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RESOURCES AND NEEDS FOR HIGHER EDUCATION IN IOWA

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The Junior Colleges of Iowa
by
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Foreword

This fourth volume of detailed studies on Resources and Needs for Higher Education in Iowa involves Community Colleges. This segment of higher education is developing very rapidly and for good reasons.

State and private colleges and universities are concerned primarily with liberal arts and professional curricula. Trends in technical curricula such as engineering are toward increasingly theoretical emphases. These trends create a sharp difference between vocational and technical education on the one hand and liberal and professional education on the other. The former are not likely to gain favor in undergraduate and graduate programs in Iowa or in other states.

Increasing enrollments in traditional liberal and professional curricula make it unwise for most colleges to add technical and vocational courses.

The need for technicians, tradesmen, craftsmen, and other types of workers with education beyond the high school but with less than a bachelor's degree is increasing, both because of the growth in population and the changing nature of the nation's work. The demand is for workers with a broad general as well as a technical education. This gap in higher education is being filled in several states by a dynamic system of community colleges.

Iowa is confronted with a gradual transition from an agricultural to an industrial economy and the concomitant shift in the types of work available to young people. This study of the existing junior colleges and recommendations for a new approach to the problem could have significant consequences for thousands of farm youth who will seek employment in business and industry during the next 25 years.

The United States had 625 two-year colleges in 1956. They enrolled a total of 765,000 students. The gain in the

enrollment in public junior colleges between 1939 and 1954 was greater than in any other segment of higher education. This trend is almost certain to continue as total enrollments in higher education continue to increase.

Raymond C. Gibson

STATUS OF THE JUNIOR COLLEGES OF IOWA

The following enumeration of "Specific Purposes" was taken from the study of RESOURCES AND NEEDS FOR HIGHER EDUCATION IN IOWA, 1960-1970. An examination of the status of the public junior colleges as summarized in this report forms the basis for recommendations made to the people and to the Legislature of Iowa for the expansion and improvement of the programs of the junior colleges of the state. Purposes of the total study of higher education in Iowa were as follows:

1. 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 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.

Scope and Method of Study

This study includes the sixteen public junior and community colleges in Iowa for the purpose of gathering data relating to desirable junior college functions. However, the study was not an evaluation of each college except as it provided information as to the current operation of Iowa Junior Colleges. The outcomes of the study are stated in the form of a state-level program for development of community colleges rather than specific institutional recommendations. The study did not include an analysis of teachers and teaching, students and their needs, nor of the community and its ability to support a junior college.

The study was made by: (1) analyzing the literature of the junior college movement in America and Iowa; (2) reviewing the practices in junior college education in selected states recognized as having outstanding programs; (3) deriving principles of sound junior college education from theory and practice as the basis of criteria for judging the effectiveness of a state junior college system; (4) structured interviewing with the deans of the Iowa public junior colleges relative to the performance of the functions of the public junior college; (5) reviewing of catalogs of each college; (6) summarizing pertinent data supplied by the State Consultant for Junior Colleges in the Department of Public Instruction; and (7) drawing of conclusions and making recommendations regarding the development and needs of a program of junior college education in Iowa.

Dr. Lagomarcino's Study of Iowa's Junior Colleges

The most recent comprehensive study of the public junior colleges of Iowa was conducted by Lagomarcino¹ in

¹ Lagomarcino, V. C., An Appraisal of the Junior Colleges of Iowa, Unpublished Ph.D. thesis, Iowa State College Library, 1955, 167 pp.

1955. His study was designed to provide a basis for a better understanding of the status of the junior college movement in the nation, in general, and in Iowa in particular.

Specifically, the purposes of Dr. Lagomarcino's study were:

1. To analyze the historical background and philosophy of the junior college movement.
2. To trace the development of the public junior colleges in Iowa.
3. To appraise certain aspects of the present 16 public junior colleges in Iowa.
4. To predict the scholastic achievement of the two-year graduates of Iowa public junior colleges who matriculated at the State University of Iowa, the Iowa State College, and the Iowa State Teachers College in the fall terms of 1951-1952.

The academic records of the 257 students who were graduated from the public junior colleges in Iowa during the years 1950, 1951, and 1952 provided the raw data for the study. The data were treated statistically using the techniques of regression, biserial correlation, and discriminant analysis.

Lagomarcino's findings are presented in detail since they represent a rather complete and recent evaluation of the Iowa public junior colleges.

The first public junior college was established in Iowa in 1918. Since that time, 35 public junior colleges have been established with less than half being in operation today. Those colleges which closed were in the majority of cases in towns of less than 5,000 population. It was concluded that the law which provides that no junior college can be established in a school district of less than 5,000 population is in practice, as well as in fact, minimal.

The public junior colleges in the state have been established by local initiative. The major purpose of these institutions has been to provide university parallel courses for those students who desired to remain at home and complete one or two years of a degree curriculum.

The public junior college in Iowa has operated as a part of the public school system. It is extremely doubtful if the movement would have gained much impetus had it not developed in this manner. Every public junior college in Iowa but one--Ellsworth--was operated in conjunction with, and shared the facilities of, the high school in the town. Ellsworth College was a private school until 1928 when it became part of the Iowa Falls public school system.

The problem of enrollments has been of real concern to those responsible for the administration of the public junior colleges of the state. Traditionally, these institutions have been small. In an era of expanding college enrollments, the junior college may logically be expected to increase in size, if not in number.

The future potential of increased enrollments in the junior colleges presents at least one important problem. The high school enrollments will also increase during the next ten to fifteen years. Conceivably, some districts will need enlarged high school facilities. This condition, in some instances, could result in a tendency to limit the space available to the junior college since the majority of junior colleges are housed in high school buildings. If a school district should bond itself to the legal limit and if additional facilities should be needed for the high school, it might be difficult in some communities for the junior colleges, as presently financed, to continue.

The weaknesses of the junior college curricula in Iowa are readily apparent. The public junior college in Iowa is today what it was originally intended to be--a college preparatory institution. The junior college in

Iowa is not a full fledged community college, in that it does not provide for the needs of the community.

Little instruction of a terminal nature was offered in the commercial fields. In 1954-1955, a total of only 23 semester hours of vocational-technical subjects were offered in the 16 public junior colleges. Obviously, the public junior colleges of Iowa during the period of this study did not offer a program much beyond that of college preparatory work.

One of the chief weaknesses of the public junior colleges was found to be a lack of in-service training of the staff. Few junior college faculties were engaged in self study and still fewer had developed cooperatively statements of purpose or philosophy. The deficiency was due in part to the fact that in all the junior colleges, except one, the majority of the junior college teachers taught part time in the high school. When a staff is composed in great part of teachers whose responsibilities are divided between the junior college and the high school, it is sometimes difficult to develop a cohesive philosophy for the junior college. Too many junior college instructors do not comprehend fully the function and purpose of the junior college.

Class size in the junior colleges was small. A total of one hundred classes operated for five or fewer students. Two hundred and fifty-six classes enrolled ten or fewer students. This situation is both uneconomical and inefficient. The junior college in each community shared the available facilities with the high school and each junior college, except one, occupied quarters in the high school building. In most instances, the classrooms available to the junior college were not located together as a unit, but were located throughout the high school building. This fact alone served to prevent the junior college from operating as a discrete unit. Many times classroom space

was assigned to the junior college after the allocations had been made to the high school.

One of the encouraging aspects of the junior colleges was the fact that the great majority of teachers were teaching in their major fields. A total of twenty-two teachers (7.4 per cent) taught in 1954-1955 on temporary approvals.

At the time of the study, the approval standards for teacher personnel were the only specific standards for junior colleges. A number of recommendations have been established as a basis for approval by the Department of Public Instructions: (1) laboratory equipment; (2) catalog and announcements; (3) extra-curricular activities; (4) personnel services; (5) library; and (6) instructor load. These, however, do not constitute a definite basis for approving or disapproving a public junior college.

The public junior colleges in Iowa have been developed under permissive legislation. No state plan for junior college districts had been developed in Iowa as of 1955. Since education is a power reserved to each of the several states, the state has the constitutional authority to enact legislation enabling the creation of junior college districts.

Recommendations of Dr. Lagomarcino were:

The first step in any further junior college legislation should be a detailed analysis of the educational structure of public education in Iowa. An analysis of the financial structure of the public junior college seems imperative.

Certain guide lines for future legislation in Iowa based on legislative trends in other states could well include the following: (1) the creation of a state study commission to district areas in which junior colleges could be established by a vote of the people; (2) the assumption of more financial responsibility for junior colleges by the state; (3) the requirement that no junior college district be created until after a survey had been made and then only

if it conformed to the survey recommendations; and (4) the provision for transportation of college students when a junior college served an area composed of several contiguous school districts.

If the major function of the public junior college in Iowa is to continue to offer the first two years of university parallel courses, it would seem that any appraisal of the junior colleges would need to include an analysis of how well they prepare their graduates for senior college work. In 1954, an analysis of the 257 students who had transferred to the three public state institutions, showed that 175 (68.1 per cent) had either graduated from or were enrolled in one of the three public senior institutions.

The junior college transfer students in each of the three state institutions had earned a lower academic grade point than they had achieved in junior college. The cumulative college grade point average of those in the total survival group, the number of transfer students who had graduated or were enrolled in the three state institutions, was .49 of a point lower than the junior college average. Greater disparity was apparent in the academic grade point achieved by those in the total attrition group. A difference of .65 of a point separated the junior college average from the cumulative college average, which was the lower.

It was found that the junior college student did about as well academically in junior college as he did in high school. However, the junior college students as a group received lower grade point averages in senior colleges than in junior colleges. Different standards in marking student achievement could well account for the difference in grade averages.

In regard to the fundamental question, "What are the chances of a junior college student to graduate from senior college?", it was found that the students who achieved only 2.0 grade point in junior college have a 60 per cent chance of being graduated at the State University of Iowa, 53 per

cent at the Iowa State College, and 70 per cent at the Iowa State Teachers College.

The likelihood of the junior college transfers to be graduated above the median was computed. Students with the same junior college grade point had a better chance to be graduated above the median at the Iowa State Teachers College than at either the State University of Iowa or the Iowa State College. To have more than a 50 per cent chance of being graduated above the median at the State University of Iowa (2.53) the transfer would have required a junior college grade-point of 3.8. At Iowa State College, a transfer, to have a 50 per cent chance of being graduated above the median (2.57), would have required a junior college grade point average of approximately 3.5. The junior college student who transfers to the Iowa State Teachers College would have required a junior college grade-point average of 3.2 to have a 50 per cent chance of being graduated above the median (2.61).

Medsker, in a book in 1960, presented the results of a study of the operation of junior colleges in several states; among them was Iowa. He concluded his report on Iowa by looking to the future. He pointed out these needs: (1) state aid for capital outlay; (2) studies to be made of the small size of the colleges whereby a legitimate return by the state on its investment can be possible; (3) consideration of the junior college in the system of higher education as well as the public school system; and (4) for studies of the role of the junior college if the prediction of enrollment, by the Coordinating Committee of Registrars of the Iowa State Board of Regents, of 44,000 to 72,600 students by 1970 is realized.

In view of the facts of Iowa Junior College history and needs, Medsker declares, "there seems to have been no over-all, state-wide attack on how the junior colleges are to fit into the total program of higher education."

The Starrak and Hughes Proposal

Starrak and Hughes² revised, in 1954, a previous work of theirs relating to the development of community colleges in the United States. As an example of what a state should do in developing community colleges, the authors used the state of Iowa as an example and part three of their study deals with their plan of development for Iowa.

The plan called for the establishment of 35 institutions to be known as "community colleges." Each college was in a district legally established and called community college districts. The size of the areas to be served by each of these new institutions was to be determined by: (1) a sufficient number of young people to provide a full-time student body of such a size that the cost of operation per student would be reasonably economical--a minimum of 300; and (2) sufficient to provide its share of the financial support necessary for the institution without causing an undue financial burden. The areas should also be small enough to enable the students attending the institutions to live at home.

The authors believed that financial support for the community colleges should come from state and local sources. They recommended that the state contribute \$2,500 per year to each community college and \$150 per year per student in average daily attendance. The remainder of the cost to support the public junior college in each community district should be borne by the general property tax.

It was maintained that the curriculum should serve the needs of three groups: (1) those who intended to go on to senior college; (2) those who wish instruction of a terminal nature in vocational-technical subjects; and (3) those who wish to increase their general culture and social civic competence.

²Starrak, J. A., and Hughes, R. M., The Community College in the United States.

Current Functioning of the Iowa Public Junior Colleges

The material of this section was obtained by means of a structured interview with the deans of the Iowa Public Junior Colleges. The questions asked related to the identified public junior college functions and are stated here with a summary of the responses gained from the sixteen deans. Each dean was most cooperative and frank in providing answers and descriptive materials of his college.

The Preparatory Function

What is the nature and type of transfer curricula for your transfer students? All sixteen of the public junior college deans reported a standard, traditional liberal arts transfer program. The actual courses in the program are copied from those being offered in the senior colleges and universities of Iowa for the first two or three years of collegiate work. Each junior college has a recommended liberal arts program outline in its catalog which the student was expected to follow if he wanted to graduate and transfer; however, it can be varied somewhat to meet the specific senior college of the student's choice. All the colleges made provision for variation in the liberal arts program to meet the pre-professional requirements of those students planning careers in medicine, engineering, science, teaching, and business.

What is the nature of course organization and content in regard to providing for general education for transfer, specialized, and liberal education? Except for three deans, very little understanding of the philosophy, purposes, and course organization was shown. To most of the deans, the concept of traditional liberal arts and general education were the same. Therefore, the same answers were given to this question as to question number one. In one college,

not only did the dean have an understanding of general education, but there was in operation a program of education for general living. This program was especially dynamic in the area of communications.

What problems have arisen in regard to the articulation of your junior college and the Iowa senior colleges? All the deans declared that no problems of articulation with the senior colleges existed. This, they believed, was due to joint planning on an informal basis with the senior colleges, and the individual attention the junior colleges gave their students in helping select courses that matched those offered in the senior institution. Any rumor of transfer difficulty was declared to be the result of students changing their majors after entering the senior college.

What attempts have been made to evaluate the transfer program? All the deans reported that many informal methods had been used, such as talks with former students who had transferred, and occasional visits to senior colleges where discussions often occurred concerning certain students. In regard to formal attempts to evaluate the transfer program, nine of the sixteen colleges declared that no attempt had been made; four had received and studied transfer grades sent them by the senior college; two had made studies of transfer success in the last decade; while one college reported a general follow-up study was in progress.

The Terminal Function

What terminal, college level programs are available to your students? Until the 1959-1960 school year, the Iowa junior colleges listed a two-year teacher education program for elementary teachers as being their chief terminal program. After that year, all prospective teachers had to complete a four-year course. Of the sixteen colleges, seven declared that they had no other terminal program; nine

listed a terminal program in business or secretarial science, but with rather limited enrollments due to the excellent job their high school business department was doing in this area; one college had a terminal engineering curricula; one had a cooperative program in registered nursing; one in electronics; and one provided a program in medical secretary work. The deans declared, in fourteen interviews, that there were not enough students in their district who wanted terminal programs to justify any extensive offerings; and that the cost in many, such as electronics, would be prohibitive for such a low enrollment.

What vocational programs are available to your students? Thirteen deans reported that no vocational programs of an organized nature were available. Two had programs in practical nursing; one had plumbing. One dean declared that his evening program for part-time students and adults was a vocational program because most people taking these courses were employed and were looking for methods of improving their occupational position.

How are your terminal needs identified? Thirteen deans reported no occupational studies of their communities had been made; three had made a formal study in the past one to nine years. All the deans declared that they were aware of community terminal needs through talking with community leaders such as members of the Chamber of Commerce and employers. These leaders occasionally requested that certain programs be established. These programs were limited due to lack of space, money, and interested students. Only one college had a Citizens Advisory Committee which helped it identify its needs.

How important is the terminal function for meeting future needs in your community or geographical area? Fourteen deans felt this function to vary in importance from "important to very important." There were some of the typical responses. "This function is very, very important since farm families are getting larger and for every child

that stays on the farm, two will have to get off it and seek employment elsewhere." "This function must be expanded in our community since much industry is in our community and more is moving in yearly." "The need exists, but our district is too small to offer terminal work." "We are attempting to tap the great potentials in our community, but the people are not responding." "This would be a very important function in our community if facilities were available." "Our college has done much in this area, but there is tremendous room for even greater expansion." "The need is present, but the board does not believe it." "This function should be just as important as the transfer function as only half our people transfer."

Of the two deans who felt this function not to be important, these statements were made. "I don't have any information, but I doubt it is important as we don't have jobs here." "I am satisfied with the present transfer function for my school."

The Guidance Function

What guidance services are available to all students and how are they organized? In eight colleges the dean is the only person responsible for the guidance program; in the other eight there was a part-time counselor available who spent the rest of his time in the high school or had administrative duties such as being the registrar.

All the colleges kept some type of information file on each student. In most of them only academic and test results were found. Each of the sixteen colleges provided testing programs during the summer or at the opening of school in the fall. The tests were used for academic purposes and then placed in the student file. Half the colleges used the faculty as advisors; half of them do not do so with the common statement being made that, "we are so small that the dean and one or two other people can counsel

and advise the students."

Two colleges reported some type of formal placement for its students. All colleges maintained formal placement for teachers when the two-year elementary teacher education program was in effect. Fourteen colleges had not made any formal follow-up study of alumni; one study was underway and another college made a study five years ago.

Formal orientation programs were limited to two colleges; informal programs were provided in all of them. Special services, such as reading and speech therapy, were available in one college. Full-time counseling by a professionally trained person did not exist.

What out-of-class activities are provided for your students? All the deans reported some type of student activity. These included sports, dramatics, publications, music, student government, service clubs, academic clubs, and special socials and community programs. In most cases, these activities were integrated with the high school activity program and often led by high school sponsors. No attempt was made to provide for religious organizations leaving this function to the local churches.

What are your extra class activity needs. The greatest problem reported was that of not having enough college students to have a separate college activity program. Another problem was the lack of time in which to schedule the activities during the day as it was difficult to get students to return for night meetings. The night meetings were difficult to arrange because of the distance many students would have to commute, especially in bad weather; many students held some type of part-time job in the evenings.

Other needs indicated by the deans were: (1) to have a faculty that was interested in extra-class activities; (2) to cut down work experiences of students; (3) better school spirit; (4) an organized student personnel program; (5) more art and cultural programs; (6) more

student interest and leadership in the college; and (7) general understanding by all the school staff as to what is the function of student personnel work.

What are your guidance needs? Ten colleges reported that their greatest need was to have a full-time, professionally trained person on the staff who would devote his time to counseling and directing an organized student personnel program. One dean felt that due to the small size of his school, the present, informal program was adequate.

Other deans made these comments. "I don't know what we need; I am not a specialist. We possibly need a college counselor who is also the dean. I don't want to be dean or do counseling; I like to teach." "We need more studies in this area and need to convince the superintendent and school board of the value of guidance." "We need faculty offices and more personnel counseling; in fact we need a refined counseling program." "We have room for improvement, I am sure, but I don't know what to say." "We need to provide for and be more systematic in our student services."

The Community Function

What is the nature of your adult and continuing education program? All the deans except one reported that their colleges offered non-credit courses in the community. These courses were usually of a vocational or avocational nature and ran from one to ten weeks. The programs in the rural communities were very limited and not regularly organized as contrasted with strong programs in the larger cities. Credit type adult education of less than college grade was not available. Six of the colleges reported an organized, credit type program of college level in the evening in which adults were enrolled. Only one college had a well developed and highly functioning late afternoon and evening college program. Some of the colleges, were or had in the past, served as centers for extension classes from the Iowa senior

colleges and universities. The students enrolled in these classes, under senior college professors, were recorded as being junior college adult and evening students.

One dean reported that his school was not doing anything in this area because of the new standards for junior colleges which do not permit faculty to carry overloads which they would have to do in order to teach the night classes. He declared no provision had been made to employ additional personnel.

To what extent are college facilities and staff available to and used by the community? Fifteen of the sixteen deans reported that there was no organized effort to have the facilities and staff utilized by the community as a community center for meetings or as a resource center for community development. The reasons given for not having an organized program were: (1) facilities are shared with the high school and therefore can not be regularly scheduled for college purposes; (2) the faculty is teaching a maximum load and in some cases above maximum, and most of the faculty are more interested in high school activities which overshadow college activities; thus little time was available for the faculty to participate in additional college events; (3) the community knows the plant and staff are available if they really wanted and would ask for these services; (4) the faculty participate as private citizens in community affairs, therefore there is no need to have them organized; and (5) the evening and athletic programs constitute an adequate community program.

One college reported that the plant, which is separate from the high school, was used widely from early morning until late at night, including the late afternoon. The faculty was very active in community resource leadership as evidenced by written reports of their activities in the dean's office.

All the deans felt that this area should receive greater attention and if interested persons or groups would

let their needs be known, the colleges would attempt to meet these needs.

What guidance services are available to the community? None of the colleges reported any organized guidance program for the community. Each dean indicated that he had received telephone calls or visits seeking information relating to entrance requirements at various colleges, asking for testing or test proctoring, or the availability of certain community services such as mental health, reading, or speech therapy.

How do you think your community services program could be improved? This question seemed to be a difficult one for the deans to answer as they had not given much thought or attention to this function. These were typical responses. "This is a hard question to answer because I don't know exactly what all is included in this area." "We expect tremendous expansion in this area as there is a real interest in this area in our community life." "Before we do anything, we are going to have to gain the respect of the community. I doubt anything can be done." "Our closeness to senior colleges makes setting up of these programs rather difficult." "I am sure we could improve since we have done little in this area." "I would like to believe that something could be done, but I doubt anything can until the college is separated from the high school. We don't need non-credit courses as that is the work of the high school." "We must expand vocational and technical offerings." "We need an adult program which is separate from the high school which is the center for adolescent activities." "This area is very important to our community, we especially need health and guidance programs as well as more cultural activities."

The Administrative Function

What are your sources of support? The sixteen colleges had three sources of support. There was the local tax, the state appropriation of \$180 per year per full time student, and student tuition. Added to these sources, one college had an endowment fund from land given the college. Twelve colleges reported that their income was about one-third from each of the three sources; four received as much as one-half support from the state. Of the four, three received about one-fourth each from the local tax and student tuition. One college reported that their income was about fifty-fifty; one part came from the state and one part from the student. This division was necessary because the local district was taxed to its maximum for educational purposes.

The most accurate financial information available was the report of junior college data compiled by the office of State Superintendent of Public Instruction. The junior colleges have not made a practice of keeping separate budgets in their schools. No local tax was earmarked for junior college purposes. The figures in the state report represent the result of various formula by each college to determine its operation cost. A general attitude prevailed that the educational monies were allotted to the educational units of greatest enrollment; therefore, the junior college received whatever funds were left after meeting the needs of the elementary, junior high, and senior high schools.

What are your faculty needs? The deans identified the faculty needs as being divided among eight areas. These were: (1) twelve deans declared that the greatest need was to have more full-time college faculty, as most faculty were high school teachers the greater part of the day; (2) ten deans felt a pressing need was to have some type of graduate training program in Iowa for junior college teachers; (3) these deans were critical of college teachers, who in most

cases were trained in the secondary school methods, history, and philosophy, because they would not employ collegiate methods and psychology when teaching in the college; (4) five deans reported a need for a program to upgrade teaching area through well planned local and state projects; (5) four deans reported that their faculties were really high school teachers in methods, control, and school spirit; (6) all deans speculated that the size of the instructional staff would have to be increased in the next decade, but only two felt they would have to double the staff; (7) two deans recognized the need for securing foreign language teachers and for developing a program in that area; and (8) one dean declared his major problem to be that of getting qualified new faculty to replace several retirements which would occur in the next three years.

What are your resources and needs in regard to facilities? Eleven of the junior colleges were completely housed in a wing, floor, or integrated with the high school. In all eleven cases, the deans reported that the facilities were needed by the high school due to increasing enrollment and that in one to two years the problem would be acute. Money for junior college buildings would be difficult to secure as all available funds were needed for capital expansion in other educational units. In one community, the junior high enrollment had increased by one-third in one year; in another a junior college building could not be constructed because the community was bonded to its maximum for capital outlay.

Five junior colleges had separate buildings; each was filled to capacity in their present condition. Three of the five were housed in old, or what had been abandoned, elementary or junior high school buildings; the fourth was previously the high school and was in fair condition; the fifth, aided by an endowment, had a building program in progress which would provide adequate space.

In all sixteen colleges part of the instruction was

carried on in the high school using common laboratories, physical education, library, and cafeteria facilities.

All the deans felt that separate facilities were needed, not only because of the crowded high school, but also, because it had been impossible to develop a college activity program, academic respect, public support, or college spirit among the students or faculty. Psychologically many citizens, teachers, and students were reported to view the junior college as being a department of the high school.

Library needs were another problem. The libraries were shared with the high school except in those having separate buildings. In the high schools, a section for college books was often provided; in others high school and college books were integrated. In the separate buildings, the libraries were small and in need of many additional materials for collegiate research.

The deans reported the need for time and office space for the teachers to do counseling, study, and a place to go when off duty.

Describe the organization and control of your college. All the colleges have an elected board of control which is responsible for elementary, secondary, and junior college education in the district they serve. This district is a town or in certain cases the town plus a small area surrounding the town. These extended districts are called community school districts and in no case are they as large as the county.

The board of control selects the superintendent who is responsible for all education matters from elementary through the junior college. He is often referred to as the president of the college.

Under the superintendent-president is the dean of the college who is responsible for all matters of an internal nature relating to the college. The dean, in addition to being dean of the college, was a teacher, the business

manager, dean of student personnel, registrar, admissions officer, and assumed any other duty likely to be found operating in a college. Occasionally, another administrator was on the staff devoting part of his time to a combination of administrative duties and the rest to teaching. The dean had to cooperate with the high school principal in program development and facilities assignment. In the integrated high school and junior colleges, the facilities were the responsibilities of the principal and were assigned by him. The dean could present junior college matters to the board of control upon request or approval of the superintendent.

One college had a college board of trustees in addition to the regular board of control. The purpose of the trustees was to administer an endowment which was used for physical plant development in a college which had been private prior to being operated by the community. Policy and academic control was retained by the regular board of control.

Views Expressed by Deans Regarding State Needs

Each of the junior college deans was asked to respond to the question, "What are the greatest needs of the Iowa Public Junior Colleges?" The ideas were summarized and grouped into the following areas:

All sixteen deans thought that the junior college districts should be enlarged to include one or more counties. The larger district was necessary in order to secure a wider tax base with which to operate the more expensive technical programs, and in order to secure a sufficient number of students, thus allowing a broader curriculum for all the students. The enlarged district was believed necessary even by those deans who operated colleges extremely close to one another. The deans believed that in most cases the superin-

tendent and board of control would welcome a change to a larger district even if it meant having a separate board and total independence from the present system of control. All but one dean felt that the state of Iowa should assume the leadership in establishing districts over the state even if it required mandatory legislation. One dean thought that the district should be developed by allowing the surrounding territory to request admission to one of the presently operated junior college districts.

A second need identified as being urgent was to have a full-time, specially trained junior college specialist in the department of public instruction. The present consultant stated that two-thirds of his duties dealt with matters other than the junior college and that he had no junior college training or background for his work.

There was need for a strong state junior college organization. Twelve deans declared that there was no state agency that they could turn to for leadership and counsel and that there was no state policy or program for junior college understanding or development.

Ten deans listed the need for a state college or university to take a positive attitude and leadership in the junior college field by developing a graduate program for junior college teachers and administrators. They thought that the present summer workshop for junior college teachers was far from adequate.

Eight deans recognized the problem of local understanding of the junior college. It was believed that often the citizens, board, and even the superintendent did not understand or believe in the value of junior colleges.

Other needs mentioned were: (1) for all colleges to make a real self study as to how they were meeting the junior college objectives; (2) to establish a system of inter-college academic communication and visitation; (3) for the present districts to provide separate facilities; (4) for the state to provide capital outlay; (5) for the

development of workable standards, as some thought the present standards were too high or low, or that they were just inadequate and inadequately enforced; (6) for the state to provide planning and financial aid for technical education; (7) for the state to provide state aid for part-time students; (8) for the establishment of an organized state-wide public relations program; (9) for developing a real junior college association among the teachers and deans which would deal with policy and problems of the association rather than just to meet and talk without any follow-up action; and (10) to have districts employ more aggressive deans than had been secured in the past.

Proposed Community College Program for Iowa

The proposed community college program for Iowa is based upon certain obvious facts gleaned from a study of education and work in Iowa and in the nation.

Over 70 per cent of the youth of Iowa go to work with a high school education or less. Over 92 per cent go to work with less than a four-year college degree.

In strictly agricultural communities it is possible for young people to learn necessary vocational skills from their parents. Farmers have been slow to recognize the vocational value of formal education.

There are no isolated agricultural communities in Iowa, and more than 12,000 Iowa workers leave the farm each year to seek employment in business and industry. Over 10,000 of them leave Iowa each year.

There can be no more difficult social, economic and personal adjustment for a young person from an Iowa farm than to move to an urban center to work and live with inadequate educational preparation.

Nature of the Educational Task

All education is either vocational or cultural. Its central task is to develop the potentials of each individual for effective living and productive work. This view is based upon the right to equality of educational opportunity and the equality and dignity of all useful work.

There is general agreement on the educational emphasis for personal development and effective citizenship, but Americans are divided on the issue of preparing young people at the college level for work.

If one goes back 100 years in the history of higher education in the United States, he discovers that law, medicine, agriculture, and engineering were not regarded as appropriate concerns of higher education. These highly specialized vocations are no longer questioned as college courses. The coming of the land grant colleges opened wide the doors of educational opportunity to thousands of American citizens and workers for whom the doors had been closed for 24 centuries of higher learning.

As Iowa begins a second century under the influence of the land grant college philosophy, accelerated changes toward a further extension of higher educational opportunity are certain to take place. The people will demand that the doors be opened wider. And if traditional institutions do not adjust to the new demands, the people in Iowa and in other states will create new types of institutions (as they did 100 years ago) to fill the gap.

The nature of the society in which we live demands new approaches to the development of effective citizens and workers. In a sense the society is so complex and dynamic that the most practical preparation, even for technical areas such as engineering, is the theoretical foundation for constant changes now going on in technical fields. But this tendency makes it even more necessary to develop the craftsman and the technician.

In all cases, competent workers at all levels, in the technical and professional fields, will have to continue to learn all of their lives. In-service education and training programs will become increasingly necessary as industry and business respond to new challenges, new products, and new procedures.

The Role of the Senior Colleges

Iowa's senior colleges and universities will continue to be challenged by the increasing demand for liberal and professional education. The demand for professional and technical workers will increase at a more rapid pace than any other groups during the decade of the sixties. Moreover, every indication points to a greater usefulness for the liberally educated citizen in American society. A liberal education, drawing upon the social sciences, the sciences, and the humanities for the development of an integrated person, will become even more functional in American society. This should be the distinguishing consequence of a society that provides increasing freedom from the drudgery of manual work.

The liberal arts, conceived originally for free men, meaning men of leisure, have served well a nation where all men were progressing toward freedom and where all men worked. The challenge of those who will guide the destiny of higher education during the next century will be to make the liberal arts function for free men everywhere.

The Need for Community Colleges

Certain specific functions can be performed by community colleges. Most of these functions are not performed by the senior colleges of Iowa.

Among such functions are the following:

1. General education studies either for terminal programs or for transfer to four-year colleges. This

function is a necessary part of all junior college programs, but it is not unique to the junior college. General or liberal education in the social sciences, sciences, and humanities is the foundation of all higher education. Therefore the junior colleges cannot make any unique contribution in this area. This means that the function can be performed as well or better by the senior colleges and universities of Iowa.

2. The second function for community colleges is a guidance and counseling one to assist students in planning their careers. This function is necessary where there is a junior college, but it is not unique to the junior college, because secondary schools and all colleges have responsibility in this area.

3. The third function is the in-service training of workers in local industries, business and agriculture. This is a unique function for community colleges, because no other educational groups are performing this task. The changing nature of work requires a more systematic approach to this problem. Dynamic community college programs in the industrial sections of the state will probably enroll twice as many evening, Saturday and part-time day students from among adult workers as full time day students.

4. The fourth function for the community college is the terminal education program. This could take the form of regional vocational or trade and industrial education even for students who have not graduated from high school. Many adult workers who have not graduated from high school would enroll in terminal courses related to their work. The vocational education function can and should be performed by the larger high schools, but if the state decides to develop regional vocation education programs, they should be a part of the community colleges.

Another significant part of the terminal program is the training of technicians. If regional technical

institutes are to be organized in Iowa, they should generally be a part of the community college.

The American Society for Engineering Education, Technical Institute Division makes the following statement concerning the technician: "American industry has made technical progress and has reached its high level of production more through engineering teamwork than through individual effort. We think of the engineering team as a three-part team:

- a. Engineers and scientists who formulate ideas and create new products and services
- b. Engineering technicians who help develop, test, and apply these ideas and creations
- c. Skilled workers who make the products and perform the routine services.

Since World War II, technological advancement and technical manpower shortages have focused increasing attention on the second group--the engineering technicians."

Some of the specific functions of the engineering technician are as follows: aeronautics; air conditioning; heating, and refrigeration; building construction; chemistry technology; diesel technology; civil technology; electrical and electronics technology; industrial technology; instrumentation, mechanical, and metallurgical technologies.

The medical sciences have made significant uses of the technologist to extend and improve the services of the doctor.

A vast new area that needs to be explored is the place of the technician in teaching at all levels of education. In this profession perhaps more than any other, the professional person continues to perform tasks which are clerical and technical rather than professional. The result is the inevitable dissipation of great and expensive resources at a time when the shortage of qualified teachers is acute.

All terminal and general education programs should

lead to an associate in science or associate in arts degree, granted upon the completion of approximately two full years of study beyond high school.

General education for effective citizenship and specialized training for productive work are the two major goals of the community college. There are many specialized curricula that contribute to the second objective. Accounting, business administration, legal and medical secretarial, merchandising, general secretarial, and other semi-professional occupations in health, business, education, agriculture, and industry are appropriate areas for community college curricula and courses.

Each community or region must be studied before the community college moves toward these technical fields. There is no single pattern that will apply to all regions of Iowa. These studies should be conducted under the general direction of an authority on community college development working out of the State Department of Public Instruction, and with generous participation on the part of local citizens and leaders in education.

Present Junior College Program in Iowa

The present junior college program, including seven private junior colleges and sixteen public junior colleges, is strong on the transfer function, and Mason City has the characteristics of a good community college. Improvements are being made at Ft. Dodge and Burlington Junior Colleges which will give them a more comprehensive program. All of the colleges are concerned about meeting their responsibilities for students who transfer to senior colleges.

The private junior colleges are making a contribution of great significance in the preparation of students for further study at senior colleges. Grandview College in Des Moines would be a credit to any community. Its liberal

arts program is strong and is being improved. Its work in the sciences compares favorably with any junior college in the country.

Organizing the Community Colleges

Any junior or senior college or university, public or private could become an effective community college and carry out the functions prescribed in this study. It may be desirable for some private colleges to develop in this direction.

The most casual observation and limited insight concerning organization and administration of educational institutions are sufficient to convince anyone that the present local school districts are inadequate administrative and fiscal units for community colleges.

Local school districts are being consolidated into larger districts for secondary school purposes. It is the judgment of the survey team that 500 students should be the minimum enrollment for the efficient and economical operation of a community college. A part of this enrollment could be made up of part-time students, but the full time equivalency should be 500 students.

Community colleges should be located in regions that can provide 500 students, and all students should be able to live at home and commute daily.

To build student housing facilities and to provide the other facilities necessary for students to live on campus would be more expensive than to send the students to any one of the three state institutions.

Some of the present junior colleges can meet the criterion of enrollment and should be encouraged to move ahead in studying the needs of their communities and in developing comprehensive community college programs.

Several of the existing junior colleges should be

supported as they are on an interim basis, but some of them should be closed either now or as soon as the comprehensive community college program can replace them.

It is possible that the State University, Iowa State, and the Teachers College should develop community college programs in their respective regions to serve local needs; to serve as laboratories for the preparation of community college faculties; and to serve boarding students from sparsely populated areas of Iowa where community colleges within commuting distance may be impossible.

The regions served by each community college should elect a community college board whose functions would include the development of local policies for the community college in harmony with state policies; the employment of the community college president and to employ all other personnel upon the recommendation of the president.

The local region should be required to levy a special community college tax both for building programs and for operating costs. These funds should be supplemented by state funds and by tuition which should approximate the tuition charged at the three state institutions.

Responsibility of the State

Public education at all levels is a function of the state. This applies to community colleges. The state should pass legislation which prescribes the conditions under which community colleges may be established; and the state legislature should center in the State Board of Education and the State Department of Public Instruction authority for leadership and coordination of the community colleges.

There should be a community college commission made up of the State Superintendent of Public Instruction as chairman, the presidents of the three state colleges, and

the presidents of three private colleges.

There should be an executive secretary of the community college commission who would direct research and studies concerning the establishment and development of community colleges. The executive secretary should have his office in the State Department of Public Instruction. He would serve as liaison between all groups and authorities concerned with the community colleges.

There is no desire here to leave the community college presidents out of the important decisions affecting the colleges, but leaving them off of the commission is a recognition of the necessary separation of legislative and executive action.

Summary

Trends in college enrollments and in the demands for higher standards of education for increasing numbers and percentages of workers point to the need for greatly expanded educational opportunities beyond the high school. Most of Iowa's workers will need something less than a bachelor's degree. Only eight per cent of college-age youth finish the bachelor's degree.

The educational demand is for a balance between general education for cultural development and effective citizenship and for technical education to prepare individuals for work.

Iowa's senior colleges are concerned primarily with liberal arts and professional education. The secondary schools and the existing junior colleges are concerned primarily with college preparatory courses and curricula.

There is a serious gap in this system that needs to be bridged by the comprehensive community college. Since the existing junior colleges are not meeting this demand, the state legislature and school authorities have a grave

responsibility for launching a unique program suited to conditions in Iowa.

Recommendations

1. The state legislature should authorize the establishment of Regional Community Colleges wherever studies indicate a potential enrollment of 500 students within commuting distance of the college.

2. The three major objectives of the community college should be: (a) general education for effective citizenship and for transfer to senior colleges; (b) in-service general and technical education for adult workers in the region; and (c) terminal general and technical education leading to an associate in arts or an associate in science degree upon the completion of two years of study beyond the high school.

3. Local authority for the community college should reside in a community college board composed of seven members elected by the voters of the region. Board members should be elected for seven year terms, one member to be elected each year.

4. The community college board should have the authority and responsibility for determining local policy; for levying a community college tax within the limitations prescribed by the legislature; and for employing personnel to operate the college.

5. The tuition rate should be the same as in the three state institutions, and the local region and state legislature should share the remainder of the costs, both for operations and building construction, with the state's contribution varying in terms of the local region's ability to pay.

6. State-wide policy, planning, organization and coordination for the community colleges should be the

responsibility of the State Board of Public Instruction and the State Department of Public Instruction.

7. There should be an advisory Community College Commission composed of the State Superintendent of Public Instruction as chairman, the three presidents of the state universities and teachers college, and three private college presidents elected by the association of Iowa's college presidents. The purpose of the commission is to maintain close liasion between all segments of higher education in Iowa.

8. There should be a director of a Community College Division in the State Department of Public Instruction, and he should serve as executive secretary to the Community College Commission. He would have the responsibility for assisting local regions in planning, organizing, and improving community college programs.

9. The development of the state-wide community college program should take place over a ten year period, but the state-wide plan should be made by the time the legislature meets in 1963.

10. By 1963, the legislature should know which of the existing junior colleges qualify as centers for community colleges, and these centers should be adequately supported and developed.