
RESOURCES AND NEEDS FOR HIGHER EDUCATION IN IOWA

A Summary Report
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Although the director of the study takes full responsibility for all recommendations in this report, the citizens of Iowa provided the bases for those recommendations.

RAYMOND C. GIBSON
Director of the Study

TABLE OF CONTENTS

	Page		Page
Acknowledgments	2	Types of Institutions Needed for Future	39
Purposes of the Study	4	Regional Community Colleges	41
A Challenge to the Citizens of Iowa	5	Organization of Regional Community Colleges	43
The Problem of Increasing Enrollments	7	Need for Improvement in Higher Education	45
Changing Manpower Requirements	9	Responsibility for Improvement	47
Education for Full Employment	11	Staffing the Colleges of Iowa	49
The Demands for Higher Education	13	Academic Salaries in Iowa Colleges	51
Specific Types of Programs Needed	15	Buildings and Facilities for Higher Education ..	53
Demand for Terminal Education	17	Organization and Administration of Higher	
Demand for Liberal Arts Studies	19	Education	55
Education of Craftsmen	21	State Board of Regents	57
Education of Sales Workers	23	Problems of Financing Higher Education	59
Education of Clerical and Kindred Workers ..	25	State Responsibility for Education	61
Education of Managers, Officials and		State Scholarships	63
Proprietors	27	Institutional Research and Coordination	65
Education of Farmers and Farm Managers ...	29	Legislative Action Recommended	66
Education of Professional and Technical		Action Programs Recommended for Boards of	
Workers	31	Control, Administrators, and Faculties	67
A Message from 1577 Leaders	33	Action Programs Recommended for State	
Types of Colleges in Iowa	35	Department of Public Instruction	68
Existing Curricula in Higher Education	37		

PURPOSES OF THE STUDY

A Few Assumptions

1. This study, involving all higher education in Iowa, is predicated upon the recognition of the public nature of all colleges and universities, and the imperative need to use all available resources in meeting the demands for higher education in the decade of the sixties.
2. Public and private institutions have shared the responsibility for making a great contribution to American society, and this balance should be maintained during these years of increasing enrollments.
3. The legislation authorizing this study was unique in permitting the study to encompass all higher education in Iowa.

Specific Purposes

1. An analysis of the changing manpower requirements in agriculture, business, industry, and the professions.
2. Implications of increasing educational requirements for larger numbers and percentages of workers.
3. A determination of the educational needs of workers and leaders in Iowa.
4. Prediction of Iowa college enrollments from 1960 to 1970.
5. A study of existing and future programs of higher education in Iowa including the need for community colleges.
6. A consideration of special problems of higher education as revealed by about 3,700 citizens and by leaders in higher education.
7. A general review of existing secondary education programs.
8. An analysis of academic personnel needs for the decade of the sixties.
9. A consideration of the demand for terminal education.
10. A study of policies affecting costs and facilities for higher education.
11. The development of understanding necessary for the state legislature and boards of control to determine policies for higher education in Iowa.

A CHALLENGE TO THE CITIZENS OF IOWA

Higher education is the most significant enterprise in America. Its greatest challenge is to develop better human beings to live effectively in a better society.

Our resourcefulness, courage, and intelligence in the management of this enterprise will fix the future limits of security, freedom, economic development, and social progress in America.

Young people in the colleges of 1960 will live, work, and provide this nation's leadership in the twenty-first century. Their needs demand a vibrant, dynamic, and adequately supported system of state and private education.

This challenge requires cooperation among all institutions of higher learning, both state and private. In no other way can the necessary resources and strength be achieved. Conformity to a common pattern would lead to mediocrity. Maximum strength will come through cooperation in diversity.

Iowa needs citizens with faith in American education—citizens who recognize the relationship between advanced education and survival. It needs citizens willing to pay for education—citizens who understand that the cost of higher education intelligently planned and managed is the wisest possible investment in the future of America.

Iowa needs legislators and executives in government who support education as the principal means by which a state can advance social and economic progress.

Iowa needs boards of trustees for all colleges that form a significant connecting link between higher education and American society. No higher office can come to a citizen than membership on a board of trustees with responsibility for determining the directions in which higher education shall advance.

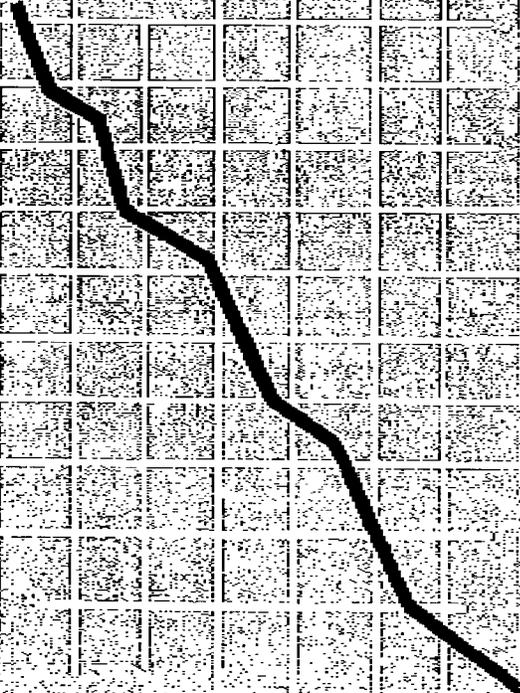
Iowa needs leaders in higher education who have the courage to release the creative talents of faculties and students—leaders with the vision and intelligence to channel those talents toward a united purpose.

RAYMOND C. GIBSON

UNDERGRADUATES

76,414

1970



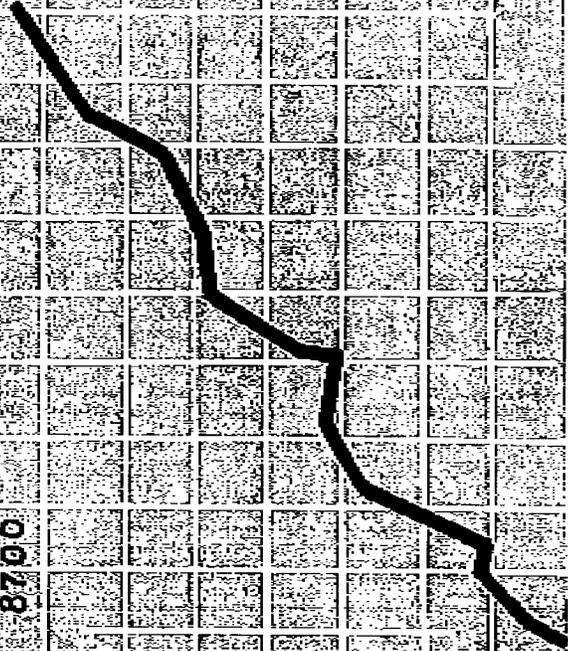
1960

ENROLLMENT

GRADUATES

87,000

1969



1960

EXPLOSION



THE PROBLEM OF INCREASING ENROLLMENTS . . . 1960-1970

It has been predicted that Iowa will have 44,786 full-time undergraduate students in 1960. The increase during the decade will be over 70 per cent or 31,628. This will result in an undergraduate enrollment of 76,414 in 1970. These figures include junior college enrollments but not part-time or special students.

During the years 1949 to 1959, the average annual increase in graduate students was 7.5 per cent. There were 3,921 graduate students in 1959. If the 1949 to 1959 percentage of increase continues, the graduate enrollment will be about 8,700 by 1970.

If the five institutions offering graduate work follow the same increase as indicated above, in 1970 they will have the following graduate enrollments: Drake University 790; St. Ambrose 9; Iowa State Teachers College 554; Iowa State University 2,668; and the State University of Iowa 4,666.

Plans formulated by private colleges indicate increases averaging about 50 per cent for the decade. This would bring their enrollments to roughly 34,500 students by 1970. If the junior colleges enroll a total of 6,000 students by 1970, this would leave nearly 36,000 undergraduate students for the three state institutions. These three will probably have nearly 8,000 graduate students, making a total of close to 44,000 students.

These predictions indicate only that college administrators and governing boards should get together and plan enrollment schedules for the decade of the sixties.

One factor that could change these predictions would be a significant change in the relationship of students coming into Iowa to go to college to those going out. In 1958, 1,046 more students came in than went out.

Recommendation 1: Iowa colleges and universities must plan for enrollment increases of 70 per cent at the undergraduate level and 122 per cent at the graduate level between 1960 and 1970.



950



950

CHANGING MANPOWER REQUIREMENTS IN IOWA

Population and Employment Trends

Iowa had a total population of 2,761,668 in 1959 or 1.56 per cent of the total population of the United States. Its population was 2.93 per cent of the nation's population in 1900. The decline in the percentage has been steady for 60 years.

Iowa's transition from an agricultural to a predominantly business and industrial economy has already been made. The income from business and industry in 1959 was more than double the income from agriculture.

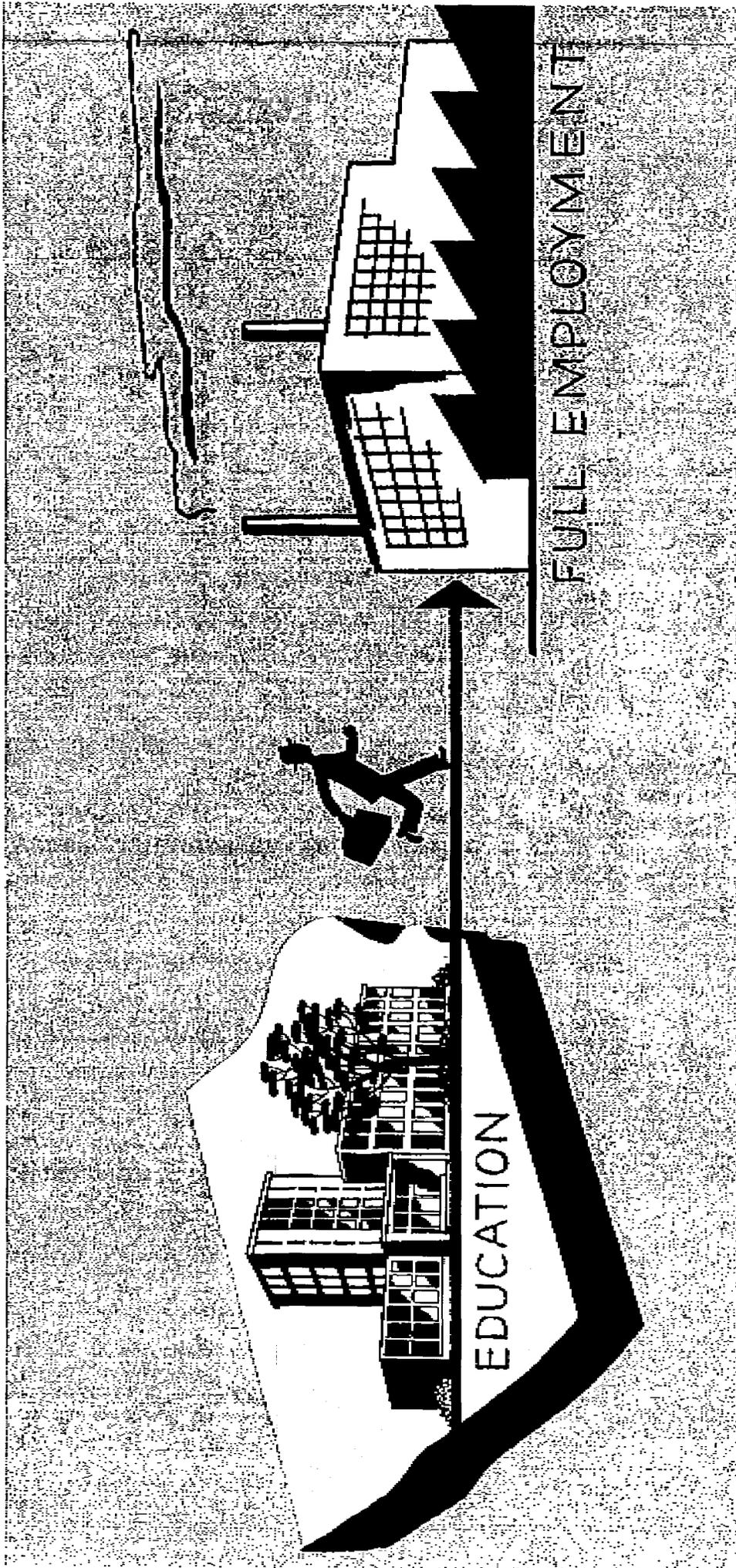
Between 1950 and 1959 non-agricultural employment increased from 603,200 to 668,360, an increase of 10.8 per cent. The number of people living on farms declined from 754,000 to 697,000 during the 10-year period. Agricultural production increased from 2.1 billion dollars to 2.36 billion dollars, and industrial production increased from 2.5 billion dollars to 4.96 billion dollars in the ten years.

There were over one million workers in Iowa in 1950, and about one-half of these were in the following six categories of workers included in this study: professional, technical, and kindred workers; farmers and farm managers; managers, officials, and proprietors; clerical and kindred workers; sales workers; craftsmen, foremen, and kindred workers.

The United States Bureau of Labor predicts that the greatest percentage of increase in employment in the decade of the sixties will be in the professional and technical occupations, service workers, clerical and sales workers, proprietors, managers, skilled, and semi-skilled workers in that order. There will be no change in the number of non-skilled workers, and a decrease in the number of farmers and farm workers.

Major employment opportunities during the next decade will be in those occupations requiring education beyond the high school.

Recommendation 2: Public policy must relate higher education to manpower demands if Iowa is to continue its industrial expansion.



EDUCATION

FULL EMPLOYMENT

Education for Full Employment

It has been estimated that Iowa will have a surplus labor force of 160,070 by 1965. Thousands of youth leave the state each year for employment in other parts of the nation. This is a great economic loss to Iowa.

Education and training programs, carefully designed for Iowa's needs, can reduce unemployment. The availability of technicians and skilled workers enhances the state's case for more business and industrial development. Such development increases the economic base necessary for the support of education and other social services.

Full employment at any time in the future will depend upon the level and type of education completed. The professional and technical fields nationwide use 16 percent of the work force. Although the demands in these areas will increase by 40 per cent

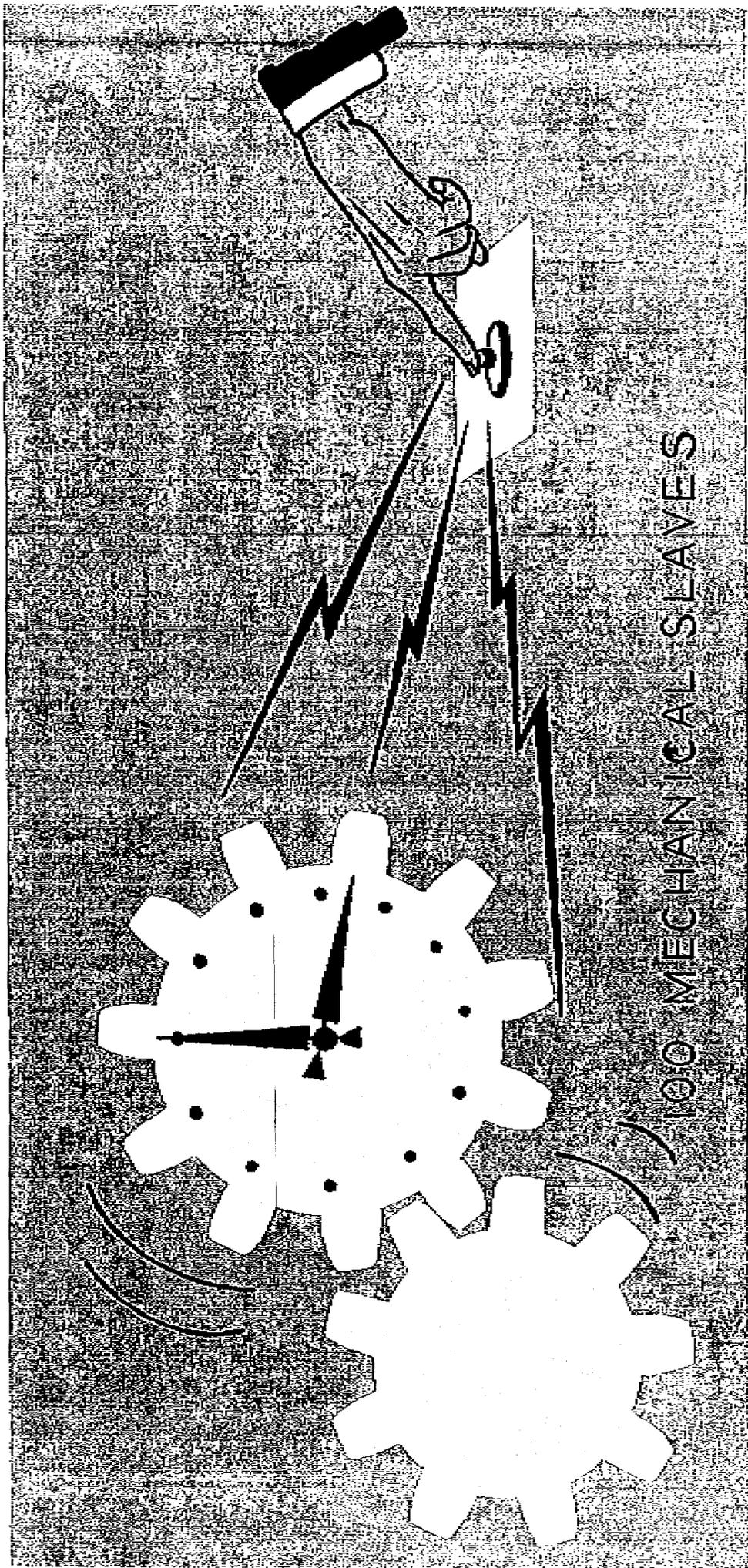
during the sixties, these fields will still use less than 20 per cent of the total available manpower.

Training in industry will continue to play an important part. It should be supplemented by a vigorous program of in-service training made available to adult groups through school programs.

Research at the universities can contribute to industrial development and employment opportunities. Departments engaged in agriculture, business, and industrial research have a great challenge—that of increasing the state's total resources through research, planning, and education.

Out-of-state corporations invested \$159,000,000 in industrial expansion in Iowa during 1959—a record year. This helped to create 3,892 new job opportunities. Dynamic vocational education programs and technical institute training could increase such investments still further.

Recommendation 3: The State Department of Public Instruction and the universities should join forces in bold new research, development, and educational programs necessary to prepare the youth of Iowa to do the work of the State and to increase industrial development.



100 MECHANICAL SLAVES

THE DEMANDS FOR HIGHER EDUCATION

General Statement

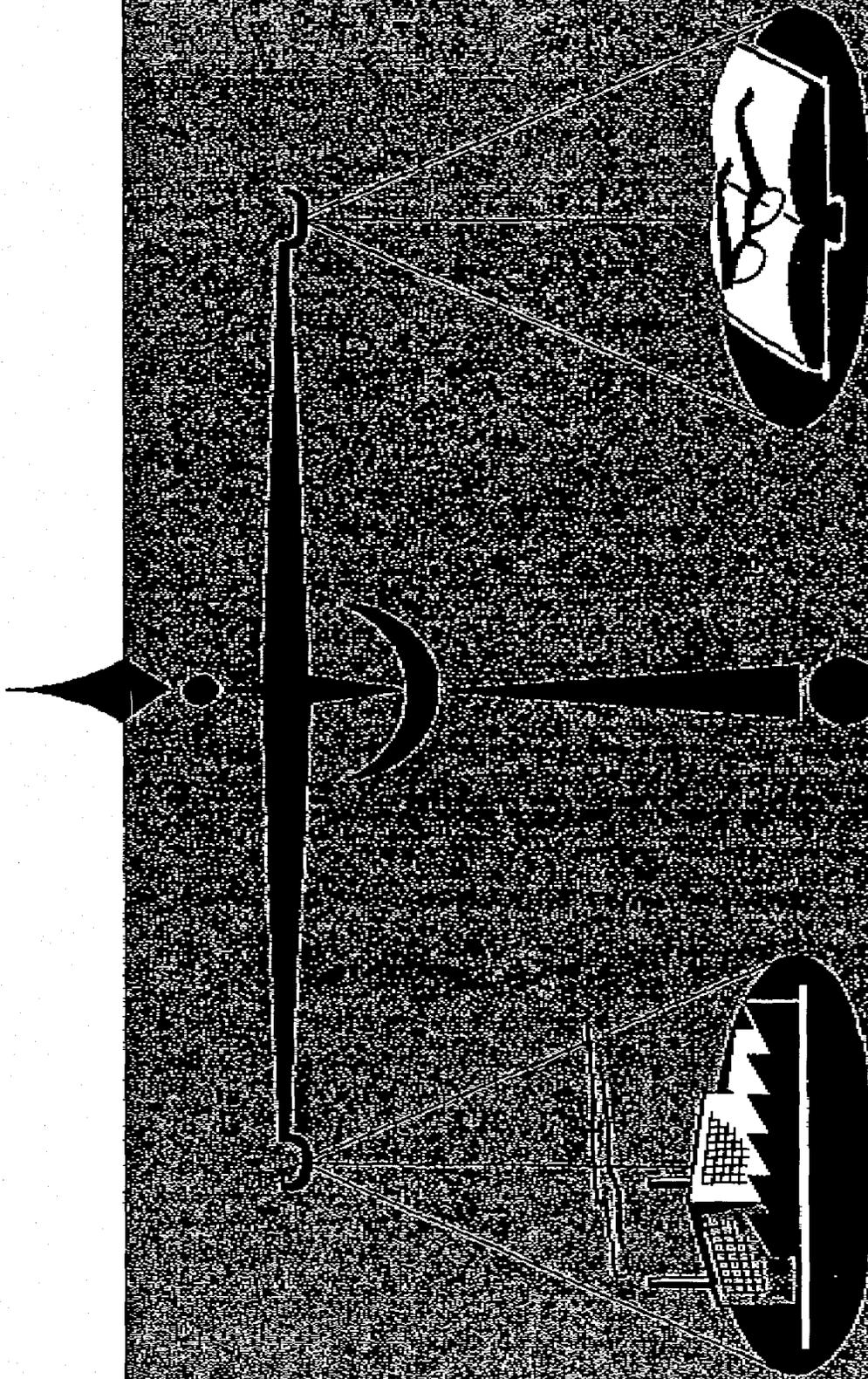
The fact that Iowa workers are moving from the farm to business and industry causes a change in the type of education required. But the demands of a particular occupation, even in the professions, are changing constantly. Doctors, lawyers, teachers, clergymen, engineers, and farmers have experienced revolutionary changes in the nature of their work during the past 50 years. It is virtually impossible to educate an individual for a specific task. Therefore, one of the most important responsibilities of higher education is that of stimulating the individual to continue to learn all of his life.

This problem of change in the nature of work requires ability to adjust to new situations and new institutions, but it also requires the insight, skill, and ability to change, adjust, and control institutions, including higher education.

The intellectual progress of America is a direct result of our ingenuity in creating a vast technology. Every American has the equivalent of 100 mechanical slaves at his disposal. This has given us unlimited time and resources to devote to intellectual and cultural activities. But the intellectual and the practical are inseparable. The skilled worker, the farmer and the shop foreman, because of their increasing productive capacity, have freed the scholar to engage in research necessary for further cultural and technological progress.

Specialization of these different groups and levels of workers requires the maximum development of the talents of all people if the balance is to be maintained. The real strength of America lies in the talents of the people.

Recommendation 4: Education beyond the high school must be responsive to the needs of increasing numbers and groups of workers, because the demand for workers with limited education is decreasing.



CULTURAL

VOCATIONAL

Specific Types of Programs Needed

It has been predicted that about one-third of the college-age group will be attending Iowa colleges by 1970, thus two-thirds of the youth will terminate their education prior to or at the completion of high school. Therefore the elementary and secondary schools will provide whatever formal education is to be received by most of the citizens of Iowa.

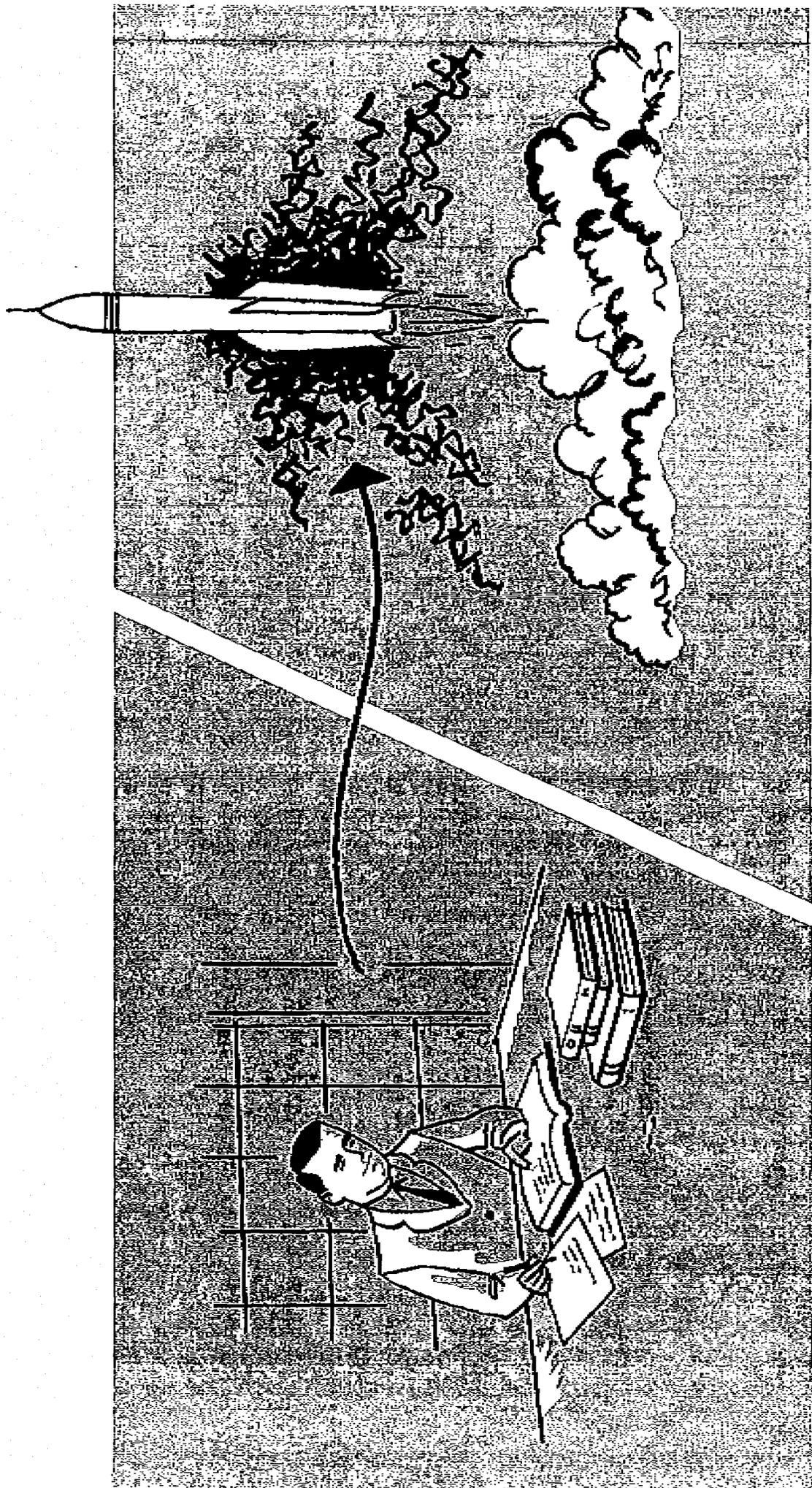
Secondary school curricula will continue to offer courses and programs suitable for college entrance. But this will not be enough. Students will want, and the economy will demand, a balance between the humanities, social sciences, and preparation for earning a living. Large secondary schools should plan for vastly improved opportunities for study in such vocational, trade and industrial areas as machine shop, automotive mechanics, carpentry, building trades, graphic arts, cabinet making, electricity, radio and

television, forging, foundry and welding, pattern making, agriculture, home economics, and secretarial science.

Guidance and counseling programs at the secondary school level are in great need of improvement. Diversified curricula will increase this need. Interest, motivation, and economic conditions of families will continue to be dominant factors in determining who will go to college, but the youth of great talent must be discovered, prepared and counseled to continue education beyond high school.

Consolidation of secondary schools into larger units will strengthen the state's resources in this area. It is the judgment of the survey team that vocational education should be offered by the larger comprehensive high schools. In this way vocational and general education can be kept in balance.

Recommendation 5: The State Department of Public Instruction should be encouraged to utilize all available local, state, and national resources in developing high schools in which vocational education courses can be offered to the youth of Iowa.



The Demand for Terminal Education Beyond the High School

The people of Iowa want a college education for their sons and daughters regardless of vocational choice. They agree that higher education should prepare people to work in all areas of the economy; that it should be responsive to the needs and interests of students, and that it should be made available to all groups in the society.

Development of the individual's talents, experiences leading to effective citizenship and productive work are in keeping with the finest traditions of American democracy, the dignity of man, and the dignity of work.

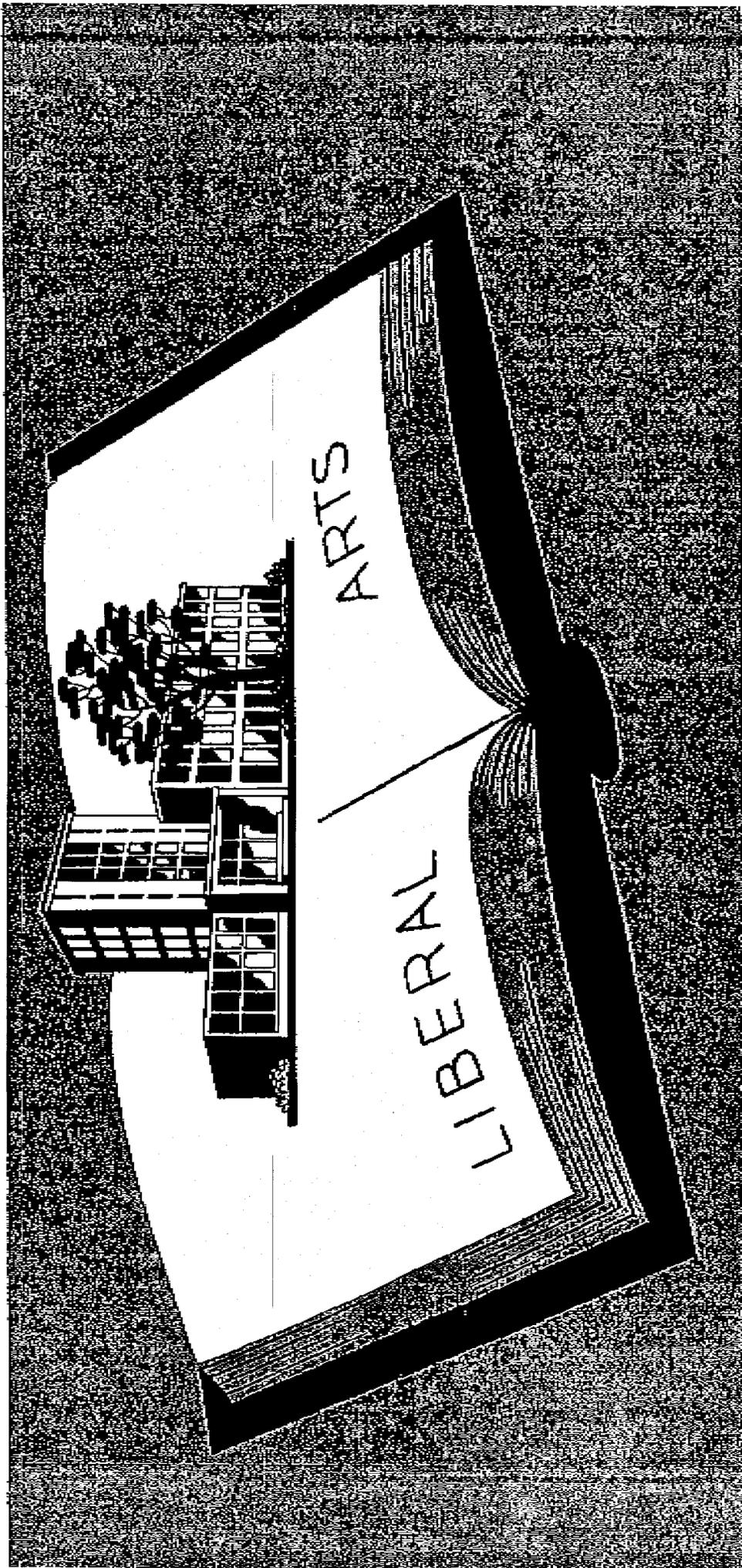
More than 70 per cent of Iowa's youth go to work with a high school education or less. This creates a great need for in-service training programs to assist workers in adjusting to changing conditions.

The nonfarm labor force in Iowa increases by 10,-

800 per year, while the nonfarm labor supply increases by about 8,800. This leaves 2,000 jobs to be filled by workers leaving the farms. Since Iowa has a surplus of about 12,700 farm workers each year, even with the 2,000 job opportunities in nonfarm employment, the state still has at present an annual surplus of 10,700 Iowa workers who must seek employment in other states.

A review of research on the distribution of manpower indicates certain ratios between different levels of workers. The Vocational Education Division of the U. S. Office of Education has predicted that by 1965 there may be 10 technical specialists, five industrial technicians, and three engineering technicians for one scientist and one engineer in the labor force. This team may be supported by as many as 150 skilled craftsmen.

Recommendation 6: Further industrialization of Iowa demands education beyond the high school for technicians who will be needed to assist scientists and engineers.



Demand for Liberal Arts Studies

The people are concerned about the goals, purposes, and curricula of higher education. There is agreement on the values of the liberal arts or liberal studies.

People from all walks of life agree on certain objectives of a college education. They believe that students should be taught to express their thoughts in writing and speaking, to acquire habits and skills of critical thinking, to become effective citizens, and to make intelligent decisions.

Leaders in higher education should be encouraged by the fact that farmers, craftsmen, managerial groups, and sales workers, as well as professional people, agree on the value of liberal studies. And all groups should take pride in the fact that the leaders in higher edu-

cation of Iowa subscribe to a dynamic program in the liberal arts. These same leaders believe that curricular revision is second only to finance as a problem in higher education.

The attitudes of all groups indicate that the liberal arts are in a strong position in higher education. The arts and sciences of man are not static; they are vibrant and dynamic, unless the force of ideas is lost in an unimaginative process of transmission. The development of the mind rather than the pedantic informing of the mind is the principal criterion of a liberal education.

The liberal arts provide about 80 per cent of the curricula for the education of teachers and form the foundation for all other professional groups.

Recommendation 7: Faculties and academic administrators in the colleges and universities of Iowa should revise and reform the liberal arts as the foundation of all higher education adapted to present and future needs of individuals and society. Failure to meet this challenge is almost certain to result in loss of academic authority and responsibility for the curriculum.



The Education of Craftsmen

This category of workers included foremen, watchmakers, radio and television repairmen, opticians, toolmakers, printers, lithographers, mechanics, machinists, jewelers, and electricians. The 115,274 craftsmen in Iowa in 1950 made up the largest group in the state next to farmers and farm managers.

The sample included in this study numbered 352, of whom 98 per cent were men. The education required of these craftsmen ranged from less than high school graduation to four years of college work, with few required to have graduate work. Three months of apprenticeship training is typically required. The educational level completed by craftsmen is typically high school graduation, with a considerable number having attended college.

Seventy per cent of the craftsmen studied were trained in Iowa. They believed that their best high school courses were the general, vocational, industrial

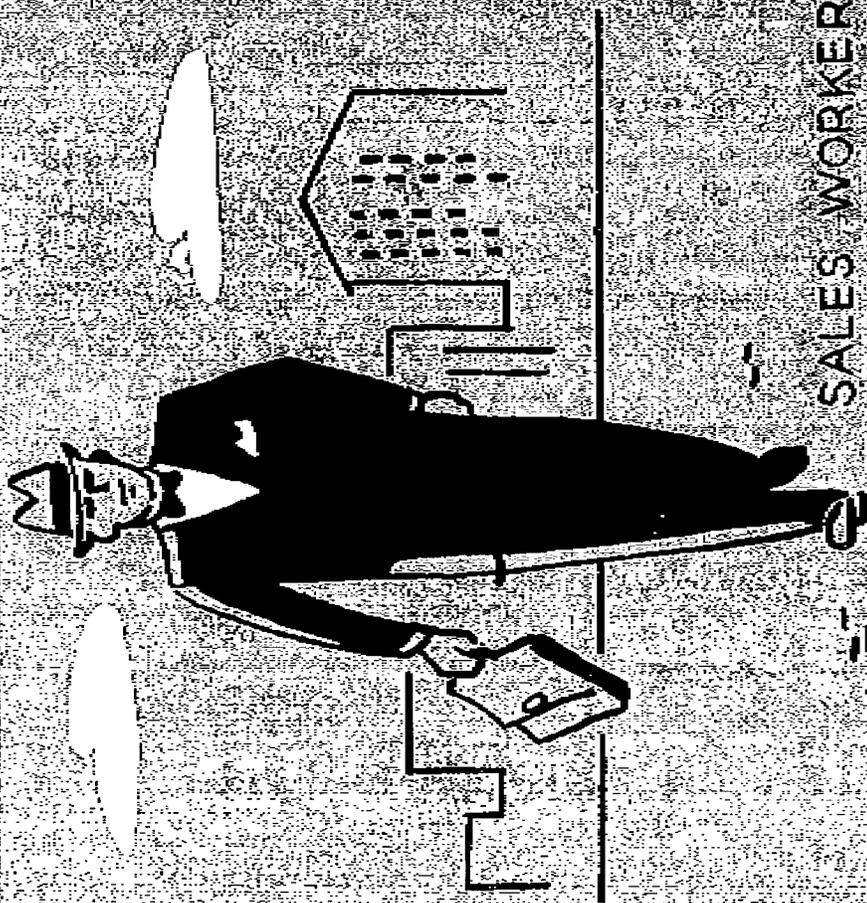
arts, college preparatory, commercial or business, and agriculture, in that order.

The craftsman believes he needs skills and abilities to work under stress, to accept supervision and criticism, to work with people, to follow instructions, and to make decisions. He needs skills in the use of his hands, in coordinating eyes, hands, and feet, in observing differences in form and shape, and in operating machines and tools.

He believes that additional education would help toward his success and that high school helped his citizenship more than his ability to work. He regards on-the-job, journeyman, and apprenticeship training as very helpful.

The most important goals of college education for him, regardless of vocational choice, are ability to express his thoughts in writing and speaking. Critical thinking, citizenship, and useful work are other important goals of a college education.

Recommendation 8: Education at the high school level and terminal education beyond high school must provide vocational and general education opportunities for craftsmen.



ABILITIES NEEDED:

Good Language Habits

Understanding of People

To Make Decisions

To Follow Instructions

To Keep Records

The Education of Sales Workers

Iowa had 70,945 sales workers in 1950. The 270 such workers in the sample studied included advertising agents, realtors, sales clerks, salesmen, and brokers, 82 per cent of whom were male.

The typical education required for employment is high school graduation, but 76 workers noted that some college work, ranging from one year to graduate work, is required. Typical education completed was high school graduation, but 146 had attended college from one year to the completion of some graduate work.

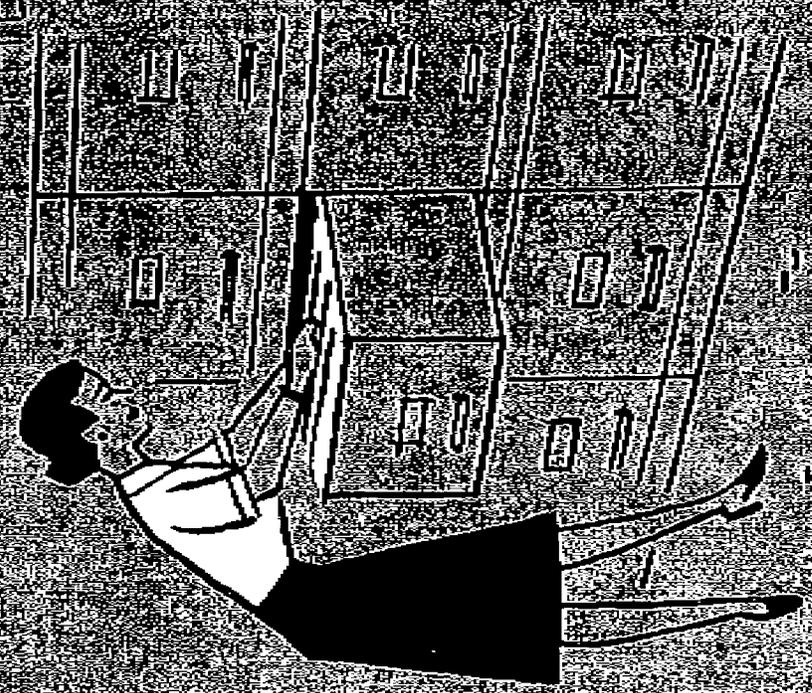
Seventy-five per cent of the sales workers received their education in Iowa. The most important secondary school courses were the commercial and business, general, and college preparatory. In college, the most important courses were business or commerce; science, literature, and the arts; and professional.

The sales worker regards it as very important to be able to work with people, to influence the opinions and judgments of people, to adjust to various kinds of situations, to work under stress, and to accept supervision and criticism.

Speaking and conversing with people, using simple arithmetic, keeping accurate records, making intelligent decisions, following instructions, and making plans and following them through are very important. He believes that his high school preparation was important in developing habits and appreciations, personal qualities, and effective citizenship. The most important goals of a college education are those of expressing one's thoughts in writing and speaking; being active, responsible, and effective as a citizen; understanding and enjoying the arts and sciences of man; preparing for home and family life; and learning to use leisure time, in that order of importance.

Recommendation 9: Secondary and college education should provide for the general education of sales workers and for specialized courses to develop effectiveness in their work.

THE CLERICAL WORKER NEEDS:



- Mastery of English
- To follow instructions
- To Make Decisions
- Good Personal Qualities
- Coordination
- Skills

The Education of Clerical and Kindred Workers

Of the 98,321 clerical workers in Iowa in 1950, 355 were included in the sample studied. The sample included attendants in physicians' offices, bank tellers, typists, bookkeepers, cashiers, and secretaries. Eighty per cent were female.

Very few clerical positions require less than high school graduation, and 33 of the respondents indicated that college preparation was required in their positions. A typical clerical worker has completed a secondary education, but 120 out of 350 respondents indicated the completion of from one year of college work to some graduate study.

Commercial or business education was by far the most important influence at the secondary school level, the general course and college preparatory being second and third. The major courses of study followed in college were business and commerce; professional; and science, literature, and the arts.

Clerical workers regard the following abilities and skills as very important: ability to work with people, to accept supervision and criticism, to work under stress, to do repetitious tasks—skill in using hands easily and in coordinating eyes, hands, and fingers, in keeping accurate records, following written or oral instructions, in making intelligent decisions, and in using simple arithmetic.

The clerical worker believes that his high school education was important in the development of personal qualities, habits, and appreciations necessary for wholesome living and for success in his work.

At the college level, he favors the combination of courses leading to effective citizenship and satisfactory work. He regards it as more important to offer technical education at the secondary level than at the college level.

Recommendation 10: Secondary education and college programs should provide for the general and specialized education of clerical workers necessary for business, industry and the professions.



THE MANAGER

Education of Managers, Officials, and Proprietors

In 1950, there were 84,045 individuals in this classification in Iowa, of whom 502 were included in this sample. They were buyers, store managers, restaurant managers, railroad conductors, city officials, federal officials, credit managers, hotel managers, wholesale managers, county officials, and state officials. Ninety per cent of them were male.

Education required for employment was generally high school graduation, but 189 individuals indicated a requirement ranging from one year of college work to some graduate study. Of these respondents, 292 indicated the completion of from one year of college work to a certain amount of graduate study. Sixty-nine per cent completed their education in Iowa.

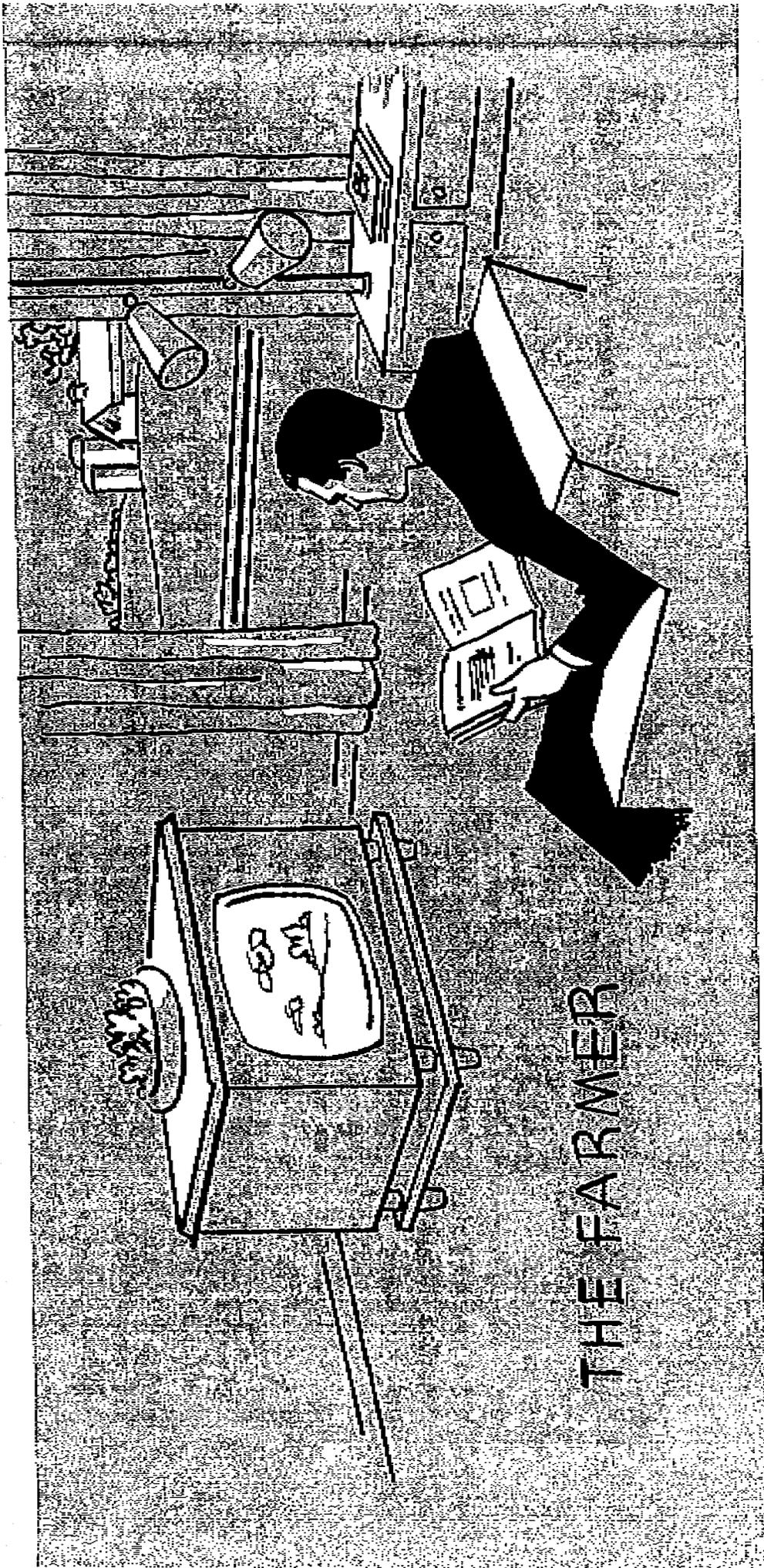
The high school courses which they believe to have had the greatest influence were the college preparatory, general, and commercial or business courses. Major courses of study followed in college were business or

commerce, professional, and liberal arts.

Managers regard the following abilities and skills as very important: to work with people; to work under stress; to accept supervision and criticism; to adjust to variety and change; to influence the opinions and judgments of others; to make intelligent decisions; to speak and converse with people; to use simple arithmetic; to keep accurate records; to supervise other people; to follow written and oral instructions; and to make plans and follow them through.

The most important goals of a college education are: expressing one's thoughts in writing and speaking, acquiring and using skills and habits of critical thinking, becoming an effective citizen, and understanding and enjoying the arts and sciences of man, in that order of importance. Managers believe that a college education should be a combination of courses leading to effective citizenship and satisfactory work.

Recommendation 11: Higher education must provide opportunities for the education of managers, proprietors, and related groups.



THE FARMER

Education of Farm Owners and Farm Managers

There were 199,718 farmers and farm managers in Iowa in 1950. Included in the sample for this study were 155 farm owners and farm managers.

Thirty-three indicated high school graduation as a requirement for their work; 11 indicated from one to four years of college work; 40 indicated college graduation; and two indicated graduate work as necessary. These requirements follow closely the actual education level completed by the group, 85 out of 138 having attended college from one to more than four years, and 49 having graduated from college.

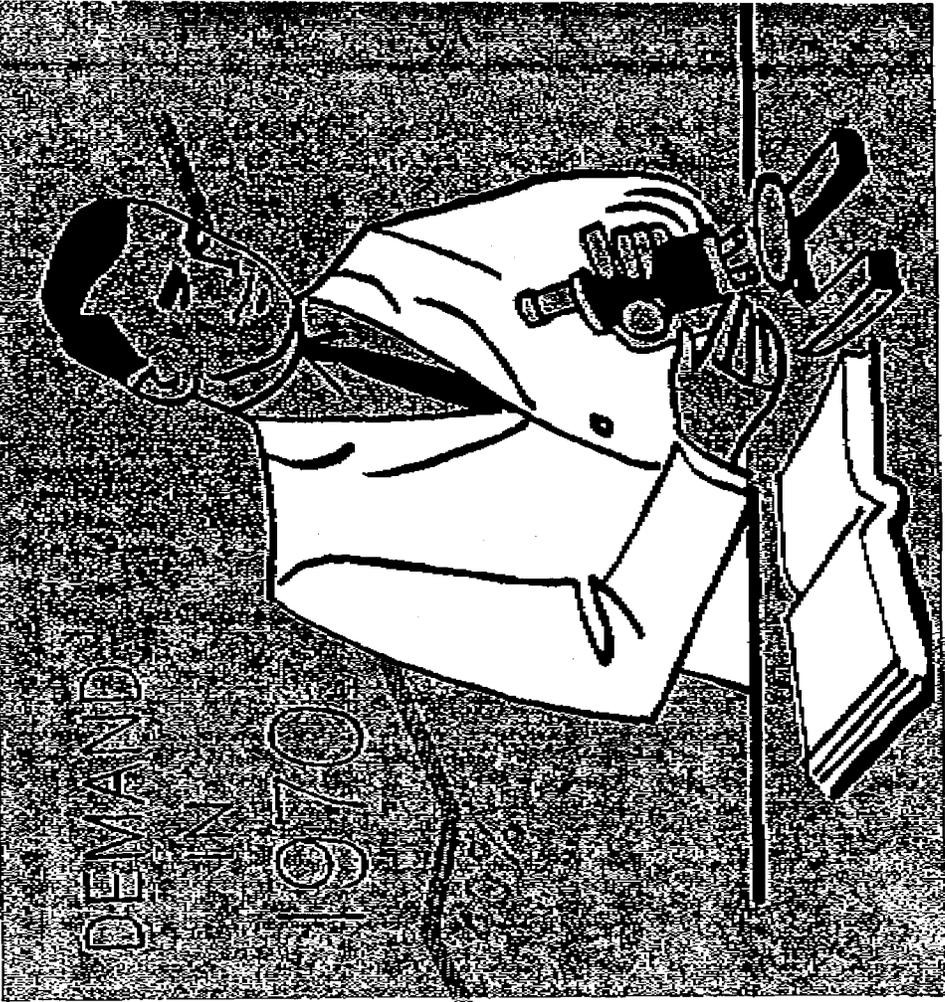
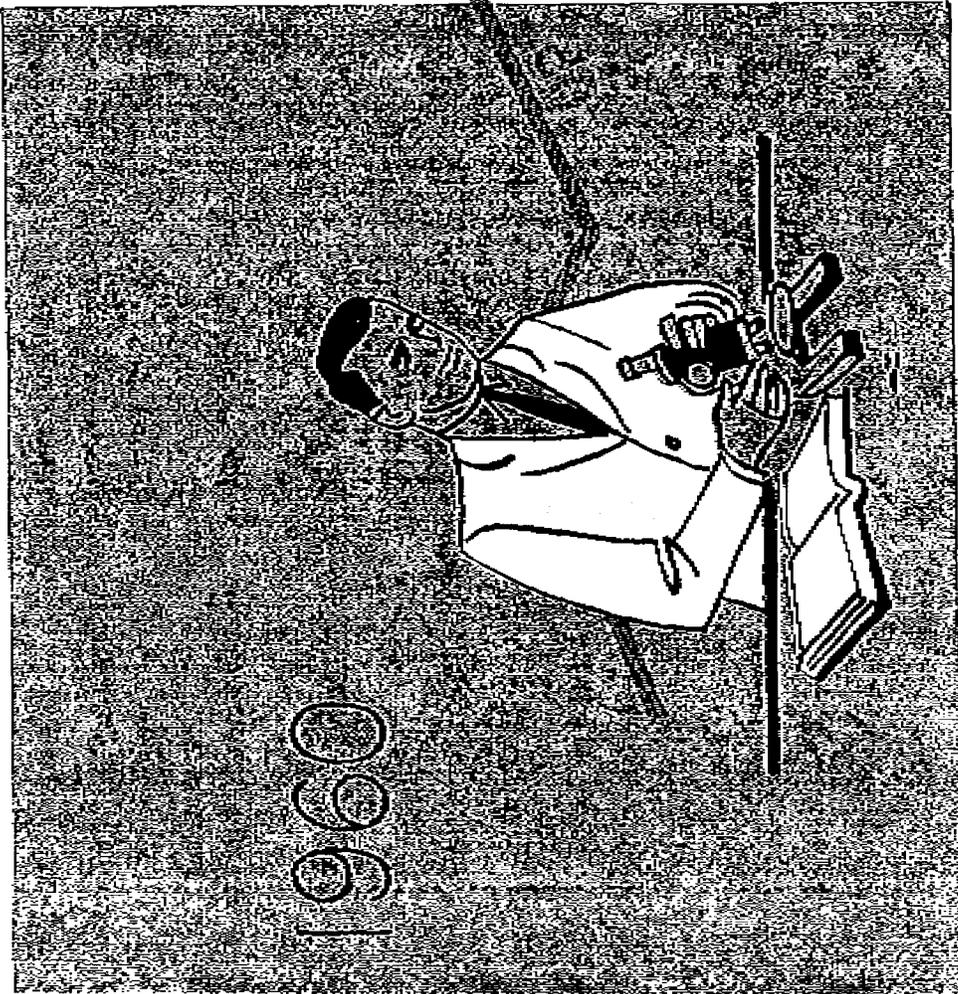
Eighty-eight per cent of the group completed their education in Iowa. The most significant high school courses were: the general course, agriculture, college preparatory, and commercial or business, in that order.

Abilities and skills regarded as of great importance by this group are: the ability to adjust to variety and

change, to work under stress, to do repetitious tasks, to work in isolation, and to work with people—skill to use the hands, to read various kinds of materials, to use simple arithmetic, to keep accurate records, to make intelligent decisions, and to make plans and follow them through.

Farm owners and managers regard these goals of a college education as very important: expressing one's thoughts in writing and speaking, acquiring and using habits and skills of critical thinking, developing good citizenship, and understanding and enjoying the arts and sciences. College education should meet the needs and interests of the students and prepare them for the professions and for cultural development. They regard a college education as important for their sons and daughters, regardless of vocational choice. They believe that colleges should contribute to good citizenship and to effective work.

Recommendation 12: Secondary education and college programs must prepare for the education of farmers and farm managers.



Professional and Technical Workers

Education of Professional, Technical, and Kindred Workers

Iowa had 66,125 professional and kindred workers in 1950. The sample for this study included 430 accountants, chemists, draftsmen, optometrists, surveyors, architects, dietitians, nurses, and photographers, 75 per cent of whom were male. Educational requirements for employment were college graduation, with considerable emphasis upon graduate study and this paralleled the level of education completed.

In this group, 61 per cent completed their education in Iowa. College preparatory was the dominant high school course; professional and liberal arts dominated the college work. Present college curricula provide extensive educational opportunities for professional workers.

The professional worker stressed abilities to work with people, to influence opinions and judgments of people, to work under stress and in isolation, to accept criticism and supervision, to speak and converse with

people, to make and follow plans, to follow instructions, to use research in solving problems, to supervise people, to make intelligent decisions, to keep accurate records, to use simple arithmetic, and to read various kinds of materials, in that order of importance.

The professional worker believes that the most important goals of a college education are those of expressing one's thoughts in writing and speaking, using skills and habits of critical thinking, understanding and enjoying the liberal arts, and developing citizenship qualities. He believes college work should fit the needs and interests of students, should help farm youth to adjust to the shift to business and industry, is important to success in life, and desirable for his son or daughter regardless of vocational choice.

He believes that colleges should prepare students to work in business, industry, and government, and that technical and communication skills should be taught to adult workers.

Recommendation 13: Higher education must meet the demand for an increase of about 40 per cent in the number of professional and technical workers by 1970.

Finance

Facilities

Qualified Faculties



CRITICAL NEEDS

A Message from 1,577 Iowa Leaders in Business, Industry, Agriculture, and Education

Among the leaders in business, industry, agriculture, and education in Iowa, 1,577 were asked the same questions about higher education, and were in agreement on the following conclusions.

The great liberal arts heritage is the foundation of all education beyond the high school. All college students should learn to express their ideas in writing and speaking. They should develop skills and habits of critical thinking. They should learn to be active, effective citizens.

Higher education should prepare students to work in industry, business, and government. It should be responsive to the needs and interests of students, and should emphasize cultural development. It should prepare individuals for productive work in the professions and in other white collar jobs.

In-service training opportunities should be made

available to adult citizens to help them in their work and to give them the opportunity for cultural improvement.

Higher education is closely related to success in life and it is very important for our sons and daughters regardless of their vocational choice.

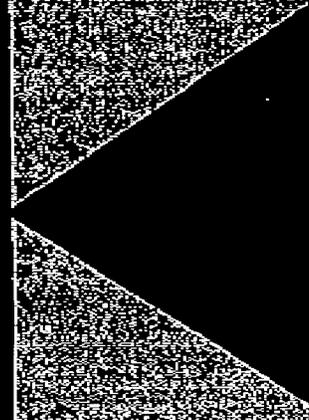
The most critical problems confronting Iowa's colleges and universities are shortages of finance, lack of facilities, and shortage of highly qualified faculties. But lack of guidance and counseling at the secondary school level creates a serious problem for higher education. There is a need to clarify the philosophy, goals, objectives, and curricula of higher education.

Citizen responses such as these should strengthen the hands of boards of trustees, legislatures, and faculties in meeting the demands for higher education.

Recommendation 14: Informed citizens must be involved in the development of public policy for higher education.

PUBLIC

PRIVATE



IOWA COLLEGES

TYPES OF COLLEGES IN IOWA

There is a fine relationship among colleges and universities of all types in Iowa. This great resource will become even more important as college administrators plan jointly for the larger enrollments of the future.

Iowa has 23 private degree granting colleges and three seminaries, one of which is a part of the University of Dubuque. Two of the private colleges, St. Ambrose and Drake University, grant the master's degree. These colleges will probably continue to emphasize the liberal arts, and the demand for this type of higher education will challenge all resources available.

Iowa State Teachers College has a campus of nearly 400 acres, over 3,400 students, and about 300 faculty members. Its authorization to become a multi-purpose college offers a great resource to the state in meeting the demands for higher education in the future.

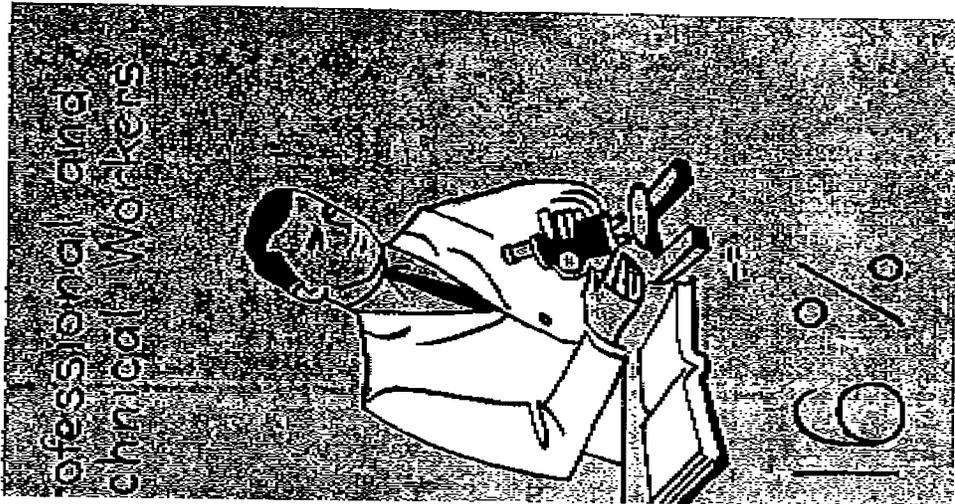
Iowa State University maintains graduate and undergraduate programs in the following colleges: Agriculture, Engineering, Home Economics, Sciences and Humanities, and Veterinary Medicine. The potential of this great university for the economic development of the state will be limited only by policy and support necessary for facilities and for securing and holding outstanding leaders and professors.

The State University of Iowa is the capstone of public education in the state and has enjoyed great prestige as a leading state university. It maintains the following colleges: Commerce, Dentistry, Education, Engineering, Law, Liberal Arts, Medicine, Nursing, Pharmacy, and Graduate.

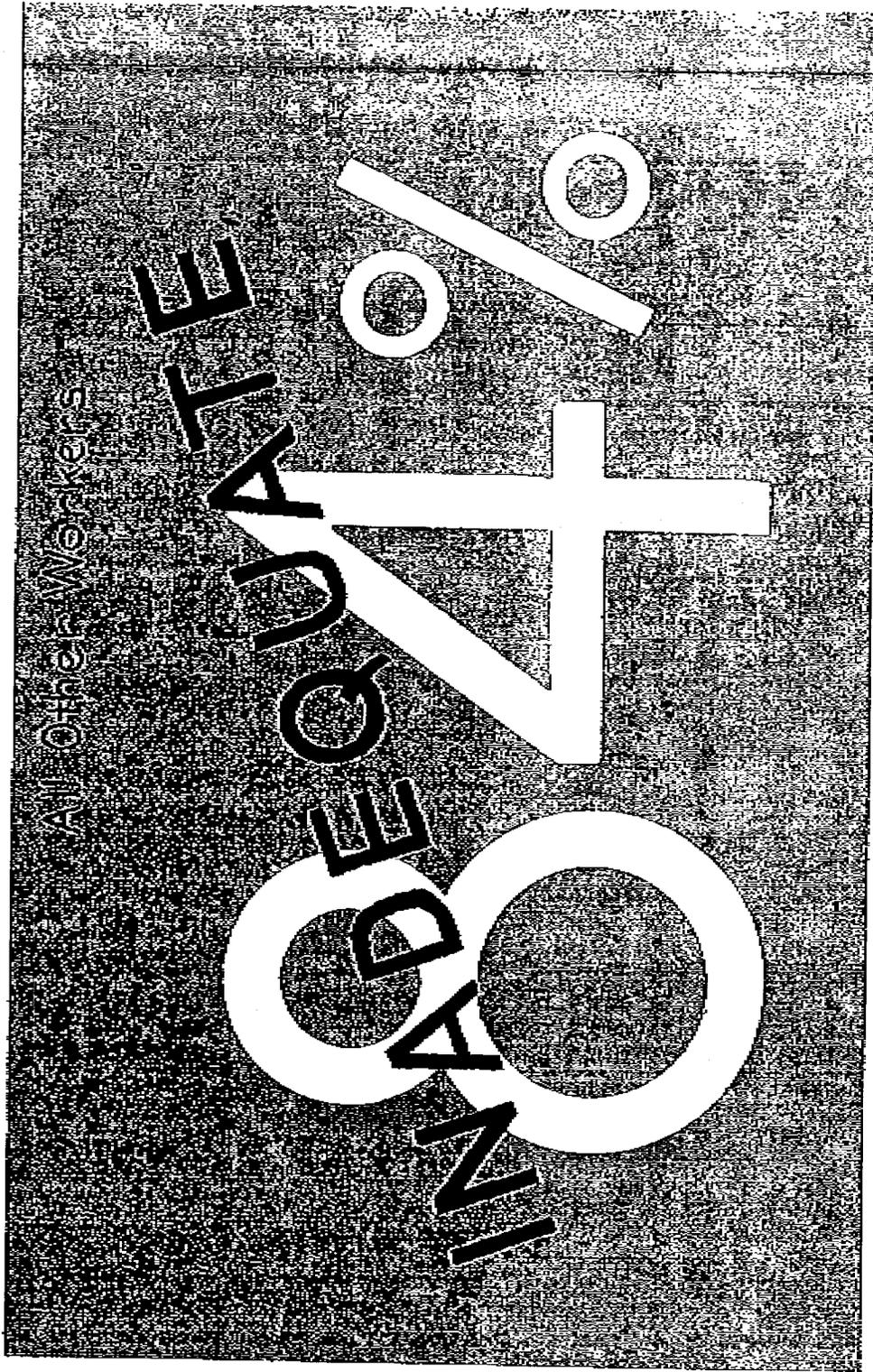
Iowa has 16 public and seven private junior colleges. These institutions, with few exceptions, offer the first two years toward a liberal arts degree and give the Associate in Arts Degree.

Recommendation 15: Diversity in types of colleges in Iowa makes it extremely important to develop and maintain a strong statewide voluntary association of Iowa colleges and universities.

PRESENT COLLEGE CURRICULA



Professional and
Technical Workers



All Other Workers

Existing Curricula in Higher Education

The present curricula of colleges and universities are related closely to the preparation of professional and technical employees. These groups include only 16 per cent of the total workers in Iowa.

Present college curricula are functionally inadequate for 84 per cent of Iowa workers. At the same time, it is realized that a liberal arts education can be valuable to any citizen. The emphasis at the secondary level has not recognized the needs for vocational education. Junior colleges, with few exceptions, have a liberal arts emphasis. The private colleges of Iowa are strong in the liberal arts and are likely to continue in this direction.

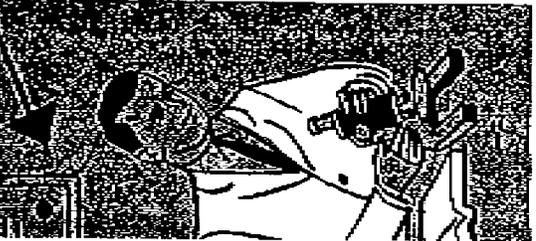
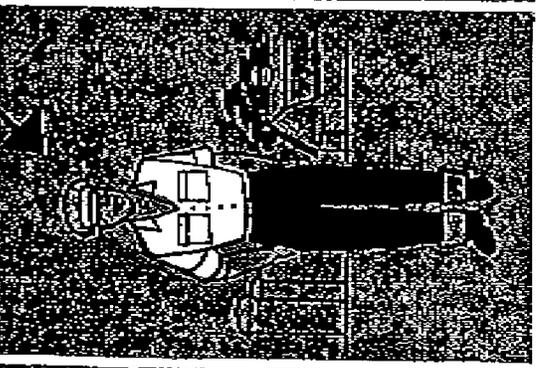
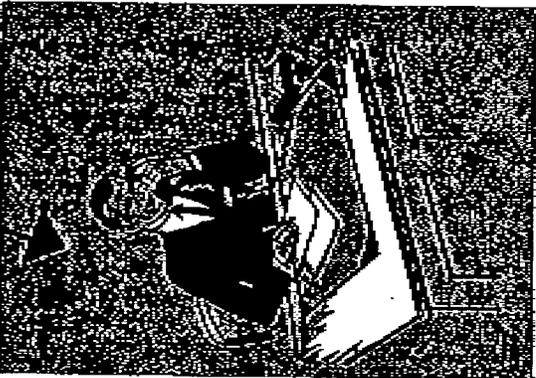
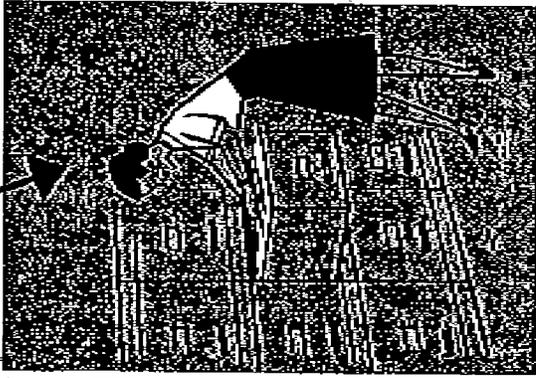
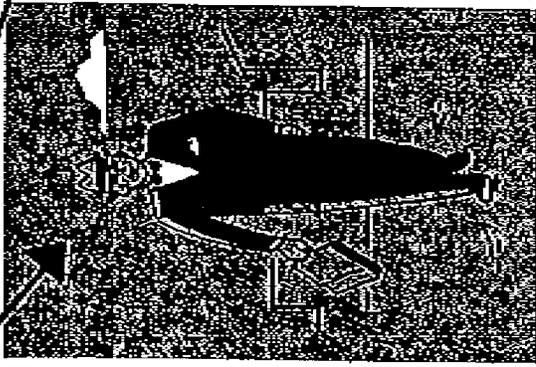
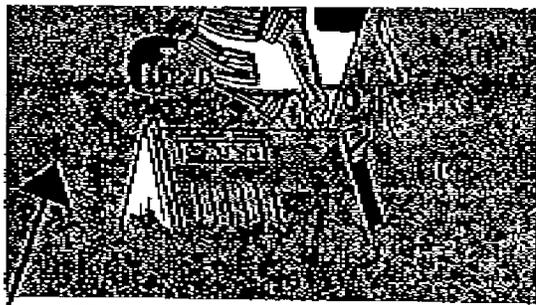
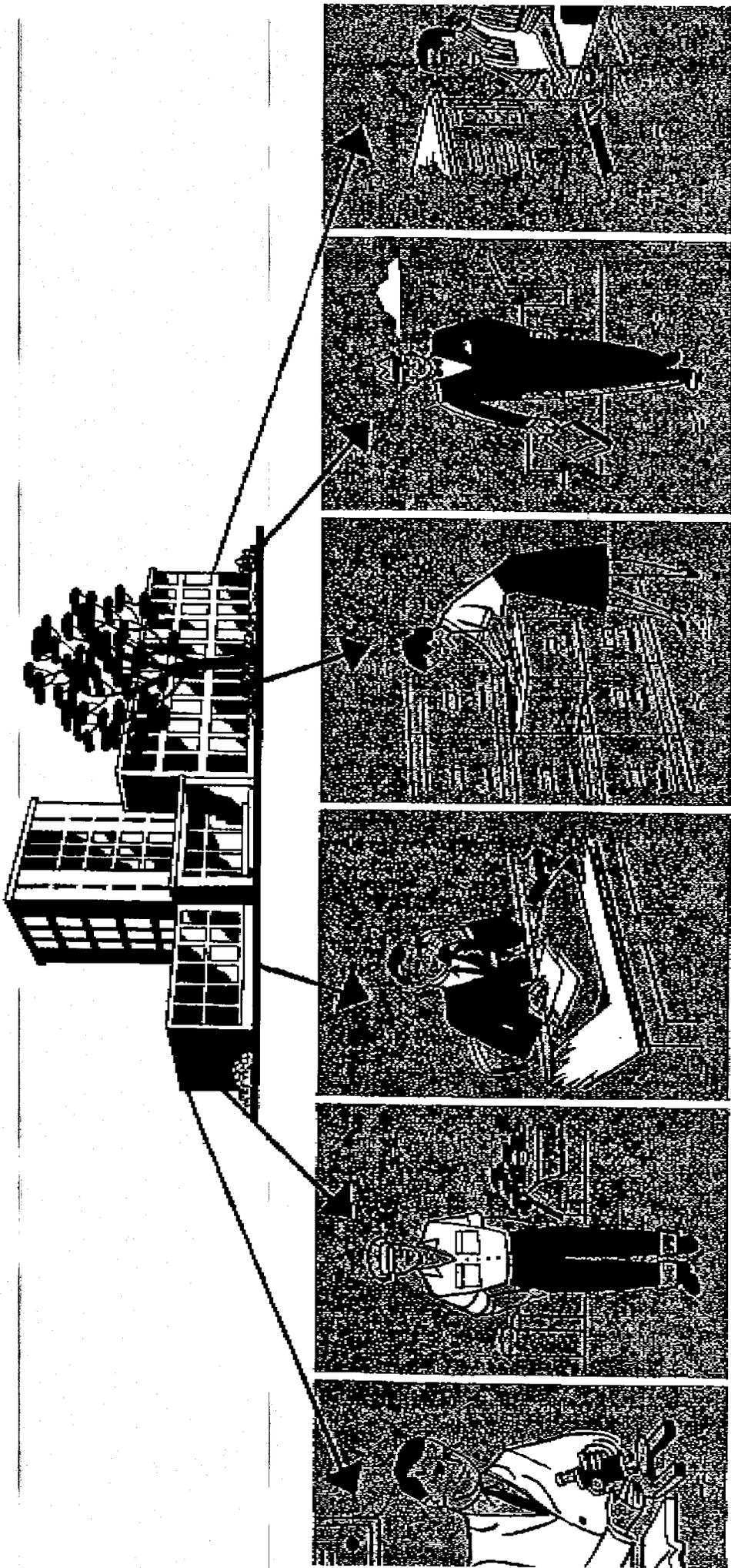
Iowa State Teachers College has been a single purpose institution for the preparation of teachers. The policy which has been followed for that institution has for all past years implied that a strong liberal arts

program was unnecessary for the preparation of teachers. In theory, the teachers college has been a professional school without the necessary liberal arts foundation. In all of the degree-granting colleges and universities of Iowa, there is a great teacher education service.

The State University of Iowa and Iowa State University have developed and maintained both liberal and professional curricula. I.S.U. is now launching a commendable experiment involving a technical institute whose curricula will be terminal. This could have great significance for terminal programs in other communities. Both universities have extensive graduate programs.

Drake University has tended to fill a gap in extension education and, in many ways, has responded to community and state needs even though it is a privately supported university.

Recommendation 16: Public policy governing higher education in Iowa must recognize the educational and vocational aspirations of all students who attend college in the decade of the sixties.



TYPES OF INSTITUTIONS NEEDED FOR THE FUTURE

Liberal Arts Colleges

Iowa will need the resources of all of its private and state colleges to meet the demand for higher education in the decade ahead. The liberal arts tradition will probably continue to dominate private college curricula. Citizens should approve and applaud this

great resource, provided the purposes, content and methodology of learning are subjected to constant critical inquiry.

Dynamic leadership and faculty responsiveness to the great increase in knowledge will be necessary to maintain the great liberal arts image.

Three State Institutions

Iowa must encourage its three state institutions to flourish. This is necessary in all aspects of the liberal arts and in the preparation of people for the professions. It is crucial in research and public service.

Unless the three state institutions are permitted to develop to their greatest potential, even to the point of wholesome competition, the state will be confronted with an educational catastrophe within ten years.

The teachers college should become a multi-purpose state college with major emphasis upon the prepara-

tion of teachers and administrators for the Iowa public schools. Its expansion into other areas should be based upon research regarding Iowa's needs that are not being met elsewhere. It will of necessity duplicate many curricula in the two universities and in the 25 private colleges and universities. Duplication is not necessarily more costly where enrollments are as large as they will be in Iowa's three state institutions.

The State Legislature and the Boards of Control of Iowa's colleges and universities have a grave responsibility for the youth of Iowa.

Recommendation 17: The total enterprise of higher education in Iowa must be mobilized to maximum capacity to meet the demands of the sixties.

Community



Colleges

GENERAL
EDUCATION
STUDIES

GUIDANCE and
COUNSELING
FUNCTIONS

IN-SERVICE
TRAINING
of WORKERS

TERMINAL
EDUCATION

Regional Community Colleges

On the basis of all research involved in this study, Iowa needs a system of regional community colleges. This is perhaps the most serious gap in the entire educational system of the state.

There is no unique liberal arts function for such colleges, because there are 28 degree-granting liberal arts institutions in Iowa.

Regional community colleges have four distinct functions:

a. General education studies which will transfer to senior colleges. These studies should form an integral part of all other community college functions.

b. Guidance and counseling functions to assist local students in planning their education and careers.

c. In-service training of workers in local industries. Enrollments from this source are likely to exceed those of full-time day students. Such a program can

be of great benefit to workers in adjusting to rapid changes in industry, business, and agriculture.

d. Terminal education involving from one to three years beyond high school and leading to an associate in arts or an associate in science degree. Terminal curricula should be developed on the basis of research concerning community needs. Technical institute curricula should come under this category and be a part of the regional community college. Any regional vocational education programs at the high school or post high school levels should be a part of the regional community college.

It is possible that regional community colleges would greatly increase college enrollments beyond the predictions of this study because they would make educational opportunities available to thousands of youth in Iowa who now pass up the type of education offered at the college level.

Recommendation 18: The survey team recommends that the State Legislature authorize the establishment of regional community colleges as the best means of relating education beyond high school to the manpower problem in Iowa.

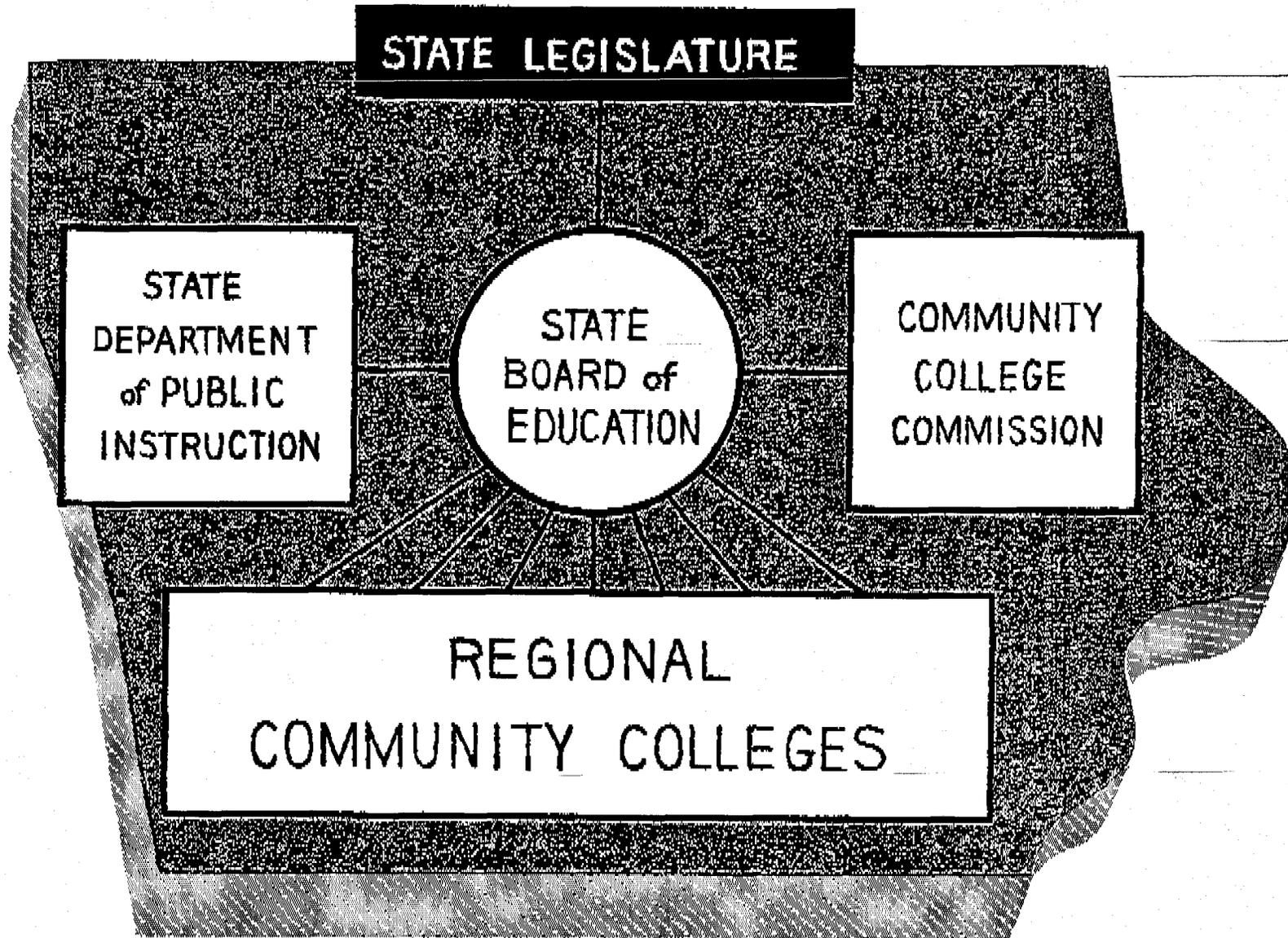
STATE LEGISLATURE

STATE
DEPARTMENT
of PUBLIC
INSTRUCTION

STATE
BOARD of
EDUCATION

COMMUNITY
COLLEGE
COMMISSION

REGIONAL
COMMUNITY COLLEGES



Organization of Regional Community Colleges

Regional community colleges should be organized in terms of large local units comprising from one to four or more counties. There should be a local community college board with the power to tax the local community for support.

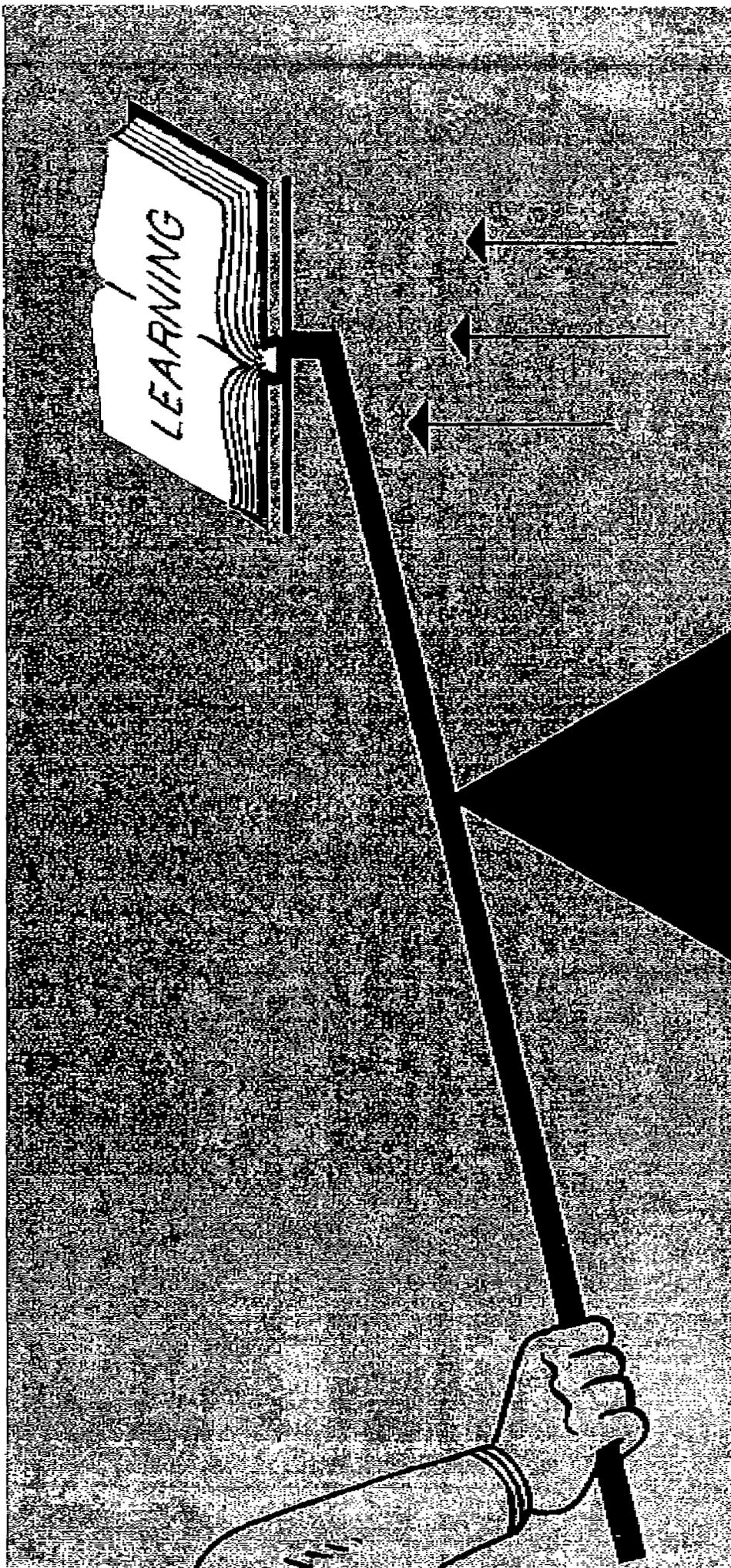
State authority with respect to community colleges should be exercised through the State Board of Public Instruction and the State Department of Public Instruction, which should have the responsibility for coordinating community college education in the state.

There should be a Community College Commission, composed of the State Superintendent of Public Instruction as chairman, the presidents of the three state colleges and universities, and three presidents of private colleges. The commission would provide professional advice concerning the establishment of community colleges based upon demonstrated needs in local regions.

There should be an executive secretary of the Community College Commission whose office would be in the State Department of Public Instruction. He should be a staff officer to carry on research and evaluation and to serve as liaison between all groups and authorities concerned with the community colleges. This position should be established at a high level, comparable in professional requirements and salary to a deanship in a major university.

Regional community colleges should have a minimum of 500 students. The state should start this program gradually, and each region interested in the program should be assisted by the staff of the State Department of Public Instruction in carrying out the necessary research and in formulating a plan. A limited number of present junior colleges could be developed into regional community colleges.

Recommendation 19: The State Legislature should authorize the establishment of regional community colleges where there will be 500 students, and the state should pay at least one-half of the cost for building and operating such colleges.



NEED FOR IMPROVEMENT IN HIGHER EDUCATION

The people of Iowa believe that higher education is a great means toward constructive change and progress. In general, higher education has lived up to this challenge. American colleges and universities are only in part a result of society. They are in truth a cause of American society.

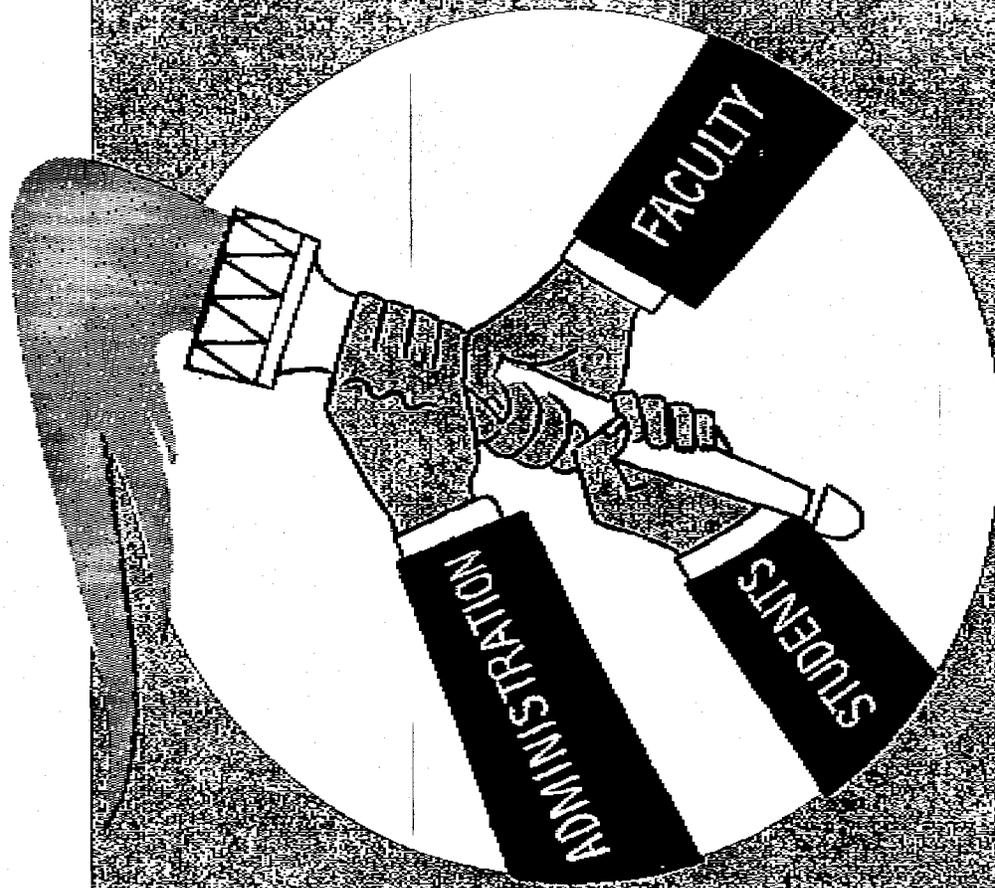
The agricultural resources of Iowa, the level of cultural achievement, the standard of living, and the health of the people are the direct result of research, teaching, and extension services carried on for a century by Iowa's universities and similar institutions elsewhere.

Faculties have sometimes been complacent in the management of academic affairs. They are known everywhere for their opposition to serious changes in curricula and programs. Higher education helps effect change everywhere, but it has difficulties in changing itself. The greatest public relations problem is inside the colleges.

A courageous approach to the problem of learning is needed. Learning is an individual and highly personal matter. At best, the professor can only stimulate and guide learning.

New techniques of teaching and learning are imperative. Breaking the sound barrier of ignorance in communications media must be applied to learning. Courses and content must be pruned to permit new and more healthy growth. Distinguished professors should be relieved of clerical and administrative tasks in order that they may have contacts with more students. The education function requires many people working at different levels. Libraries, laboratories, and extra-curricular facilities must be used to permit students to assume increasing responsibility for their own education. College faculties must apply the good business and professional principles which they have taught to so many other groups.

Recommendation 20: It is recommended that the whole process of higher education be subjected to rigorous research in order to accelerate and improve the process of teaching and learning.



Responsibility for Improvement

The responsibility for excellence in teaching, learning and research, the principal functions of a university, belongs to the faculty. The ends of higher education are in the development of people and the advancement of knowledge. Administration, budgets, public relations, committee work and clerical activities are means toward achieving these ends.

Henry Wriston believed, after 30 years of being a college administrator, that the ideal faculty man very appropriately regards administration, committee assignments and haggling about the wording of regulations "as distasteful."

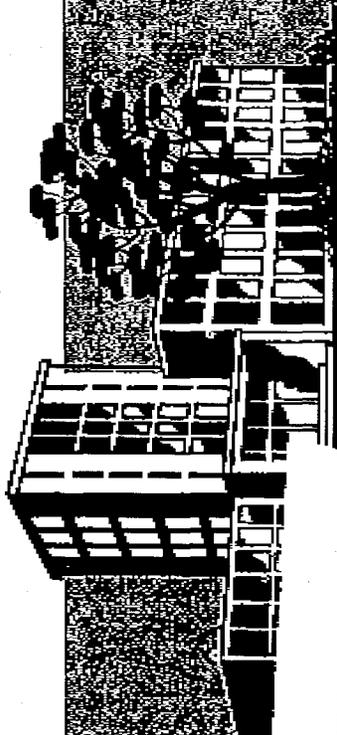
While one may agree with the academic viewpoint on academic affairs, Boards of Trustees and administrators have the realistic problem of relating a university to its publics and to society in order to get the support required by the faculty. Adequate support is necessary for improvement.

Administrators and faculties are not two opposing camps. The dramatic discoveries of learning, teaching and research must be in the public image of universities. In this sense, administrators are dependent upon the faculties for success in gaining institutional support. Faculties need the skill of administrators in the organization and management of academic affairs. The two groups are interdependent.

Distaste for administration on the part of academic personnel sometimes results in a policy of drifting and stagnation. To make matters worse, institutions frequently follow the questionable practice of appointing heads or chairmen of departments on a permanent basis. This sometimes blocks needed changes for the remainder of the chairman's career.

If administration is distasteful to the best of academic people, then periodic change of departmental chairmen may be necessary to promote and to protect academic excellence.

Recommendation 21: It is recommended that departmental chairmen, especially in large institutions, be elected or appointed for periods not to exceed three years.



WANTED

3500 NEW

FACULTY MEMBERS

STAFFING THE COLLEGES OF IOWA

Increases in enrollments, retirement, and resignations will require the recruitment of 3,500 new faculty members for the decade of the sixties, or 350 for each year if present student-faculty ratios are continued.

Iowa colleges are in a favorable position in comparison with the colleges of the United States with respect to the academic preparation of personnel. Fifty-five per cent of the academic personnel in the state institutions hold the doctorate, and 32 per cent hold the master's degree; the national averages in state institutions are 31 and 46 per cent respectively. Fifty-two per cent of private college faculties hold the master's against a national average of 35 per cent, and 37 per cent hold the doctorate against a national average of 36 per cent. Forty per cent of all faculty members in Iowa earned their highest degrees in the state.

One of the greatest contributions which the State University of Iowa and other institutions maintaining graduate programs could make during the next 10 years is to develop a unique program for the preparation of college teachers at the master's level. The State University of Iowa should take the lead in this program.

Iowa State University should be the principal source of technical personnel for staffing the regional community colleges of the state. This may call for the development of new programs in keeping with changing community college curricula.

There is nothing sacred about a student-faculty ratio of 12 to 1, and staffing the colleges with quality personnel may require an undergraduate ratio of 20 to 1. The stimulation of learning is not necessarily more effective in a small group.

Recommendation 22: The preparation of college teachers should be a major responsibility of the graduate schools during the next 10 years.



ACADEMIC SALARIES IN IOWA COLLEGES

Academic salaries in the state institutions are completely inadequate for the recruitment and retention of qualified faculties. They are below the national average for all state institutions.

Private colleges in Iowa pay full professors \$1,850 less than the national average in private colleges, but compare favorably at other ranks.

Salaries for professors in the three state institutions require a major adjustment before considering long-range increases necessary to keep pace with comparable institutions. Salaries at the lower ranks will have to be adjusted or the universities and the teachers college will not be able to compete with public school salaries.

No one can foresee the economic conditions of

1970 which will determine faculty salaries at that time. It would be wise to plan for at least a 100 per cent increase following major adjustments which must be made immediately.

Failure to make major adjustments in academic salaries will mean that the professors in Iowa's institutions must continue to subsidize higher education to a greater degree than any other group in Iowa.

On the side of the faculty, there must be a bold new approach to teaching and learning that makes possible a qualitative emphasis rather than a quantitative one. This point holds for private as well as state institutions.

No figures were tabulated on present salaries of administrators in Iowa's colleges.

Recommendation 23: The State Legislature should appropriate sufficient funds to raise the salaries of professors by an average of \$3,000, those of associate professors by \$2,000, and those of the other two ranks by \$1,000 for the first year of the biennium. A further increase of 8 per cent should then be provided for the second year of the biennium.

PRIVATE
COLLEGES

\$ 43,000,000

PUBLIC
COLLEGES

\$ 34,000,000

NEW FACILITIES

1955 to 1960

BUILDINGS AND FACILITIES FOR HIGHER EDUCATION

Expenditures and funds available for new buildings and for the remodeling of old buildings for the period July 1, 1955 to July 1, 1960 reveal that private colleges received about \$43,000,000 and state institutions received approximately \$34,000,000. These figures include money for buildings of all types and from all sources, not just from appropriations in the case of the state schools. Of course, this investment in facilities for the private colleges has come from out of state as well as from Iowans.

Experiences of state and private colleges and universities since the end of the Second World War reveal that the most economical approach to physical plant expansion is to meet the needs as they arise. Millions of dollars in tax funds will be saved if the legislature accepts a long-range plan, and each session of the legislature carries out its particular responsibilities for that plan.

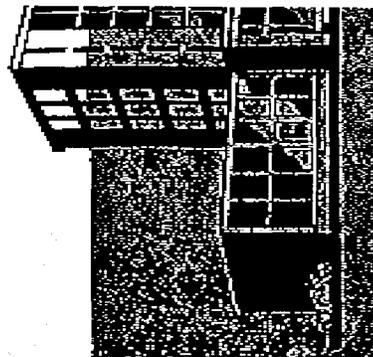
Planning instructional buildings for the future should take into consideration the major changes in learning and teaching, so that they will not become obsolete as soon as they are completed.

Administrative, instructional, and non-instructional facilities should be planned to serve particular functions rather than to provide a certain amount of floor space.

A careful study of present facilities, with schedules for replacement or changes in function, should be a part of the total plan for future building programs.

Iowa should reject the notion that one legislature cannot obligate a future legislature. The state constitution and the statutes which established the three state institutions obligated all future legislatures to provide the necessary financial support for building and operating these institutions at a level that will serve the needs of the state.

Recommendation 24: The State Legislature of Iowa should establish a short-range building program for the three state institutions covering the decade of the sixties, and a long-range program extending to 1975. Each session of the legislature should provide funds to meet the building schedules.

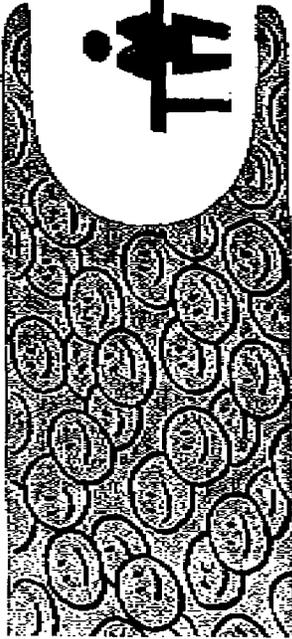


COLLEGES

THE NATIONAL BOARD OF TRUSTEES

BOARDS
OF

TRUSTEES



PUBLIC

ORGANIZATION AND ADMINISTRATION OF HIGHER EDUCATION

A great resource for all higher education in Iowa is the Iowa Conference of College Presidents and other administrative officials. The State Study Committee on Higher Education, supported by all state and private institutions, is a significant group that has worked diligently at the problems common to all higher education in the state. These two groups should continue to function as instruments for cooperation among all institutions.

External control of all colleges and universities in Iowa is a function of boards of trustees. In the case of state institutions, the role of the State Legislature is paramount in the determination of broad policy and financial support.

These connecting links between higher education and American society have been one of the unique characteristics of the American system. As a result,

there has been more generous support from society and greater institutional responsiveness to the needs of individuals and society.

Internal administration of higher education will become increasingly complex during the decade of the sixties. Budgets will treble, physical facilities will double, and the problems of administration will challenge the most creative talents of the whole enterprise.

Central administrative functions generally include (1) academic affairs, (2) business affairs, (3) student affairs, (4) public relations and development. Every institution has all four of these functions, even though the type of organization may vary. These functions represent the decentralization of the presidency—a step made necessary by the increasing complexity of college administration. Careful attention to problems of organization and management can pay great dividends to all colleges.

Recommendation 25: The State Legislature and all boards of trustees should continue to encourage, by grants of funds if necessary, institutional research and cooperation among the colleges and universities as they seek jointly to find solutions to their common problems.

State Board of Regents

Teachers
College

S.U.I.

I.S.U.

ENOUGH RESPONSIBILITY

STATE BOARD OF REGENTS MEMBERSHIP AND FUNCTIONS

One of the most responsible positions which any citizen can hold in American society is that of serving on the State Board of Regents for higher education. The requirements for serving on such a board include success in one's business or profession, recognition as an outstanding citizen, and demonstrated interest and faith in higher education. Such boards serve as connecting links between colleges and society and as a shield against undue public pressures.

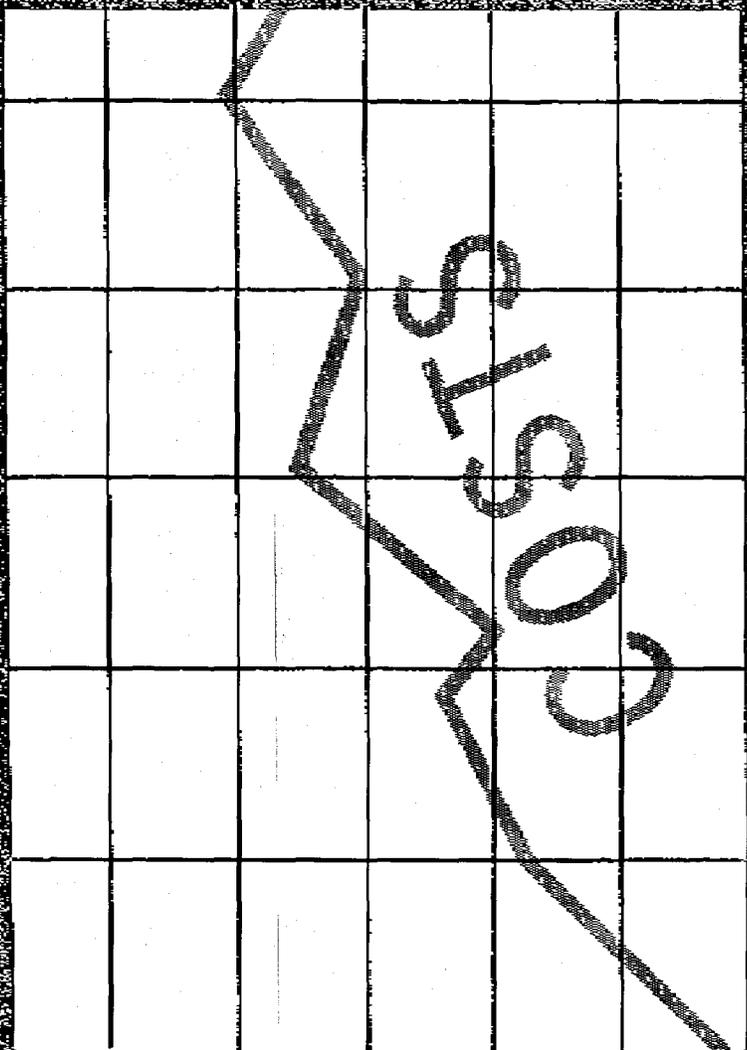
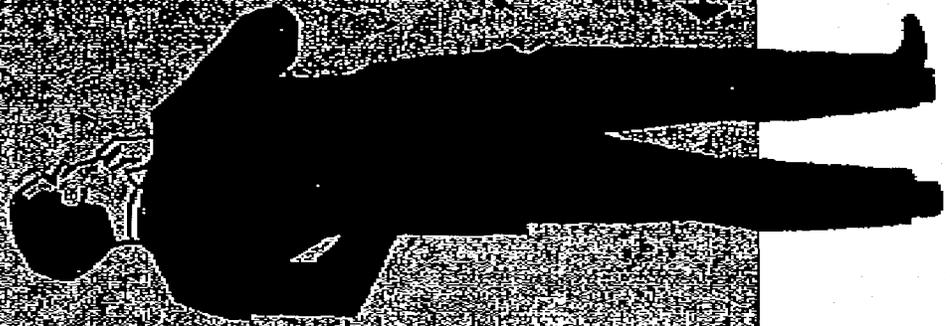
Alumni who have been successful in business or professional enterprises and as citizens are ideally suited for service on the Board of Regents. Iowa has a questionable practice in limiting to one the number of alumni from any institution who may serve on the

State Board of Regents. This policy automatically disqualifies thousands of outstanding citizens who happen to be graduates of the three state institutions.

Iowa is unique in having one State Board of Regents for all three institutions. In theory, this is considered an ideal arrangement. In practice, it has not convinced surrounding states that it results in a better system of higher education. Elimination of all competition may result in loss of dynamic leadership and growth.

The demands upon the time of the State Board of Regents in determining policies and in securing support for the three state institutions should be recognized by limiting the responsibilities of the Regents to those three institutions.

Recommendation 26: The State Legislature should place the Schools for the Blind and the Deaf under the direction of the State Board of Public Instruction; place the Sanatorium under the College of Medicine of the State University of Iowa; and remove the limitation on the number of graduates of three state institutions who may serve on the State Board of Regents.



← State Legislature →

PROBLEMS OF FINANCING HIGHER EDUCATION

Preparation of Budgets

Operating budgets of Iowa's colleges were approximately 90 million dollars in 1959-1960. The total operating cost for higher education in Iowa will almost certainly reach 300 million dollars per year by 1970. This figure does not include capital outlay. The people of Iowa will support higher education if responsible officials make a solid case for support based upon values received by the people.

One of the most divisive problems confronting the three state institutions is the biennial controversy over costs, budgets, and state appropriations. There is no agreement on what constitutes adequate support or what unit of cost should be used to determine legislative appropriations. There is no easy solution to this problem.

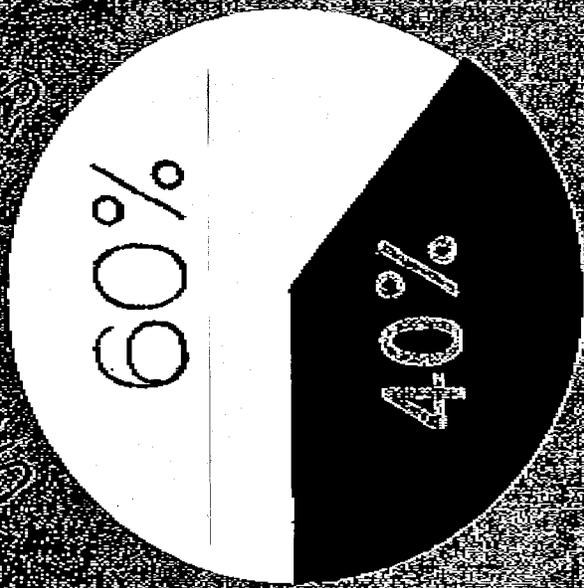
Coordination of budgetary requests on the basis of

actual needs is a function which the State Legislature should expect the Board of Regents to perform, but no satisfactory solution to this problem has been found. This situation does not make for cooperation among the institutions.

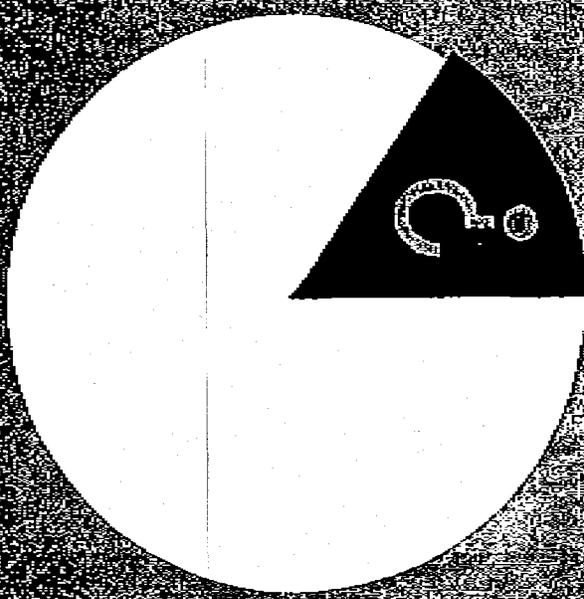
Action on the part of the legislature has not always been objective. Appropriation of funds providing for equal amounts to the two universities and one-half as much to the teachers college is far from an objective approach. A careful study and analysis of cost factors in the three institutions is indicated. This should result in a formula on which the administrators and Regents agree and which can be accepted and implemented by the legislature. The enterprise is too large to be approached on any other basis.

Recommendation 27: The State Legislature should mandate a detailed analysis of all costs and factors affecting costs, resulting in a formula which can be used to determine state appropriations for operating purposes in the teachers college and universities.

UNITED STATES



CONVA



LOCAL STATE

SUPPORT of PUBLIC SCHOOLS

STATE RESPONSIBILITY FOR PUBLIC EDUCATION

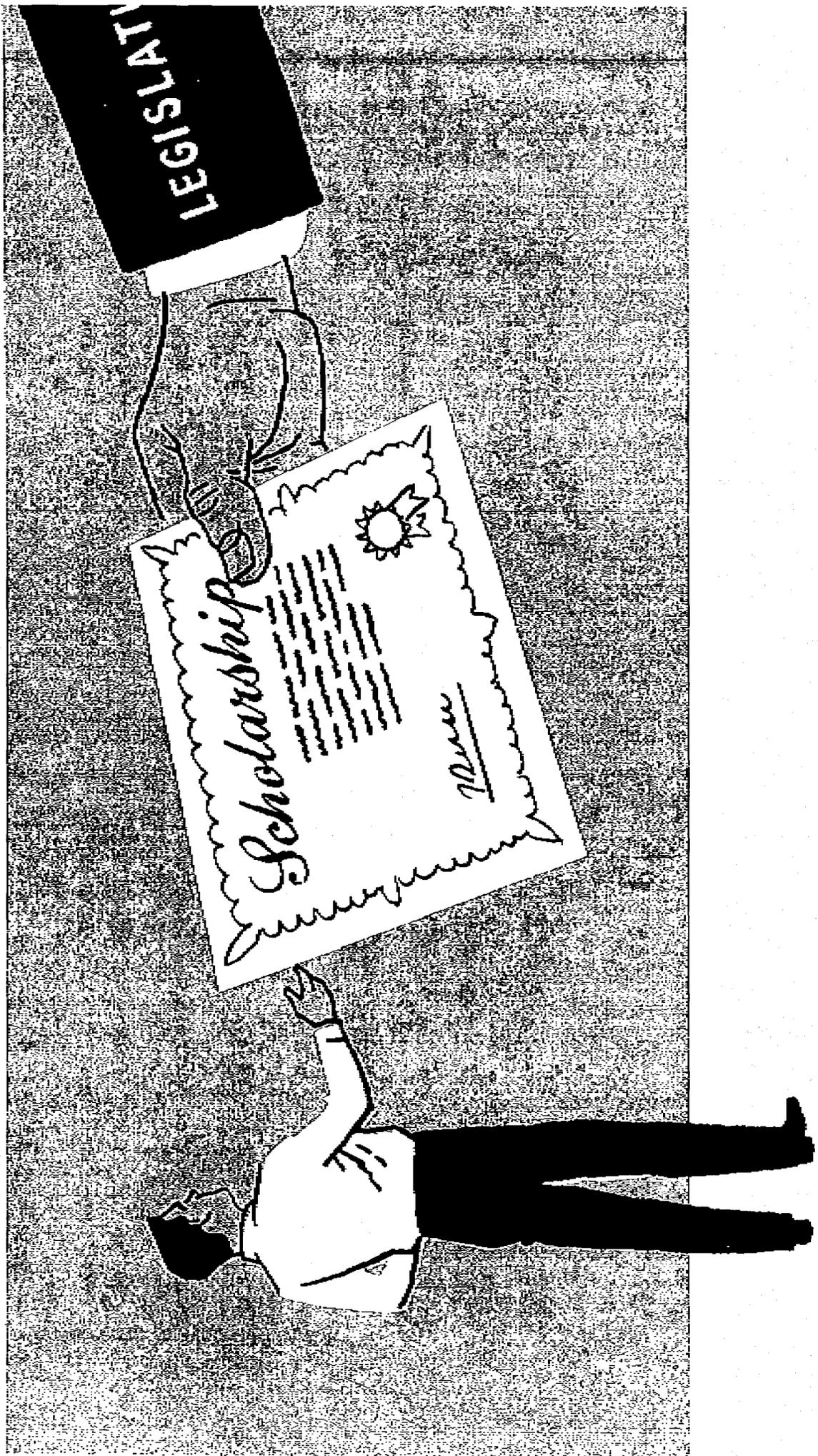
Education is a state function and responsibility. The power of the State Legislature over public education is complete. Local boards of education are extensions of the state authority. They are agencies of the state. The broad base of public education is at the elementary and secondary levels, the quality of which determines, in large measure, the effectiveness of higher education in Iowa.

It is not clear what portion of public school costs are paid by the state in Iowa, because in addition to the direct school aids, state collected taxes are used to pay agricultural land tax credits and homestead tax credits, part of which offset local school costs. Even considering these credits, however, Iowa's state support of public schools is significantly less percentage-wise than the average for the nation and somewhat

less than for most states in the midwest. Also, Iowa's uneven distribution of property results in inequality of educational opportunity, and the present policy of distributing school aids primarily on a per pupil basis does not correct this.

To correct the inequality of educational opportunity, the state must tax where the money is and spend it where the children are. The base for such educational support is the 7.3 billion dollar gross product of Iowa. That product increased by 2.7 billion dollars between 1950 and 1959. This means Iowa has a dynamic economy. Citizens all over Iowa should organize into study groups to set goals and standards of public education, to determine what is needed to meet desired goals, and to present a citizens program to the legislature.

Recommendation 28: The State Legislature should appropriate sufficient state aid for local schools to equalize educational opportunities for grade and high school students throughout the state.



STATE SCHOLARSHIPS FOR CAPABLE STUDENTS

One of the critical problems in Iowa and in the nation is the high cost of a college education to the student. Tuition, fees, room and board average \$914 per year in the three state institutions and \$1,455 in the private colleges. Both of these figures are higher than national averages. Latest figures released by the U. S. Office of Education indicate average cost of tuition, fees, room and board for resident students to be \$710 for men and \$714 for women in public institutions, and to be \$1,217 for men and \$1,266 for women in private institutions.

In Iowa, this same item may cost \$2,500 in the private colleges by 1970. Such costs could destroy the balance between state and private higher education. Iowa colleges spent over two million dollars on schol-

arships in 1957-1958.

California and Illinois provide 2,560 and 1,000 state scholarships respectively each year. These grants pay tuition and fees not to exceed \$600 per year, and the recipients may attend any accredited colleges in the states. Both New York and New Jersey have similar plans. Colleges attended by these students, whether state or private, must raise additional funds because tuition and fees do not pay the total cost.

Any such program in Iowa should be designed to benefit capable students who do not have the financial resources to attend college. Recipients should supplement the scholarship with earnings from work, and with loans where necessary.

Recommendation 29: It is recommended that the State Legislature appropriate \$1,200,000 for the second year of the next biennium in order to provide tuition scholarships for 2,000 college freshmen. Recipients should be permitted to attend any accredited college in Iowa, and the state should pay the tuition and fees up to a maximum of \$600 per year. Scholarships should be renewable and by 1965 there should be 8,000 tuition scholarships in operation.

PLANNING

BUDGETS

BUILDINGS

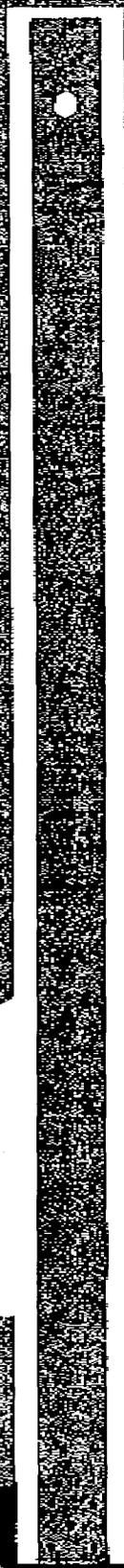
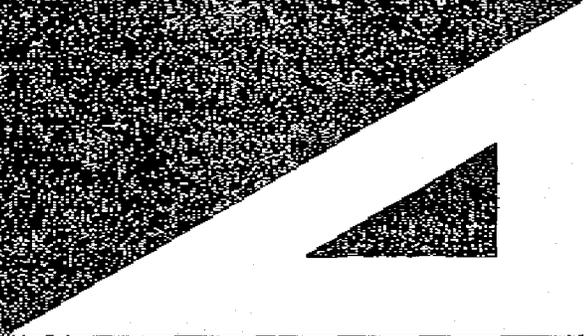
COST STUDIES

SCHOLARSHIPS

ENROLLMENTS

SALARIES

ACADEMIC and ADMINISTRATIVE STAFFING



INSTITUTIONAL RESEARCH AND COORDINATION

Many of the problems and recommendations of this report will require continuing research over a long period of years. Building programs, budgets, scholarships, cost studies, academic and administrative staffing, salaries, and enrollments are problems that demand continuing research and planning on a coordinated basis. The state and all of its colleges and universities need such a service.

One of the most important steps which the State Board of Regents and the State Legislature could take would be to establish a central office to carry on the institutional research indicated above. Criteria used in the employment of presidents and deans would have to apply in the selection of such personnel or the idea would be certain to fail.

At first, a small professional staff would be ade-

quate. There may never be a demand for more than two or three professional people and adequate clerical staff.

Such an office should in no case serve a line function between the presidents and the Board of Regents. It should perform staff functions, servicing the Board of Regents, the presidents and the institutions. Much of the research would be performed in the three institutions.

It should be noted that academic planning and development would not be the function of this office. Those functions belong to the faculties, but it would assist the faculties in implementing their plans. It is possible that the private colleges would want to join in providing support and in receiving the services of such an office.

Recommendation 30: The State Legislature and the State Board of Regents should broaden the functions of the Finance Committee of the Board to serve as a staff office to engage in institutional research necessary for the planning, coordination and support of programs for higher education.

LEGISLATIVE ACTION RECOMMENDED

1. Authorization for regional community colleges where 500 students are available.
2. Establish a plan of organization and support for community colleges.
3. Provide major salary adjustments in universities and teachers college.
4. Develop and accept a long-range building program at three state institutions.
5. Authorize funds for institutional research and coordination.
6. Relieve State Board of Regents of responsibility for Schools for Blind, Deaf and the Sanatorium.
7. Remove limitation on the number of alumni of state institutions who may serve on State Board of Regents.
8. Mandate a study of costs and facilities in the three state institutions of higher learning to develop acceptable standards to be used in determining appropriations.
9. Appropriate sufficient state aid for local schools to equalize educational opportunities for grade and high school students throughout the state.
10. Provide 2,000 college tuition scholarships, for Iowans attending any Iowa college, at \$600 maximum for the year 1962 to be increased by 2,000 for each year until 8,000 are in operation by 1965.

ACTION PROGRAMS RECOMMENDED

FOR BOARDS OF CONTROL, ADMINISTRATORS, AND FACULTIES

1. Plan for enrollment increases of 70 per cent at the undergraduate level and 122 per cent at the graduate level between 1960 and 1970.
2. Clarify objectives of higher education and revise curricula accordingly.
3. Revise and reform the liberal arts curricula in terms of present and future national and world requirements.
4. Relate higher education to the manpower demands of Iowa, and to the needs and interests of students.
5. Engage in research on the relationship between education, employment, and industrial development.
6. Provide research and personnel necessary for the training of technicians.
7. Increase number of graduates in professional fields.
8. Involve citizens in policy development.
9. Promote voluntary association of Iowa colleges and universities.
10. Engage in research on improvement in the process of teaching and learning.
11. Improve the administration of academic affairs.
12. Accelerate the preparation of college teachers.
13. Develop long-range building needs and plans for meeting these needs.
14. Engage in coordinated institutional research on higher education costs.

ACTION PROGRAMS RECOMMENDED

for

STATE DEPARTMENT OF PUBLIC INSTRUCTION

1. Utilize local, state, and national support in developing comprehensive high schools in which vocational as well as general education courses can be offered to the youth of Iowa.
2. Plan for the education of craftsmen, clerical and sales workers, and technicians at the secondary and community college levels.
3. Develop vigorous in-service and adult education training programs, particularly to help Iowa workers adjust to changing job opportunities.
4. Begin study of regional needs for community colleges and their curricula including plans for technical institute curricula.
5. Keep the state legislature informed on needed legislation for participation in Federal Government grants for technical education.
6. Improve guidance and counseling in the secondary schools.