith, Acting Executive Secretary of AASCU, prepared the first extensive summary of data about these colleges and universities, titled *Challenge to Change*. At that time (1964), the Association membership was much smaller—but the study attempted to obtain data about all institutions of this type. Of approximately 2,100 institutions of higher education, 10% were developing state colleges and universities (SCUs) enrolling 20% of all students in baccalaureate degree programs in the United States. This survey of AASCU institutions provided data on 141 SCUs, with 612,000 students and $765 million in operating budgets (p. 47).[13] They granted 93,000 degrees and had 31,500 members on their professional staffs. In their estimates of growth, they predicted 933,000 students in 1969 (an increase of only 52%), 122,000 graduates (31% increase), and 46,500 professional staff (49% increase) (p.18).[14] Median size was 2,800, with a median size of 4,617 predicted for 1969 and approximately

[13]Joseph Smith, *Challenge to Change* (Washington, D.C.: American Association of State Colleges and Universities, 1965), p. 47.

[14]Ibid., p. 18.

8,000 by 1980 (p. 67).[15] Eighty percent of their students were in pre-service teacher education or in continuing education programs for in-service teachers. However, work-study and community learning experiences were characteristic as they diversified to meet regional needs through programs in such fields as agriculture, nursing, recreation, engineering, health professions, business, and social work (pp. 69-70).[16] Thus, a decade ago, the forerunners of current change were under way.

The current authors made another more extensive survey of SCUs in 1966-67 and reported the data in 1968-69. In 1970 and 1972 we once again surveyed the SCUs for this present study. Findings are reported in the following areas: (1) types of institutions; (2) institutional size and enrollment patterns; (3) degrees and fields of study available; (4) innovative programs; (5) libraries; and (6) finances, including student/faculty ratios. In addition, a separate analysis of (7) institutional name changes reveals many changes between 1966 and 1973.

Types of Institutions

In analyzing the SCUs, it is obvious that there are four types. This was reported in 1968 and is still true. The *first type* is the *single-purpose highly-specialized college*. A very few institutions of this type still exist, such as Massachusetts Maritime Academy, California Maritime Academy, or the Massachusetts College of Art. The number of institutions of this type is decreasing, and in 1967 there were less than a dozen. At this time there are approximately eight or nine.

The *second type* of SCU is the *teachers college*. There are approximately 35 to 40 of these institutions in the SCUs which still are essentially teachers colleges. Parker's 1972-73 enrollment study still includes responses from 40 institutions which indicate their wish to be listed as teachers colleges.[17] They are the colleges that dropped 5.5% to 6% in enrollment in the fall term, 1972.

The *third type* of institution is the *comprehensive state college or university*, which includes nearly two-thirds of the SCUs. The typical comprehensive state college or university has grown rapidly both in enrollment and in its curricula. Most of them offer fairly specialized undergraduate majors and, in over one-half of them, specialized graduate majors as well.

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[15]Ibid., p. 67.

[16]Ibid., pp. 69-70.

[17]Parker, "College and University Enrollments in America," pp. 315-337.

The *fourth type* is the *regional state university*, with approximately 25 to 30 institutions so classified. Most of them were located in or close to an urban center. In 1967 nearly all of them had enrollments exceeding 10,000; some had more than 15,000 students; and a few had more than 20,000 students. The chief special characteristic differentiating this type of institution from the third type is the offering of a doctoral degree—either the PhD, the Doctor of Arts (DA), a specialized doctorate in education (EdD), or all of them.

Institutional Size and Enrollment Patterns

With regard to institutional size and enrollment patterns, there is still considerable growth. However, AASCU undergraduate growth rates in terms of both enrollment and degrees earned are down sharply from the extremely rapid growth of the 1954-1966 era. They are also down from 1966-67. Between 1966 and 1970 AASCU graduate enrollment growth rates increased nearly twice as fast as other public institutions but slightly slower than private institutions.

The average size of AASCU institutions has continued to increase. In 1970 roughly 50% of all AASCU institutions had F.T.E. enrollments greater than 5,000, where in 1966 less than 40% of the institutions had enrollments this high. Thus, these institutions are of an ideal size to offer "a really well-rounded program as a comprehensive college."[18]

Recently, a fairly accurate job has been done in predicting institution enrollments. Our 1968 report included predictions for 1970-72 from the individual campuses. These have turned out to be quite accurate except for institutions between 1,000-4,000 students. The West and Midwest regions continue to enroll a disproportionately large number of students in a small number of institutions and consequently have average institutional sizes of about 10,000 students compared to an average of about 6,000 for four of the other regions. Total enrollment increases in AASCU institutions were by far the largest in the West region (53%), followed by a 38% increase in the Southwest region. All other regions had enrollment increases of less than the AASCU national average of 35%. The graduate enrollment growth rate in the Northeast region has dropped precipitously since the last study. Between 1954 and 1966 graduate enrollment in the Northeast region grew the fastest of any of the regions (714%). Our 1970 data reveal that between 1966 and 1970 the Northeast region had the slowest growth rate of any of the regions (23% compared to the AASCU national average of 65%). Our 1970 data indicate that though SCU-type institutions are enrolling a larger

[18]From Clark Kerr, speaking of recommendations of the Carnegie Commission on Higher Education, November 9, 1971.

percentage of the total U. S. graduate enrollment (26% in 1970 as opposed to 24% in 1966), they account for a decreased percentage of graduate degrees earned nationwide (21% in 1970 as opposed to 26% in 1966). This suggests that SCUs may be playing a larger role in such areas as continuing education, professional improvement and other graduate level programs which do not always lead to degrees. In regard to the predictions for 1975-76, which were predicted in 1970 and 1972, they could easily be a little too high because there has been a major turn-down since these last data were corrected in the summer of 1972.

Degrees and Fields of Study Available

The major trends that were established between 1954 and 1966 seem still to exist in AASCU institutions:

a. Occupational pluralism has stimulated the continued expansion of degree programs in occupational fields other than education, particularly in business and health professions.
b. There has been continued expansion of undergraduate programs in subject fields in the liberal arts and sciences. Although this is particularly true of fields taught in secondary schools, others such as philosophy and anthropology are growing.
c. Graduate and continuing education have continued to be important areas of development and expansion in SCUs at both masters and doctoral levels. This is true particularly in "special" education, health and physical education, business education, art and music education, industrial education, educational psychology, and curriculum and instruction. In other professional fields, main developments have been in biological sciences, business, geography, health professions, home economics, and psychology. Although small, it is important to note some continuing developments in master's degree programs in agriculture, city planning, engineering, forestry, philosophy, and religion. At the doctoral level, development of Doctor of Arts programs are of particular importance.

A little-noticed but important development in sub-baccalaureate programs has continued in SCUs. In the 191 usable questionnaires on this topic in the 1972 survey, 63 new sub-baccalaureate programs were reported in one year alone. These data confirm and add to the 1967 and 1970 findings of two studies conducted by John Rowlett of Eastern Kentucky University.[19] He found that 134, almost one-half, of AASCU-type institutions offer such programs. Also, he found that the total of such programs (in AASCU and

[19]Rowlett, *Less-Than-Baccalaureate Level Technical Education Programs.*

NASULGC) increased from 619 to 973 in number in three years between 1967 and 1970. Students enrolled in these programs increased from 31,000 in 1967 to 41,000 in 1970. Clearly, occupational programs at the sub-baccalaureate level are rapidly expanding in SCUs and other public institutions.

Some conclusions also can be drawn regarding degree program planning, based on the 1970 and 1972 questionnaires. Degree program plans often have been rather poor predictors of actual degree program implementation. Only 44% of the new programs planned in 1970 for implementation in 1972 (192 of 434) were actually implemented as planned. About 45% of the new degree programs actually implemented in 1972 had *not* been planned for in 1970 (158 of 350), including 65% of new, not previously planned BA or BS programs. It is interesting and very pertinent to note, however, that 7 of 15 planned PhD programs and 5 of 11 planned Doctor of Arts programs *were* implemented.

Innovative Programs

Definitions of what constitutes innovative programs often change, and the changes from 1966 to 1972 were quite dramatic. In 1966-67 "non-traditional studies" was a term which was not generally in use. Currently, innovative programs often mean time-shortened degrees, pass-fail grading, modular learning systems, credit for work experience, credit based on examinations, or external degrees usually based on correspondence study. The innovative programs which were included in our 1966-67 and 1970 surveys included essentially programs which were based on new or improved technology including improvements in communication made possible by improved storage, retrieval and dissemination of information, or improvements in transportation based on greater speed, safety, and lower costs of travel. Thus, we included such items as computer-assisted instruction, learning resource centers, and international education programs.

In the short time between the 1966-67 and 1970-71 surveys, major expansion took place, particularly in larger institutions, in all types of international programs. These changes can be attributed directly to an extensive effort by AASCU's Committee on International Programs. The stimulation of this committee led to the establishment of a number of special overseas centers, primarily for AASCU students, and a number of special relationships between various AASCU institutions and foreign universities. In addition, almost two-thirds of the larger institutions, above 6,000 student enrollments, established learning resource centers to facilitate student learning through the use of modern means of technology and various independent learning systems.

Many diverse types of "innovative" programs, approximately 40 in number, were reported in the open-end response section of the questionnaire, a clear indication of different definitions of the term on individual campuses. They varied from a single special Master of Arts degree in Aeronautical Systems offered by the University of West Florida under contract with the Navy to large numbers of varied special programs for disadvantaged students. Their diversity and rapid development vividly illustrate the great adaptability of AASCU-type institutions.

Libraries

Libraries are quite an important curricular development, and in 1968 we reported major improvements in these institutions in library holdings between 1954 and 1966. Our 1970 data indicates that improvement in SCU libraries has continued at a rapid rate since 1966. Nationwide, AASCU-type institutions experienced a 50% increase in library holdings in just 4 years. In the Midwest, for example, the 1970 mean for institutions for the 15 states in the area was 256,000 volumes. This becomes significant when compared with expanding institutions of the past. For example, this is essentially the same size as the Harvard library in 1890, 20 years after it started offering doctoral programs. The expansion of AASCU institutions into specialized curricula and graduate study led to significant increases in size of libraries

Major conclusions to be drawn from this phase of the study follow. Nationwide, AASCU institutions experienced a 50% increase in library holdings, while nationwide enrollment increased by 35%. The West region experienced by far the greatest increase in library holdings between 1966 and 1970 (a 108% increase), while the Southwest region experienced the smallest increase (32%). As AASCU library holdings grow, the variance in mean number of library volumes held per institution between regions is increasing, i.e., in 1954, there was little difference in the mean number of library volumes held per institution between the various regions—all the regions had similar library holdings. By 1970 fairly large differences in library holdings have appeared with the West region having the largest holdings. Since 1966, substantial gains have been made in closing the gap between ALA Standards for college library holdings and the actual library holdings in nearly all AASCU institutions.

Finances

Financial comparisons of the 1968 report data and of the 1970 and 1972 data for this report were possible for Student/Faculty ratios, total educational and general income per student, and income from student fees. Regional comparisons, also, were possible. Unfortunately, it was not possible to consider book value of buildings, grounds, and equipment or Federal support of individual institutions or groups of institutions.

Student/Faculty ratios of almost two-thirds of the institutions fell within the 15 and 20 to 1 range. The mean S/F ratio in 1972 was between 18.5 and 19 to 1. The range of S/F ratios remained approximately the same, from 10 to 1 up to 35 to 1. However, the numbers at the extremes are diminishing—although 77 institutions (approximately one-third) still report S/F ratios over 25 to 1.

Total educational and general income rose 45% in the 4 years between the studies, while enrollments rose by 30%. Inflation, however, took all of the difference and AASCU institutions barely kept pace. Income per student and expenditures per student also rose significantly, with the modal range increasing from $750-$999 in 1966 to $1,250-$1,499 in 1970. By region, educational and general income per student was reported higher in the East and West regions and lowest in the Southwest.

Income from student fees showed a 4% increase in the 4-year period. In the Northeast, student fees provided an increasing percentage of institutional income, totaling 33% in 1970. In the West it was approximately 10%, with increasing pressure reported to increase it. In the Southwest, total income per student increased by 60% in the 4 years, and the percentage reported from student fees decreased by 38%—a clear indication of widely increasing public support in this region.

Clearly, AASCU-type institutions reached funding plateaus in 1972. The reported predictions for 1975 indicate an expected continuance of most existing S/F ratios are limited increases which certainly will not cover expected national inflationary increases. Thus, institutions in the next few years must adapt to changing regional economic and social needs without financial improvements to serve as a catalyst. Careful, efficient and creative management of existing funds will have to provide the opportunity for needed changes. Since this has been the situation in most AASCU-type institutions throughout most of their history, undoubtedly they will be able to meet this difficult financial situation.

Institutional Name Changes

The past decade has brought extensive changes in the names of the institutions which make up the membership, or are eligible for membership, in the American Association of State Colleges and Universities. Although approximately 20 report as teachers colleges for the annual Parker study of enrollments, only two of the 330 institutions still are titled in this way, Harris Teachers College in Missouri and Kansas State Teachers College in

Emporia, Kansas.[20] Some of the institutions are now designated as universities, although their size and functions are changing slowly. For example, the University of Maine now includes all of the former state colleges with designations such as the University of Maine at Farmington.

Data on institutional name change is difficult to keep current. However, as of June 1973 (see Appendix 1) it appears that there are at least 330 AASCU-type institutions. Of this number 148 are designated as universities. Sixty-two of these institutions have been given this designation by their state legislatures and governing boards since 1966-67. Of the 17 institutions which have been established since 1966-67, 10 have been initially designated as universities and 7 have been designated as state colleges. New universities have been established in Alaska, Florida (4), Illinois (2), and Ohio. New state colleges have been established in Kentucky, Minnesota, Missouri, New Jersey (2), Virginia, and Washington. The last normal school, Lewis-Clark Normal School in Idaho, was changed to Lewis-Clark College.

The institutions with the designation "university" apear in three of the four types of institutions in the AASCU group, i.e., regional state universities, modern comprehensive state colleges, and a few of the remaining teachers colleges. Use of the term "university" does not, in many cases, mean any change in the function of the institution.

Many of the universities in this group, however, clearly meet many of the relatively recent criteria used to arrive at this designation. For example, the prestigious Commission on Financing Higher Education headed by John D. Millett in 1950-52 defined universities as follows:

> Our definition of a university involved three basic elements. The institution must have offered an undergraduate liberal arts curriculum, graduate study, and professional education. We interpreted "liberal arts" broadly by including sciences, and "graduate study" was taken to mean postbaccalaureate work in the humanities, social sciences, physical sciences, or biological sciences, preferably but not necessarily continuing through the level of the doctorate. "Professional education" was distinguished by two further factors: the kinds of professional schools and whether or not they were accredited by the respective professional accrediting agencies. An institution satisfied the criteria of "professional education" if it had at least three professional schools, at least two of which must have been professionally accredited from the law, engineering, medicine, teacher education, and business group. The remaining one might be an unaccredited school from this group or an accredited

[20]Parker, "College and University Enrollments in America," pp. 315-337.

school (where an accrediting agency existed) in some other field, such as social work, architecture, agriculture, dentistry, pharmacy, and so forth. Or the criteria might be satisfied by four professional schools, at least one of them having been accredited in the first group and the remaining three unaccredited schools from this first group or accredited schools from the second or residual group.[21]

Fifteen of the then existing 57 private universities failed to satisfy these criteria, including 5 members of the Association of American Universities. Overall, 20% of the 121 universities did not completely conform to this definition. Clearly, many of the universities in the AASCU group better qualify according to these criteria than some of the universities which were so classified in 1951-52. Most, if not all, of the current doctoral-granting universities in the group (25-30) would meet the criteria, and several dozen others which offer only the master's and intermediate degrees. Thus, although the term "university" now appears meaningless at times, the comprehensive undergraduate and graduate programs of 50-75 of the AASCU-type institutions currently justify the use of this designation. For the others called by this term, it means (1) they belong to a university system or a statewide group of comparable institutions, or (2) they have grown more rapidly than others and have diversified faster at the undergraduate and master's levels.

Current Trends and Challenges

When the American Association of State Colleges and Universities was founded, higher education was one of the top social priorities in the United States. Higher education was considered so important that students were deferred from military service in order to attend. Overall, in less than a decade budgets tripled in colleges and universities while enrollments only doubled. Now in the middle 1970's, other social institutions appear more important, or at least as important, and some require new or changed college-level educational programs. Critical examples are health care and delivery; environmental improvement in our air, water, and land; elementary and secondary schools and property tax limitations; recreational facilities; energy resources and transportation systems. Federal funds and state funds are moving to support these other priorities.

Changes in such assumptions affect social purposes—and the basic outcomes expected of the total educational program are being subjected to the sharpest questioning in the history of the nation. This is partly because our technological society has become more and more a total "learning society," based on lifelong learning and continuing education. Between 1940 and 1970 the median years of schooling for the adult population

[21]Richard H. Ostheimer, *A Statistical Analysis of the Organization of Higher Education in the United States, 1948-1949* (New York: Columbia University Press, 1951, published for the Commission on Financing Higher Education), p. 6.

increased from 8.4 to 12.2 years. According to current estimates, at least one out of every four persons in the population of the United States is enrolled in some type of formal education. This does not count the enormous television population which is acquiring much of its social learning and some of its formal education through television.

Nevertheless, the end of the great age of expansion in size of colleges and universities is arriving. Population statistics, for example, from Clark Kerr and the Carnegie Commission on Higher Education, indicate that there will be 3,000,000 additional students in the 1970's, with no further increase in the 1980's; and that growth in the 1990's will be at about the same rate as American Society is growing.[22] The concept of lifelong learning will bring some additional students into postsecondary education. Even with this considerable growth, dramatic increases similar to those in the 1960's cannot be anticipated. Thus, changes and adaptations must be made in a limited or in a no-growth situation.

Almost all states have reached funding plateaus for higher education. The proportion of Gross National Product and of Gross State Product going into higher education will not rise and may drop insofar as colleges and universities are concerned. Currently, a lack of confidence has developed in the effectiveness of established colleges and universities. Furthermore, society develops new institutions to meet new needs not met by existing institutions, and new institutions are being established, both private and public. Private, proprietary institutions, and public vocational-technical institutions are receiving increasing public support. Federal aid to postsecondary education is moving to support the student (the consumer) in place of institutional aid of various categorical types. With support levels not rising and costs going up, older established private, *non-profit* educational institutions are moving vigorously to secure public funds, which are coming from the same limited sources which are not rising proportionately. Society is supporting the establishment of new forms of postsecondary education, essentially with a vocational emphasis for a central core, and is thus providing for expansion of the total number of postsecondary students in a different fashion. Once again, these institutions are being supported from the same dollars, with very little additional funding.

Scholars in the field of enrollment analysis indicate that the *slowdown in enrollments by institutions is positively correlated with institutional emphasis on the liberal arts.* Students of all ages are willing to pay for exactly the type and kind of education they want, either broadly vocational or broadly cultural. However, vocationally-oriented institutions are the ones

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[22]Carnegie Commission on Higher Education, *New Students and New Places* (Hightstown, N.J.: McGraw-Hill Book Company, 1971), p. 1.

which are not dropping in enrollment; and in some cases, they are growing. Garland Parker's fall 1972 enrollment studies in *Intellect* for February and April 1973, reviewed the enrollment patterns for the whole of the United States. Gross total enrollment all through the United States increased two-tenths of 1%. Teachers colleges went down between 5% and 6%. Most other types of institutions went down between 1% and 2%. A few institutions throughout the United States are still growing, but very few—the total is down. Significant increases are in vocational institutions and the private proprietary institutions. Part-time enrollments have increased in many institutions—the only reason that enrollments are not down more. The increase in part-time enrollment is 11.3% while at the same time there is an absolute decrease of 3.1% in incoming freshmen throughout the United States.

There is less prestige for college degrees from all types of postsecondary institutions but increasing demand for external certification in order to serve in particular vocations. This is particularly true in the rapidly expanding applied health professions but also true in others. There may be as many as 75 different applied health professional groups which require special certification in order to practice.

The trend to centralization in government and to conglomerate, large-scale corporate business activity is reflected throughout the United States in legislative approaches to structure, coordination, and governance of postsecondary education. All but two states now have some form of statewide coordination on governance for postsecondary educational institutions, with many sub-systems which are mostly of a "governance-type." In states lacking an adequate coordination system, well-organized, well set-up, and with a good data system, the control of higher education appears to be moving into the governor's office. This is a very normal reaction because the large costs make postsecondary education a major part of the total state budget. In several states, currently there are proposals for cabinet offices to be in charge of all of education. Under this system education, including postsecondary education, would be just another regulatory branch of government instead of a fourth branch of state government. In addition, unionization or statewide faculty organizations foster centralization of decision making and often take away from the local campus' decisions regarding academic and local problems on the campus.

In addition to these more obvious developments, there are critical questions throughout our society about the "limits of material growth" which can be achieved in our country and on this planet. The science and technology which produces and supports this growth has become somewhat suspect. There is a growing concern about the "quality of life"—a concern for values in contrast with prior concern for materialistic development at any cost.

The endless scientific frontier which was described by Vannevar Bush in the late 1940's has run into severe road blocks. Developments in technology and industry, so necessary in the past to improvement in our quality of life, now are questioned seriously because of potential for g-term detrimental changes which they can cause or have caused in our living conditions. Professor Ben-David summarized this feeling very aptly in his award-winning essay on American higher education for the Carnegie Commission on Higher Education:

> There is no doubt that there has occurred a drastic change in the image of technology since the Second World War. Instead of something that may redeem the world, technology now appears as something dangerous and destructive. People afraid of technological doom tend to blame science along with technology for the result of their own misuses of technology.

As these changes in thinking take place, members of society are re-evaluating the purposes of education and the outcomes expected from it. Implicit assumptions of the past are gradually being reviewed and adjusted. (1) Appropriation of more money is no longer assumed to be the answer to social demands for improvement and perfectability of society and of the persons within it. Recent reports from the Brookings Institution indicate that solutions involving solely more money often have very little to do with success in meeting social problems. This has been a fundamental idea in most state colleges and universities—with more money, they could really meet society's goals. But the evidence is not there. Costs vary greatly between comparable colleges. (2) Many thoughtful persons no longer assume that the society benefits more than the individual from the opportunity for higher education. Low tuition and fees are seriously questioned in states where in the past this idea has been almost sacred (particularly the Western states). It is seriously questioned now by people who feel they are socially conscious. This is a very important point for the developing regional state colleges and universities. Legislators feel that this is a key issue—one that must be resolved whether it is essentially an individual's responsibility to pay or the society's responsibility to support the student—or the ratio between the two. And it will not be resolved in the institutions; it will be resolved as a matter of fundamental policy in legislatures.

A recent study on *Trends in State Funding in Higher Education*[23] (January 1973) indicates specific changes taking place. For the first time in many years, there has been a decrease in appropriation for education at all levels

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[23]Lyman A. Glenny and James R. Kidder, *Trends in State Funding in Higher Education: A Preliminary Report* (Denver, Colo.: The Education Commission of the States, January 1973), pp. 1-14.

in proportion to the total amount of income of funds available in the states. Between 1962 and 1973, education's share of total state revenue dropped from 53% to 51%. This small percentage drop becomes billions of dollars, and it took place in spite of a 5% enrollment increase at the elementary-secondary level and approximately a one-third increase in institutions of higher education. The drop in the percent of state revenues for education in all states was significant and greatest in the Pacific States—from 61% to 52%. Obviously, society's support for education, and for higher educat on, has diminished drastically; and changes in society's goals are posing serious problems in our own academic planning future.

AASCU-type institutions always have been close to their regions and changed rapidly to meet new developing needs. The ability to change and adjust rapidly will be even more necessary in the future. Many of the students now coming to these institutions are ready to choose for themselves: (1) what their occupational areas will be and how far they want to go in them at a particular time; and (2) what their cultural or liberal background will be and how far they want to go at a given time. The idea of a 4-year degree program for persons between 18 and 22 years of age is almost foreign to many students of today. Some of them feel that a student who has gone to only one or two institutions really has not had a good education—a person such as this does not have the needed variety! And some of them think of education as something that goes on for life—where they can "step in" or "step out" as they feel the need. This is an entirely different thing than when a collective faculty determined what students needed to have a general education and earn a degree.

Currently society is supporting students who want to attend post-secondary education in this changing fashion. Possibly, three-quarters of a million postsecondary students currently attend private proprietary institutions and take only the vocational work. And all forms of federal student aid are available to them. It may well be that some students, almost as great a number as attended 20 or 25 years ago, will still want to attend a highly-structured institution and take a highly-structured program. Some institutions will need to provide both types of educational degree opportunities.

Obviously, member institutions of the American Association of State Colleges and Universities will provide the necessary educational degree opportunities for students and will meet the expressed needs of the communities they serve. Current developments reported in just a few of the institutions during April, May, and June of 1973 provide examples which are good evidence of the positive thrusts:

1. New types of vocational degree programs.
2. Changed patterns of credit for work-study or intern experiences.

3. Adaptive programs in teacher education.
4. Closer relations and more informal educational opportunities in the communities they serve.

New degree programs take on many different aspects. Programs are offered at both 2-year and 4-year degree levels at Saint Cloud State College and Dakota State College for assistants for physicians in general practice and in criminal justice, respectively. Columbus College in Georgia has established a regional health professions education center offering both associate and baccalaureate degree programs in medical technology, nursing, dental hygiene, and mental health (with a continuing education program planned for the future). Dakota State College also offers a new associate degree program in educational media technology. West Virginia Institute of Technology is offering an Associate in Science degree in dental hygiene, with a low-cost clinic as a critical teaching resource.

At the 4-year level, State University College in Plattsburgh, New York, and the Miner Institute have new programs in environmental education. Northeastern State College in Oklahoma has begun a new technical program in the graphic arts field, including practical field experience. Indiana State University offers a new 4-year degree program in packaging technology, a highly specialized need in that area. The California State Polytechnic University in Pomona is developing a Bachelor of Science degree program in technology which is designed to meet national needs for technically competent persons in several fields such as the environment, construction, manufacturing, or computer sciences. Newark State College in New Jersey offers a new degree program in urban and outdoor recreation designed particularly for industrial, municipal, and hospital specialization in addition to educational work. Two universities in Illinois, Illinois State University and Northern Illinois University, plan to offer a cooperative doctoral program in biological sciences. North Texas State University has a new 2-year graduate program in economics to prepare economic researchers for small banks and comparable-sized industries.

Credit for off-campus work or intern experience is involved in almost all of the briefly named degree programs. Other examples include: Framingham State College's new Bachelor's degree program in liberal studies which grants college credit for outside experience and is designed specifically for adults with widely varied backgrounds; Kansas State Teachers College offers a new student-designed degree program which will award credit for work or study experiences, travel, and demonstrated proficiencies; and Old Dominion University in Virginia provides a new seminar or "job-related experiential learning," integrating work experience with academic learning and based on an internship program in a public agency or private organization. Two of the State University Colleges in New York, at Potsdam and Oneonta, have designed community intern programs meeting local

needs and providing problems professions experience for students in local agencies, drug rehabilitation centers, Alcoholics Anonymous, and the local Chambers of Commerce.

New teacher education programs include one in nursery school certification at the University of Wisconsin, River Falls, with experience in nursery schools, day-care centers, and Head Start programs. Valdosta State College in Georgia has developed five new programs at the graduate specialist level in special education, reading, elementary education, administration, and guidance and counseling--while at the same time developing a certification program for teacher aides and an associate degree program for teacher para-professionals. Once again, these teacher education programs involve extensive field experience and service in the community.

Community relations and informal educational opportunities, likewise, are continuing on their long-term development in these institutions. Northeastern Illinois University has developed a series of urban field centers located in the community including an art center in a former synagogue, a center for newly-arrived community residents which offers "cultural" field trips, a writing center for students and others often not enrolled at the University, and special tutoring projects in dance and Black literature. The Massachusetts College of Art, as an example of literally dozens of comparable developments, provides a series on the contemporary arts bringing noted persons to the campus essentially for the benefit of the community as well as the college students and faculty. This limited catalog based on a relatively small sampling provides the best possible evidence that the AASCU institutions are responding to current developing needs.

The regional state colleges and universities long have been open access institutions. They have been low tuition institutions and have been institutions attended by many first-generation college students. By tradition, these state colleges and universities have been very responsive and have met specific regional needs, a critically important characteristic of these institutions. By staying close to these principles and meeting regular and new needs of their region, they will receive support of state legislatures and other people in power, thus being able to continue their functions and not having to be replaced by newer, more responsive institutions.

Appendix I

INSTITUTIONAL NAME CHANGES—1966 TO 1973
AASCU MEMBERS (BY STATE)

Institution Names as of June 1973	*Institution Names as of 1966*
Alabama	
Alabama State University	Alabama State College
Florence State University	Florence State College
Jacksonville State University	Same
Livingston University	Livingston State College
Troy State University	Same
University of Alabama at Huntsville	Same
University of Montevallo	Alabama College
University of South Alabama	Spring Hill College
Alaska	
University of Alaska at Anchorage	New
Arizona	
Northern Arizona University	Same
Arkansas	
Arkansas Polytechnic College	Same
Arkansas State University	Same
Henderson State College	Same
Southern State College	Same
State College of Arkansas	Same
University of Arkansas at Monticello	Arkansas A & M College
California	
California Maritime Academy	Same
California State College, Bakersfield	Same
California State College, Dominguez Hills	Same
California State College, San Bernardino	Same
California State Polytechnic University-Pomona	Calif. State Polytechnic Coll.
California State Polytechnic University-San Luis Obispo	Calif. State Polytechnic Coll.
California State University, Chico	Chico State Coll.-Calif.
California State University, Fresno	Fresno State College
California State University, Fullerton	Calif. State Coll., Fullerton
California State University, Humboldt	Humboldt State College
California State University, Long Beach	Calif. State Coll., Long Beach
California State University, Los Angeles	Calif. State Coll., Los Angeles
California State University, Sacramento	Sacramento State College

[*Continued*]

Institution Names as of June 1973	*Institution Names as of 1956*
California State University, San Diego	San Diego State College
California State University, Northridge	San Fernando Valley St. Coll.
California State University, San Jose	San Jose State College
Sonoma State College	Same
Stanislaus State College	Same
Colorado	
Adams State College	Same
Fort Lewis College	Same
Metropolitan State College	Same
Southern Colorado State College	Same
University of Northern Colorado	Colorado State College
Western State College of Colorado	Same
Connecticut	
Central Connecticut State College	Same
Eastern Connecticut State College	Same
Southern Connecticut State College	Same
Western Connecticut State College	Same
District of Columbia	
District of Columbia Teachers College	Same
Federal City College	New (1968)
Florida	
Florida Agricultural and Mechanical University	Same
Florida Atlantic University	Same
Florida International University	New
Florida Technological University	New
University of North Florida	New
University of South Florida	Same
University of West Florida	New
Georgia	
Albany State College	Same
Armstrong State College	Same
Augusta College	Same
Columbus College	Same
Georgia College	Georgia Coll. at Milledgeville
Georgia Southern College	Same
North Georgia College	Same
Savannah State College	Same
Valdosta State College	Same
West Georgia College	Same
Guam	
University of Guam	College of Guam

Institution Names as of June 1973	Institution Names as of 1966
Idaho	
Boise State College	Boise College
Idaho State University	Same
Lewis-Clark State College	Lewis-Clark Normal School
Illinois	
Chicago State University	Chicago State College
Eastern Illinois University	Same
Governors State University	New
Illinois State University	Same
Northeastern Illinois University	Northeastern Ill. State Coll.
Northern Illinois University	Same
Sangamon State University	New
Southern Illinois University at Edwardsville	Same
Western Illinois University	Same
Indiana	
Ball State University	Same
Indiana State University	Same
Iowa	
University of Northern Iowa	Same
Kansas	
Fort Hays Kansas State College	Same
Kansas State College of Pittsburg	Same
Kansas State Teachers College	Same
Wichita State University	Same
Kentucky	
Eastern Kentucky University	Same
Morehead State University	Same
Murray State University	Same
Northern Kentucky State College	New
Western Kentucky University	Same
Louisiana	
Grambling College	Same
Louisiana Tech University	Louisiana Polytechnic Institute
McNeese State University	McNeese State College
Nicholls State University	Francis T. Nicholls State Coll.
Northeast Louisiana University	Northeast La. State Coll.
Northwestern State University of Louisiana	Northwestern State Coll. of La.
Southeastern Louisiana University	Southeastern Louisiana Coll.
Maine	
Maine Maritime Academy	Same
University of Maine at Augusta	Same

[Continued]

Institution Names as of June 1973	*Institution Names as of 1966*
University of Maine at Farmington	Farmington State College
University of Maine at Fort Kent	Fort Kent State College
University of Maine at Machias	Wash. State Coll. of the U. of M.
University of Maine at Portland-Gorham	Gorham State College
University of Maine at Presque Isle	Aroostook State Coll. of the University of Maine
Maryland	
Bowie State College	Same
Coppin State College	Same
Frostburg State College	Same
Morgan State College	Same
St. Mary's College of Maryland	Same
Salisbury State College	Same
Towson State College	Same
University of Maryland-Baltimore County	Same
Massachusetts	
Boston State College	Same
Bridgewater State College	Same
Fitchburg State College	Same
Framingham State College	Same
Lowell State College	Same
Massachusetts College of Art	Same
Massachusetts Maritime Academy	Same
North Adams State College	Same
Salem State College	Same
Southeastern Massachusetts University	Southeastern Mass. Tech. Inst.
Westfield State College	Same
Worcester State College	Same
Michigan	
Central Michigan University	Same
Eastern Michigan University	Same
Ferris State College	Same
Grand Valley State College	Same
Lake Superior State College	Same
Michigan Technological University	Same
Northern Michigan University	Same
Oakland University	Same
Saginaw Valley College	Same
Western Michigan University	Same
Minnesota	
Bemidji State College	Same
Mankato State College	Same
Minnesota Metropolitan State College	New

Institution Names as of June 1973	*Institution Names as of 1966*
Moorhead State College	Same
St. Cloud State College	Same
Southwest Minnesota State College	Same
Winona State College	Same
Mississippi	
Alcorn Agricultural and Mechanical College	Same
Delta State College	Same
Jackson State College	Same
Mississippi State College for Women	Same
Mississippi Valley State College	Same
University of Southern Mississippi	Same
Missouri	
Central Missouri State University	Central Missouri State College
Harris Teachers College	Same
Missouri Southern College	Same
Missouri Western College	New (1968)
Northeast Missouri State University	Northeast Missouri State Coll.
Northwest Missouri State University	Northwest Missouri State Coll.
Southwest Missouri State University	Southwest Missouri State Coll.
Montana	
Eastern Montana College	Same
Montana College of Mineral Science and Technology	Same
Northern Montana College	Same
Western Montana College	Same
Nebraska	
Chadron State College	Same
Kearney State College	Same
Peru State College	Same
University of Nebraska at Omaha	Municipal Univ. of Omaha
Wayne State College	Same
Nevada	
University of Nevada at Las Vegas	Nevada Southern University
New Hampshire	
Keene State College	Same
Plymouth State College	Same
New Jersey	
College of Medicine and Dentistry of New Jersey at Newark	Same
Glassboro State College	Same

[*Continued*]

Institution Names as of June 1973	*Institution Names as of 1966*
Jersey City State College	Same
Montclair State College	Same
Newark State College	Same
Newark State College of Engineering	Same
Ramapo College of New Jersey	New (1971)
Stockton State College	New (1971)
Trenton State College	Same
The William Paterson College of New Jersey	Paterson State College
New Mexico	
Eastern New Mexico University	Same
Western New Mexico University	Same
New York	
City University of New York, Queens College	Same
Empire State College	Same
State University College at Brockport	Same
State University College at Buffalo	Same
State University College at Cortland	Same
State University College at Fredonia	Same
State University College at Geneseo	Same
State University College at New Paltz	Same
State University College at Old Westbury	New (1968)
State University College at Oneonta	Same
State University College at Oswego	Same
State University College at Plattsburgh	Same
State University College at Potsdam	Same
State University College at Purchase	Same
State University of New York Maritime College	Same
State University at Utica/Rome	New
North Carolina	
Appalachian State University	Appalachian St. Teachers Coll.
East Carolina University	East Carolina College
Elizabeth City State University	Elizabeth City State College
Fayetteville State University	Fayetteville State College
North Carolina Central University	North Carolina Coll. at Durham
Pembroke State University	Pembroke State College
Western Carolina University	Western Carolina College
Winston-Salem State University	Winston-Salem State College
North Dakota	
Dickinson State College	Same
Mayville State College	Same
Minot State College	Same
Valley City State College	Same

Institution Names as of June 1973	*Institution Names as of 1966*
Ohio	
Bowling Green State University	Same
Central State University	Same
Cleveland State University	Same
University of Akron	Same
University of Toledo	Same
Wright State University	New (1967)
Youngstown State University	Same
Oklahoma	
Central State University	Central State College
East Central State College	Same
Northeastern State College	Same
Northwestern State College	Same
Oklahoma College of Liberal Arts	Same
Southeastern State College	Same
Southwestern State College	Same
Oregon	
Eastern Oregon College	Same
Oregon Technical Institute	Same
Portland State University	Portland State College
Southern Oregon College	Same
Pennsylvania	
Bloomsburg State College	Same
California State College	Same
Cheyney State College	Same
Clarion State College	Same
East Stroudsburg State College	Same
Edinboro State College	Same
Indiana University of Pennsylvania	Same
Kutztown State College	Same
Lincoln University	Same
Lock Haven State College	Same
Mansfield State College	Same
Millersville State College	Same
Shippensburg State College	Same
Slippery Rock State College	Same
University of Pittsburgh at Johnstown	Same
West Chester State College	Same
South Carolina	
The College of Charleston	Same
Francis Marion College	New
Winthrop College	Same
South Dakota	
Black Hills State College	Same
Dakota State College	General Beadle State College
Northern State College	Same
University of South Dakota-Springfield	Southern State College

[*Continued*]

Institution Names as of June 1973	*Institution Names as of 1966*
Tennessee	
Austin Peay State University	Same
East Tennessee State University	Same
Memphis State University	Same
Middle Tennessee State University	Same
Tennessee Technological University	Same
University of Tennessee at Chattanooga	Same
University of Tennessee at Martin	Same
Texas	
Angelo State University	Angelo State College
East Texas State University	Same
Lamar University	Lamar State Coll. of Technology
Midwestern University	Same
North Texas State University	Same
Sam Houston State University	Sam Houston State College
Southwest Texas State University	Southwest Texas State College
Stephen F. Austin State University	Stephen F. Austin State College
Texas A & I University	Same
Texas Woman's University	Same
West Texas State University	Same
Utah	
Southern Utah State College	College of Southern Utah
Weber State College	Same
Vermont	
Castleton State College	Same
Johnson State College	Same
Lyndon State College	Same
Virgin Islands	
College of the Virgin Islands	Same
Virginia	
Clinch Valley College	Same (branch of Univ. of Va.)
George Mason University (Fairfax)	George Mason College (branch of University of Virginia)
Longwood College	Same
Madison College	Same
Norfolk State College	Same
Old Dominion University	Old Dominion College
Radford College	Same
Virginia Commonwealth University	Richmond Professional Institute
Washington	
Central Washington State College	Same
Eastern Washington State College	Same
The Evergreen State College	New (1971)
Western Washington State College	Same

Institution Names as of June 1973	*Institution Names as of 1966*
West Virginia	
Bluefield State College	Same
Concord College	Same
Fairmont State College	Same
Marshall University	Same
Shepherd College	Same
West Liberty State College	Same
West Virginia Institute of Technology	Same
West Virginia State College	Same
Wisconsin	
University of Wisconsin-Eau Claire	Wisc. State Univ.-Eau Claire
University of Wisconsin-La Crosse	Wisc. State Univ.-La Crosse
University of Wisconsin-Oshkosh	Wisc. State Univ.-Oshkosh
University of Wisconsin-Platteville	Wisc. State Univ.-Platteville
University of Wisconsin-River Falls	Wisc. State Univ.-River Falls
University of Wisconsin-Stevens Point	Wisc. State Univ.-Stevens Point
University of Wisconsin-Stout	Stout State University
University of Wisconsin-Superior	Wisc. State Univ.-Superior
University of Wisconsin-Whitewater	Wisc. State Univ.-Whitewater

INSTITUTION NAME CHANGES—1966 TO 1973
AASCU NON-MEMBERS (BY STATE)

Institution Names as of June 1973	Institution Names as of 1966
California	
California State University, Hayward	Calif. State Coll. at Hayward
California State University, San Francisco	San Francisco State College
Colorado	
Colorado School of Mines	Same
Georgia	
Georgia Southwestern College	Same
Georgia State University	Georgia State College
Indiana	
Indiana State University-Evansville	Same
Louisiana	
Louisiana State University-Shreveport	Established in 1967
University of Southwestern Louisiana	Same

[*Continued*]

Institution Names as of June 1973	*Institution Names as of 1966*
Massachusetts	
Lowell Technological Institute	Same
New Mexico	
New Mexico Highlands University	Same
New Mexico Institute of Mining and Technology	Same
New York	
CUNY Brooklyn College	Same
CUNY City College	Same
CUNY Hunter College	Same
North Carolina	
North Carolina School of the Arts	Same
University of North Carolina at Wilmington	Wilmington College
Oklahoma	
Murray State College of Agriculture and Applied Science	Same
Oklahoma Panhandle State College	Panhandle Agric. & Mech. Coll.
Oregon	
Oregon College of Education	Same
South Carolina	
The Citadel Military College of South Carolina	Same
South Dakota	
South Dakota School of Mines and Technology	Same
Texas	
Pan American University	Pan American College
Sul Ross State University	Sul Ross State College
Tarleton State College (A Division of Texas A & M University)	Same
Texas State Technological Institute	Same
Virginia	
Christopher Newport College (Division of William and Mary)	Same
College of William and Mary	Same
Virginia Military Institute	Same
West Virginia	
Glenville State College	Same

Appendix II

Part A

INFORMATION ON AASCU MEMBER INSTITUTIONS

August 1967

I. Name of Institution _____
Name of Person Providing Information _____
Address of Institution _____
Is there a history of your institution?
If so, name of book _____
cost _____ source _____

II. Size of Institution—Using Approximate Figures on Which Budget is Based. Check one in each column.

1966-67		Estimated, Fall 1967	Estimated in 5 Years Fall 1972
_____	Below 1,000	_____	_____
_____	1,000- 2,499	_____	_____
_____	2,500- 3,999	_____	_____
_____	4,000- 5,999	_____	_____
_____	6,000- 7,999	_____	_____
_____	8,000- 9,999	_____	_____
_____	10,000-11,999	_____	_____
_____	12,000-14,999	_____	_____
_____	15,000 and above	_____	_____

III. Curricular Programs

A. Degrees Offered

1. ____BA ____BS ____BM ____BFA ____BEd
2. ____MA ____MS ____MM ____MFA ____MBA
   ____MPA ____MSW
3. ____PhD ____DBA ____EdD ____MD ____JD
4. Others at
   Baccalaureate level _____
   Master's level _____
   Doctoral level _____

B. New Majors Developed
   1. Developed 1965-67
      Baccalaureate _____
      Master's _____
      Doctoral _____
   2. Planned for starting in 1967-72
      Baccalaureate _____
      Master's _____
      Doctoral _____

IV. Administrative Organization

A. Board—check (1) or (2). If (2), check addition
   1. ____ individual board for college—(____no. of members on board)
   2. ____ board sets policy for ____ colleges and universities—(____ no. of members on board)
      ____ all institutions are comparable types
      ____ board responsible for variety of institutions
         ____ 2 year
         ____ 4 year (BA or BS only)
         ____ 5-6 year (Master's)
         ____ 7 year (Doctoral)
   3. Board is
      ____ elected
      ____ appointed by Governor
      ____ confirmed by Legislature

B. State Coordination and Control
   1. Current situation, 1967-68
      ____ A superboard *sets policy* for all C's and U's
      ____ A superboard *recommends* policy to the Legislature
      ____ Each C and U goes to Legislature directly
      ____ Each C and U submits budgets directly to Legislature
      ____ Each C and U submits budgets to Governor
      ____ Purchasing and contracts are done by the C or U

_____ Purchasing is done through a central state agency
_____ all purchasing
_____ purchasing over a certain amount, which is _____
_____ All yearly contracts are through central agencies
_____ Yearly contracts above _____ are through central agencies
_____ Buildings are built by the Board of the C or U

Any Special Points to Make about Control

2. Future expectations?
_____ Continue as is
_____ Stronger control from superboard
_____ State University may absorb others

C. Studies of State Needs or Costs in Higher Education

_____ Last done in _____
_____ Current study under way, to conclude in _____
_____ done by Governor
_____ done by Legislature
_____ done by institutional cooperation
_____ Studies available from my state (give source)
1. _____
2. _____

V. Financial Matters

A. Support Budget Totals
_____ 1966-67 support budget (rounded to approximate millions)
_____ 1967-68 support budget (rounded to approximate millions)
_____ 1968-69 support budget estimate

B. Cost per Student	Budget	Approximate Student Ratio
_____	1966-67	_____
_____	1967-68	_____
_____	1968-69	_____
_____	Estimate in 1972	_____

C. Methods of Funding in 1967-68

1. Buildings and Land--*Fill in more than one, if appropriate*

a. _____ bond issues
b. _____ yearly tax revenues—State General Fund
c. _____ student fees for buildings
1. _____ all types
2. _____ only special types (if so, which o es?)
_____ unions
_____ auditoriums
_____ health centers
_____ field houses, stadiums
_____ residence halls
_____ chapels
_____ classroom buildings
_____ other
d. _____ federal funds
e. _____ gifts
f. _____ other funds (what?) _____

2. Yearly Support Budgets

_____student fees—what % of total _____
_____ state tax revenues
_____ general fund
_____ earmarked funds from
_____ lottery
_____ horse racing
_____ other
_____ federal funds, for _____
_____ other (what?) _____

VI. Innovative or Experimental Programs

A. 1966-67 and Continuing
_____ student government
_____ learning resource centers
_____ TV, radio
_____ independent study centers
_____ audio carrels
_____ video and audio carrels
_____ area studies programs (African, Asian, Latin American?)
_____ special overseas centers

_____ sister college or university abroad, with
_____ student exchange
_____ faculty exchange
_____ materials exchange—books, films, etc.
_____ special field work or intern programs. If so, what fields?
_____
_____ computer-assisted instruction or learning
_____ innovative administrative changes
_____ other (what?)
_____
_____
_____

B. Plans for Future Innovation
_____
_____

Part B

FOLLOW-UP QUESTIONNAIRE

STATE COLLEGES AND UNIVERSITIES
(AASCU-Type Institutions)

January 1971

Name of Institution _____

City & State _____ Zip _____

Name of Individual
Completing Questionnaire _____

Title _____

THE AMERICAN COLLEGE TESTING PROGRAM
Box 168, Iowa City, Iowa 52240

Do Not Write in This Column	
1-4	1. _____(Leave blank)
5	2. _____(Leave blank)
6 (1)	
7-8 (U)	3. Present Enrollment—Fall 1970 (full-time equivalent)
9-10 (G)	(Please place one check only in each column)
11-12 (T)	

Size of Institution	Under-graduate	Graduate	Total
(01) 20,000 and above	____	____	____
(02) 15,000 - 19,999	____	____	____
(03) 12,000 - 14,999	____	____	____
(04) 10,000 - 11,999	____	____	____
(05) 8,000 - 9,999	____	____	____
(06) 6,000 - 7,999	____	____	____
(07) 5,000 - 5,999	____	____	____
(08) 4,000 - 4,999	____	____	____
(09) 3,000 - 3,999	____	____	____
(10) 2,000 - 2,999	____	____	____
(11) 1,000 - 1,999	____	____	____
(12) Less than 1,000	____	____	____

(13) Please check if you have no graduate program ____

13-14 (U)
15-16 (G)
17-18 (T)

4. Estimated Enrollment—Fall 1972 (full-time equivalent)
(Please place one check only in each column)

Size of Institution	Under-graduate	Graduate	Total
(01) 20,000 and above	____	____	____
(02) 15,000 - 19,999	____	____	____
(03) 12,000 - 14,999	____	____	____
(04) 10,000 - 11,999	____	____	____
(05) 8,000 - 9,999	____	____	____
(06) 6,000 - 7,999	____	____	____
(07) 5,000 - 5,999	____	____	____
(08) 4,000 - 4,999	____	____	____
(09) 3,000 - 3,999	____	____	____
(10) 2,000 - 2,999	____	____	____
(11) 1,000 - 1,999	____	____	____
(12) Less than 1,000	____	____	____
(13) Please check if you have no graduate program			____

19-20 (U)
21-22 (G)
23-24 (T)

5. Estimated Enrollment—Fall 1975 (full-time equivalent)
(Please place one check only in each column)

Size of Institution	Under-graduate	Graduate	Total
(01) 20,000 and above	____	____	____
(02) 15,000 - 19,999	____	____	____
(03) 12,000 - 14,999	____	____	____

[Continued]

Do Not Write in This Column

(04)	10,000 - 11,999	____	____	____
(05)	8,000 - 9,999	____	____	____
(06)	6,000 - 7,999	____	____	____
(07)	5,000 - 5,999	____	____	____
(08)	4,000 - 4,999	____	____	____
(09)	3,000 - 3,999	____	____	____
(10)	2,000 - 2,999	____	____	____
(11)	1,000 - 1,999	____	____	____
(12)	Less than 1,000	____	____	____

(13) Please check if you have no graduate program ____

6. Degrees Offered at Intermediate or Sixth-Year Level
(Place checks, as appropriate, in each column)

	Degree	(1) Offered Currently	(2) To Be Dropped	(4) Planned Fall 1972	(5) Planned Fall 1975
25	Advanced Master of Education	____	____	____	____
26	Advanced Graduate Certificate	____	____	____	____
27	Advanced Degree or Certificate in Education	____	____	____	____
28	Specialist in Education	____	____	____	____
29	Specialist in Guidance & Counseling	____	____	____	____
30	Specialist in Art	____	____	____	____
31	Specialist in Science	____	____	____	____

32 Specialist in School Administration
33 Specialist in School Psychology
34 Other (specify) _____
_____
35 Other (specify) _____
_____

7. Degrees Offered at Doctoral Level
(Place checks, as appropriate, in each column)

	Degree	(1) Offered Currently	(2) To Be Dropped	(4) Planned Fall 1971	(5) Planned Fall 1975
36	Architecture (D.Arch.)	___	___	___	___
37	Arts (D.A.)	___	___	___	___
38	Bus. Admin. (D.B.A.)	___	___	___	___
39	Computer Science (D.C.S.)	___	___	___	___
40	Criminology (D.Crim.)	___	___	___	___
41	Education (Ed.D.)	___	___	___	___
42	Engineering (D.Engr.)	___	___	___	___
43	Engineering Science (D.Engr.Sci.)	___	___	___	___
44	Fine Arts (D.F.A.)	___	___	___	___
45	Forestry (D.F.)	___	___	___	___
46	Health & Safety (D.H.S.)	___	___	___	___
47	Hebrew Letters (D.H.L.)	___	___	___	___
48	Hebrew Studies (D.H.S.)	___	___	___	___

[Continued]

Do Not Write in This Column					
49	Humanities (D.Hum.)	____	____	____	____
50	Library Science (D.L.S.)	____	____	____	____
51	Modern Language (D.M.L.)	____	____	____	____
52	Music (D.Mus.)	____	____	____	____
53	Musical Arts (D.M.A.)	____	____	____	____
54	Music Education (D.Mus.Ed.)	____	____	____	____
55	Nursing Science (D.N.Sc.)	____	____	____	____
56	Philosophy (Ph.D.)	____	____	____	____
57	Physical Ed. (D.P.E.)	____	____	____	____
58	Public Administration (D.P.A.)	____	____	____	____
59	Public Health (D.P.H.)	____	____	____	____
60	Recreation Ed. (D.R.E.)	____	____	____	____
61	Science (D.Sc.)	____	____	____	____
62	Social Work (D.S.W.)	____	____	____	____
63	Social Science (D.S.S.)	____	____	____	____
64	Other (specify) _____				
	_____	____	____	____	____

8. Earned Degrees Awarded 1969-70 Academic Year

	Number	Degree
65-68	_____	Sub-baccalaureate
69-72	_____	Baccalaureate

73-76 _____ Master's
77-80 _____ Intermediate
_____ Doctorate

Dup 1-5 9. Major Fields of Study

A. Sub-baccalaureate
(Place check, as appropriate, in each column)

6 (2)

	Field	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
7	Agriculture (business machines and animal & crop production)	____	____	____	____
8	Forestry	____	____	____	____
9	Horticulture (flowers, shrubbery, turf, etc.)	____	____	____	____
10	Marketing, Merchandising, & Retailing	____	____	____	____
11	Public Administration	____	____	____	____
12	Hotel, Motel, & Restaurant Management	____	____	____	____
13	Petroleum Distribution	____	____	____	____
14	Dental Assisting or Hygiene	____	____	____	____
15	Nursing (registered or practical)	____	____	____	____
16	Radiology & X-Ray Tech.	____	____	____	____
17	Other Medical or Health Related Fields	____	____	____	____
18	Home Economics and Homemaking	____	____	____	____
19	Accounting & Bookkeeping	____	____	____	____
20	Business Admin. & General Business	____	____	____	____
21	Data Programming, Processing, & Keypunch	____	____	____	____

[Continued]

Do Not Write in This Column		(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
22	Clerical, Secretarial, & Stenographic Fields	____	____	____	____
23	Office Management	____	____	____	____
24	Chemistry, Chemical Engr. & Technology	____	____	____	____
25	Civil Engr. & Tech. (incl. highways & surveying)	____	____	____	____
26	General Science, Engr. & Technology	____	____	____	____
27	Mechanical Engr. & Tech.	____	____	____	____
28	Metallurgical, Mineral & Petroleum Engr. or Tech.	____	____	____	____
29	Construction & Maintenance Trades (carpentry, heavy equipment, masonry, etc.)	____	____	____	____
30	Drafting & Design (all types)	____	____	____	____
31	Heating, Cooling, Plumbing, & Electrical Installation & Servicing	____	____	____	____
32	Automobile Fields (mechanics, body repair, & services)	____	____	____	____
33	Aviation Fields	____	____	____	____
34	Commercial Graphics, & Industrial Arts (including printing, linotype, etc.)	____	____	____	____
35	Machinework (tool & die, etc.)	____	____	____	____
36	Metal Working & Welding	____	____	____	____
37	Leather Working (shoe repair, manufacturing, etc.)	____	____	____	____
38	Food Service (baker, cook, chef, waiter, & manager)	____	____	____	____
39	Police & Fire Protection Fields	____	____	____	____
40	General Education	____	____	____	____
41	Other (specify) _____	____	____	____	____
42	Other (specify) _____	____	____	____	____

43	Other (specify) _____	____	____	____	____
44	Other (specify) _____	____	____	____	____
45	Other (specify) _____	____	____	____	____

B. Baccalaureate
(Place check, as appropriate, in each column)

	Broad Field*	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
46	Agriculture	____	____	____	____
47	Architecture	____	____	____	____
48	Biological Science	____	____	____	____
49	Business and Commerce	____	____	____	____
50	City Planning	____	____	____	____
51	Computer Science & Systems Analysis	____	____	____	____
52	Education	____	____	____	____
53	Engineering	____	____	____	____
54	English and Journalism	____	____	____	____
55	Fine and Applied Arts	____	____	____	____
56	Folklore	____	____	____	____
57	Foreign Languages and Literature	____	____	____	____
58	Forestry	____	____	____	____
59	Geography	____	____	____	____
60	Health Professions	____	____	____	____

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

[Continued]

Do Not Write in This Column		(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
61	Home Economics	____	____	____	____
62	Law	____	____	____	____
63	Library Science	____	____	____	____
64	Mathematical Subjects	____	____	____	____
65	Military Science	____	____	____	____
66	Philosophy	____	____	____	____
67	Physical Sciences	____	____	____	____
68	Psychology	____	____	____	____
69	Records Management	____	____	____	____
70	Religion	____	____	____	____
71	Social Sciences	____	____	____	____
72	Trade & Industrial Training	____	____	____	____
73	Miscellaneous Fields	____	____	____	____

74-80 C. Master's (Place check, as appropriate, in each column)

(Blank) Dup 1-5 6 (3)	Broad Field	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
7	Agriculture	____	____	____	____
8	Architecture	____	____	____	____
9	Biological Science	____	____	____	____

10	Business and Commerce	____	____	____	____
11	City Planning	____	____	____	____
12	Computer Science and Systems Analysis	____	____	____	____
13	Education	____	____	____	____
14	Engineering	____	____	____	____
15	English and Journalism	____	____	____	____
16	Fine and Applied Arts	____	____	____	____
17	Folklore	____	____	____	____
18	Foreign Languages and Literature	____	____	____	____
19	Forestry	____	____	____	____
20	Geography	____	____	____	____
21	Health Professions	____	____	____	____
22	Home Economics	____	____	____	____
23	Law	____	____	____	____
24	Library Science	____	____	____	____
25	Mathematical Subjects	____	____	____	____
26	Military Science	____	____	____	____
27	Philosophy	____	____	____	____
28	Physical Sciences	____	____	____	____
29	Psychology	____	____	____	____
30	Records Management	____	____	____	____
31	Religion	____	____	____	____
32	Social Sciences	____	____	____	____
33	Trade & Industrial Training	____	____	____	____
34	Miscellaneous Fields	____	____	____	____

[Continued]

Do Not Write in This Column

D. Intermediate
(Place check, as appropriate, in each column)

	Broad Field	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
35	Agriculture				
36	Architecture				
37	Biological Science				
38	Business and Commerce				
39	City Planning				
40	Computer Science and Systems Analysis				
41	Education				
42	Engineering				
43	English and Journalism				
44	Fine and Applied Arts				
45	Folklore				
46	Foreign Languages and Literature				
47	Forestry				
48	Geography				
49	Health Professions				
50	Home Economics				
51	Law				
52	Library Science				

53	Mathematical Subjects	____	____	____	____
54	Military Science	____	____	____	____
55	Philosophy	____	____	____	____
56	Physical Sciences	____	____	____	____
57	Psychology	____	____	____	____
58	Records Management	____	____	____	____
59	Religion	____	____	____	____
60	Social Sciences	____	____	____	____
61	Trade and Industrial Training	____	____	____	____
62	Miscellaneous Fields	____	____	____	____

E. Doctorate
(Please specify by initials doctorate offered in each field)

	Broad Field	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
63-65	Agriculture	____	____	____	____
66-68	Architecture	____	____	____	____
69-71	Biological Science	____	____	____	____
72-74	Business and Commerce	____	____	____	____
75-77	City Planning	____	____	____	____
78-80	Computer Science and Systems Analysis	____	____	____	____
7-9	Education	____	____	____	____
10-12	Engineering	____	____	____	____
13-15	English and Journalism	____	____	____	____
16-18	Fine and Applied Arts	____	____	____	____

[Continued]

Do Not Write in This Column		(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
19-21	Folklore	____	____	____	____
22-24	Foreign Languages and Literature	____	____	____	____
25-27	Forestry	____	____	____	____
28-30	Geography	____	____	____	____
31-33	Health Professions	____	____	____	____
34-36	Home Economics	____	____	____	____
37-39	Law	____	____	____	____
40-42	Library Science	____	____	____	____
43-45	Mathematical Subjects	____	____	____	____
46-48	Military Science	____	____	____	____
49-51	Philosophy	____	____	____	____
52-54	Physical Sciences	____	____	____	____
55-57	Psychology	____	____	____	____
58-60	Records Management	____	____	____	____
61-63	Religion	____	____	____	____
64-66	Social Sciences	____	____	____	____
67-69	Trade and Industrial Training	____	____	____	____
70-72	Miscellaneous Fields	____	____	____	____

73-80
(Blank) 10. Specialized Areas in Education
(Place check, as appropriate, in each column)

Dup 1-5 6 (5)	Specific Field*	(1) Offered 1970-71	(2) Developed 1967-70	(4) Planned for Fall 1972	(5) Starting Fall 1975
7	Administration	____	____	____	____
8	Adult	____	____	____	____
9	Agriculture	____	____	____	____
10	Art	____	____	____	____
11	Blind Children	____	____	____	____
12	Business and Commerce	____	____	____	____
13	Crippled Children	____	____	____	____
14	Curriculum and Instruction	____	____	____	____
15	Deaf Children	____	____	____	____
16	Early Childhood	____	____	____	____
17	Educational Psychology	____	____	____	____
18	Elementary	____	____	____	____
19	Emotionally Disturbed Children	____	____	____	____
20	Exceptional Children	____	____	____	____
21	General Education and Teaching	____	____	____	____
22	Guidance and Counseling	____	____	____	____
23	Health Education	____	____	____	____
24	History, Philosophy and Comparative	____	____	____	____
25	Home Economics	____	____	____	____

NOTE: The majors in education are those defined for statistical use by the United States Office of Education.

[*Continued*]

Do Not Write in This Column						
26	Mentally Retarded Children	____	____	____	____	
27	Music	____	____	____	____	
28	Nursery and Kindergarten	____	____	____	____	
29	Physical Education	____	____	____	____	
30	Recreation	____	____	____	____	
31	Rehabilitation Counseling	____	____	____	____	
32	Retail Selling	____	____	____	____	
33	Secondary	____	____	____	____	
34	Speech and Hearing Problems	____	____	____	____	
35	Trade and Industrial Arts	____	____	____	____	

36-42 11. _____Total number of volumes in *all* libraries.

43 12. _____ _____A. Does your institution certify teachers?
yes (1) no (2)

44-48 _____B. If yes, how many teachers did your institution certify during the 1969-70 academic year?
Number

13. Student/Faculty Ratio (Please *exclude* all full-time administrative and full-time research personnel)

49-50 _____to 1 faculty member, Fall 1970
No. of students

51-52 _____to 1 faculty member, Fall 1972
Est. no. of students

53-54 _____to 1 faculty member, Fall 1975
Est. no. of students

14. Innovative or Experimental Programs

A. 1970-71 and Continuing (check as appropriate)

55 _____Student government
56 _____Learning resource Centers
57 _____TV, radio
58 _____independent study centers
59 _____audio carrels
60 _____video carrels
61 _____other (specify) _____
62 _____Area studies programs (African, Asian, Latin American?)
63 _____Special overseas centers
64 _____Sister college or university abroad, with
65 _____student exchange
66 _____faculty exchange
67 _____materials exchange—books, films, etc.
68 _____other (specify) _____
69 _____Special field work or intern programs
If so, what fields?_____
_____
70 _____Computer-assisted instruction or learning
71 _____Innovative administrative changes

[Continued]

Do Not Write in This Column

72 _____Other (specify) _____
73-80 _____
(Blank) _____
Dup 1-5 _____
6 (6)

B. Plans for Future Innovation (check as appropriate)

7 _____Student government
8 _____Learning resource centers
9 _____TV, radio
10 _____independent study centers
11 _____audio carrels
12 _____video carrels
13 _____other (specify) _____
14 _____Area studies programs (African, Asian, Latin American?)
15 _____Special overseas centers
16 _____Sister college or university abroad, with
17 _____student exchange
18 _____faculty exchange
19 _____materials exchange—books, films, etc.
20 _____other (specify) _____
21 _____Special field work or intern programs
If so, what fields?_____
_____

22 _____Computer-assisted instruction or learning
23 _____Innovative administrative changes
24 _____Other (specify) _____

_____

_____

_____

15. Financial Matters

A. Institutional Cost per Student (Place one check only in each column. Please do not include residence hall costs in per student costs)

	Cost in Dollars	Fall 1970	(Estimated) Fall 1972	(Estimated) Fall 1975
25 (70)	(0) Below $600	____	____	____
26 (72)	(1) 600 - 799	____	____	____
27 (75)	(2) 800 - 999	____	____	____
	(3) 1,000 - 1,199	____	____	____
	(4) 1,200 - 1,399	____	____	____
	(5) 1,400 - 1,599	____	____	____
	(6) 1,600 - 1,799	____	____	____
	(7) 1,800 - 1,999	____	____	____
	(8) 2,000 - 2,199	____	____	____
	(9) 2,200 and above	____	____	____

28-37 B. $_____Current Book Value of Buildings, Grounds, and Equipment.

[Continued]

Do Not Write in This Column	
	C. Total Institutional Budget
38-46	$_____1970-71
47-55	$_____1971-72 (Estimated)
56-64	$_____1972-73 (Estimated)
65-73	$_____1975-76 (Estimated)
74-80	
(Blank)	
Dup 1-5	1. Sources and amounts of educational and general income for 1970-71.
6 (7)	
7-14	$_____Student fees
15-22	$_____State funds
23-30	$_____General appropriations
31-38	$_____Earmarked funds
39-46	$_____Federal funds
47-54	$_____Foundations
55-62	$_____Other (specify)_____
63-70	$_____Total Educational and General Income
71-80	
(Blank)	
Dup 1-5	
6 (8)	

7-14 2. Sources and Amounts of Capital Funds (buildings and lands)

$_____Bond issues

15-22 $_____State General Fund

23-30 $_____Student fees for buildings

31 Check one only (1)_____All types

32 (2)_____Special types only

33 _____union

34 _____auditorium

35 _____health centers

36 _____field houses, stadiums

37 _____residence halls

38 _____chapels

39 _____classroom buildings

40 _____other

41-48 $_____Federal funds

49-56 $_____Foundations

57-64 $_____Special gift

65-72 $_____Other (specify)_____

_____

73-80 $_____Total Capital Funds

Dup 1-5 6 (9) 16. Budgeting and Financial Control

A. To whom does your institution *initially* apply for public appropriations for annual operating expenses? (Please check one only)

7 (1)_____Governing board for this institution only

(2)_____Governing board for this and other public institutions

[*Continued*]

(3)_____Statewide coordinating and planning board of higher education
(4)_____State governor
(5)_____State legislature or legislative committee
(6)_____Other (specify) _____

B. By whom are contracts for the construction of buildings at your institution let? (Please check only one)

8
(1)_____By the institution
(2)_____By the governing board
(3)_____By the statewide board of higher education
(4)_____Other (specify) _____

C. Does your institution distinguish between major and minor purchases?

9 _____ _____
yes (1) no (2)

10-15 If "yes," what is the amount which separates a major from a minor purchase? $ _____

Who makes the major purchases for your institution? (Please check only one)

16
(1)_____The institution
(2)_____A designated statewide agency
(3)_____Other (specify) _____

If "no," who makes all purchases for your institution? (Please check one)

17
(1)_____The institution
(2)_____A designated statewide agency
(3)_____Other (specify) _____

D. By whom are annual contracts for goods and services at your institution let? (Please check only one)

18
(1)_____By the institution
(2)_____By a designated statewide agency

(3)_____By the governing board
(4)_____Other (specify) _____

17. Future Coordination and Control

A. What future developments are anticipated at your institution in the area of statewide planning and coordination?

19-24 (1)_____Establishment of a statewide board of higher education which will have responsibility and authority in the area(s) of:

(1)_____planning and coordination
(2)_____budgeting
(3)_____policy making
(4)_____governing
(5)_____other (specify) _____

(2)_____Increased responsibility and authority will be delegated to the statewide board already in existence, in the area(s) of:

(1)_____planning and coordination
(2)_____budgeting
(3)_____policy making
(4)_____governing
(5)_____other (specify) _____

(3)_____Decrease in the responsibility and authority delegated to the statewide board already in existence, in the area(s) of:

(1)_____planning and coordination
(2)_____budgeting

[Continued]

Do Not Write in This Column

(3)____policy making
(4)____governing
(5)____other (specify) _____

(4)____Responsibility and authority of existing statewide board to remain as they are.

(5)____Other (specify) _____

25 B. What does your institution anticipate concerning its own role and influence in statewide coordination and planning?
(1)____An increase in importance
(2)____A decrease in importance
(3)____No significant change in importance
(4)____Other (specify) _____

26 C. If your institution anticipates either a decrease or an increase in its role and influence in statewide coordination and planning, what do you expect to be the single most important factor in this change?
(1)____Disinterest in statewide coordinating and planning by our institution
(2)____Influence of other state colleges and universities (AASCU-type institutions)
(3)____Influence of state university or land-grant institution
(4)____Influence of community colleges or other sub-baccalaureate institutions
(5)____Other (specify) _____

18. What do you anticipate that your institution will be like by 1980? What major trends do you foresee?

19. Please list any brochures or pamphlets, etc., on recent, current, or anticipated developments at your institution.

20. Has there been a history of your institution published within the past 5 years?

_____ _____
yes no

If "yes," please give the title and author of the volume.

Title _____
_____
Author _____
_____

Part C

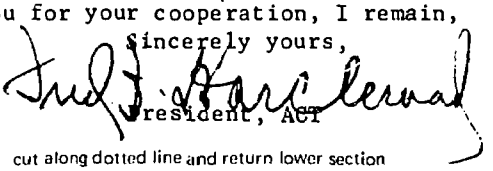
AASCU FOLLOW-UP STUDY QUESTIONNAIRE June 22, 1972

In the fall of 1970 your institution participated in our study by completing a rather lengthy questionnaire. We are now about to publish the results of that study and would like to request that you complete the attached post-card and return it to us as soon as possible.

According to our original questionnaire your institution planned new degree programs for the fall of 1972 as shown below. Please indicate whether these new programs will be: 1) implemented this fall, 2) dropped, or 3) postponed until a later date. In addition, please indicate any other new degree programs which will be implemented in 1972.

Thanking you for your cooperation, I remain,

Sincerely yours,



President, ACT

cut along dotted line and return lower section

New Degree Programs Planned for Fall 1972:

	Implemented	Dropped	Postponed
1.			
2.			
3.			
4.			
5.			
Other:			

check appropriate column

Please indicate your projected full-time equivalent fall 1972 enrollment here---------- [ ]

Please indicate your projected fall 1972 faculty/student ratio here---------- [1/]

THE PENNSYLVANIA STATE COLLEGES AND UNIVERSITY

Current Status of Proposed Degree Programs and Enrollment

Institution	Degree Programs Proposed in 1970 for Implementation in 1972[1]	Status of Each Program as of Fall 1972[2]			1972 FTE Enrollment
		Implemented	Dropped	Postponed	
1. Bloomsburg State College	None indicated				4,597
2. California State College	Master's Geography (MEd)	X			5,000+
	Master's Math Subjects			X	
3. Clarion State College	None indicated				4,300
4. East Stroudsburg State	Bacc. Computer Science			X	3,300
5. Edinboro State College	Master's Geography			X	7,450
	Master's Library Science			X	
	Master's Math	X			
	Master's Philosophy			X	
	Master's School Administration	X			
	Master's Chemistry	X			
	Bacc. Business & Commerce			X	
	Bacc. Fine & Applied Art	X			
	Bacc. Computer Science			X	
6. Kutztown State College	Master's Biology			X	4,475
	Master's English & Journalism			X	
	Master's Foreign Language & Literature	X			
	Master's Math			X	
	Master's Social Sciences			X	

[Continued]

Institution	Degree Programs Proposed in 1970 for Implementation in 1972[1]	Status of Each Program as of Fall 1972[2]			1972 FTE Enrollment
		Implemented	Dropped	Postponed	
	Bacc. Business & Commerce			X	
	Bacc. Health Professions			X	
7. Indiana University	None indicated				9,850
8. Lock Haven State College	Master's Education			X	2,380
	Bacc. Health Professions			X	
9. Mansfield State College	Master's Special Education	X			3,150
	Bacc. Information Processing	X			
	Bacc. Philosophy	X			
10. Millersville State College	Bacc. Music Education	X			4,370
11. Slippery Rock State College	Master's English			X	5,600
	Master's Psychology			X	
	Master's Recreation	X			
	Master's Health Science	X			
	Bacc. Business & Commerce			X	
12. Shippensburg State College	Master's Business	X			4,458
	Bacc. Psychology			X	
13. West Chester State College	Bacc. Nursing	X			6,100

[1]This data from the 1970 AASCU Follow-Up Questionnaire.
[2]This data from the 1972 AASCU Follow-Up Questionnaire.

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ACT Monographs on selected topics in educational research are published periodically as a public service. Copies of the monographs may be obtained for $3.00, if available, by writing to the Publications Division, The American College Testing Program, P.O. Box 168, Iowa City, Iowa 52240. Check or money order must accompany request.

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No. 2 *Comprehensive Information Systems for Statewide Planning in Higher Education*. Iowa City, Iowa: The American College Testing Program, 1971. $1.00.

No. 3 *Teachers Tell It—Like It Is, Like It Should Be*, by Gordon A. Sabine. Iowa City, Iowa: The American College Testing Program, 1971. $3.00.

No. 4 *Special Degree Programs for Adults: Exploring Nontraditional Degree Programs in Higher Education*, by Roy Troutt. Iowa City, Iowa: The American College Testing Program, 1972. $2.00.

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No. 6 *Planning for State Systems of Postsecondary Education*, edited by Fred F. Harcleroad. Iowa City, Iowa: The American College Testing Program, 1973. $2.00.

No. 7 *Students and State Borders*, by Robert F. Carbone. Iowa City, Iowa: The American College Testing Program, 1973. $2.00.

No. 8 *College and University Enrollments in the United States*, by Garland G. Parker. Iowa City, Iowa: The American College Testing Program, 1973. $2.00.

No. 9 *The Developing State Colleges and Universities: Historical Background, Current Status, and Future Plans*, by Fred F. Harcleroad, H. Bradley Sagen, and C. Theodore Molen, Jr. Iowa City, Iowa: The American College Testing Program. $3.00.