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DES MOINES, IOWA



COOPERATIVE STUDY  
OF POST HIGH SCHOOL  
EDUCATION

- IOWA ASSOCIATION OF  
PRIVATE COLLEGES AND  
UNIVERSITIES
- STATE BOARD OF PUBLIC  
INSTRUCTION
- STATE BOARD OF REGENTS

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## THIS BRIEF REPORT

will by no means answer all the questions which a concerned citizen might have about education beyond the high school years in our state. But it will set forth some important facts on the contemporary Iowa scene, and it will offer several recommendations for the future which have emerged from a rather intensive study carried out during the past 1½ years. More details, and full documentation, may be found in the complete text of the report, which may be obtained upon request after March 15 from the Des Moines offices of each of the sponsoring agencies, or borrowed from public libraries throughout the state.

The report represents a consensus of the Board of Directors of the study. Board members agree with the major recommendations of the report, but do not necessarily agree with every part of it. Individual members of the Citizens Committee received all materials and offered many comments, criticisms, and helpful suggestions, but the Committee as a whole was not called upon to vote on specific issues, nor to take any stand as a Committee on the report.

This is no less than the tenth study of higher education in Iowa to be carried out by one or more agencies of state government since 1912. It is perhaps the most comprehensive of all ten studies, involving as it does the various elements of public and private education at several levels, the financing of such education, the changing needs dictated by the changing Iowa economy, and coordination of the institutions and programs which provide it.

This study was prompted by concern—concern for the changing educational needs of young Iowans (and their parents), concern for the rising costs of education, concern for the division of responsibility and for avoidance of wasteful duplication. Expressed more or less simultaneously within the governing bodies of Iowa's institutions and systems, and by individual educators and legislators, the concern led to the launching, early in 1965, of this Iowa Cooperative Study of Post High School Education, under the joint sponsorship of the State Board of Regents, the State Board of Public Instruction, and the Iowa Association of Private Colleges and Universities. The state's Higher Education Facilities Commission joined in the study shortly after its inception.

Twenty-four public-spirited Iowans not directly connected with education have also aided the study. In the capacity of a Citizens Advisory Committee, they shared their concern as citizens with the Study's seventeen directors, its eight staff members and specialists, and its 83 consultants; they "reacted," and they offered practical advice.

In the course of compiling data for the Study, large numbers of other



Iowans were consulted. It is to be hoped that the ultimate findings and recommendations of the Study, as reported on the following pages, will be of such help and guidance in the months ahead that all who aided in this research will feel rewarded through their part in the continued strengthening of Iowa's educational offerings.

J. W. MAUCKER  
*Chairman of the Board of Directors*

*December 15, 1966*

## IN BRIEF,

*these are the recommendations which emerged from the study for serious consideration by the people of this state.*

***Expand post high school programs, improve their quality, and make these opportunities more widely available.***

- Expand them to serve many more thousands of Iowans with new opportunities in vocational-technical education, adult and continuing education, occupational retraining, graduate study, research, extension, and other public service efforts.
- Seek wider geographic distribution of educational programs which serve the greatest number of Iowa citizens.
- Increase Iowa's investment in these programs (and in the state scholarship program), and coordinate educational planning to utilize resources fully and well.

***Support and strengthen all parts of the Iowa program:***

- *A system of area community colleges and vocational-technical schools, to provide new and expanded opportunities for Iowans of all ages and in all parts of the state.*
- *The three Regent institutions, which should continue to provide a sizable share of the public undergraduate, extension, and specialized service programs, and all the public graduate and advanced professional programs.*
- *The private colleges, to provide a sound alternative to public education for a significant number of Iowa students, and to fill more adult education needs.*

***Form a permanent, voluntary coordinating council to represent all elements of post high school education in a continuing study of needs and resources, to aid in planning on a statewide basis, and to advise responsible boards and agencies.***

- A council to be comprised of board members and professional staff, educators, and state officials would gain much data needed for effective planning.
- Responsibility for governing the institutions to remain with the boards which presently guide their operation.
- Member agencies and institutions should pay the costs of the council.

## THE NEED FOR MORE OPPORTUNITY

for post high school education in Iowa stems essentially from these factors:

*Iowa will continue to have a large "young" population.*

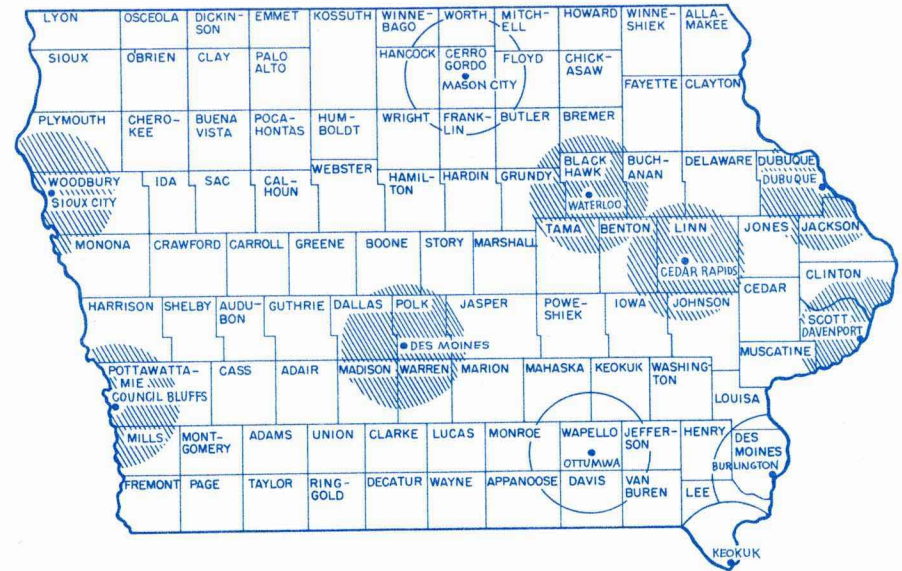
- By 1980, more than half of all Iowans will be under 30 (95 per cent of all students enrolled in post high school institutions are in this age group). Iowa is growing most rapidly in this age group, even though it is losing the greatest number of people through migration from this same group.

*Per Cent of Age Groups, 0-29, 30-59, 60 and Over  
In the Projected Population of Iowa, 1965, 1970,  
1975, 1980*

Year	0-29	30-59	60 and Over
1960	50%	34%	16%
1965	51	32	17
1970	52	31	17
1975	53	30	17
1980	54	29	17

Source: "A Preliminary Report of Committee A: Population and Enrollment Projections," Iowa Cooperative Study of Post High School Education, 1966.

- By 1980, the number of 18-21 year olds will have increased by 50,000 (37 per cent) over the number in 1960, and the 187,414 in this bracket will comprise 6.5 per cent of the total Iowa population. From this group comes 67 per cent of all college enrollments.
- The state as a whole gains population slowly but steadily (a little more than 1 per cent every five years).
- However, more than half of Iowa's counties lost population between the 1950 and 1960 censuses. The counties which gained 10 per cent or more are those in which major cities are located, or those adjoining such cities.
- By 1980, it is estimated that half of all Iowans will be living in or near one of eight to ten cities of 50,000 or more.



*Growth of Areas Within 25-Mile Radius of Cities of 50,000 Population or More. (From U.S. Census 1960)*

Existing Metropolitan Areas 

Metropolitan Areas Projected by 1980 

*Opportunities for employment in different fields and at different levels are changing rapidly.*

- White-collar occupations are gaining faster than blue-collar employment for both men and women.
- Employment for men will continue to increase in service industries such as communications, utilities, finance, insurance, real estate, government, and professional services (there were 14,000 more jobs in professional services in 1950 than in 1940, and there will be 20,000 more in 1970 than there were in 1960). There will continue to be more jobs for men in some numbers in manufacturing (up about 40,000 between 1960 and 1970), communications, and utilities.
- There will continue to be substantially more jobs for women in such areas as manufacturing (1,300 more jobs each year), service industries (especially professional services, where the number of employed women increased from 53,147 in 1950 to 81,580 in 1960 and is projected to 129,590 by 1970), and government.
- Opportunity for farm employment will continue to decrease, there be-



ing about 4,500 fewer jobs in agriculture each year for men and 2,300 fewer for women.

- Employment declines are also foreseen for men in construction, transportation, wholesale and retail trade, business and repair services, personal services, and entertainment.
- Professional and technical workers have been, and will probably continue to be, the fastest-growing occupational groups. In comparison to these categories, future gains are likely to be slower in clerical, sales, craftsmen, foremen, and service occupations, with actual declines anticipated among managers, officials, proprietors, and laborers.

*The projected migration of workers from agricultural to non-agricultural pursuits implies retraining for occupational transfer and adjustment.*

- Many new jobs are developing in agriculture-related industries and businesses—jobs which call for training not yet generally available to Iowans in any number.
- For those who continue in farming, there is need for increased technological skills to stay abreast of the increasing complexity of modern agriculture.
- Economic and occupational data clearly indicate Iowa's needs for a great diversity of workers in practically all industries, ranging from unskilled laborers to the highly educated scientist.

*Increases in years of schooling completed by the labor force contribute significantly to general economic growth.*

*Young Iowans will continue to take positions in other states as long as they believe there to be more opportunity elsewhere than in their native state. These young people need and deserve good educations to help them compete successfully wherever they seek to work.*

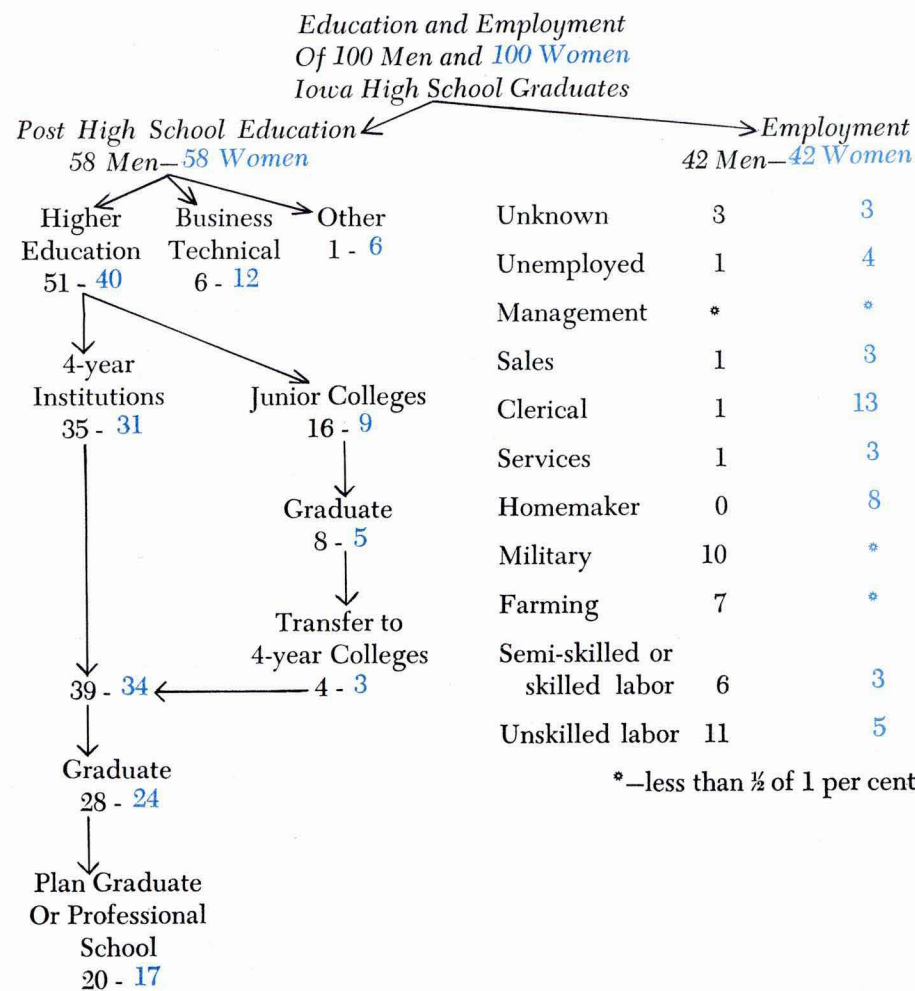
## IOWANS OF ALL AGES

*comprise the "student body" in today's post high school programs. Sons, daughters, parents, and grandparents are enrolled for advanced-standing courses, degree credit and non-degree credit programs, refresher courses, retraining programs and programs to upgrade skills, professional and graduate programs, and courses and programs to expand interests and leisure-time activities. However,*

*More than two-thirds of all post high school enrollment is made up of those who come directly from high school graduation, or shortly thereafter.*

- Eighty-five of every hundred who enter kindergarten in Iowa today will graduate from high school, the study data show. But 53 per cent of all

- Iowans over 25 have less than a high school education, reflecting a considerable under-development of manpower resources among Iowa adults.
- Out of 100 high school graduates, 58 continue in some form of post high school education, while 40 find employment immediately and two are unemployed.



- By no means all young Iowans who wish to continue their education are able to do so. A recent study showed 94 per cent of the high school seniors *aspiring* to some sort of post high school education—but only 58 per cent of them actually get it, as indicated above. Sixty-one per cent of the seniors want college education, but only 45 per cent actually manage to enroll in a college or university. Hence it appears that 36



per cent of the seniors fail to achieve post high school training of any sort, and 16 per cent do not enroll in the level of education they desire.

*While family income has little effect on Iowa students' aspirations, it has considerable influence on ability to carry out those aspirations.*

- No matter what their fathers' occupations or incomes, an average of 94 out of 100 high school seniors want further education of some kind. But only 71 per cent of the children of operatives and laborers, 80 per cent of the children of farm owners and managers, and 81 per cent of the children of service workers, for instance, really expect to have an opportunity for post high school education—whereas 92 per cent of the children of managers and proprietors and 96 per cent of the children of professional and technical persons are confident that they will have such opportunity.
- Among students who expect to pursue some form of post high school education, 48 per cent expect to work or borrow money to finance their education, while only 23 per cent expect to rely on parents, scholarships, and savings. Of those aspiring to college or junior college, 44 per cent expect to work or borrow, and of those who anticipate study beyond the bachelor's degree, 62 per cent expect to work for or borrow the necessary funds.

*Another important factor in Iowa students' aspirations for further education is the level of education achieved by their parents.*

- While 49 per cent of the students whose fathers had less than a high school education aspired to college work, 68 per cent of those whose fathers had high school diplomas and 91 per cent of those whose fathers had college degrees aspired to college training. Students whose fathers have less than college educations tend to choose vocational-technical training and junior college training to a greater degree than do the others.

*Iowa young people who seek higher education are average or above in ability.*

- Eighty per cent of those seeking four-year college experience are in the upper half of their high school classes; 50 per cent of those seeking junior college are in the upper half, and 40 per cent of those seeking business, technical, or trade school experience are in the upper half of their classes.
- Twenty-five per cent of those employed directly following high school were in the upper half of their high school classes, as were 20 per cent of those unemployed. It seems likely that these groups are insufficiently aware of the alternative programs available to them in post high school education.

## MORE ABOUT STUDENTS

*Most Iowa students get their post high school training in Iowa. About 76 per cent of all Iowa students attending public institutions choose Iowa public colleges and universities, and about 72 per cent of the Iowans attending private institutions do so in Iowa.*

*Student migration patterns vary.*

- Iowa students who left to attend college elsewhere tended to migrate in the largest number to the Plains states (Nebraska, Kansas, Missouri, North Dakota, South Dakota, Minnesota).
- Iowa usually attracts to its four-year colleges and universities more students from other states than it loses to the colleges and universities of other states. Large numbers come from the states of the Great Lakes Region (Illinois, Indiana, Michigan, Ohio, Wisconsin), the Mideast (Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania), and foreign countries and territories.

### Iowa College Enrollment Patterns

	Iowa Students Enrolled		Source of Students in Iowa Institutions							
	In Iowa		Out of Iowa		Iowans		Non-Iowans		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
Total All Students	44,311	74.2	15,424	25.8	59,735	44,311	66.8	22,032		33.2
Public	26,448	75.9	8,419	24.1	34,867	26,448	76.8	7,974	23.2	34,422
Private	17,863	71.8	7,005	28.2	24,868	17,863	56.0	14,058	44.0	31,921
Undergraduates	40,254	76.0	12,697	24.0	52,951	40,254	69.2	17,923	30.8	58,177
First Professional	1,375	61.6	845	38.4	2,202	1,357	59.1	941	40.9	2,298
Graduate	2,700	58.9	1,882	41.1	4,582	2,700	46.1	3,168	53.9	5,868

Source: "Residence and Migration of College Students," U.S. Office of Education, Washington, D.C., 1963.

*Community colleges serve students in their areas.*

- In the period studied, Iowa public junior colleges drew 90 per cent of their enrollment from within a fifty-mile radius and 55 per cent from within ten miles.
- The Regent institutions, on the other hand, drew only one-fourth of their students from within a fifty-mile radius, and half from within the rest of the state.

*Ability appears to be a factor also in selection of post high school training, although admission requirements enforce a certain amount of selectivity.*

- More than half (55.9 per cent) of the freshmen entering public four-



year institutions in the period studied were in the upper quarter of their classes, and 90.1 per cent had graduated in the upper half of their classes.

- At private institutions, as a group, 77.7 per cent of the entering freshmen were in the upper half of their high school classes. But there was great variation among the private colleges in this respect, and some individual private institutions had a considerably higher proportion of entering freshmen from the upper quarter and upper half of their high school classes.
- Of the freshmen entering public junior colleges, 50.3 per cent were in the upper half of their high school classes.

*Regardless of the ability of students admitted to Iowa colleges, only half of them graduate from the two-year or four-year college they enter—about the same as the graduation rate of the nation as a whole.*

- It must be remembered that some students who drop out from one institution will subsequently enroll in another and complete the program there.
- Among the four-year undergraduate programs, 26.3 per cent of the freshmen who entered the Regent institutions in the fall of 1960 attended one year or less, while 29 per cent of the freshmen in private institutions dropped out in that same year.
- After two complete years, 39.9 per cent of the freshmen in the Regent schools had left, and 47 per cent of those entering private institutions had left.
- About 42 per cent of all those who had entered the Regent institutions as freshmen in the fall of 1960 subsequently graduated within four years, and the final total will probably be 48.4 per cent. In the private institutions the ultimate total will probably be 44.2 per cent. National studies would indicate that 10 per cent could be added to each of these figures to include students who dropped out of the Iowa institutions but ultimately finished programs at other colleges.
- Among the two-year junior college programs, 46.1 per cent of the 1960 freshmen completed programs or graduated from the public institutions and 52.8 per cent from the private schools.

*Most graduates of Iowa's junior college programs transfer to other Iowa schools.*

- More than half of all Iowa junior college students transfer, with about two-thirds of such transfers taking place at the completion of the student's program.

## POST HIGH SCHOOL EDUCATION IN IOWA TODAY

*as referred to in this report encompasses "higher education"—for which twelfth-grade education is prerequisite—as well as adult and continuing education for all persons regardless of previous educational attainment. It is carried out in a number of different institutions and under several sponsorships:*

*Junior colleges* provide two years of academic work with programs culminating in less than a bachelor's degree, and they offer limited vocational, technical, or occupational curricula.

- Historically, the sixteen public junior colleges have been supported by local school districts through a combination of property taxes and state aid (similar to the support of Iowa's elementary and high schools), plus modest tuition charges.
- Some of these public junior colleges have developed the characteristics of community colleges.
- Four of Iowa's five privately supported junior colleges are affiliated with religious organizations. The fifth, Palmer Junior College of Davenport, was not included in this study, since the study's base year (1964) predated the college.

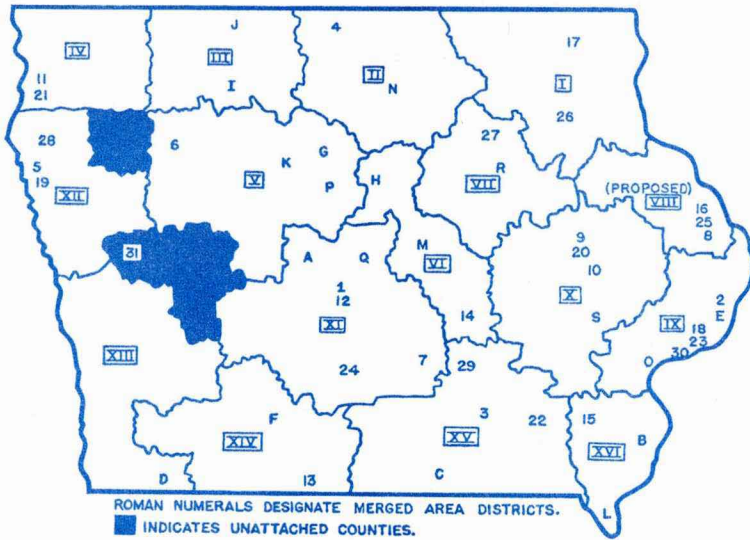
*Public two-year institutions are now in transition from local to merged area district organization. By action of the 61st General Assembly, a system of merged area districts (each including several counties) was set up for the State of Iowa, and to date (December, 1966), fifteen such districts have been established. Most of the merged area districts are in the process of organizing area community colleges; a few initially are organizing area vocational-technical schools.*

*Area community colleges* (ultimately) are to provide undergraduate education through the freshman and sophomore years for those planning to transfer to four-year institutions; vocational-technical education of two years or less for those seeking immediate employment; adult and continuing education, including vocational retraining and general education opportunities for all citizens, and other public services including conferences, workshops, institutes, and cultural events.

- The area community colleges are to be supported through a combination of property taxes assessed throughout the area and various forms of state aid (including funds appropriated for capital construction), plus modest tuition charges.
- It is expected that most of the sixteen public junior colleges will be incorporated as attendance centers of area community colleges.



Post High School Institutions and Areas—1966



*Private Junior Colleges*

1. Grandview, Des Moines
2. Mount St. Clare, Clinton
3. Ottumwa Heights, Ottumwa
4. Waldorf College, Forest City
30. Palmer Junior College, Davenport

*Private Four-Year Colleges*

5. Briar Cliff, Sioux City
6. Buena Vista, Storm Lake
7. Central College, Pella
8. Clarke College, Dubuque
9. Coe, Cedar Rapids
10. Cornell, Mount Vernon
11. Dordt, Sioux Center
12. Drake, Des Moines
13. Graceland, Lamoni
14. Grinnell, Grinnell
15. Iowa Wesleyan, Mount Pleasant
16. Loras, Dubuque
17. Luther, Decorah
18. Marycrest, Davenport
19. Morningside, Sioux City
20. Mt. Mercy, Cedar Rapids
21. Northwestern, Orange City
22. Parsons, Fairfield
23. St. Ambrose, Davenport
24. Simpson, Indianola

25. University of Dubuque, Dubuque

26. Upper Iowa, Fayette
27. Wartburg, Waverly
28. Westmar, Le Mars
29. William Penn, Oskaloosa

31. Midwestern, Denison

*Public Junior and Community Colleges*

- A. Boone
- B. Burlington
- C. Centerville
- D. Clarinda
- E. Clinton
- F. Creston
- G. Eagle Grove
- H. Ellsworth, Iowa Falls
- I. Emmetsburg
- J. Estherville
- K. Fort Dodge
- L. Keokuk
- M. Marshalltown
- N. Mason City
- O. Muscatine
- P. Webster City

*Regent Institutions*

- Q. Iowa State University, Ames
- R. State College of Iowa, Cedar Falls
- S. The University of Iowa, Iowa City

*Area vocational-technical schools*, to be operated by the merged area districts of several counties each, offer extensive occupational training programs, but no programs carrying bachelor's degree credit. They will be financed in the same manner as the area community colleges.

*Public four-year institutions* governed by the State Board of Regents: Iowa State University, State College of Iowa, The University of Iowa. These institutions derive their basic support from state tax funds appropriated by the Legislature from the General Fund. Students pay higher fees at these institutions than at the junior and community colleges.

*Private four-year institutions*, non-profit, supported primarily by student fees and other non-tax funds, and governed by an independent board or agency.

•Iowa has twenty-six such colleges and universities, one of which (Midwestern College at Denison) was not included in this study because the study's base year predates the college.

*Extension and public service* include the extension, through courses, workshops, and conferences, of formal and informal education to citizens other than those enrolled as full-time students in Iowa institutions, and direct assistance by the institutions, through consulting and technical services, to the social, cultural, and economic development of the state. They are largely supported by student fees, state and local funds, and federal funds in the case of some programs; they are carried out at many locations in the state.

*Proprietary institutions*, also privately financed and governed. Although they play an important role in training Iowa young people, their particular problems and concerns were thought to be enough different from those of the other institutions that they could not logically be included in this study.

•Iowa's well-known business colleges would be examples of proprietary institutions, as would be the various trade schools found in several cities.

*The Higher Education Facilities Commission*, while operating or governing no institutions of any sort, is yet an important factor in post high school education in Iowa. Created by the 60th General Assembly to distribute certain federal funds for additional academic facilities on the campuses, the Commission was subsequently given the responsibility for administering the state scholarship program created by the 60th General Assembly.



## MAJOR FINDINGS AND RECOMMENDATIONS

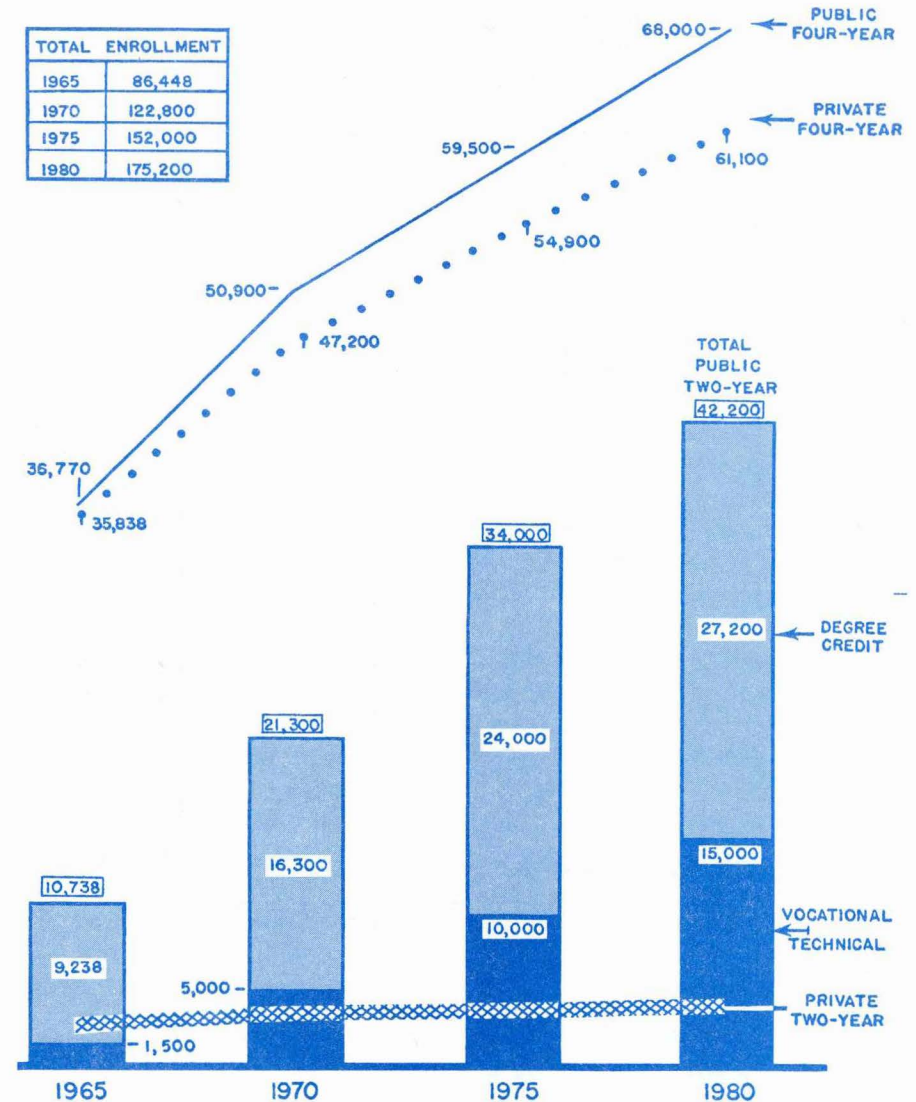
of the study are concerned with the demands which can be foreseen for post high school education and facilities, and with possible courses of action toward meeting the goals of post high school education in Iowa. As defined by the study, these goals are: to provide education for students beyond age eighteen which will enable them to fulfill their potentialities to the highest extent possible, and, to offer instruction, conduct research, and provide educational and technical services which will undergird, stimulate, and enrich the economic, civic, and cultural life of the society served.

### Enrollment in post high school institutions will double by 1980.

- Iowa population is making its biggest gains in those under 30, and there will be 50,000 more 18-21 year-olds by 1980 than there were in 1960.
- Since Iowa has adopted a policy of developing a strong area community college system, it seems likely that the public two-year colleges will have the fastest rate of growth among all institutions in the state. They are expected to quadruple their enrollments (from 10,738 to 42,200) between 1965 and 1980.
- Enrollments in the four-year institutions will rise much higher in numbers (if less spectacularly in percentage) between now and 1980: 85 per cent in the public four-year schools (from 36,770 to 68,000), and 70 per cent in the private colleges (from 35,858 to 61,100).
- Enrollment in the private two-year colleges is expected to grow by 40 per cent, from 2,794 to 3,900.
- In addition to full-time enrollments, it is estimated that 200,000 adults will take part in adult education programs of various kinds each year.

### To educate these numbers will require sizable increases in the numbers of faculty and staff members in the Iowa colleges and universities.

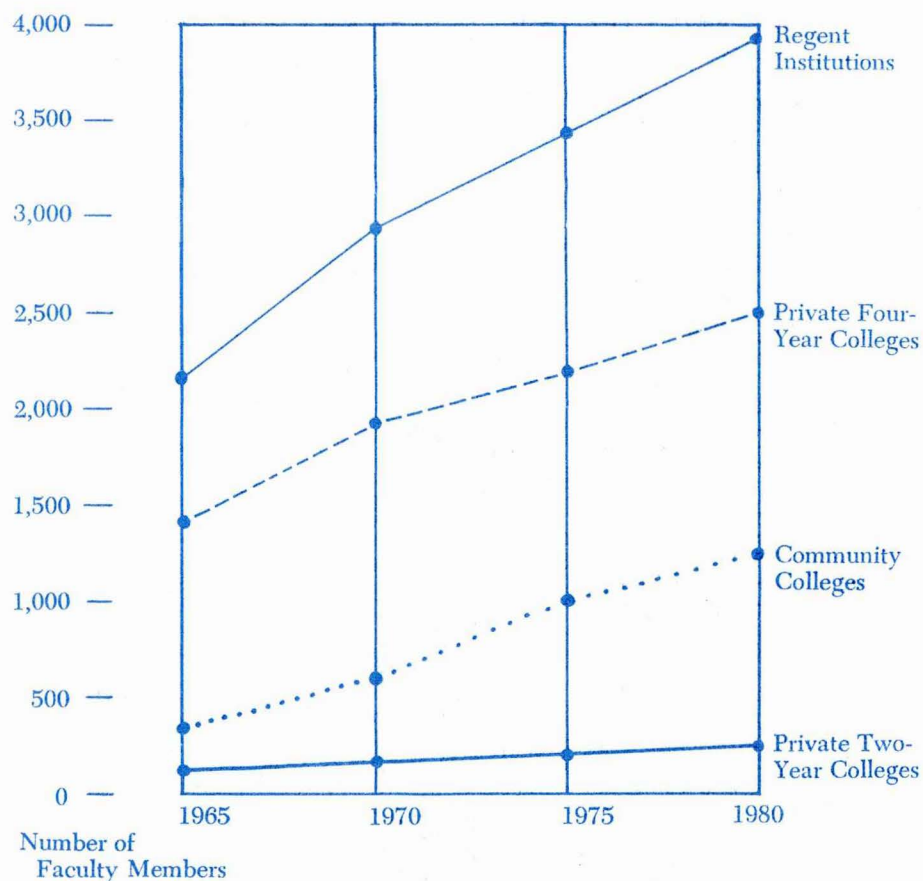
- It is anticipated that the two-year private colleges will need 43 per cent more faculty members in 1980 than they had in 1965. Private four-year colleges will require a 74 per cent increase in faculty, the Regent institutions will need an 85 per cent increase—and the public community colleges will require a 292 per cent increase in faculty members.
- In addition to faculty members, Iowa colleges and universities will need a non-academic supporting staff of perhaps 15,000 by 1980—just about double the number employed in 1965.
- Iowa colleges should offer salaries and employment benefits, and provide working conditions, which will enable them to compete with similar institutions.



## ENROLLMENT PROJECTIONS



*Numbers of Faculty Members Needed  
in Post High School Education  
through 1980*



*There must be considerable expansion of physical plants to provide classrooms, laboratories, and faculty office space.*

•To meet needs at the Regent institutions it is estimated that they will need to spend \$382,212,000 for educational facilities between 1965 and 1980, and another \$128,192,000 for student housing facilities during the same period.

•Similar estimates of capital needs for other groups of Iowa institutions during the same period include: area community colleges, \$237,634,000; private four-year colleges, \$236,626,000 for instructional facilities and \$115,231,000 for student housing facilities; for private two-year colleges, \$20,158,000 for instructional facilities.

*Operating costs, too, are sure to rise substantially as the institutions add new faculty members in a continually competitive market, meet other enrollment demands, and carry on expanded programs.*

•Where in 1964-65 the Regent institutions devoted \$100,971,000 to operating budgets, for instance, they may need to commit as much as \$461,892,000 in 1980-81.

•The operating budgets of community colleges may need to increase from \$2,622,000, in 1964-65 to perhaps \$60,522,000 by 1980-81, while private college operating budgets might go from \$30,590,000 to \$128,154,000 in the same period.

*New and substantial sources of support must be found for the post high school institutions and programs.*

•Iowa's economic system may be expected to generate sufficient income to enable this state to support a strong "system" of higher education if it wishes to do so.

•However, it must be recognized that Iowa will have to invest a greater than average proportion of its income in education if Iowa is to compete successfully with more wealthy states for the talent necessary to maintain high quality institutions.

•Even assuming a substantial rate of economic growth in Iowa, existing state taxes cannot be expected to bring in sufficient revenue to meet projected costs. Hence federal support must be greatly increased or state taxes must be raised substantially (perhaps with the aid of new sources of state tax revenue), or both.

•Long-range financing, probably through bonds, would permit the Regents to construct the many additional facilities needed in a relatively short period of time.

•Private colleges and universities cannot rely on tuition increases alone to meet their needs. While they will need to seek additional support in great amounts from private individuals and organizations, it seems likely that additional federal and possibly state funds may have to be made available to these institutions in one way or another if private education is to continue to be made available to large numbers of Iowa students.

•Increased state appropriations and student fees are the most probable sources of substantially increased support for the community colleges.

*Iowa should emphasize the development of area community colleges.*

•While initial emphasis should be given to developing vocational and technical education in the fifteen area districts, the aim should be to develop these institutions into comprehensive community colleges which can serve as many needs as possible for Iowans who live in the areas concerned.



- Development of the area community colleges offers improved geographical distribution of post high school education in the state. Where sparse population prevents the development of a college to an adequate size (a minimum of 1,200 but preferably 1,500 to 1,800 students), additional state subsidies should be provided to make possible a substantial curriculum in liberal studies, preprofessional programs, and vocational and technical programs.

*Iowa should continue to centralize upper-level undergraduate and graduate programs in the three Regent institutions.*

- On the basis of foreseeable demand, the three existing Regent institutions, combined with a strong community college system, offer the best means of providing public post high school education in Iowa for the time being.
- It would be helpful if the State Board of Regents would develop specific plans for the growth of the Regent system. If ISU, SCI, and the U of I cannot handle the enrollments projected here, or if other conditions change significantly in ways not now foreseen, the Regents might think it feasible to recommend establishment of a fourth institution.
- State College of Iowa should become a university.
- The Regent institutions should offer non-degree programs only in areas where the community colleges cannot do so, or where the Regent institutions have unique physical and human resources.
- The Regents should investigate the need for a wider offering of degree programs in the upper level and graduate years.

*Iowa should continue to maintain and advance research programs.*

- The justification of the cost of research lies in the basic social value of new knowledge. Universities are the primary institutions responsible for producing new knowledge in our society and for training research scholars, some of whom will put their knowledge to use in college and university teaching and the remainder in positions in business, industry, and government.
- Research is a critical factor in social improvement, cultural development, and industrial expansion, and must be adequately financed.
- Although federal and foundation grants support much research in Iowa, state funds are fundamental to a successful effort. Such funds provide the base of support for research which, once under way, attracts "outside" support. State funds also make possible research on topics of sole or principal interest to Iowans.

*It is important to provide for better geographical distribution of extension and other public services.*

- Western Iowa is not served as fully as other areas of the state in some extension and public service areas. Regent institutions and private col-

leges should cooperate with community colleges to offer a larger and wider selection of programs there.

- Iowa's Statewide Extension Council should be provided with sufficient state funds to enable it to match available federal grants. State funds should also support a variety of extension and public services with a wide geographical distribution.
- A statewide educational television network would hasten the development of extension programs and would strengthen on-campus programs.

*Iowa should maintain and advance the private colleges as a sound alternative to public education for significant numbers of Iowa youth.*

- The most crucial step toward this goal is a substantial increase in financial support by private contributors.
- Religious denominations and other groups supporting colleges in Iowa should determine whether their support is adequate in view of expanding enrollments and rising costs.
- Private colleges should move cautiously in establishing graduate programs because of the expense entailed in expanding faculty, classrooms, and library and research facilities.
- Private colleges should participate with the Regent institutions in a statewide system of extension and public service activities.

*Student fees should be kept as low as possible to make educational opportunity available to larger numbers of students.*

- No matter how fees are set, some able students will not be able to attend college unless financial aid is available. Funds for the State of Iowa Scholarship Program should be increased, and all institutions should offer scholarships and loans to able students who might in effect be barred because of lack of funds.

*A permanent "coordinating council for post high school education" should be voluntarily established and supported by the institutions.*

- The council should make information available to all who need it, provide a systematic means for carrying on meaningful discussion among all those responsible for post high school education in Iowa, and make recommendations for improving the total program.
- The various boards should retain their responsibility for governing the institutions.
- Membership on the council should include professional staff and governing board members, equally representing the public, private and community colleges, and some representation from the Higher Education Facilities Commission.
- The council should meet regularly, collect information about educational problems, plans, and legislative requests of the various boards and systems, and make recommendations to the decision-making boards in the interests of statewide coordination.



## THE AREA COMMUNITY COLLEGES

*should in most cases combine several educational programs. They should offer two-year programs in academic work for less than a bachelor's degree, as well as vocational and technical training. They should also offer adult education and public services including workshops, conferences, and cultural events.*

*In the immediate future, community colleges will be the fastest growing institutions in the state. By 1980, 24 per cent of the state's post high school students will be in these colleges, compared to 13 per cent in 1965.*

*Vocational-technical programs will be given early emphasis if the study's recommendations are carried out.*

- In the next few years major emphasis should be given to the development of vocational and technical education in these area districts. This would meet the employment needs of the citizens and strengthen Iowa's economy by enabling the work force to develop and continually update its technical and professional skills.
- In 1965, 1,500 students were in vocational-technical programs. This figure is expected to increase to 15,000 by 1980, a climb of 900 per cent.
- The vocational-technical schools should be located for easy access by students throughout the state. By 1980, 85 per cent of the state's 18- to 21-year-olds will be living within twenty-five miles of some post high school institution if institutional development takes place as anticipated.
- Where population and taxable resources will not support a sufficiently rich curricular offering in a given area, additional state assistance should be granted in order to sustain an effective program.
- Vocational-technical schools trying to recruit faculty will be competing with business and industry, and should offer salaries accordingly.

*But the goal is to develop comprehensive community colleges.*

- Each college should be large enough to provide a rich curriculum in liberal arts, preprofessional programs, and vocational-technical programs. Minimum enrollment should be 1,200.
- Academic enrollment in these schools is expected to increase from 9,200 in 1965 to 27,200 in 1980, a rise of nearly 200 per cent.
- At least one-third of the course work in these colleges should be in other than pre-baccalaureate transfer programs.
- General education courses, as well as vocational-technical subjects, should be taught to the vocational-technical student.
- An "open door" policy should be adopted, making some educational opportunities available for all citizens seriously interested in pursuing

further education, regardless of the amount of previous schooling, income level, or geographical location.

- A well-organized counseling program should be included to help students make enlightened plans for further education.
- Students should be allowed to move among the college curricula wherever possible, to ensure selection of the most suitable career.
- Strong leadership should be developed by administrators who have no duties in elementary and secondary schools and hence can concentrate on the post high school program.

*The number of faculty members would increase by 300 per cent.*

- Community colleges now contemplated would need 1,230 faculty members in 1980, compared to the 314 counted in 1965. Twelve per cent of the faculty should have Ph.D.'s, compared to 1.6 per cent in 1964. Twelve semester hours would be the standard academic load, to allow time for class preparation, advising students, and communication among faculty and administration.
- The institutions are not sufficiently competitive in salaries and faculty fringe benefits to enable them to recruit as successfully as they should. Suitable policies related to tenure, promotion, and faculty participation in academic policy-making should be initiated and developed in those colleges not now having such provisions.
- College teaching programs for community college instructors should be launched or strengthened in Iowa's graduate schools, including specialist's and master's degrees for those preparing for two-year college teaching in technical and vocational education.

*The state should assume a larger share of the costs of financing the community colleges.*

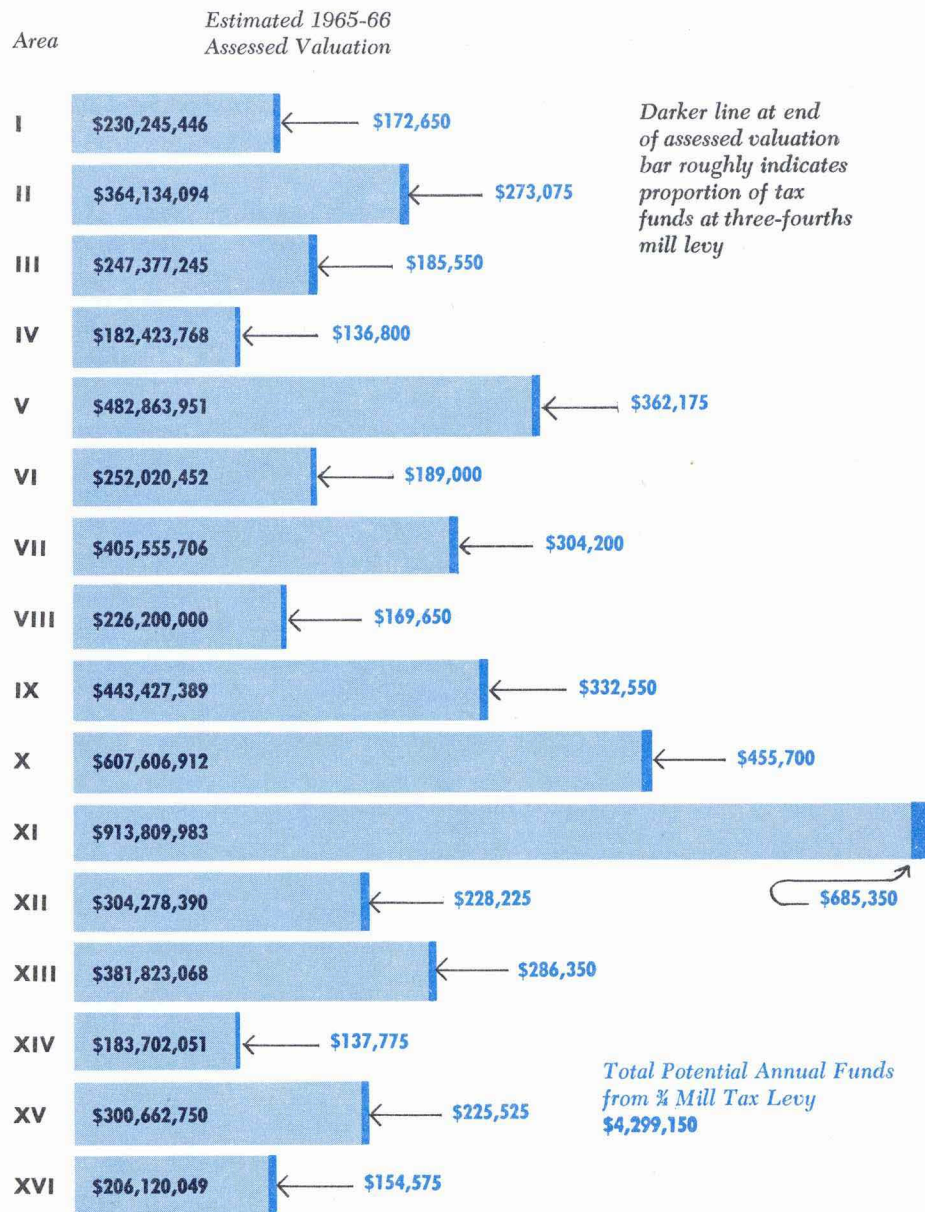
- Also, more federal funds must be obtained, and the State of Iowa Scholarship Program should increase the amount of money it dispenses and the number of students who receive aid.

*Capital expenditures must be financed from sources beyond the local tax.*

- About 50 per cent of the space in these institutions is usable for future needs. The rest is obsolete, needs rehabilitation, or is badly located.
- The  $\frac{3}{4}$ -mill tax on residents of the area districts can raise only \$21 million through 1970-71, though it is estimated that \$76.6 million will be needed. The rest must be raised from state and federal funds, or by bonded indebtedness, which the merged area districts may incur as may any school district.
- Community colleges anticipate the need for new building construction (not including dormitories) valued at \$76,612,000 through 1970-71, \$82,802,000 for the next five years, and \$78,220,000 from 1976-77 through 1980-81. The fifteen-year total amounts to \$237,634,000.



Potential Revenue Resulting from Three-Fourths Mill Tax Levy in Area Community College and Vocational-Technical Districts  
(Source: State Department of Public Instruction, Des Moines)



Total Assessed Valuation 1965-66 \$5,732,250,854

(See Area Districts, map page 12.)

Action should be taken to assure substantially increased support for the community colleges.

- The community colleges' annual operating expenditures are expected to increase from \$2,622,000 in 1964-65 to \$26,170,000 in 1970-71, and then to \$43,414,000 in 1975-76 and \$60,522,000 in 1980-81. This tremendous proportional increase (tenfold in the first five years and more than double again in the next ten years) reflects the expected rapid expansion of enrollment and development of specialized programs, particularly in vocational-technical fields.
- Increased tax funds (now set at 3/4-mill for operating expenses) and increases in student fees are the most probable sources of the needed increase. In 1964-65, tuition and student fees accounted for 39.4 per cent of the income of public two-year colleges, and state appropriations amounted to 32.9 per cent.

## FOUR-YEAR DEGREE-GRANTING INSTITUTIONS

are expected to enroll 76 per cent of the grand total of 175,200 post high school education students in 1980. During the next fifteen years, these public and private colleges and universities will need to expand greatly, from their 1965 enrollment of 75,402 students to the expected total of 133,000 enrollments in 1980. Although the percentage of increase for these institutions is not as spectacular as that for the public two-year colleges, the number of students involved is much larger.

**The Regent institutions will need to grow 85 per cent between 1965 and 1980.**

- The University of Iowa, Iowa State University, and State College of Iowa will enroll about 39 per cent of all post high school students by 1980.
- Many of these will be students in costly, specialized graduate and advanced professional programs, which cannot reasonably be offered at other institutions.
- The Regent institutions have been given the major responsibility for graduate programs and advanced professional programs and for specialized services in Iowa. The necessity for high-quality graduate and advanced professional programs is recognized throughout the nation as our society, increasingly oriented to knowledge, requires more and more highly trained specialists in every field of academic study and the professions.

**Faculty at the Regent institutions must nearly double, from 2,110 to 3,900.**

- Seventy per cent of the faculty members should have the Ph.D. degree or an equivalent, and to attract and keep such highly qualified faculty members, it is imperative that the Regent institutions remain competitive in regard to salary and employment benefits.
- Continued efforts should be made for faculty improvement through leaves of absence, time for research, encouragement of participation in professional associations, and the exchange of faculty between institutions.

**Much new "learning space" must be constructed at the Regent institutions.**

- Capital needs include more classrooms, laboratories, and faculty offices for increased enrollments, and much needed replacement of obsolete space. The following table outlines the projected capital needs of Regent institutions from 1965-66 through 1980-81.

### Regent Institutions Capital Needs (final 000 omitted)

	1965-66 through 1970-71	1971-72 through 1975-76	1976-77 through 1980-81	Total
Nonresidential Facilities				
a. Replace Obsolete Space	\$ 52,031	\$ 39,208	\$ 53,555	\$144,794
b. Projected new space for new enrollment	95,143	65,288	76,987	237,418
<b>TOTAL</b>	147,174	104,496	130,542	382,212
Residential Facilities	70,579	24,516	33,097	128,192
<b>GRAND TOTAL ALL SPACE</b>	<b>\$217,753</b>	<b>\$129,012</b>	<b>\$163,639</b>	<b>\$510,404</b>

(This table does not include University Hospitals or Agricultural Experiment Station space needs.)

- The Regents should be authorized to finance some of this construction on a long-range basis, probably through bonds, to permit them to meet the great demand for additional space which must be provided in a very short period of time.
- It is estimated that 25-30 per cent of the Regents' capital needs may be met by funds from federal and private sources, depending on the kinds of facilities built.

**Operating budgets will also increase substantially.**

- In 1964-65, the Regent institutions derived about 48 per cent of their total operating budgets from state funds and about 27 per cent from federal funds. Student fees accounted for about 11 per cent (about 25 per cent of the portion of the budget related to instruction) and miscellaneous sources for about 14 per cent.
- In general it may be said that about half of the increased operating budgets needed for the four-year colleges (both Regent and private colleges) results from the estimated doubling in enrollment between 1964-65 and 1980-81, and the other half reflects assumptions regarding increased costs per student, which are estimated to double in this sixteen-year period, rising at the rate of approximately 5 per cent a year.
- To enable the Regent institutions to meet growing enrollment demands, accommodate rising costs, compete effectively for faculty and staff, and carry on expanded programs for each segment of post high school education in the state, will require the commitment of substantial funds:



*Estimated Operating Expenditures for Regent Institutions  
(final 000 omitted)*

	1964-65	1970-71	1975-76	1980-81
A. Expenditures related to Instruction	\$ 48,746	\$100,723	\$148,130	\$213,001
B. Other Expenditures	52,225	107,911	158,702	228,202
<b>TOTAL</b>	<b>\$100,971</b>	<b>\$208,634</b>	<b>\$306,832</b>	<b>\$441,203</b>

**Present state taxes cannot be expected to bring in enough revenue to meet the anticipated needs of the Regent institutions in the 1970's and 1980's.**

- Federal support must be greatly increased, or state taxes must be raised and expanded, or both. These steps must be taken, even if Iowa's economy grows substantially.

**Private colleges are a major segment of post high school education, and are expected to grow 70 per cent by 1980.**

- Enrollment projections for twenty-five private colleges and universities in Iowa show an increase of 26,368 students in the next fifteen years.
- To accomplish these predictions, the colleges must secure the necessary financial support, recruit vigorously from community colleges and high schools in Iowa, and continue to recruit extensively out of state.
- In 1964-65, private colleges obtained about 72 per cent of their income from student fees, 20 per cent from private contributors and endowments, and 8 per cent from miscellaneous sources, including federal grants.

**Two- and four-year colleges will require 1,109 more faculty members.**

- Private institutions in Iowa are not sufficiently competitive in salaries and faculty fringe benefits to enable them to recruit as successfully as they should.

**Private colleges and universities face instructional facility needs similar to those faced by public institutions.**

*Anticipated Capital Needs for Private Colleges  
(final 000 omitted)*

	1965-66 through 1970-71	1971-72 through 1975-76	1976-77 through 1980-81	Total
Private Four-Year Colleges Academic and Related Space				
a. Replacement of Obsolete Space	\$ 27,669	\$ 27,335	\$ 37,120	\$ 92,124
b. Projected New Space	58,014	44,086	42,402	144,502
<b>TOTAL</b>	<b>85,683</b>	<b>71,421</b>	<b>79,522</b>	<b>236,626</b>
Residential Facilities	60,309	23,763	31,159	115,231
<b>TOTAL COST ALL SPACE</b>				
<b>PRIVATE FOUR-YEAR</b>	<b>\$145,992</b>	<b>\$ 95,184</b>	<b>\$110,681</b>	<b>\$351,857</b>

- In the next fifteen years, a much larger proportion of capital funds needed by private colleges and universities must come from governmental sources, principally federal.

**Operating expenditures will increase over four times by 1980-81.**

*Estimated Private College Operating Expenditures  
(final 000 omitted)*

	1964-65	1970-71	1975-76	1980-81
Private Four-Year	\$30,013	\$66,362	\$90,108	\$123,205
Private Two-Year	577	3,060	3,852	4,949
<b>TOTAL</b>	<b>\$30,590</b>	<b>\$69,422</b>	<b>\$93,960</b>	<b>\$128,154</b>

**Private colleges and universities cannot rely on tuition alone to meet increasing institutional expenditures.**

- Reliance on student fees to carry the same proportion of total costs which they have in the past may not be feasible.
- These institutions should seek additional gifts from individuals, organizations, businesses, and foundations.
- But if large numbers of Iowa students are to be accepted at these institutions, more federal and possibly some state money must be made available.

**Private colleges and Regent institutions are encouraged to participate in a statewide development of off-campus extension and public service activities.**

**Two notes of caution are in order.**

- The various groups sponsoring colleges in Iowa should carefully examine their commitment to higher education, to determine whether they are adequately supporting the present number of institutions over the next several years.
- While a diversity of graduate programs is desirable, extreme caution is indicated in the initiation of graduate work in private colleges, because such programs require extremely expensive additions to faculties, classrooms, and library and research facilities.



## PRIVATE TWO-YEAR COLLEGES

*are expected to grow gradually from an enrollment of 2,800 in 1965 to 3,900 in 1980. They offer liberal arts programs on the pre-bachelor's degree level, as well as limited vocational-technical programs.*

*These colleges also anticipate some expansion of faculties and facilities.*

- The number of faculty members is expected to increase from 112 in 1965 to 160 by 1980. Salaries for faculty should begin to compete with those in business, industry, and other colleges, rather than those in secondary schools. Capital improvements for nonresidential facilities between 1965 and 1980 are expected to total \$20.1 million, more than half of which should be spent by 1970-71. Operating expenditures are predicted to increase from \$577,000 in 1964-65 to \$5 million in 1980-81.

*The colleges will have to obtain financial support from new sources.*

- The public should be encouraged to contribute more generously to these schools than it has done in the past. Private two-year colleges obtain very little money from gifts and grants, which will make it difficult for them to absorb much of the anticipated increase in post high school enrollments. Acceleration of state student scholarships and loans is recommended.

## EXTENSION AND PUBLIC SERVICE

*A rich program of off-campus activities, including extension classes, consultative and technical services, and cultural programs, should be made available throughout the state.*

*If Iowa is to attract and develop new business and industry, there is an obvious need for the continuing education and occupational retraining of its people, and for professional services to smaller corporations and other organizations.*

- Since many vocational-technical training and retraining programs, as well as extension classes and cultural programs, are needed in areas of relatively sparse population not served by local institutions, an efficient method of providing this type of post high school education lies in a coordinated system of statewide extension, with particular emphasis on the western part of Iowa.
- By 1980, it is estimated, 200,000 Iowans will be enrolled in post high school extension programs. Today, 60,000 are in Iowa college and university extension programs.

- The Statewide Extension Council should be given state funds to match available federal grants. There must be a state plan for extension involving state subsidies to support, where necessary, extension courses in areas where sparse population precludes substantial income from tuition.
- Nearly all statewide extension and public service activities are carried on by the Regent institutions and Drake University. Other Iowa institutions, both public and private two- and four-year, tend to reflect their own institutional purposes and serve mainly their immediate geographic areas.
- Although a greater geographical distribution of off-campus courses must be made in Iowa, it must be to a smaller number of locations in which resources (sufficient library resources, numbers of students, etc.) will assure adequate programs.

*Direct assistance to local, county, and state organizations in solving social, economic, and governmental problems should be provided to all parts of the state.*

- The educational resources to attack public problems are concentrated in the Regent institutions, which expended 95 per cent of the slightly less than \$8.5 million used for extension and public service activities in Iowa in 1964-65.
- The survey of activities provided by Iowa public service units indicates that such activities are concentrated in the areas of the state which have the greatest population and economic growth, and from which come the greatest demand.
- The lack of public services in western Iowa is not due so much to the lack of demand as it is to a failure to find ways of bringing existing services to an area that is not close to institutional resources and has dispersed rather than concentrated demands.
- Public services should be given a high priority in the budget askings of the institutions, with substantial amounts of money to go for further geographical distribution of such services.

*A statewide educational television network would hasten the achievement of many goals of an effective extension and public service program, and would strengthen on-campus programs while "stretching" teaching and service talent to cover the state.*



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