CONCEPTUAL FRAMEWORK FOR THE DEVELOPMENT, IMPLEMENTATION, 
AND EVALUATION OF CAREER EDUCATIONAL PROGRAMS 
IN COMMUNITY COLLEGES 

by 
JERRY LEE BEAVERS 

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CHAPTER I

OVERVIEW OF THE STUDY

Introduction and Statement of the Problem

Occupational patterns in industry have changed significantly in the past twenty years. The rate of change is increasing. The skills required to obtain employment and to succeed on a job are increasing in complexity at all levels of employment in every occupation. The growth of automation, new material, new processes, and improved techniques of measurement and control have combined to increase the need for technically competent persons with special abilities who can support and supplement the efforts of engineers, scientists, and managers.


This new technology demands education and training for all young people in order that they may meet the challenge of an increasingly complex world of work. While the youth of the sixties needed at least a high school diploma and some pre-employment training in the fundamental skills of an occupation in order to be adequately prepared to compete in the labor market, the youth of the seventies will need education and training beyond the high school level to enable him to compete in our modern labor market.

Today, more than half the labor force is engaged in "work" in which the intellectual content is such that post-high school education is essential. Millions of high school graduates of "middle level" ability need further education and training to prepare them for careers within the spectrum of "middle level manpower" in semiprofessional and technical jobs.

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Occupational patterns are changing so fast in response to the new technology that education is never terminal. Most young workers now entering the labor force will have to effect a complete change in their work skills and knowledge at least three times during their working careers.8

The community college is in a very real sense society's answer to the need for expanded educational opportunity. The expansion of educational services at the community college level can help to meet the need for technically competent persons.9 There are five significant factors about the community college which make it suitable for this purpose:

1. Community colleges are a force in being, not a dream of the future. They are ready in hundreds of communities to expand educational opportunity.

2. The community college typically is located close to the student's home, making access to higher education readily available and relatively inexpensive.

3. Community colleges already have established liaison with high schools in their attendance areas. Extension of this effort to include career information and guidance assistance to high school teachers and students is a relatively easy matter, and many community colleges already offer such services.


4. The community college specializes in two-year curriculums, and this length of time is currently optimum for the education and training of most semiprofessional and technical personnel.

5. Community colleges know the value of the liberal arts and the humanities in the over-all educational development of young people. Community college career educational curriculums typically include courses in English, history, mathematics, science and economics. These curriculums emphasize education, and avoid a narrow concept of "job training."^10

Some community colleges are accepting the challenge of trying to provide career education in the areas where the greatest need for competent personnel has been determined. Other two-year institutions are content to offer programs which are designed primarily as the first two years of four-year degree programs for students expecting to transfer to senior institutions.^11

It would seem inevitable that more community colleges will have to develop courses and curriculums leading to jobs in the semiskilled "middle level" categories. The challenge is there and waiting. The needs of such a large segment of our labor force cannot be ignored.

To do this, community college administrators will need a guideline to help them understand the changing national manpower needs and the direction which education must take to meet them, and to clarify their thinking as

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^10Harris, Technical Education in the Junior College, pp. 18-19.

they go about the task of establishing career educational programs in their institutions. At present, no comprehensive model for developing, implementing, and evaluating career educational programs in community colleges exists.

The basic problem treated in this study is the need for the generation of a model which can be used to conceptualize, implement, and evaluate career educational programs in community colleges. In addition, this study considers the following general areas:

1. The past and present structure of career education in America.
2. The potential of the community college for providing career education.
3. New directions in higher education which should bridge the gap between men and jobs.
4. The spectrum of "middle level manpower" (the semiprofessional occupations) and the placing of these in proper perspective within the total manpower picture in America.
5. Specific selected examples of community college curriculum development and program operation which have proved successful.

**Purpose of the Study**

The purpose of this study is to provide a comprehensive model that can be used to develop, implement, and evaluate career educational programs in community colleges.
Significance of the Study

The introduction of this study clearly illustrates a need for the establishment of career educational programs in community colleges throughout the United States. Furthermore, there is evidence supporting the need for the generation of a model for developing, implementing, and evaluating career educational programs in community colleges.

The importance of the proposed conceptual model is that it can serve as a vehicle to provide any community college with systematic planning information which will be helpful to it in developing, implementing and evaluating career educational programs. The outcome anticipated, should this model be used on a broad scale, would be expanded educational services which will meet the need for technically competent persons in the middle level manpower spectrum.

Although the focus of this study is on the development of a model for establishing career educational programs in community colleges, it is anticipated that the model will also be useful to institutions other than community colleges.

Methodology Used in the Study

The initial phase of this study consisted of a comprehensive review of the literature related to career education and the community college for the purpose of establishing a rationale for career educational programs in the community college.
A visit was then made to the State Department of Community Colleges in Richmond, Virginia, where an interview was held with the Director of the Division of Curriculum and Instruction in order to identify the state's role in developing, implementing, and evaluating career educational programs in community colleges.

Then visits were made to selected community colleges where structured interviews were held with persons responsible for planning and development for the purpose of determining their procedures for developing, implementing, and evaluating career educational programs.

The community colleges and the State Department of Community Colleges selected have demonstrated expertise in development, implementation, and evaluation of career educational programs in community colleges.

Information obtained from the above mentioned sources was used to establish a rationale for career education in the community college and to construct a model for the development, implementation, and evaluation of career educational programs in community colleges.

The model was then tested against the expert opinions of four judges. The judges selected represent a cross section of education: one expert from a community college; one vocational education expert from the United States Office of Education; one expert from a major university; and one public school administrator. These experts have
demonstrated expertise in planning, development, organization, and management.

In the selection of these experts, various professors in the Area of Educational Administration and Higher Education of the University of Alabama were consulted and provided input into the identification of these individuals. These gentlemen were chosen not only for their technical expertise but also for their willingness to participate and their availability in terms of time.

Finally, the inputs from the experts interviewed were incorporated into the model as appropriate.

Organization of the Study

The development and results of this study are presented in four chapters. Chapter I includes an introduction and statement of the problem, purpose, significance, limitations, methodology, and organization of the study, and definition of important terms.

Chapter II presents a review of related literature and an analysis of interviews.

Chapter III proposes a model for developing, implementing, and evaluating career educational programs in community colleges.

Chapter IV summarizes the major features of the study, includes conclusions, and offers recommendations for dealing with the problems which were addressed in the text of the study.
Limitations of the Study

This study is limited to the problem of establishing a rationale for career education in the community college and generating a model for the development, implementation, and evaluation of career educational programs in community colleges.

Definition of Important Terms

Higher Education: All education beyond the twelfth grade.

College Level Studies: Studies conducted at the post-high school level in formally organized courses for which one semester unit of credit is given for a course which meets one hour weekly for fifteen weeks, or the equivalent. Two hours of outside preparation are expected for each class hour. "College level studies" are offered by institutions granting the baccalaureate degree and also by those offering the associate degree. Courses offered as a part of an organized curriculum in career education are college level, as well as courses in the traditional academic disciplines.

Community College: The term "community college" is often applied to a two-year college whose control is primarily in the hands of local people operating under state provisions and which receives direct financial support from the community in which it is located. However, for the purposes of this study, the term "community college" is defined as any public or private two-year educational institution.
which attempts to meet the post-high school educational needs of its local community by offering both general and specialized education. Its uniqueness in function is that the institution may offer both a transfer type curriculum and any vocational-technical type program as deemed necessary, while maintaining the integrity of both.

**Junior College:** In this study the term "junior college" will be used synonymously with community college.

**Program:** A group of interdependent, closely related services or activities possessing, or contributing to, a common objective or set of allied objectives.

**Model:** A representation of the relationships that define a situation under study. A model may be mathematical equations, computer programs, or any type of representation, ranging from verbal statements to physical objects.\(^\text{12}\)

**Transfer Student:** A student enrolled in a community college who intends to continue his education at a collegiate institution granting the baccalaureate degree.

**Terminal Student:** A student enrolled in a community college who intends to complete his formal education at the end of the thirteenth or fourteenth year.

**Career Education:** Any and all education and training for the purpose of preparing students for employment or for a "career," as distinguished from curriculums in the liberal arts, the fine arts, or humanities. "Career

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education" covers professional, semiprofessional, technical and skilled-level curriculums for all fields of employment.

Semiprofessional Education: "Semiprofessional education" is represented by formal curriculums leading to the associate degree and designed to prepare the student for employment in career fields recognized as nearly professional in status. Some examples: engineering technician, medical technician, architectural draftsman, business data programer, and associate degree registered nurse. Semiprofessional workers usually work in close cooperation with, and perhaps under the supervision of, a professional person.

Technical Education: "Technical education" is a term which is just beginning to acquire meaning in this country. There is no unanimously accepted definition of the term. For purposes of this study, however, "technical education":

1. Is organized into two-year curriculums at the college level.
2. Emphasizes work in the field of science and mathematics and frequently, but not always is related to industry and engineering.
3. Gives much attention to technical knowledge and general education but also stresses practice and skill in the use of tools and instruments.
4. Leads to competence in one of the technical occupations and usually to the granting of an associate degree.

5. Includes a core of general education courses (English, humanistic-social studies, liberal arts) up to perhaps one-fourth of the total credit hours.

Trade and Industrial Education: "Trade and industrial education" aims at preparing persons for employment in industry or in the service occupations at the skilled and semiskilled levels. This type of education often, but not always, takes place via apprenticeship.

Middle Level Manpower Spectrum: The middle level jobs between the professional white collar workers and the skilled, semiskilled, and service blue collar workers. Examples of jobs in the "middle level manpower spectrum" are: semiprofessional and technical, clerical and sales, highly skilled, and some managerial. Proper preparation for these jobs requires some college training, but not usually the baccalaureate degree.
CHAPTER II

REVIEW OF RELATED LITERATURE AND ANALYSIS OF INTERVIEWS

Introduction

An extensive search of literature has revealed that there is little information available pertaining to models for developing, implementing, and evaluating career educational programs in community colleges. Consequently, it was necessary to seek resource information by conducting personal interviews with persons who are presently involved in the process of developing, implementing, and evaluating career educational programs in community colleges.

There is an abundance of information available on the subjects of career education and the community college. A comprehensive review of this literature was conducted.

This chapter is divided into four major parts. The introductory statements make up the initial section. The second section presents a review of the literature related to career education and the community college for the purpose of establishing a rationale for career education in the community college. The third section presents a survey of the planning procedures used by selected community colleges for developing, implementing and evaluating career
educational programs. The final section presents an analysis of the interviews held in conjunction with the study.

Rationale for Career Education in the Community College

History and Development of Career Education

Early Development.—A "career," "occupation," or "vocation"¹ is what a person does to gain a living. Career education is as old as man himself. Early man practiced a career when he hunted in the forest, caught fish in the streams, or dug in the ground for roots, since he was performing tasks essential to living. Survival required that he teach his sons and daughters to perform the tasks necessary to provide food, clothing, and shelter. This was the earliest form of career education.²

Centuries later, the craftsmen of the ancient nations, such as Egypt, Greece, and Rome, and men of the Middle Ages and of the Renaissance, earned their living by producing some of civilization's most cherished treasures. Career education during these periods consisted largely of the father teaching the son, the mother teaching the daughter, and of apprenticeship. The craftsman's shop was part of his home; his apprentices lived as well as worked with

¹These three terms will be used synonymously in this study.

his family. Since production was carried on in the home, so was occupational instruction.  

Apprenticeship was a fundamental education institution in colonial America. Town officials resorted to involuntary apprenticeship to meet their obligations to orphans and to poor children, because through apprenticeship these young people could ultimately become self-supporting. Apprenticeship was the only means by which a boy or girl who could not afford to pay could obtain an education. Apprenticeship consisted of the following elements:

1. Keep (i.e., food, clothing, shelter, and parental care).
2. Moral, religious, and civic training.
3. General education according to the customs of the time or the minimum education required by the trade or craft (largely the three R's).
4. The mysteries, or secrets, of the trade (the technology of the trade).
5. Practical knowledge and skill in all the processes of the trade or craft.

The schools of colonial America were characteristically British and made no contribution to the development of career education. The enrollment in these schools, for the most part, was limited to the well-to-do. However, this


Jefferson advocated equal educational opportunity for all children as being indispensable to a functioning democracy. Although he emphasized literary training, his proposals for a people's university included a trade or technical school.  

Franklin shared Jefferson's opposition to a class system of education, but he characterized the traditional curriculum as "useless classics" and instead advocated emphasis on English, mathematics, and science. The academy he planned and founded, which opened in 1751, retained the traditional college preparatory curriculum, but also offered general and vocational courses as preparation for careers in commerce and shipping.  

Most of the new nation's need for trained manpower was met, however, by the immigration to the United States of European journeymen.  

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The need for occupational instruction in this country during the early part of the nineteenth century was intensified by population growth, rise of the factory system, increased mechanization, and the decline of apprenticeship. This need was satisfied, in part, by manual-labor schools, lyceums, mechanical institutes, technical institutes, corporation schools, and private trade schools. The increasing need for instruction in agriculture, business, and homemaking resulted in increasing attention to these areas in public education.9

The First Morrill Act.—Federal interest in vocational education first took specific form in the Morrill Act of 1862,10 by which large blocks of public land were allocated to each state for support of colleges of agriculture and mechanical arts.11

On December 14, 1857, Justin Morrill, a member of the United States Congress from Vermont, introduced a bill to provide grants of land to endow, support, and maintain state colleges devoted to the agricultural and mechanical arts, in order to "promote the liberal and practical education of the industrial classes in the several pursuits and


10U.S., Congress, Chap. CXXX, 37th Cong., 2d sess., July 2, 1862.

professions of life." The bill passed both houses of Congress, but President Buchanan vetoed it saying, in effect, that if the states once began receiving aid from the federal treasury, they would continually request it for all kinds of measures, regardless of the condition of the treasury at the time.12

Morrill introduced a similar bill on December 16, 1861. It passed the Senate on June 10, 1862, by a vote of thirty-two to seven. A few days later it passed the House by a vote of ninety to twenty-five. On July 2, 1862, it was signed into law by President Lincoln.13

The Morrill Act had many long-range effects despite its unpromising beginning. It was the keystone in the development of some sixty institutions of higher education, many of great learning and prestige, which have provided leadership, training, and research in legally assigned fields that have proved of great importance to this nation's growth. Beyond this they induced a major redirection in the pattern of American education. There are at least five implications of consequence for career education which resulted from this redirection:

1. A liberal and practical education was prescribed. The two were not to be placed in


separate camps. The classical studies were integrated into curricular that were plainly vocational, and both were to be accommodated without any sense of inferiority.

2. As the financial and philosophical basis of the state university systems, they opened the doors of higher education to a far wider public, removing forever the idea of a single education for a select few.

3. The act gave important status to the mechanical arts and agriculture, and, with the useful-practical controversy as part of its background, greatly changed the college-level teaching of these courses and of the other sciences. Science was to be taught, not just for its own sake, but as an instrument for molding the societal environment.

4. The new form of education broke through the suspicions and fears of education of farmers and businessmen. The resistance to agricultural and mechanical education in the colleges gradually was overcome by the extension programs, experimental farms, and the new colleges. This acceptance of vocationalism in the colleges was to have much significance in the later movement to extend vocationalism into the public secondary schools.

5. The role of the agricultural colleges in improving agriculture in this country was so dramatic and so widely recognized that this new form of education came to be accepted as vital to the national welfare, as a spur to economic growth. The social efficiency of vocational education was proved to a "show me" people.14

Instruction by agricultural societies gave way to instruction in the agricultural and mechanical colleges with the passage of the Morrill Act. During the later years of the nineteenth century, little progress was made in agricultural instruction in the rapidly growing secondary schools. Instruction in business occupations developed

14Venn, Man, Education, and Work, pp. 44-45.
rapidly through a series of private business schools. Commercial departments also flourished in the public secondary schools prior to 1900. Similarly, the "housewifery" of Emma Willard's Troy Female Seminary and the general attention to the education of women produced an extensive development of domestic-science programs in the secondary schools late in the nineteenth century.\(^{15}\)

The need for career education in the rapidly expanding public schools of the nation was brought sharply into focus during the early years of the twentieth century by the manpower requirements of a rapidly growing industrial nation. The need for skilled workers had become critical. Although the population increased from seventy-six million to over ninety-two million between 1900 and 1910, too few possessed the skills and training required by the changing economy.\(^{16}\)

The colleges had blazed the vocational trail, but as they advanced the level of their work into the skilled and professional areas, they left a vacuum in the field of middle-level vocational preparation. Since colleges had assumed responsibility for supplying professional manpower, it seemed logical to expect that eventually high schools would provide the skilled and technical manpower needed for the nonprofessional occupations. The high school should

\(^{15}\)Panel of Consultants on Vocational Education, Education for a Changing World of Work, pp. 19-20.

\(^{16}\)Venn, Man, Education, and Manpower, pp. 150-51.
have taken up the function that the land-grant colleges had performed over the first two or three decades of their existence. But no such ready transition was to take place. The familiar pressures of politics and tradition stood in the way. Over the span of the next three decades, however, the pressure to fill this middle-level-skill vacuum was built up until finally society demanded that it be filled by the public high school. Pressure for vocational training, or a useful and practical education, at the high school level reached a climax in the early 1900's. ¹⁷

The Douglas Commission.—Significant action in the development of career education in the public schools came first in 1905, when Governor Douglas of Massachusetts appointed a commission to consider the appropriateness of a state-wide system of vocational education. The report of the Douglas Commission was a landmark in the development of career education in the public schools. Completed in 1906, the report rebuked the public schools for being too exclusively literary, and said that there was a widespread interest in special training for vocations. It declared that an important need for skilled workmen and greater "industrial intelligence" existed in Massachusetts' industry, and that this need had to be met immediately through education at public expense. The report criticized general education for having brought the manual arts into subjection so that they were severed from real life and the rest of

¹⁷Venn, Man, Education, and Work, p. 47.
the school. It stated that the general public school system could not be trusted, and so the new vocational system should not be a part of the established school system. It further said that just as normal schools were created as separate entities to train teachers, the vocational school system should provide separate and distinct training for those desiring education for specific occupational objectives.18

The recommendations of the Douglas Commission report were enacted into law in 1906, and a separate board was set up to administer the program. However, in 1909, after much debate, the program was placed under the general control of the Massachusetts State Board of Education, though separate administration of the program was maintained at the local level. Under the strong leadership of David Snedden, State Commissioner of Education, and Charles A. Prosser, State Director of Vocational Education, the program grew rapidly and became a model for other states.19

The National Society for the Promotion of Industrial Education.—In 1906, a small group of men formed the National Society for the Promotion of Industrial Education. The society proposed to bring prominently to the attention of the American people the need for industrial education.


19Ibid., pp. 35-36.
During the next eight years, leaders in government, industry, agriculture, labor, commerce, and education, as well as the public at large, studied cooperatively the general need for vocational education. Reports of these studies were printed and distributed widely.20

By 1910, the National Society could claim credit for more than twenty legislative conquests at the state level. More than twenty states had set up state level programs of vocational education. The state legislation ran the gamut from Wisconsin's extensive plan for industrial, commercial, and agricultural training serving all parts of the state, to Illinois' permissive legislation allowing local townships to offer manual training.21

Wisconsin was the first to set up a truly comprehensive state-wide system of vocational education. Leaders of the movement in that state felt strongly that this form of education would develop faster and more effectively if it were administered by fully sympathetic boards and administrators. Consequently, the new system was financed and operated independently of the general school system. Although many national figures, including John Dewey, protested that a unit system was the only democratic method of organization, the success of the Wisconsin program led

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20Ibid., pp. 61-74, passim.

to its being pointed out as the outstanding example of the desirability of the dual system.22

It was through the efforts of the National Society for the Promotion of Industrial Education that the need for vocational education was brought to the attention of Congress. Up to 1910, the National Society had concerned itself with promoting industrial education at the state level. Although considerable progress had been made in gaining legislative recognition at this level, progress had not been rapid enough to suit them. The consensus among the members of the National Society was that federal aid was the answer to this pressing national need. The land-grant colleges had received their share of such aid, now why not vocational education?23

The Commission on National Aid to Vocational Education.—On January 20, 1914, Congress approved legislation authorizing the President of the United States to appoint the Commission on National Aid to Vocational Education.24 The commission was composed of nine members which included representation from Congress, labor, industry, and education. Their task was to "consider the subject of national


aid for vocational education and report their findings and recommendations not later than June 1, next.  

Although the commission recognized that many different kinds and grades of vocational education would always be required, their attention was centered upon the kinds of vocational education that would prepare workers for the common occupations which employed the greatest number of workers.  

The commission reported its findings to Congress on June 1, 1914. Two and a half years later, when final action was taken on the resulting bill, it was passed with only one dissenting vote. President Woodrow Wilson signed the Smith-Hughes Act on February 23, 1917. The organizational plan for career education in the secondary school began with the passage of the Smith-Hughes Act.  

The Smith-Hughes Act.—The Smith-Hughes Act provided a grant in perpetuity to the states of approximately $7.2 million annually for the promotion of vocational education in agriculture, trade and industrial education, and home economics. The funds received under this act were to  


\[26\] Ibid., p. 12.  


\[28\] Hawkins, Prosser, and Wright, Development of Vocational Education, pp. 120-21.
be used by the states to pay salaries of teacher, supervisors, or directors of vocational education, and for the preparation of teachers, supervisors, or directors of vocational education.\textsuperscript{29} The act was to be administered by a Federal Board for Vocational Education, responsible directly to Congress and consisting of the Secretaries of Agriculture, Commerce, and Labor; the Commissioner of Education; and three citizens who represented the interests of labor, agriculture, and manufacturing and commerce.\textsuperscript{30}

The money for agricultural education was allocated to the states on the basis of the ratio of the state's rural population to the total United States rural population.\textsuperscript{31} Urban population was used as the basis for allocations for trade and industrial and home economics education,\textsuperscript{32} and total population was used as the basis for distribution of the teacher-training funds.\textsuperscript{33}

The Congress of the United States imposed certain legal requirements which had to be met by a state in order for it to share the appropriations provided for under the Smith-Hughes Act. One such requirement was that the state must designate, or create through the legislature, a state board consisting of not less than three members having the

\textsuperscript{29}U.S., Congress, Public Law 347, Sections 1-4.
\textsuperscript{30}\textit{Ibid.}, Section 6.
\textsuperscript{31}\textit{Ibid.}, Section 2.
\textsuperscript{32}\textit{Ibid.}, Section 3.
\textsuperscript{33}\textit{Ibid.}, Section 4.
necessary power to cooperate with the federal board in the administration of the provisions of the act.\textsuperscript{34}

To secure the benefits of the Smith-Hughes fund, it was necessary that certain conditions exist in the programs. For education in agricultural subjects the state board was required to include in the plan provision that:

1. The instruction given in the schools or classes be under public supervision or control.
2. The controlling purpose of the training be to fit for useful employment.
3. Education and training be of less than college grade.
4. Education be designed to meet the needs of persons over fourteen years of age who have entered upon, or are preparing to enter upon, the work of the farm or of the farm home.
5. The state or local community provide the plant and equipment for training, the minimum plant and equipment to be determined by the state board.
6. The minimum amount spent for maintenance of any school or class using Smith-Hughes monies be determined by the state board.
7. Schools or classes provide directed or supervised practice in agriculture on a farm for at least six months per year.

\textsuperscript{34}\textit{Ibid.}, Section 5.
8. The teachers, supervisors, or directors of agriculture meet the minimum qualifications as determined by the state board.\textsuperscript{35}

For education in trade, home economics, and industrial subjects, the state board was required to include in the plan provision that:

1. The instruction given in the schools or classes be under public supervision or control.

2. The controlling purpose of the training be to fit for useful employment.

3. Education and training be of less than college grade.

4. Education be designed to meet the needs of persons over fourteen years of age who are preparing for a trade or industrial pursuit, or who have entered upon the work of a trade or industrial pursuit.

5. The state or local community provide the plant and equipment to be determined by the state board.

6. The minimum amount spent for maintenance of any school or class using Smith-Hughes monies be determined by the state board.

7. Schools or classes designed for persons who are not employed require that at least one-half the

\textsuperscript{35}Ibid., Section 10.
instructional time be devoted to useful or productive work, to extend over not less than nine months per year and not less than thirty hours per week.

8. At least one-third the sum appropriated to any state for salaries be spent for part-time schools or classes for workers over fourteen years who have entered upon employment and that any subject which enlarges the civic or vocational intelligence of workers, over fourteen and less than eighteen years of age, may be taught in such schools or classes.

9. Part-time classes operate for not less than 144 hours of classroom instruction per year.

10. Evening and off-hour classes for industrial workers be limited to persons sixteen years of age or over, and instruction be so designed that it is supplemental to the student's daily employment.

11. The teachers of such subjects meet the minimum qualifications as determined by the state board.36

The George-Reed Act.—The George-Reed Act,37 approved February 5, 1929, authorized an appropriation of

36Ibid., Section 11.
$500,000 for the year ending June 30, 1930, and an additional $500,000 each year thereafter for four years. The act also provided $100,000 for the Federal Board of Vocational Education for administrative and other purposes. 38

This act was to further develop the work of the Smith-Hughes Act in agriculture and home economics. Additional aid for trade and industrial education was left out of this law. The funds appropriated were divided equally between agriculture and home economics. The separate appropriations for home economics relieved this field of vocational education from the provisions of the trade and industrial section of the Smith-Hughes Act, and it made it possible to expand services for the important job of homemaking. The act expired on June 30, 1934. 39

The George-Ellzey Act.—The George-Ellzey Act, 40 approved May 21, 1934, authorized an appropriation of $3 million each year for three years. An amount of $100,000 was authorized for the Department of the Interior, Office of Education, for administrative and other purposes in connection with the act. This act authorized an appropriation for fiscal 1935, 1936, and 1937, to be divided between agriculture, home economics, and trades and industries. The

38 Ibid., Sections 1-2.


funds for agriculture and home economics were allocated on the same basis as the George-Reed funds. Trade and industrial education funds were allocated on the basis of the non-farm population of each state.\textsuperscript{41}

This act was planned and passed before the expiration of the George-Reed Act. This strategy was necessary to prevent a lapse of the additional funds provided by the George-Reed Act. The George-Ellzey Act eliminated the provisions in the Smith-Hughes Act for direct or supervised practice for at least six months per year in the field of agriculture and also eliminated the requirement in the Smith-Hughes Act for part-time classes in the field of trades and industry to be operated for a minimum of 144 hours per year.\textsuperscript{42}

In general, the provisions of the Smith-Hughes Act applied to both the George-Reed and the George-Ellzey Acts. These statutes differed from the Smith-Hughes Act primarily in that they contained terminal dates and merely authorized appropriations. In addition, there were no additional appropriations for teacher training under these acts.\textsuperscript{43}

The fragmented type of appropriations made by Congress in the George-Reed and George-Ellzey Acts caused considerable concern to the leaders in the field of vocational

\textsuperscript{41}Ibid., Sections 1-2.

\textsuperscript{42}McCarthy, Vocational Education; , p. 68.

\textsuperscript{43}Panel of Consultants on Vocational Education, Education for a Changing World of Work, p. 22.
education. Short-term appropriations of this type prevented long-term planning. With the aid of the American Vocational Association, vocational leaders promoted legislation for a continuation of federal aid for further development of vocational education. This movement was started before the June, 1937, expiration date of the George-Ellzey Act. Accordingly, President Roosevelt approved the George-Deen Act\textsuperscript{44} on June 8, 1936, to replace the George-Ellzey Act.\textsuperscript{45}

**The George-Deen Act.**—The George-Deen Act became effective on July 1, 1937. The annual authorization for agriculture, home economics, and trades and industrial education was $12 million. The money was divided equally among the three services. Allotments to the states were made on the basis of farm population for agriculture, rural population for home economics, and non-farm population for trade and industrial education.\textsuperscript{46}

The George-Deen Act provided $1.2 million for instruction in distributive education, to be allocated to the states on the basis of total population.\textsuperscript{47} For the first time, classes for workers employed in the fields of marketing, merchandising and distribution could be organized as

\textsuperscript{44}U.S., Congress, Public Law 673, Chap. 541, 74th Cong., 2d sess., June 8, 1936.

\textsuperscript{45}McCarthy, *Vocational Education:*, p. 70.

\textsuperscript{46}U.S., Congress, Public Law 673, Section 1.

\textsuperscript{47}Ibid., Section 2.
a part of the federally reimbursed program of vocational education.  

For teacher training, the act authorized $1 million annually, distributed on the basis of total population. An allotment of $350,000 was made to the Office of Education for administrative and other purposes. The total annual authorization of the George-Deen Act was approximately $14,550,000.  

This act provided a sliding scale requiring only 50 per cent matching of appropriations by the cooperating states for the first five years, and an increase of 10 per cent each year until fiscal year 1946, when the dollar-for-dollar basis would be reached.  

Prior to the George-Deen Act, the matching provisions of the Smith-Hughes, George-Reed, and George-Ellzey Acts required that federal appropriations be matched dollar-for-dollar with state or local funds. The procedure for matching under the George-Deen Act did much to further develop vocational education. Local school administrators could plan in advance with assurance, knowing federal funds would be available and on a liberal matching basis in the early stages of the new programs. As these programs proved

48 McCarthy, Vocational Education, p. 70.
49 U.S., Congress, Public Law 673, Section 3.
50 Ibid., Section 4.
51 Ibid., Section 1-4.
52 Ibid., Section 1.
their value in the community, the aid was gradually reduced and when the federal aid reached the dollar-for-dollar matching basis the local communities were prepared to assume all of the responsibilities involved for equal matching. 53

The George-Barden Act.—On August 1, 1946, Congress approved the Vocational Education Act of 1946, 54 which authorized an appropriation of $28,850,000 annually for the further development of vocational education. This act, technically an amendment to the George-Deen Act, is known as the George-Barden Act. 55

Ten million dollars was authorized for agricultural education, to be allocated among the states on the basis of farm population. For home economics, $8 million was authorized, the basis of allotment being the rural population of the state. For trade and industrial education, $8 million was authorized, to be allocated among the states on the basis of non-farm population. An authorization for distributive occupations was made in the amount of $2.5 million, allocated to the states on the basis of total population. 56 An appropriation of $350,000 was authorized to enable the Office of Education to carry out the provisions of the

53 McCarthy, Vocational Education: , p. 69.
55 Ibid. , Sections 1, 3, and 9.
56 Ibid. , Section 3(a).
The act also included an open-ended authorization to guarantee states minimum amounts for each occupational category of vocational education.

The chief characteristic of the George-Barden Act as contrasted with previous legislation was flexibility. Some of the specific limitations on the use of funds were omitted from this act and provisions were included to allow for new phases of work. In addition, certain activities, (i.e., supervision of the activities of the Future Farmers of America and the New Farmers of America) which had previously developed under administrative approval, were given legislative status under this act.

The Health Amendments Act of 1956.—The trades and industry appropriation authorized by the George-Barden Act was utilized to some extent for practical nurse training prior to 1956. Then, in 1956, $5 million annually was specifically authorized for practical nurse training for a period of five years under Title II of the George-Barden Act. This law was passed in response to the increasing shortage of practical nurses and became known as the Health

57Ibid., Section 9.
58Ibid., Section 3(c).
59Hawkins, Prosser, and Wright, Development of Vocational Education, p. 409.
Amendments Act of 1956. In 1961, the authorization was extended to June 30, 1965.

The Fishery Amendment Act.—One little known facet of trade and industrial education came into being through an act of Congress, approved August 8, 1956. This act, an amendment to the George-Barden Act, authorized an appropriation of $375,000 for vocational education in the fishery trades and industries and in the distributive occupations. Distribution of the funds was to be determined by the United States Commissioner of Education in consultation with the Secretary of the Interior. The purpose of the act was to promote the fishing industry by providing for the training of personnel.

A great increase in the demand for technical and other advanced vocational skills developed immediately after World War II. The demands for these skills were greatest in the following industrial and technical areas: automotive, electrical and electronics, drafting, and metallurgical technology; machine tools and hydraulics; medical technology and nursing; business management and supervision; quality control in many diverse industries; instrumentation;


64Ibid., Sections 1-2.
industrial and research chemistry; and industries connected with the space program. Much of the training for these skills was beyond the secondary school level.\textsuperscript{65}

However, as late as 1957, the federal program of vocational education remained substantially the same as it was forty years earlier in its four chief aspects.

1. The program was "of less than college grade." The original intent of the drafters of these laws clearly was to make this a secondary school level program. All vocational courses had to be "terminal" in nature, and, no matter where taught, credit for them could not be applied toward the baccalaureate degree.

2. The program was heavily weighted toward rural areas. Over 60 per cent of the funds were channeled into vocational agriculture (apportioned on the basis of the state's farm population) and home economics (apportioned on the basis of rural population).

3. Funds were made available only to that part of the program that was of "immediate" value to the vocational training of the students. Money could not be used for the capital expenses involved in setting up such a program, nor for the expenses of conducting a well-rounded program of related knowledge and general education.

4. All courses had to be "useful" and "practical." Vocational agriculture students had to participate in at least six months of directed or supervised farming practice, while at least one-half of the instructional time of trades and industry students had to be given to shop work on a useful or productive basis.\textsuperscript{66}

In general, the vocational education program was weakly supported on the federal, state, and local level. In regards to finance, students, teachers, facilities,

\textsuperscript{65}Smith, *Education and Training for the World of Work*, p. 17.

\textsuperscript{66}Venn, *Man, Education, and Work*, p. 114.
educational acceptance, industry and labor support, and public understanding, the program left much to be desired. 67

In 1957 came Sputnik. The national spotlight was turned on apparent weaknesses in the educational system and the danger these weaknesses posed to the nation's space and defense effort. The result was the National Defense Education Act of 1958. 68

The National Defense Education Act of 1958. 69—The NDEA of 1958, brought the first significant addition to the vocational education program since 1917. 70 Under Title VIII, it made funds available for the purpose of encouraging the states to offer needed training in the technical fields. An appropriation of $15 million annually for four years was authorized to support programs limited exclusively to the training of highly skilled technicians in recognized occupations necessary to the national defense. The money was to be used by the states on an equal matching basis to reimburse local boards of education and institutions for salaries of directors, supervisors and instructors and for equipment for the technical courses. 71

67 Ibid.
69 Hereafter referred to as the NDEA.
70 Venn, Man, Education, and Work, p. 61.
Two problems in particular had caught the attention of many legislators with respect to vocational education. One was the relatively slow pace of school district consolidation. The many small secondary schools were restricted in the vocational opportunities they could offer their students. The second was the desperate shortage of technical personnel, particularly in the science and engineering fields. These two needs (vocational facilities and technical manpower) became linked under Title VIII of the NDEA. The provisions of Title VIII were placed in the statutes as Title III of the George-Barden Act. Title VIII is usually spoken of as the "Area Vocational Education Program."\(^\text{72}\)

By making Title VIII an amendment to the George-Barden Act, Congress made technical education subject to the restrictions which vocational education had operated under since the passage of the Smith-Hughes Act forty-one years earlier. Four restrictions in particular proved unsatisfactory to many educators working to prepare highly skilled technicians:

1. Less-than-college-grade. Since Title VIII was made a part of the George-Barden Act, its technical education programs were subject to the less-than-college-grade provision. U.S. Office of Education regulations, however, made it possible to use Title VIII money in the technical education programs of the two-year colleges. Despite this official definition, however, problems remained. The fact was, definition or no, that two-year college programs were of college grade. And, some argued, if the purpose of the act was to train highly skilled technicians,

\(^{72}\text{Venn, Man, Education, and Work, pp. 114-15.}\)
then by its very nature the program must be of college grade. Therefore, they concluded, the act was a contradiction in terms. A good many two-year colleges, however, swallowed their pride and accepted Title VIII money on a less-than-college-grade basis. Others refused.

2. Area vocational education programs. Any public institution willing to (a) accept students from areas inadequately served by vocational programs, and (b) offer a defense-related technical program of less than college grade, was eligible for state authorization to receive Title VIII funds. Thus users of Title VIII funds included high schools, area vocational schools, community colleges, four-year colleges, technical institutes, and others. The result was that the post-high-school work of the area school and the work of the community college overlapped. The difference between secondary education and higher education became confused. Technical education was linked to the secondary school connotation of vocational education, and this situation further distracted the attention of higher education from the responsibilities it should have assumed for semiprofessional occupational education.

3. Administration and control. To many technical educators, the administration and control of Title VIII was a sensitive subject. They argued that in substance and procedure technical education differed from vocational education. The curricular, course content, faculty, and standards of technical education had specific requirements, and therefore, the administration and control of these programs should be in the hands of people who thoroughly understood the nature of technical education. This administrative condition was not necessarily assured under Title VIII. Within the Office of Education the technical education program was administered through the Division of Vocational and Technical Education, not the Division of Higher Education. Professional engineering societies had been particularly vocal on this point. They insisted that technical education was semiprofessional in nature, and should look in the direction of the profession it would serve, rather than toward the trades or skilled crafts. Perhaps the presence of the less-than-college-grade and the vocational education administrative control provisions posed problems more hypothetical than
Regardless of its shortcomings, the passage of the NDEA of 1958 was an encouraging development in several respects. The program graduated a sizable number of new, highly skilled technicians. In addition, it provided for a large number of technicians new opportunities for retraining and updating of their skills.

The act itself and the studies it prompted led all but a handful of states to improve their vocational and technical programs. Legislation was passed, and some states

4. Finance. The one issue that aggravated each of the three problems discussed above was finance. The financial squeeze which faced most institutions of secondary and higher education was the most convincing argument that could be made against tying technical education legislation to the older vocational education legislation. If the purpose of Title VIII was the increased output of "highly skilled technicians necessary for the national defense," one would imagine that funds should have been channeled into those geographical areas where a high population density would contain the most prospective students, where technical education already commanded a high degree of institutional interest, or where concentrations of defense-related industries produced a need for these technicians. But the financing of Title VIII was related to none of these factors. Allotments were made to each state according to the state's proportion of the total amount allocated under the George-Barden Act for agriculture, home economics, trades and industries, distributive occupations, and fisheries. This provided a heavy Title VIII financial weighting in favor of states with large rural and farm populations.

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73 Ibid., pp. 115-17. 74 Ibid., p. 118.
made new state-wide plans to assure career educational opportunity to persons in all parts of the state. Initially, states were allowed to use an unrestricted amount of their Title VIII allotment for such purposes as conducting surveys and the purchase of new equipment. A great many states did both. Beginning in 1959, a majority of states made surveys of their present and projected career educational needs. There was also a marked improvement in the rate of equipment purchase and the updating of shop facilities.\footnote{Ibid.} 

The use of administrative machinery already established enabled the program to get off to a fast start. The United States Office of Education brought in teachers and administrators experienced in technical education to provide leadership and initiative in the program. From the beginning the Office of Education insisted that high standards be maintained in Title VIII programs. Therefore, they prepared curriculum guides, conducted research studies, and provided specialists assistance to the states.\footnote{Ibid.} 

One important outcome was an increased understanding of technical education. The interest of educators, of industry, and of the public was quickened in this long-neglected field. There was new interest in the further improvement and extension of technical education and a better understanding of its importance in our developing technological society.\footnote{Ibid.}
In October, 1961, Congress extended the NDEA for two years to June 30, 1964, and later, in recognition of the increasing need for technical education and for trained technicians, it made Title VIII of the NDEA a permanent part of the Vocational Education Act of 1963.

In the early sixties, Congress enacted legislation which provided new methods of federal assistance for vocational training. A short time after passage of the NDEA came the realization that the traditional pre-employment and extension programs of vocational and technical education were insufficient to meet the economic challenge of the new technology. This realization led to the passage of the Area Redevelopment Act, in 1961, and to the approval of the Manpower Development and Training Act in 1962. Both were enacted under the pressure of mounting technological job dislocation. Both relate closely to the public school career education effort but differ in that they stress job-skill training for persons out of school rather than career education for persons still attending school.

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82Venn, Man, Education, and Work, p. 119.
The Area Redevelopment Act. The ARA, approved May 1, 1961, authorized $4.5 million annually until 1965, for vocational training. This legislation recognized the critical need for training which had arisen from unemployment and underemployed persons who resided in certain geographical areas which had been designated as redevelopment areas by the Secretary of Commerce. The act further provided that the Secretary of Labor would select and refer persons for training. The Secretary of Health, Education, and Welfare could contract with other public and private educational institutions if the required services were not available through state and local vocational education agencies.

Funds appropriated under this act went to the states for use only in designated redevelopment areas. There were no state allotments and no requirements for matching of funds for training programs.

In 1965, Congress extended the ARA by making it a part of the Manpower Development and Training Act.

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83 Hereafter referred to as the ARA.
84 U.S., Congress, Public Law 87-27, Section 16(e).
85 Ibid., Section 29. 86 Ibid., Section 5.
87 Ibid., Section 16(b). 88 Ibid., Section 16(c).
89 Ibid., Section 16(b).
The main objective of these programs was to train persons who were unemployed because of automation, shifts in market demand, and other economic changes and conditions. In addition, the programs were designed to equip jobless workers with needed skills and to aid in matching workers and jobs.

In an attempt to make the manpower program a more effective instrument, Congress passed several amendments to the MDTA. During the first year of operation under the act Congress authorized an enlarged program of youth training because of the high rate of youth unemployment. Additional amendments in 1965 and 1966 were aimed at further increasing the effectiveness of the program by authorizing special training programs and services to equip the disadvantaged for employment. In October, 1968, Congress

91Hereafter referred to as the MDTA.

92U.S., Congress, Public Law 87-415, Section 310(a).

93Ibid., Section 304(b). 94Ibid., Section 101.


extended the authority for administering the manpower training program to June, 1972.\textsuperscript{93}

The Department of Health, Education, and Welfare and the Department of Labor share responsibility for administering the MDTA.\textsuperscript{99} If training is not available through public educational agencies, the Department of Health, Education, and Welfare can contract with private institutions or agencies. It is responsible for classroom instruction, including adequacy of curriculums and facilities and the provision of manpower instruction.\textsuperscript{100}

The Department of Labor designates the occupations for which training is to be provided and selects and refers individuals to manpower training programs. Upon completion of training, the Department of Labor is responsible for placement of trainees and for periodic follow-up on the employment progress of former trainees.\textsuperscript{101}

Under this statute, the Secretary of Labor and the Secretary of Health, Education, and Welfare may apportion funds to each of the states after taking into consideration:

1. The proportion which the labor force of the state bears to the total labor force of the United States.

\textsuperscript{93}U.S., Congress, Public Law 90-636, 90th Cong., 2d sess., October 24, 1968, Section 1.

\textsuperscript{99}U.S., Congress, Public Law 87-415, Section 301.

\textsuperscript{100}\textit{Ibid.}, Section 231. \textsuperscript{101}\textit{Ibid.}, Sections 201-202.
2. The proportion which the number of unemployed persons in the state bears to the total number of unemployed in the United States.

3. The lack of full-time employment in the state.

4. The proportion which the insured unemployment within the state bears to the total number of insured employed within that state.

5. The average weekly unemployment compensation benefits paid by the state.102

Since the passage of the MDTA more than one million persons have enrolled in training programs. Nearly 715,000 were in institutional programs, and the remainder were in on-the-job training or in some combination of the two. Over 600,000 persons completed both institutional and on-the-job training programs during the first six years of operation under the act. Nearly 450,000 in this group were in institutional training, and about 85 per cent of those who completed institutional training obtained jobs. This degree of success is especially remarkable in that over two-thirds of those trained were classified as disadvantaged and over one-half of this group were school dropouts.103 Estimates show that the MDTA training programs returned to society within one year more than the total cost of these programs to the federal government.104

102Ibid., Section 301.
103Venn, Man, Education, and Manpower, p. 156.
104Ibid., p. 160.
During the forty-six years intervening between the passage of the Smith-Hughes Act and the passage of the Vocational Education Act of 1963, the Congress of the United States passed a number of supplementary and related acts which extend, modify, or amend some phase of the federal program of vocational education in the public school. However, until the passage of the Vocational Education Act of 1963, none of the amendments and extensions changed the fundamental purposes of the Smith-Hughes Act.\textsuperscript{105}

Vocational education needed a boost forward, but it also needed a stronger base upon which to operate and expand in the complex space age of the sixties.\textsuperscript{106} On February 20, 1961, in his Message to Congress on American Education, President John F. Kennedy said:

The National Vocational Education Acts, first enacted by the Congress in 1917 and subsequently amended, have provided a program of training for industry, agriculture, and other occupational areas. The basic purpose of our vocational education effort is sound and sufficiently broad to provide a basis for meeting future needs. However, the technological changes which have occurred in all occupations call for a review and re-evaluation of these acts, with a view toward their modernization.

To that end, I am requesting the Secretary of Health, Education, and Welfare to convene an advisory body drawn from the educational profession, labor, industry, and agriculture, as well as the lay public, together with representatives from the Departments of Agriculture and Labor, to be charged with the responsibility of reviewing and evaluating the current National Vocational Education Acts, and

\textsuperscript{105}Venn, \textit{Man, Education, and Work}, p. 62.

\textsuperscript{106}Venn, \textit{Man, Education, and Manpower}, p. 153.
making recommendations for improving and redirecting the program.¹⁰⁷

The President's Panel of Consultants on Vocational Education.—After an eight-month delay a Panel of Consultants on Vocational Education was announced, with Chicago school superintendent Benjamin C. Willis as chairman and University of California professor of education J. Chester Swanson as staff director. Twenty-four other panelists were appointed, the majority of whom were educators or people in agriculture. However, the panel also included representatives from business, the press, labor, and government. The panel deliberated from November 1961 through November 1962. Its full report, entitled Education for a Changing World of Work, was published the following spring.¹⁰⁸

The panel concluded that the national program of vocational education had been insensitive to economic and social change, to labor market demands, to the impact of change on education and education for job preparation, and to the diverse vocational needs of various population segments. The panel agreed that a greatly increased program of vocational and technical education was needed. In the place of the occupational categories specified by previous

¹⁰⁷ Panel of Consultants on Vocational Education, Education for a Changing World of Work, p. v.

statutes the panel recommended that a new federal program be directed to the following major areas of service:

1. High school youth.
2. High school age youth with academic, socio-economic, or other handicaps.
3. Post-high-school opportunities.
4. The unemployed or underemployed.
5. Services to assure quality.\(^{109}\)

The panel's report was used as a basis for drafting the Vocational Education Act of 1963 and most of the panel's recommendations were incorporated in the act.\(^{110}\)

The Vocational Education Act of 1963.\(^{111}\)—The VEA of 1963, approved December 18, 1963, attempted to bring vocational preparation to many groups and individuals not served by previous programs. As older legislation was intended to assist farm and rural youth, this legislation contained provisions that would enable sizable amounts of federal money to reach programs in urban areas. It focused on services to people without respect to predetermined occupational groupings and, in effect, suggested that funds would be available to take care of all training needs except for occupations requiring a baccalaureate degree.\(^{112}\)

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\(^{109}\)Panel of Consultants on Vocational Education, Education for a Changing World of Work, pp. xv-xviii.

\(^{110}\)Hawkins, Prosser, and Wright, Federal Legislation for Vocational Education, p. 106.

\(^{111}\)Hereafter referred to as the VEA.

\(^{112}\)Venn, Man, Education, and Work, p. 126.
The act authorized federal funds to be used for:

1. Vocational education for persons attending high school.

2. Vocational education for persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market.

3. Vocational education for persons (other than persons who are receiving training allowances under the MDTA, ARA, and the Trade Expansion Act) who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment.

4. Vocational education for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program.

5. Construction of area vocational education school facilities.

6. Ancillary services and activities to assure quality in all vocational education programs, such as teacher training and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, state administration and leadership, including periodic evaluation of state and local vocational education programs and services in light of information regarding current and projected manpower needs and job opportunities.\(^\text{113}\)

The VEA of 1963 was passed because of many factors which had escalated the types of change in the lives of the people of the United States. Sputnik, the space program, new materials, improvements in old materials, new demands upon workers' skills, automation, decreased need for the unskilled worker, increased need for the white-collar worker, change in demands of industry upon the blue-collar worker,

\(^{113}\)U.S., Congress, Public Law 88-210, Section 4(a).
computer control of machine tool operation, rapid growth of population, greater demand for workers in the service industries, and an acute shortage of technicians and semi-professional workers are some of the direct factors and are also indicative of some of the deeper changes which effect our organized, highly interdependent life in an industrial civilization.\textsuperscript{114}

The sections of the act which amended earlier acts added a great deal to the flexibility of the use of the funds. A state could now transfer Smith-Hughes and George-Barden funds from any of the prescribed categories into any other occupational program, with permission from the Commissioner of Education. At the same time the definition of the old categories were considerably broadened. Home economics funds could be used for homemaking courses oriented toward employment opportunities. Pre-employment distributive education programs could be set up on a full-time basis. Trades and industry funds could be used to conduct special classes for single-skilled or semiskilled occupations. Also, vocational agriculture funds could be used for training in agricultural-related occupations, without the traditional farm practice requirement.\textsuperscript{115}

These amendments to the older legislation were designed to make it more flexible; however, the new program went even further. The "less than college grade"

\textsuperscript{114}Venn, Man, Education, and Manpower, p. 153.

\textsuperscript{115}U.S., Congress, Public Law 88-210, Section 10.
restriction that had appeared in earlier legislation was not included. The categorical limitations of the legislation generally did not allocate funds for specified occupations, age groups, or institutions; the states were left a much wider prerogative in setting up their own programs. The intent of Congress was to foster flexibility, adaptability, and experimentation in a career educational effort geared to technological change.116

The act also took heed of the Presidential Panel's plea for improving the quality of vocational programs. A state would now be required to devote 3 per cent of its new allotment to in-service teacher training, program evaluation, special demonstration and experimental programs, development of instructional materials, and state administrative leadership.117

No new funds were provided specifically for the purpose of expanding programs of technical education. The removal of the categorical limitations, however, meant that a substantial part of the new federal funds the state would receive could be allotted to technical programs and that new technical programs could be established without reference to national defense necessity.118

As signed by President Johnson, the VEA of 1963 contained authorizations of §60 million for fiscal 1964, §118.5

116Venn, Man, Education, and Work, p. 125.
118Venn, Man, Education, and Work, pp. 126-27.
million for fiscal 1965, $177.5 million for fiscal 1966, and
$225 million for all following years.

State matching of the new funds was not required for fiscal 1964, but fifty-
fifty matching was required for subsequent years. All of these authorizations were in addition to those provided in the old legislation. Unlike the allocation formula in the older legislation, the new act declared that distribution of funds was to be made on the basis of a state's population, with some provision for equalization based on per capita income.

The act contained several features designed to keep career education ahead of labor market demands. It stipulated that the designated state board for vocational education must periodically review its use of federal money and justify that use in terms of the current and projected manpower needs of the state. It also made it mandatory that the state operate its career educational program in cooperation with the public employment service by designating the employment service as the agency responsible for determining the manpower needs of the state.

One of the provisions established an independent advisory committee to advise the United States Commissioner of Education on the national administration of the program.

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119 U.S., Congress, Public Law 88-210, Section 2.
120 Ibid., Section 6(a) and (b).
121 Ibid., Section 3.
122 Ibid., Section 5(a) (1) and (2).
in the light of relating the program to actual training requirements. Another section of the act required the appointment in 1966 of a national advisory council to make recommendations to Congress for the improvement of the program. The council must be reconstituted every five years. Presumably, the work of this council would be similar to the work of the President's Panel.

The Advisory Council on Vocational Education.—The Advisory Council on Vocational Education was appointed in November, 1966. In January, 1968, it reported on the achievements and progress which the VEA of 1963 had made possible. The general report of the council was published by the Office of Education and is entitled Vocational Education: The Bridge Between Man and His Work.

According to the council, the 1963 act had fallen short of fulfilling two of its major purposes. These purposes were:

1. Preparing the student for the world of work.
2. Giving particular attention to students with special needs.

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123 Ibid., Section 9(a) and (b).
124 Ibid., Section 12(a), (b), and (e).
126 Ibid., pp. 184-85.
127 Ibid., p. 122.
At the same time the council reported that many vocational programs had become outdated. For example, the percentage of persons enrolled in programs of vocational agriculture and home economics continued to remain high while the need for workers in these occupational categories continued to decrease at a significant rate.\textsuperscript{128}

The council made twenty-three legislative and three administrative recommendations for dealing with these inadequacies and other problems.\textsuperscript{129} (See Appendix I of this study for a complete list of the council's recommendations.)

In addition, the council offered suggestions and ideas designed to help integrate vocational education with the other areas of education. Five of their ideas are as follows:

1. Any dichotomy between academic and vocational education is outmoded.
2. Developing attitudes, basic educational skills and habits appropriate for the world of work are as important as skill training.
3. Prevocational orientation is necessary to introduce pupils to the world of work and provide motivation.
4. Meaningful career choices are a legitimate concern of vocational education.

5. Vocational programs should be developmental, not terminal, providing maximum options for students to go to college, pursue post-secondary vocational and technical training or find employment.\textsuperscript{130}

The council also suggested that occupational preparation should begin in the elementary school by providing a realistic picture of the world of work. In the junior high school, students should learn about economic and industrial systems by which goods and services are produced and distributed, and they should be exposed to the full range of career choices which will be available to them at a later point. Occupational preparation should become more specific in high school, though not limited to only one vocation. Instruction should not be overly narrow, but, instead, should be built around significant families of occupations or industries which promise expanding opportunities. Thus, a student can leave the program with a salable skill but still be challenged to pursue post-secondary education.\textsuperscript{131}

The council further suggested that occupational education should be based on a spiral curriculum which treats concepts at higher and higher levels of complexity as the student moves through the program. Vocational preparation should point up the vocational implications of all education.\textsuperscript{132}

\textsuperscript{130}ibid., pp. 183-93, passim.

\textsuperscript{131}ibid.\textsuperscript{132}ibid.
The Vocational Education Amendments of 1968.\textsuperscript{133}—The 1968 amendments to the VEA embodied most of the Advisory Council's legislative recommendations. Some of the major features of this legislation are:

1. All of the vocational education legislation enacted prior to 1963, which was still in effect, was repealed. The funds appropriated through this legislation were transferred to the programs authorized by the VEA of 1963.\textsuperscript{134} In effect, this combined all vocational education legislation administered by the Office of Education into one act in response to the first recommendation of the Advisory Council.\textsuperscript{135}

2. The comprehensive state grants were retained on a continuing basis. The authorizations for these basic programs were raised from $255 million to $355 million for 1969, $565 million for 1970, $675 million for 1971 and 1972, and $565 million for subsequent years.\textsuperscript{136}

3. The requirement for separate purpose by purpose matching under the 1963 act was removed. It

\textsuperscript{133}U.S., Congress, Public Law 91-576, 90th Cong., 2d sess., October 16, 1968.

\textsuperscript{134}Ibid., Section 104.

\textsuperscript{135}Advisory Council on Vocational Education, Vocational Education:, p. 197.

\textsuperscript{136}U.S., Congress, Public Law 91-576, Section 102(a).
provided, instead, for overall statewide matching which allows more flexibility, in that varying proportions of federal funds can be used in matching state and local funds.\textsuperscript{137}

4. Vocational guidance and counseling was added to the list of uses of federal funds.\textsuperscript{138}

5. At least 25 per cent of the increase in the comprehensive state grant funds and 15 per cent of the overall funds must be expended on programs for the disadvantaged.\textsuperscript{139}

6. At least 25 per cent of the increase in the comprehensive state grant funds and 15 per cent of the overall funds must be expended in support of programs at the post-secondary level.\textsuperscript{140}

In addition, the act directed the Commissioner of Education to conduct a study and report within a year on the feasibility of consolidating all educational programs under one act in order to provide more efficient use of federal funds at the local level and to simplify application procedures of such funds.\textsuperscript{141} In 1970, all of the amendments pertaining to legislation administered by the Office of

\textsuperscript{137}\textit{Ibid.}, Section 103(c).
\textsuperscript{138}\textit{Ibid.}, Section 122(a).
\textsuperscript{139}\textit{Ibid.}, Section 122(c).
\textsuperscript{140}\textit{Ibid.}
\textsuperscript{141}\textit{Ibid.}, Section 306.
Education were combined in the Educational Amendments of 1970.142

The 1968 Vocational Education Amendments call for profound changes in vocational education. They offer the public schools great resources with which to make the changes, but they also impose on them equally great responsibilities for developing the vocational potential of the nation's citizens.143

History and Development of the Community College

The community college has emerged in recent years as one of the most vital forces in higher education.144 Although its foundations were laid earlier, the community college as we know it today is essentially an American phenomenon of the twentieth century.145 In 1900 there were less than 100 students enrolled in less than ten institutions of this level of our educational system.146 Since 1900 a large increase in the number of two-year


143Venn, Man, Education, and Manpower, p. 155.


colleges and the number of students enrolled in them has been evidenced throughout the United States. Precisely how many such colleges have begun operation since that date is unknown because an indeterminant number have either closed their doors and ceased operation or advanced to four-year status. However, according to a recent survey, more than two million students are enrolled in more than one thousand two-year colleges. Furthermore, these colleges are being established at the rate of about fifty-three per year, with a number of states still charting systems that will eventually put campuses within commuting distance of most high school graduates.

According to Tyrus Hillway, there were three major currents that caused the modern community college to emerge. In his words they were:

1. The nineteenth-century efforts of reform American university education.
2. The extraordinary growth in the United States of the various types of adult and vocational education as our economy became increasingly industrialized.
3. The continuing democratic tendency toward the extension and equalization of educational opportunity for all Americans.

147 Gleazer, American Junior Colleges, p. 3.
149 Ibid., p. 6.
Much philosophical debate has occurred as to whether the community college is an extension upward of secondary education,\(^1\) much as the high school was originally an upward extension of the elementary school, or a downward extension of the university.\(^2\) A review of the community college program reveals semblances of both. However, there is a definite indication that the community college is an institution having characteristics of its own which set it apart from both the high school and the university or four-year college.\(^3\)

The evolution of the community college as an established element of the American system of education has taken place in three major stages. The first and longest period lasted from 1850 to 1920 and might suitably be referred to as the period of formation. The second major period of growth occurred during the years 1920 to 1945. During this period terminal and semiprofessional education became an established part of the junior college concept. The third major stage of development began in 1945 and has lasted to the present. Service to the adults of the community was emphasized immediately after World War II, so the period


\(^{152}\) William H. Snyder, "The Distinctive Status of the Junior College," Junior College Journal, III (February, 1933), 236.

after 1945 has seen the development of the operative definition of the "community" college.154

The Period of Formation, 1850-1920.—There is a difference of opinion as to which institution can rightfully claim the distinction of being the first junior college. Walter Eells states that the earliest junior college is to be found at Newton, Maryland, where the first Catholic college was opened in 1677.155 Another claim is made by Saul Sack who states that Monticello College, in 1835, was the first, followed by Sesquenanna University, Pennsylvania, which was founded as Missionary Institute in 1858.156 T. H. Wilson supports the claim that Lasell Junior College, Massachusetts, in 1851, was the first junior college.157 Finally, in an analysis of the development of the junior college up to 1948, Phebe Ward cites Lewis Institute, Illinois, founded in Chicago in 1896, as the first junior college.158

The status of the institution when it was founded is the technical point which opens the door for disagreement


as to which was the first junior college. Some of the so-called junior colleges came into existence when high schools added what had been the freshman and sophomore years of college, others acquired the status of junior college when four-year colleges abolished the junior and senior years. Some writers view the first institution to offer junior-college-level instruction as the first junior college. Others take the position that the first junior college was the first institution which was founded as a two-year college.

Generally, the evidence indicates that Lasell Junior College, Massachusetts, founded as Lasell Female Academy in 1851, was the first institution to offer two years of college from its opening date. However, the date of the first junior college instruction is uncertain.

There also seems to be a difference of opinion as to which was the first "public" junior college. Eells indicates that there is wide-scale agreement that the first public junior college established in connection with a high school was at Goshen, Indiana, which was later closed, and that the oldest public junior college still in existence is Joliet Junior College, Illinois. However, Harold Landrith states that the question of which was the first public junior college has not been resolved and that

159 Landrith, Community Junior College, pp. 15-18.
160 Ibid., p. 17.
161 Eells, American Junior Colleges, p. 13.
the search for the all important first public junior college continues. 162

James Thornton indicates that two years were added to the Joliet high school program in 1901. 163 Ward, 164 Eells, and others state that Joliet Junior College began operation in 1902. 165 Landrith states that the date of the addition of two years of college work at Goshen is not easily determined, but that it was sometime between 1901 and 1905. He further indicates that the North Dakota State School of Science opened in 1903, and that this junior college may have begun operation before the one in Goshen. 166

Since there is doubt as to which was the first private and which was the first public junior college, it will serve the purposes of this study as a point of reference to state that the first private junior college probably began operation around the middle of the nineteenth century and the first public junior college began operation near the beginning of the present century.

Although it has been proposed by many historians that this form of education may have been influenced by the German gymnasium in the nineteenth century, it is difficult

162Landrith, Community Junior College, p. 293.
164Bogue, American Junior Colleges, p. 10.
165Eells, American Junior Colleges, p. 13.
166Landrith, Community Junior College, pp. 293-96.
to determine to any fine degree just when the idea of the junior college was conceived.\textsuperscript{167}

Henry Tappan is credited with being the first to publicly advocate the idea in the United States. In 1852, in his inaugural address at the University of Michigan, President Tappan indicated that there was need for a change in the traditional four-year college. He suggested transferring to the high school those courses which were secondary in nature.\textsuperscript{168} William Fowell echoed the idea of Tappan at his inauguration as President of the University of Minnesota in 1869. President Fowell recommended that students remain at home to take at the local high school those courses usually taught during the first and second years in a university.\textsuperscript{169}

Neither Tappan nor Fowell were successful in encouraging the widespread development of extended programs in the high schools or in eliminating the secondary years of their own universities.\textsuperscript{170} A few colleges established three-year degree programs and a number of high schools added a thirteenth year. Several high schools in Michigan added sufficient courses in the 1890's to enable their


\textsuperscript{168}Landrith, \textit{Community Junior College}, p. 15.

\textsuperscript{169}Thornton, \textit{The Community Junior College}, p. 46.

\textsuperscript{170}Ibid.
graduates to enter the University of Michigan as sophomores.\textsuperscript{171} However, as previously stated, there were less than one hundred students enrolled in less than ten institutions offering junior college level courses as late as 1900.\textsuperscript{172}

In 1892, William R. Harper separated the first and last two years of the new University of Chicago into the "Academic College" and the "University College." Four years later, in what was perhaps the first use of the terms, these titles were changed to "junior college" and "senior college."\textsuperscript{173}

At the National Education Association convention in Charleston, South Carolina, in 1900, Harper gave a speech that has been called the "Magna Charta" or the "Bill of Rights" of the junior college movement. Among other things he stated:

\begin{quote}
It is surely a higher thing to do honest and thorough work in a lower field than to fall short of such work in a higher field. . . . these small institutions will come to be known as junior colleges. I use the name "junior college" for lack of a better term, to cover the work of the freshman and sophomore years.\textsuperscript{174}
\end{quote}

\begin{footnotes}
\textsuperscript{171}Landrith, Community Junior College, p. 16.
\textsuperscript{172}Colvert, "A Half-Century of Junior Colleges,"
p. 244.
\textsuperscript{173}Thornton, The Community Junior College, p. 47.
\end{footnotes}
Thus, Harper is recognized by many scholars as having been the first educator to suggest the type of two-year institution that we have today, and he is sometimes called the "father of the junior college."\(^{175}\)

However, in common with the other scholars of this early period, he visualized the junior college primarily as a continuation of the high school.\(^{176}\) He was attempting to find a satisfactory compromise between the four-year college tradition and the German gymnasium idea by the installation of this two-year college. He believed that weak four-year colleges should quit trying to expend their energies on upper division programs and should instead concentrate on offering strong lower division programs which would cover the freshman and sophomore years of college.\(^{177}\)

In proposing the split in the two divisions, Harper emphasized that the freshman and sophomore years differed little in content and in method from that of the last year of the academy or high school and, therefore, would present the following advantages:

1. Many students might find it convenient to forego college at the end of the sophomore year.


\(^{176}\)Thornton, The Community Junior College, p. 47.

2. Many students who would not otherwise continue would now undertake the last two years of college.

3. The professional schools would be able to raise their standards for admission.

4. Many academies and high schools would be encouraged to develop higher academic work.

5. Many colleges which did not have the means to do the work of the junior and senior year would be satisfied to offer the lower levels of studies.178

Harper is credited by many experts with strongly influencing the foundation of several of the junior colleges in the surrounding area, including the Lewis Institute in Chicago in 1896, the Bradley Polytechnic Institute in Peoria, Illinois in 1897, and obtaining the addition of two years to the high school program in Joliet, Illinois in 1901.179

Two eminent spokesmen on the west coast agreed with Harper's idea and took up the junior college cause. David Jordan, President of Stanford University, and Alexis Lange, Dean of the University of California, focused attention on the need for post-graduate work in the public high schools


179Thornton, The Community Junior College, p. 47.
of California. As a result, California passed the first specific state law authorizing public junior college instruction in 1907. The law legally allowed the board of trustees of any high school district to establish postgraduate courses for high school graduates in the district. It stipulated that these courses must be of the quality of the first two years of university work. Even though the idea originated elsewhere, the ground work laid by Jordan and Lange enabled California to take the lead in the junior college movement.

F. M. McDowell summarized the conditions tending to further the junior college idea just at the end of the evolutionary period in 1919. The four main influences he suggested are as follows:

1. The university was moved to encourage the development of junior colleges because of its own rapid growth and unhealthy tendency to large classes, because it felt a need to divide secondary work from that of the university, and because a junior college allows for closer contact with and control of youthful students.

2. The normal schools of that period wished to offer collegiate work in addition to purely pedagogical subjects, so many of them became junior colleges.

3. The extension of the high school seemed to be an additional step in the evaluation of our system of public education.

180Ibid., p. 48.
181Eells, American Junior Colleges, p. 21.
182Landrith, Community Junior College, p. 20.
4. Finally, there was the problem of the small college, too weak to offer a strong four-year program and practically forced by the developing pattern of accreditation to concentrate its efforts on a more attainable objective. 183

By 1920 a great deal of attention had been attracted by the growth in the number of junior colleges. As a result, United States Commissioner of Education P. P. Claxton called a meeting of junior college representatives. On June 30, and July 1, 1920, representatives from thirteen states met in St. Louis. Out of this two-day conference came the decision to organize a national association. 184

At the first meeting of the association in Chicago, on February 16-17, 1921, representatives from more than seventy institutions adopted a constitution and a name, "The American Association of Junior Colleges." 185 The constitution defined the objectives of the association as follows:

To define the junior college by creating standards and curricula, thus determining its position structurally in relation to other parts of the school system; and to study the junior college in all of its types (endowed, municipal, and state) in order to make a genuine contribution to the work of education. 186

The following year the association met in Memphis and adopted standards covering such items as admission,


184Landrith, Community Junior College, p. 23.

185Hereafter referred to as the AAJC.

graduation, faculty, and support of junior colleges. It
rescinded those standards in 1940. In 1929, the AAJC de-
cided to publish an official journal, The Junior College
Journal.187

Since its beginning the AAJC has served as the of-
official spokesman for the interest of junior colleges. Among
its noteworthy achievements have been the continuous pub-
lication since 1930 of the Junior College Journal, the an-
nual preparation of the Junior College Directory, and the
compilation of eight editions of American Junior Colleges,
published by the American Council on Education.188

Today, the AAJC continues to exert great influence
in developing new concepts and opening new educational fron-
tiers. It conducts a yearly convention, stimulates re-
search, provides consultant services, carries on a broad
public information program, engages in studies, and pub-
lishes bulletins on specific aspects of junior college edu-
cation. The eight major objectives of its services are as
follows:

1. To make additional, substantial efforts to raise
the level of administrative competence in ju-
nior college education.

2. To assist in establishment of strong junior col-
lege teacher preparation programs, in-service
workshops and institutes, to stimulate experimen-
tation and evaluation in teaching organi-
zation and practices, and to find ways of

187Eells, American Junior Colleges, p. 494.
inviting promising people to the field of junior college teaching.

3. To stimulate and assist junior colleges to develop comprehensive curricula where appropriate, with special attention to technical education and community services.

4. To clarify and promote public understanding of the functions of junior colleges.

5. To assist the states in developing sound and orderly systems of junior colleges to serve the major part of the population in each state, and to provide at the national and state levels adequate information regarding the appropriate services of junior colleges so that legislation involving these institutions will be realistic and constructive.

6. To promote more effective relationships between junior colleges and high schools on one hand and senior colleges and universities on the other.

7. To assist in strengthening state and regional organizations of junior colleges and to encourage a closer relationship between their activities and those at the national level.

8. To adopt measures to promote greatly improved student personnel services with particular regard to counseling and guidance. 189

Throughout the period of formation, the junior college was proposed and initiated as both an extension of the secondary school and as an amputation from the university or four-year college. The universities looked at the junior colleges as just an extension of the secondary schools. The administrators of these institutions felt that they were truly collegiate in nature, however, as evidenced by the first definition of the junior colleges adopted by the newly formed AAJC, which stated: "The junior college is

189 Ibid., pp. 55-56.
an institution offering two years of instruction of strictly collegiate grade."190

The junior college grew and prospered until in 1921 there were 70 public institutions and 137 private institutions for a total of 207 such colleges with a total enrollment of 16,000 students. The year 1921 also marked the first time that the enrollment in public junior colleges (52 per cent of the 16,000 total students) surpassed the enrollment in the private institutions.191

The Expansion of Career Educational Programs, 1920-1945.—Although the idea had been discussed earlier, the AAJC waited until 1925 to expand its definition of the junior college to include career education as one of its functions. In its expanded definition the AAJC stated:

The junior college is an institution offering two years of instruction of strictly collegiate grade. This curriculum may include those courses usually offered in the first two years of the four-year college, in which case these courses must be identical, in scope and thoroughness, with corresponding courses of the standard four-year college. The junior college may, and is likely to, develop a different type of curriculum suited to the larger and ever-changing civic, social, religious, and vocational needs of the entire community in which the college is located. It is understood that in this case also the work offered shall be on a level appropriate for high school graduates.192

Thus the concept of career education, which had been advocated much earlier by Lange, was now formalized. In

190Eells, *American Junior Colleges*, p. 3.
191Ibid. 192Ibid.
1917, after pointing out that both training for specialized efficiency and general education must be combined, Lange expressed publicly the basic essentials of junior college semiprofessional training. He stated:

The junior college cannot make preparation for the university its excuse for being. Its courses of instruction and training are to be culminal rather than basal. . . . The junior college will function adequately only if its first concern is with those who will go no farther, if it meets local needs efficiently, if it enables thousands and tens of thousands to round out their general education, if it turns an increasing number into vocations for which training has not hitherto been afforded by our school system.193

He further stated:

It is, of course, an inevitable phase of growth that as yet not one of the junior colleges I know about has fully found itself.194

Merton Hill cites Chaffey Junior College as the first public junior college in California to offer terminal courses. According to Hill, Chaffey was established, in September, 1916, as a junior college in connection with the high school and offered terminal vocational courses in art, manual training, home economics, commerce, music, library training, general agriculture, farm mechanics, and soils.195

In the same report, Hill traces the growth of terminal courses in junior colleges from 1921 to 1941. Table

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194Ibid., p. 472.

195Merton E. Hill, "History of Terminal Courses in California," Junior College Journal, XII (February, 1942), 313.
1 shows the increase in the number of terminal courses in junior colleges from 1921 to 1941.196

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>100</td>
</tr>
<tr>
<td>1925</td>
<td>400</td>
</tr>
<tr>
<td>1930</td>
<td>1600</td>
</tr>
<tr>
<td>1941</td>
<td>4000</td>
</tr>
</tbody>
</table>

Later, C. C. Colvert presented an analysis of several studies showing the percentage of terminal courses in relation to all junior college offerings. Table 2 shows the growth in the percentage of terminal courses in junior colleges from 1917 to 1947.197

William Snyder, President of Los Angeles Junior College, was one of the strong advocates of occupational education in the junior college during this period of expansion. However, he saw the total function of junior colleges as something more than a vocational institution. After pointing out that at least 50 per cent of junior college graduates did not continue their studies and that occupational

196 Ibid.
courses were needed as much as transfer courses, he further stated:

If the junior college is to be really collegiate, it cannot allow itself to become merely a vocational institution. It must have well-established courses which embrace both cultural and utilitarian subjects.\(^{198}\)

Other individuals who agreed with Snyder's ideas helped establish semiprofessional courses in junior colleges throughout the nation and firmly established the concept of occupational education in the junior college.\(^{199}\)

\[
\text{TABLE 2}
\]

\begin{tabular}{|c|c|}
\hline
Year & Per cent \\
\hline
1917 & 17.5\% \\
1921 & 28.9\% \\
1930 & 33.0\% \\
1947 & 32.0\% \\
\hline
\end{tabular}

According to Thornton, the following influences seem to have contributed to the rapid expansion of occupational education in the junior colleges:

1. The leadership of state agencies for vocational education, set up under the Smith-Hughes Act and related federal legislation, was especially effective in the states that considered the

\(^{198}\)Snyder, "The Distinctive Status of the Junior College," pp. 236-37.

\(^{199}\)Thornton, The Community Junior College, p. 52.
public junior colleges to be part of secondary education.

2. The widespread unemployment of the depression years because it was realized that specific training beyond the high-school would give an applicant a competitive advantage in the job market.

3. The increasing automation during the 1950's required workers with higher levels of technical skills, and the junior colleges were quick to organize classes to train them.

4. The Vocational Education Act of 1963 recognized the junior colleges by removing the restriction of courses of "less than college grade" that had appeared in earlier federal vocational legislation, and by concentrating on the training needs of people rather than on preparation for specific occupations.

5. The emphasis of many of the public junior colleges on a close working relationship with their workers to request the establishment of additional occupational courses. 200

Through these developments the junior college branched into activities that had not at that time been considered secondary or higher education and began to achieve a unique set of purposes. 201

Development of the Community College Concept, 1945-Present.—With the outbreak of World War II, there was a nationwide emphasis on training for defense work. In addition, the enrollment in day classes dropped. These developments stimulated the junior colleges to engage in community activities as a temporary measure. However, these activities proved to be so popular within the communities that the colleges continued to develop them after the war.

200 Ibid., p. 53. 201 Ibid.
had terminated. Thus, an entirely new element, service to the adults of the community, was added to the junior college program. This new activity completed the development of the operative definition of the "community college."202

This expanded scope of operation had been foreseen by some of the early advocates of the junior college prior to 1940. In the first issue of the Junior College Journal, in 1930, Nicholas Ricciardi's definition of the functions of the junior college has served as a model for several later definitions. According to Ricciardi:

A fully organized junior college aims to meet the needs of a community in which it is located, including preparation for institutions of higher learning, liberal arts education for those who are not going beyond graduation from the junior college, vocational training for particular occupations usually designated as semiprofessional vocations, and short courses for adults with special interests.203

Byron Hollinshead, in 1936, restated the principles advocated earlier by Ricciardi. He stated that the junior college should:

1. Be a community college, meeting community needs.
2. Serve to promote a greater social and civic intelligence in the community.
3. Provide opportunities for increased adult education.

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202Ibid.
4. Provide educational, recreational, and vocational opportunities for young people.

5. Place the cultural facilities of the institution at the disposal of the community.

6. Closely integrate its work with that of the high school and the other community institutions. 204

The community college concept was sufficiently clarified by 1939 for an article to appear in the *Junior College Journal* entitled, "The Junior College as a Community Institution." 205 When the Commission on Terminal Education issued its report in January, 1940, the first "fundamental principle" was, "The Junior College is essentially a community institution." 206

Thus, the community college, which emerged from a simple, uncomplicated institution that was to have been an extension of the secondary school much as the high school had originally been an upward extension of the elementary school, has developed into a very complex multi-purpose


205 Shelden Hayden, "The Junior College as a Community Institution," *Junior College Journal*, X (October, 1939), 70.

institution with a separate identity apart from any other level of American education. 207

A review of related literature reveals a variety of functions which have been attributed to the community college. Thornton summarized the accepted purposes as proposed by various community college scholars. According to Thornton, the set of purposes which makes the community college unique is as follows:

1. Occupational education of post-high-school level for students who end their formal training in the community college.

2. General education for all categories of its students to prepare them to become effective citizens in the community, state, and nation.

3. Transfer or preprofessional education for students who plan to continue their formal training at a four-year college or university.

4. Service to the community by helping all persons in the community with their occupational and general educational needs.

5. The counseling and guidance of students to assist them in selecting an occupation and in preparing them for the successful pursuit of employment in their chosen field. 208


The Period of Rapid Growth—The Decade of the Sixties.—The growth in number and enrollment of the community college during the last decade was truly phenomenal. During this period, the enrollment doubled, tripled, and almost quadrupled, and the number of colleges increased over 60 per cent. Table 3 shows the growth in number and enrollment of community colleges from 1960 to 1970.\(^{209}\)

**TABLE 3**

GROWTH IN NUMBER AND ENROLLMENT OF COMMUNITY COLLEGES

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Colleges</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>678</td>
<td>660,216</td>
</tr>
<tr>
<td>1961</td>
<td>678</td>
<td>748,619</td>
</tr>
<tr>
<td>1962</td>
<td>704</td>
<td>818,869</td>
</tr>
<tr>
<td>1963</td>
<td>694</td>
<td>927,534</td>
</tr>
<tr>
<td>1964</td>
<td>719</td>
<td>1,043,963</td>
</tr>
<tr>
<td>1965</td>
<td>771</td>
<td>1,292,753</td>
</tr>
<tr>
<td>1966</td>
<td>837</td>
<td>1,464,099</td>
</tr>
<tr>
<td>1967</td>
<td>912</td>
<td>1,671,440</td>
</tr>
<tr>
<td>1968</td>
<td>993</td>
<td>1,954,116</td>
</tr>
<tr>
<td>1969</td>
<td>1,038</td>
<td>2,186,272</td>
</tr>
<tr>
<td>1970</td>
<td>1,091</td>
<td>2,499,837</td>
</tr>
</tbody>
</table>

(See Appendix II of this study for a summary, by states, of the number and enrollment of two-year colleges as of October, 1970.)

An analysis of the data from the 1971 Junior College Directory and earlier editions, supports the following general statements:

1. The community college movement continues to exhibit strength both in terms of new colleges built and increased enrollments.

2. Growth patterns vary among the states, but virtually all states report substantial growth in enrollment.

3. Over the last decade the proportion of the population served by community colleges has increased in all 50 states.

4. Public community colleges continue to show the greatest annual growth, with private college enrollment becoming stabilized.

5. The proportion of full-time to part-time students continues to change very little at 57 per cent and 43 per cent, respectively.\(^2\)\(^1\)\(^0\)

Several influences have contributed to the rapid growth and expansion of the community college during the 1960's. Landrith summarizes these influences as follows:

2. Changes in technology.
3. Changes in attitudes toward education.
4. Accessibility of the local college.
5. Low tuition.
6. Variety of transfer and vocational courses.

\(^{210}\)Ibid., p. 7.
7. Better qualified faculty.

8. Modern and comfortable facilities.\textsuperscript{211} Two pieces of federal legislation were significant in influencing several states to begin developing community college systems during the decade of the sixties. These bills were the VEA of 1963, which was reviewed earlier in this study, and the Higher Education Facilities Act of 1963.\textsuperscript{212}

Congress enacted the Higher Education Facilities Act of 1963 at about the same time that it passed the vocational education legislation. The purpose of the act was to assist the nation's institutions of higher education, including graduate and undergraduate, community colleges, and technical institutes, to accommodate mounting student enrollments and to meet demands for skilled technicians.\textsuperscript{213}

Title I of the act authorized $230 million for the construction of undergraduate academic facilities,\textsuperscript{214} with 22 per cent of that sum earmarked for public community colleges, technical institutes, and two-year branch campuses of colleges and universities.\textsuperscript{215} This reservation assured $50.6 million a year for the expansion of both the college-parallel and the career educational phase of the community

\textsuperscript{211}Landrith, Community Junior College, pp. 39-43.
\textsuperscript{213}Ibid., Section 2. \textsuperscript{214}Ibid., Section 101(b).
\textsuperscript{215}Ibid., Section 102.
college. Career educational programs, however, were limited to those in science, engineering, and related technologies.216 Under the Higher Education Facilities Act, the federal government would support 40 per cent of community college development costs, as opposed to 33.3 per cent of the costs of all other Title I projects.217

The Higher Education Facilities Act of 1963 was a most encouraging development for post-secondary career education and the community college. For both, the bill was a special recognition of their importance within higher education and to the nation. They now enjoyed a clear congressional finding that they were a legitimate and necessary part of higher education, a part, in fact, which would now receive a high priority. For subbaccalaureate career education a bridge had been crossed.218

The community college is truly making post-high-school education widely available to the people of its community. As the community college moves into the decade of the seventies, it is hoped that many of the present two-year colleges with partial programs will become true community colleges by providing the full scope of services implied in that title, and that these institutions will spread to all regions to serve all the people of the land.219

216Ibid., Section 401(g).
217Ibid., Section 107(b).
218Venn, Man, Education, and Work, p. 128.
There is increasing realization that higher education can become a dynamic force for the overall improvement of society. Until recently, higher education was guided, to a great extent, by tradition. But, American society is not tradition-directed. Many problems have arisen which cannot be solved by educational approaches of the past. Therefore, if higher education is going to be a dynamic force for the overall improvement of society, it will have to be re-cast in form and substance. Norman Harris has summarized the societal and technological trends which demand that higher education seek new directions. In his words some of these trends are:

1. The increasing complexity of everyday life in an urban, industrialized society.
2. The explosion of technical and scientific knowledge which has characterized the past four decades.
3. The alarming increase in sophistication and complexity of occupations at all levels.
4. The fact that in our society education stands between man and his job—that lack of education is a barrier between men and jobs.
5. The virtual disappearance of unskilled (common labor) jobs.
6. The impact of automation and the flow process industries on production, on jobs, and on people.
7. The action and reaction within a free society which leaves no person content "to stay in his place."
8. The realization that knowledge is the key to a better life—not just for a few, but for many.
9. An awareness of the fact that if "only the educated are free," then all the free must be educated to the maximum of their capabilities.

10. The needs of industry and business for semiprofessional ("middle level") manpower.

11. A manpower shortage in professional, semiprofessional, and technical categories; contrasted with devastating unemployment in the unskilled and semiskilled categories.

12. The realization that a "disaster gap" is opening up between those of our citizens with advanced education and those with little education.

13. The urgent need for millions of citizens who can both think and do—and the gradual disappearance of a bi-polar society in which an elite few did all the thinking, and the rest did all the work.220

There is evidence that appropriate changes in higher education are already under way. For example, the growth of systems of state colleges, the diversification of offerings of major universities, and the almost fantastic development of the community college are all healthy signs that higher education is being extended to vastly increased numbers of young people. Nevertheless, if higher education is going to keep abreast of societal and technological changes, further adjustments must be made. Further development of career educational programs in the rapidly expanding community colleges can point the way toward a real democratization of higher education.221

220Harris, Technical Education in the Junior College, pp. 19-20.

221Ibid., p. 17.
Manpower Needs of the Nation

The nation's changing manpower needs demand a tremendous expansion of community college level career education. The world of work in the 1970's is vastly different from that of a generation ago. A recent U.S. Department of Labor report shows that there are now more workers in nonmanual than in manual labor classifications. The United States is the first nation in history to achieve this status. Table 4 shows the occupational pattern as it was in 1968, compared to the probable need by 1980.\(^{222}\)

An analysis of the figures in Table 4 reveals that by 1980, the United States labor force will be 25 per cent greater than it was in 1968. Furthermore, in the 1970's, professional, semiprofessional, and technical workers will increase by 50 per cent; service workers, by 40 per cent; clerical workers, by 35 per cent; and sales workers, by 29 per cent. Managers, officials, and proprietors (22 per cent); craftsmen and foremen (22 per cent); and operatives (10 per cent) are projected to grow less rapidly than total employment (25 per cent). The employment level of nonfarm laborers is expected to be about the same in 1980 as in 1968, and further declines are expected in the number of farm workers.\(^{223}\)


\(^{223}\)Ibid.
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
<td>Per cent</td>
<td>Number</td>
</tr>
<tr>
<td>Professional, semiprofessional, and technical</td>
<td>10,325</td>
<td>13.6</td>
<td>15,500</td>
<td>16.3</td>
<td>5,175</td>
</tr>
<tr>
<td>Managers, officials, and Proprietors</td>
<td>7,776</td>
<td>10.2</td>
<td>9,500</td>
<td>10.0</td>
<td>1,724</td>
</tr>
<tr>
<td>Clerical workers</td>
<td>12,803</td>
<td>16.9</td>
<td>17,300</td>
<td>18.2</td>
<td>4,497</td>
</tr>
<tr>
<td>Sales workers</td>
<td>4,647</td>
<td>6.1</td>
<td>6,000</td>
<td>6.3</td>
<td>1,353</td>
</tr>
<tr>
<td>Craftsmen and foremen</td>
<td>10,015</td>
<td>13.2</td>
<td>12,200</td>
<td>12.8</td>
<td>2,185</td>
</tr>
<tr>
<td>Operatives</td>
<td>13,955</td>
<td>18.4</td>
<td>15,400</td>
<td>16.2</td>
<td>1,445</td>
</tr>
<tr>
<td>Nonfarm laborers</td>
<td>3,555</td>
<td>4.7</td>
<td>3,500</td>
<td>3.7</td>
<td>-55</td>
</tr>
<tr>
<td>Service workers</td>
<td>9,381</td>
<td>12.4</td>
<td>13,100</td>
<td>13.8</td>
<td>3,719</td>
</tr>
<tr>
<td>Farm workers</td>
<td>3,464</td>
<td>4.6</td>
<td>2,600</td>
<td>2.7</td>
<td>-864</td>
</tr>
<tr>
<td>TOTAL</td>
<td>75,920</td>
<td>100.0</td>
<td>95,100</td>
<td>100.0</td>
<td>19,180</td>
</tr>
</tbody>
</table>
Further analysis of the figures in Table 4 reveals that managerial, semiprofessional, technical, clerical, sales, and highly skilled jobs will involve more than half of the labor force by 1980.224

There is a wide range of skills and knowledge required in these occupations. At the upper end of the spectrum, technicians work at highly sophisticated levels in research, design, and prototype production. Theoretical knowledge approaching that of the professions, combined with some practical know-how about instruments, tools, and laboratory equipment, is required for such work. At the other end of the spectrum are those occupations which demand a high degree of manual skill and ingenuity, but require only a modest background in science, mathematics, and technical theory. In between the extremes are clerks, sales personnel, and some managerial positions. This, then, is the spectrum of middle level manpower.225

Proper preparation for these jobs will require some college training, but not usually the baccalareate degree. Today's high schools do not offer adequate preparation for these jobs, nor do the four-year colleges and universities. The community college is the logical answer to this national manpower need. It has the enrollment potential to make a

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224Ibid.
225Harris, Technical Education in the Junior College, p. 35.
significant impact on the nation's middle manpower problem. It is in a position to close the four-year educational gap which exists between the high school graduate and the college graduate. But its educational programs must take new directions. Its programs must be oriented toward middle level youth rather than academically superior youth. The middle 50 per cent of high school graduates outnumber academically superior students two to one. The educational programs of these youth should be characterized by diversity, good teaching, and practicality rather than by conformity and highly selective admissions policies. The educational needs of these youth are important because they are also the nation's needs, and the community college is uniquely equipped to serve the needs of both. 226

Rewards of Two Years of College Study

It can be seen that the need for workers with community college level education and training is great. But what are the rewards of this kind of experience beyond the satisfaction of broadening social and cultural perspectives through the acquisition of knowledge and new ideas? What are the material returns from the investment in a community college education? Are they worth the sacrifice of time, money, and effort required to acquire it? The potential rewards of two years of college study might be expressed in terms of income, status, and working conditions.

226Ibid., p. 47.
**Income.**—Compare the following typical monthly earnings, at the going rates for the early 1970's.\textsuperscript{227}

Male high school graduate,
entry job, unskilled work . . . . . . . . . . . \$264—\$400

Male high school graduate,
some experience, semiskilled work . . . \$370—\$450

Female high school graduate,
entry job, counter clerk,
retail store . . . . . . . . . . . . . . . . . . . . . . \$200—\$264

Female high school graduate,
entry job, typist and office work . . . \$280—\$325

Male community college graduate,
entry job, highly skilled technician . . . . . . . . \$400—\$450

Male community college graduate,
entry job, semiprofessional technician . . . . . . \$475—\$500

Female community college graduate,
entry job, semiprofessional secretary . . . . . . . \$475—\$500

Male community college graduate,
five years experience, semi-
professional technician . . . . . . . . . . \$550—\$650

Male community college graduate,
ten years experience, senior engineering technician . . . . . \$700—\$850

Some other examples of monthly salaries earned by recent community college graduates:

Air conditioning and refrigeration technician . . . . . . . . . \$1000

Data processing technician . . . . . . . . . . . . . . . . . \$835

\textsuperscript{227} These figures were obtained through telephone interviews, conducted March 31, 1972, in Tuscaloosa, Alabama, with Mr. James Ford, statistician for Alabama State Employment Service, Tuscaloosa Office, and with Mrs. Lyle Hopper, manager of Future's Unlimited Personnel Consultants, Tuscaloosa Office.
Instrument technician $810
Environmental technician $750
Architectural draftsman $600
Policeman $600
Corrections counseling technician $550

At these differentials it will not take long to recover the expenses of a community college education and forge ahead of those who end their education with high school.

Status.—According to Harris, semiprofessional, technical, and many highly skilled workers are key members of a team. They are important on the job, in their communities, in their service to humanity, and in their contributions to national defense, science, and space exploration. Harris gives the following examples of the status of technicians with two years of college training:

The work of from two to five technicians may be required before a physician who specializes in internal medicine can diagnose the malady of his patient.

The number of technicians involved in a space shot may be two to three times the number of scientists and engineers.

A group of three or four professional architects and engineers will need up to thirty architectural draftsmen as the firm prepares plans and specifications for a major building project.

A scientist may conceive it, a few engineers may design it, but hundreds of technicians will be required to assemble, adjust, test, and operate a new radar telescope to probe outer space.

Technicians save lives, provide entertainment, make world-wide communication possible, keep defenses at peak efficiency, make industry and business hum, open new frontiers, and live the good life.
themselves, as well-paid and highly respected members of society.228

Working Conditions.—Harris also lists the following examples of working conditions of community college graduates:

Technicians work everywhere—in glamorous places like Hawaii, in home towns like Dubuque, in the heart of San Francisco, in an embassy in Paris, and on a geophysical exploration truck in Timbuktu.

Semiprofessional workers (including technicians) typically are salaried employees working in the research, planning, development, and evaluation activities of an enterprise.

Technicians ordinarily work in clean, well-lighted, air conditioned laboratories, and other semiprofessional personnel such as dental assistants, secretaries, draftsmen, nurses, and data programers, work in comfortable and attractive surroundings.229

The evidence presented here seems to indicate that the rewards of a community college education, in terms of income, status, and working conditions, are worth the sacrifice of time, money, and effort required to acquire it.

Summary

The basic problem treated in this section was that of establishing a rationale for career education in the community college. In order to do this, the following component problems were considered: clarifying the past and present structure of career education in America; highlighting the potential of the community college for providing

228Harris, Technical Education in the Junior College, p. 29

229Ibid.
career education; suggesting new directions in higher education which should bridge the gap between men and jobs; and examining the manpower needs of the nation and placing the spectrum of middle level manpower in proper perspective within the total manpower picture in America.

The roots of career education extend back beyond the dawn of recorded history. Its structure has changed as man's social structure changed. Man's need for career education was largely satisfied by apprenticeship in one form or another until comparatively recent times. The technological development of the United States and the resulting critical need for career education gradually became problems of national concern and action. After a careful study of the need for career education by a national commission in 1914, Congress concluded that such education was a wise investment for the federal government. Federal interest in career education had taken specific form earlier in the Morrill Act of 1862, by which large blocks of public land were allocated to each state for support of colleges of agricultural and mechanical arts. But this had left a vacuum in the field of middle occupational preparation. In 1917, Congress passed the Smith-Hughes Act in an effort to fill this vacuum. The Smith-Hughes Act provided grants to the states to develop and promote vocational education at the secondary school level in the areas of agriculture, trades and industry, and homemaking. In the years that followed, several supplementary or related acts were passed
to extend or modify some phase of the federal program of career education. Distributive education and the training of highly skilled technicians were added to the federally supported program. However, until 1963, none of this federal legislation changed the fundamental purposes of the Smith-Hughes Act. As late as 1963, the federal program of career education was still limited to less-than-college grade and was heavily weighted toward rural areas. In the latter part of 1963, Congress passed the VEA of 1963 which removed the less-than-college grade restrictions that had appeared in earlier legislation. In addition, it added many other provisions which were intended to foster flexibility, adaptability, and experimentation in a career educational effort geared to technological change. The VEA of 1963 made it possible for community colleges to expand their career educational programs through the use of federal funds. About the same time that it passed the VEA of 1963, Congress also passed the Higher Education Facilities Act of 1963. Under this act, the federal government would support 40 per cent of the cost of expanding both the college-parallel and the career educational program offerings of the community college. In 1968, Congress amended the VEA of 1963. Among other things, the 1968 Amendments required that at least 15 per cent of all federal support to the states for career education be expended at the community college level. This federal legislation enacted during the sixties was a most encouraging development for both career education and the
community college. Not only did it clearly recognize that career education was a legitimate and necessary part of higher education, it also demanded that career education in the community college receive a high priority.

The growth and development of the community college parallels the growth and development of the federal program of career education. The first two-year college was established around the middle of the nineteenth century. It was about this time that federal interest in career education took specific form in the Morrill Act of 1862. The Smith-Hughes Act was passed in 1917. This was about the time that two-year colleges began to add career education to their program of studies. At this time, many two-year colleges were considered to be an extension of the high school and as such were able to use Smith-Hughes funds to expand their career educational programs. During the decade of the sixties, Congress passed the VEA of 1963, the Higher Education Facilities Act of 1963, and the 1968 Vocational Amendments. During the decade of the sixties, a number of states charted community college systems which resulted in the almost fantastic growth in number and enrollment of community colleges, whereby the number of community colleges increased over 60 per cent and the enrollment in these institutions quadrupled.

Recent technological and societal trends have resulted in a phenomenal increase in the number of community college level jobs. Department of Labor statistics indicate
that by 1980 well over 50 per cent of all "work" will require community college level education and training. Evidence indicates that the rewards of a community college education, in terms of status, working conditions, and income, are worth the sacrifice of time, money and effort required to acquire it.

In conclusion, the evidence presented in this section clearly illustrates a critical need for expanded programs of career education in the growing community colleges of the nation to keep pace with the societal and technological changes that are occurring at an ever-increasing rate. There is further evidence that the rewards can be substantial for those who complete this level of training.

Survey of Planning Procedures for Developing, Implementing, and Evaluating Career Educational Programs in Selected Community Colleges

State Department of Community Colleges,
Richmond, Virginia

Background.—The Virginia Department of Community Colleges is the operating arm of the State Board for Community Colleges, which is the governing body for the Virginia Community College System. The Virginia Community College System was established by the 1966 General Assembly. This system includes the former technical colleges, the

230Information concerning the Virginia Department of Community Colleges was obtained through a personal interview, conducted March 16, 1972, in Richmond, Virginia, with Dr. A. Martin Eldersveld, Director for Curriculum and Instruction, State Department of Community Colleges, Richmond, Virginia.
post-high school programs formerly offered by area vocational-technical schools, a number of branch colleges formerly operated by state universities, and some new comprehensive community colleges. At present, the system operates twenty community colleges. Four of these colleges operate more than one campus. Present plans call for three more colleges by fall, 1973.

The State Board for Community Colleges, which has fifteen members appointed by the governor, serves as the governing board for all of the system colleges. The state board has adopted a master plan that divides Virginia into twenty-three community college regions. A local board in each region advises the state board and may operate the local college to the extent allowed by the state board.

About two-thirds of a community college's operating costs are borne by state tax funds. The rest comes from student tuition and fees, federal funds, and small sums voluntarily contributed by the political subdivisions in the college's region. Capital outlays are derived primarily from state tax funds and federal funds. However, community college sites must be purchased and developed with local tax funds. The local political subdivisions occasionally contribute funds to help construct buildings.

Each community college within the Virginia Community College System is a comprehensive institution of higher education offering instruction of not more than two years' duration. The curriculums currently offered by Virginia's
community colleges include those transferable to four-year colleges and universities, those designed as degree programs in career education, and the non-degree diploma and certificate programs designed also to serve the occupational needs of the state. At the beginning of the 1971 fall term, seven college transfer and ninety-one career programs were offered in the Virginia Community College System. Approximately 70 per cent of the students were enrolled in career educational programs.

Although Virginia entered the field of comprehensive two-year higher education only six years ago, the Commonwealth today has a community college system which is being viewed as a model by numerous other states. More than 20,000 individuals were trained for employment in the first five years of operation. According to estimates, more than 90 per cent of this total accepted employment in Virginia. Examples of starting salaries for 1970-71 graduates included: $12,000 for an air conditioning and refrigeration technician; $10,000 for a data processing technician; $9,724 for an instrumentation technician; and $9,000 for an environmental technician.

During 1970-71, Virginia's community college enrollment numbered 39,765 students. Of the total student population, 57 per cent were full-time, and 43 per cent were part-time. Virginia's community colleges produced 2,196 graduates during 1970-71. Seventy-one per cent of these graduates were enrolled in career educational programs, and 29
per cent in college transfer programs. Excluding presidents, the faculty numbered 1,109. Of this total, 82 per cent had at least a masters degree, and 10 per cent had degrees above the masters level.

As the chief administrator of the Virginia Community College System, the Chancellor, assisted in an advisory capacity by the State Department of Community Colleges, enforces policy and deals directly with the community college presidents in guiding the operation of these institutions. The administrative framework of the Virginia Department of Community Colleges includes five divisions: the Division of Curriculum and Instruction, the Division of Student Services, the Division of Research and Planning, the Division of Administration and Finance, and the Division of Special Training. Coordination of the development of career educational programs in Virginia's community colleges is the responsibility of the Division of Curriculum and Instruction, which is under the direction of the Director for Curriculum and Instruction.

The Role of the State Department of Community Colleges in Developing, Implementing, and Evaluating Career Educational Programs. — The primary role of the Virginia Department of Community Colleges is one of leadership and service rather than prescription from "on high." The state office does not develop a curriculum and then insist that the local community colleges implement it. Its procedure is to develop a curriculum and send it to the local colleges
for consideration. They ask the local colleges to review the curriculum and assess the need for it in their areas. By doing this they provide the leadership for curriculum development to the best of their ability.

The onus is then on the local college. After determining that there are sufficient employment opportunities, students, funds, and qualified instructors available to support this program, the local college modifies the curriculum in accordance with the expertise of its faculty and advisory committees, and sends it back to the state office in proper proposal form. The only thing prescribed from "on high" is that the curriculum meet the minimum standards established by the state board.

Ninety per cent of the impetus for curriculum development exists at the local level. The local colleges initiate the curriculum. They do so with the educational expertise of their Deans of Instruction, faculty chairmen, individual faculty members, and advisory committees. In addition, they often ask the state office to assist them in the design of a curriculum.

Another function of the state office is the preparation of the Virginia Community College System Curriculum Master Plan for Occupational-Technical Education. In an effort to determine the occupational-technical curricular needs beyond high school of both youths and adults in Virginia, the Division of Curriculum and Instruction of the State Department of Community Colleges conducted a study of
community college occupational-technical education and its potential for service within the state. Prior to this study, several of the local community colleges investigated the developmental characteristics of their respective residence areas and provided their curricular projections within institutional master plans. The Virginia Community College System Curriculum Master Plan for Occupational-Technical Education draws upon such studies and upon individual consultations with the colleges in presenting a verbal and graphic picture of the community college occupational-technical curricular requirements for Virginia. Therefore, it represents the combined efforts of the community colleges in Virginia and the staff of the Division of Curriculum and Instruction of the State Department of Community Colleges.

The state office also helps to evaluate a program. It observes how the enrollment is progressing, how many are graduating from the program, how successful the graduates are at obtaining employment, and how products of the program are progressing on the job. Using the above criteria, the state office works with the local college to assess the worth of a program.

Procedure for Developing, Implementing, and Evaluating Career Educational Programs.—The steps followed by the local colleges in the Virginia Community College System in developing career educational programs are as follows:

1. Identify the possible need for a particular career program.
2. Form a faculty committee to develop a preliminary design for a curriculum.

3. Form a lay advisory committee (composed of local persons who are currently working in the occupational area of the proposed program) to work with the faculty committee to determine the number of employment opportunities, assess student interest, identify possible instructors, estimate cost, and further develop the curriculum for the proposed program.

4. Write a proposal for the program and forward it to the State Department of Community Colleges for review.

5. Submit the proposal to the State Board for Community Colleges for approval.

6. (For degree programs only) Submit the proposal to the State Council of Higher Education for approval.

When a program has been approved by the State Council of Higher Education, or the State Board for Community Colleges in the case of a non-degree program, it can then be implemented at the local college.

The possible need for a particular career program is brought to the attention of the local college in a variety of ways. As previously mentioned, the thought may be conceived by someone in the state office who is trying to provide service to the local college. The State Department of
Community Colleges will then develop a curriculum and forward it to the local college for consideration. A faculty member within the local college may come up with an idea, or a lay person outside the college might conceive the idea and contact the college.

Once an idea is conceived and comes to the attention of the Dean of Instruction, the next step is to form a small faculty committee to design a preliminary curriculum. This committee is formed within the disciplinary area of the proposed program and consists of staff members with expertise in the area. The local college is allowed a great deal of flexibility in deciding which technical and related courses will be included in the curriculum. However, the state board requires that 50 per cent of the courses included in a degree program be specialized courses in the major field and 25-30 per cent be supporting technical and theory courses. This leaves 20-25 per cent for general education courses. The state board prescribes certain general education courses which must be included in every curriculum. A minimum of ninety-seven quarter hours is required for all two-year degree programs.

Concurrently with the formation of the faculty committee is the creation of a lay advisory committee. The advisory committee's first task is to conduct a survey of its occupational area to determine the annual number of employment opportunities which might be available to students who graduate from this type curriculum. It works with the
faculty committee in surveying the local high schools to determine if student interest is adequate to support the program. When collecting data for a particular career program, brief surveys are usually sufficient. The employers who might hire graduates of the program are asked to indicate how many vacancies they expect annually for the next five years. Contact with high school counselors in the enrollment area is usually sufficient to determine student interest in a particular program. Comprehensive surveys of employers and students are conducted every five years in order to update the curriculum master plan.

When the necessary data have been assembled, the two committees complete the task of curriculum development. The lay advisory committee knows what kind of product is required and the faculty committee knows the educational requirements of the state board. Once the local group is satisfied that the curriculum content meets the requirements of the job and the state board, employment opportunities and student interest are sufficient, and qualified faculty members and sufficient funds are available, a proposal is written in the required format and forwarded to the State Department of Community Colleges for review.

The curriculum and instruction staff at the state office checks the proposal to make sure that the curriculum meets the requirements of the State Board for Community Colleges and then forwards it to the board for approval.
Once the state board approves a program proposal, the local college can begin the implementation process, except in the case of a degree program. If a degree is to be awarded for completion of a program, the curriculum must gain the approval of the State Council of Higher Education. This body reviews the proposal to see if the curriculum meets a state need, is adequately funded, and conforms to proper academic standards.

The minimum academic preparation of career educational faculty members is prescribed by the State Board for Community Colleges. To teach courses that are applicable to a degree, a person normally must possess a masters degree, including a minimum of eighteen semester hours of graduate work in the field of specialization for which courses are taught. To teach courses that are applicable to certificate and diploma programs, a person normally must possess a minimum of a bachelors degree. If persons with the required degree cannot be employed, evidence of professional competency in the area of specialization is recognized and may be acceptable in lieu of the degree. In such cases, it is expected that these persons will be working on the required degree. Career educational teachers are usually required to possess some appropriate occupational experience in fields related to the courses that they are teaching and are encouraged to keep up to date with occupational development through visitations, summer employment in industry, and other occupational experience.
The prime criterion for evaluating the success of a career program is: are the graduates performing as desired? Other factors to consider are: is the enrollment increasing? How many students completed the program? did the graduates obtain employment in their field? are products of the program progressing satisfactorily?

Sources of feedback for assessing the effectiveness of a program include graduates of the program, dropouts, employers who hire products of the program, and the lay advisory committee.

Periodically, the local college analyzes the data obtained from the above sources and, when required, revises the curriculum in order to keep pace with the changing needs of business and industry.

Jefferson State Junior College, Birmingham, Alabama

Background.—Jefferson State Junior College, Birmingham, Alabama, is the largest of eighteen public junior colleges which comprise the state junior college system. The Alabama State Junior Colleges are under the direct control of the State Board of Education. As the executive officer of the board, the State Superintendent of Education, assisted in an advisory capacity by the Division of Vocational-Technical and Higher Education of the

231 Information concerning Jefferson State Junior College was obtained through a personal interview, conducted April 11, 1972, in Tuscaloosa, Alabama, with Mr. Pat Wallace, Associate Dean of Career and Professional Programs, Jefferson State Junior College, Birmingham, Alabama.
State Department of Education, enforces policy and deals directly with the junior college presidents in guiding the operation of the schools.

The state junior colleges are financed by state-collected tax revenues and college-collected tuition fees. Jefferson State is located in the extreme northeast corner of Birmingham. It serves the counties of Jefferson, Shelby, and a portion of Blount, Cullman, St. Clair, and Walker.

When the fall term opened in 1971, Jefferson State began its seventh year of instruction. At this time, the enrollment had grown to a total of 5,631 students and the faculty numbered 163 instructors. Approximately 50 per cent of the students were classified as full-time and 50 per cent as part-time. Of the total student population, 45-50 per cent were enrolled in career educational programs.

Jefferson State awards the A.A.S. degree for completion of thirty-six two-year career programs. In addition, for persons desiring to spend less than two years in preparation, it offers certificate programs in a few areas.

Many of the career educational students are enrolled in cooperative work-study programs where they complete a portion of their training on the job, for which they receive pay. Several others work full-time in semiskilled or unskilled jobs while attending evening classes in order to become qualified in a skilled or semiprofessional career field.
Career programs at Jefferson State are under the direction of the Associate Dean of Career and Professional Programs who reports directly to the Dean of Instruction. A closer study of the administrative framework reveals division chairmen, department chairmen, and program coordinators who work with the Associate Dean of Career and Professional Programs in the development, implementation, and evaluation of career educational programs. Their success in planning career educational programs is demonstrated by the fact that thirty-six of the thirty-eight programs which they have developed have been successful and are still in operation.

Procedure for Developing, Implementing, and Evaluating Career Educational Programs.—The steps followed by Jefferson State in developing career educational programs are as follows:

1. Identify the possible need for a particular career program.

2. Advise the chairman of the division in which the program would operate (there are four divisions which operate career educational programs: technology, health related technology, vocational education, and commerce and business administration) to appoint a program coordinator and set up a curriculum committee to verify that there is a need for this particular program and to do the preliminary work involved in curriculum development.
3. Introduce the proposed program outline to the advisory committee (composed of from five to eight local persons who are competent in, and presently working in, the occupational field of the proposed program) which works with the program coordinator to determine the extent of the need, further develop the curriculum, and identify possible instructors for the program.

4. Submit the proposed curriculum to the entire membership of the division and to the Associate Dean of Career and Professional Programs for approval.

5. Submit the proposal to the college curriculum committee (composed of one representative from each of the nine divisions within the college) for approval.

6. Submit the proposal to the Dean of Instruction for approval.

7. Submit the proposal to the President of the College for approval.

8. Submit the proposal to the State Department of Education for approval.

Once a program proposal has been approved by the State Department of Education, the college curriculum committee at Jefferson State is notified that the program is now a part of the overall college program and it can be implemented within the division from which it originated.
The need for a particular career program is identified in various ways at Jefferson State. Sometimes a business or industrial group contacts the college and indicates that there is a need for trained people in their occupational field. Occasionally, the federal vocational education people indicate that there is a pressing need for certain occupational skills, and they make funds available to support career programs in these occupational areas. Sometimes, potential employment needs are identified by surveying the employment agencies in the Birmingham metropolitan area. At other times, potential needs are identified by conducting surveys in certain occupational areas during the summer months. Through each of these methods, the need for a particular program is identified.

Once the need for a particular career program comes to the attention of the Associate Dean of Career and Professional Programs, he identifies the division and department (some divisions are broken down into departments which contain four or more instructors) in which the program is most related, and advises the chairman of that division to take appropriate action to initiate the development of the program. The division chairman then identifies someone in his division to serve as program coordinator and sets up a curriculum committee to help the coordinator verify that there is a need for this particular program and to do the preliminary work involved in curriculum development.
After validating that there is a need for this career program, the coordinator works with the division curriculum committee to develop an outline of courses for the program. Initially, they write to other colleges to get information on what they are doing in this career area. Then they review the information and come up with ideas about what courses should be included in a two-year career program of this nature. After an outline of courses for the program has been developed, the advisory committee is appointed.

The program coordinator is usually the individual who identifies potential advisory committee members. He makes contact with persons working in the career field who he feels will be an asset to the program and gets their preliminary approval to serve on the committee. Through his division chairman, he gets approval for this committee. The division chairman contacts the Associate Dean of Career and Professional Programs who sends a letter to the President of the College requesting that he appoint the committee. The president then sends letters of appointment to the prospective committee members. If they accept the appointment, the new committee members send letters of acceptance to the president. The committee is then organized within the college and is subject to the guidelines for operation of advisory committees established by the college. When a member is replaced, the same basic procedure is followed to appoint the new member.
Normally, advisory committee members are not appointed for a definite period of time. Some members serve for one year, some for two years, and some for three years. The tenure of office depends on the situation. If a member shows a genuine interest, has a good attitude, and makes a definite contribution, he may serve as long as three years. If a member isn't interested, doesn't attend meetings, and doesn't make a contribution, he will likely be replaced at the end of the first year.

When a committee member is to be replaced, the program coordinator submits a request (via the division chairman and the Associate Dean of Career and Professional Programs) to the president asking him to send a letter of thanks to the member and to appoint a replacement.

The program coordinator meets with the advisory committee each time that it meets. Sometimes the coordinator serves as secretary. At other times he serves as chairman or co-chairman. In most cases, however, a lay member serves as chairman of the committee. The advisory committees are very important at Jefferson State. They contribute to the career educational programs in many ways.

The first task of the advisory committee is to determine the extent of the need for their particular program by surveying this career field in the Birmingham metropolitan area. Then they work with the program coordinator, division curriculum committee, and in some cases, the Vocational Division of the State Department of Education, to
get a combined opinion of what courses should be included in the program. The advisory committee also provides assistance in locating qualified instructors for the program.

The program coordinator and the curriculum committee within the division from which the program is originating has the major responsibility for determining which general education courses will be included in the program. In most cases, these courses are already being offered by the college, so further curriculum development is not necessary for these courses. The advisory committee has the major responsibility for recommending the content of professional and related courses that are to be included in the program.

When the task of curriculum development has been completed, the proposed program is submitted to the entire membership of the division for approval. It must be approved by a majority of the instructors in the division from which it originates and the Associate Dean of Career and Professional Programs before it is considered by the college curriculum committee.

The State Department of Education has a twenty-three point form which must be filled out on each program submitted to it for approval. The form contains questions such as:

1. What evidence is there that the program is needed?

2. How much will the program cost?
3. Do you have the additional space required for the program?

4. Is additional equipment needed for the program?

5. Is the program being duplicated in an institution close by?

When the program has been approved by the members of the division from which it originated and by the Associate Dean of Career and Professional Programs, the program coordinator fills out the form required by the State Department of Education and writes the proposal for the program. The proposal is then submitted to the college curriculum committee for approval.

The college curriculum committee studies the proposal considering questions such as:

1. Does it show that we have the capability to accommodate the program?

2. Does it have the approval of a majority of the members of the division in which it originated?

3. Do the courses constitute a valid curriculum?

4. Is the need sufficient to justify the cost of the program?

5. Are qualified instructors available?

The committee votes either to approve the proposal, modify it, or reject it. If the committee approves it, the proposal is submitted to the Dean of Instruction for approval. If the dean approves the proposal, he forwards it to
the President of the College. After the president approves it, the proposal is sent to the State Department of Education for consideration. If for some reason the proposal is disapproved at the state level, it is returned to the college with an explanation of why it was rejected. If the State Department of Education approves the program, the college is notified and the implementation phase begins.

The official policy of the State Board of Education is that all instructors in the state junior college system must have at least a masters degree. In addition, career educational instructors must be competent in their occupational field. It is often difficult to find a person who possesses both a masters degree and occupational competency and is willing to accept the salary offered by the state junior colleges. If a person with a masters degree is not available, and an instructor who is highly competent in the desired occupational field can be secured, the state will waive the masters degree requirement. The request to waive this requirement is made in writing, with the justification outlined. Using occupational competency as justification, this person is then paid for a masters degree rating. For all practical purposes, he has the equivalent of a masters degree because of his competency.

The high school relations staff of the admissions office is in charge of student recruitment, including career education student recruitment. These counselors work with
high school counselors and vocational instructors to identify the occupational goals of high school students in the enrollment area. They also visit the high schools and talk with students enrolled in vocational programs to explain what Jefferson State is doing in related programs. Some career program instructors also visit local high schools for recruitment purposes. This has been very effective in recruiting career educational students.

Most career programs require a certain amount of cooperative work experience or on-the-job training. The program coordinator is responsible for making arrangements for the placement of students on the job during the time they are in training and for supervising these students on the job.

Jefferson State does not have an official job-placement office for graduates of career educational programs. This task is handled informally by the program coordinator. After graduation, many Jefferson State students return to the position where they completed on-the-job training. If a student does not return to the position where he completed on-the-job training, the program coordinator, assisted by the advisory committee, helps to find employment for him elsewhere.

Up to the present time, follow-up on graduates of career educational programs has been conducted informally and sporadically. When a student officially withdraws, he
is required to fill out a form giving his reason for withdrawing. However, little of the information collected in this manner is useful in evaluating and revising a program. Within the next year, the Associate Dean of Career and Professional Programs will design a survey form, and a strong follow-up program will be implemented. The survey instrument will be constructed so that the information on it can be kept up to date and retrieved by computer.

Most occupational programs are revised in some way each year to keep pace with the changing needs of business and industry. The curriculum is continuously evaluated. The overall program is evaluated once a year, prior to the time that the college catalog is revised, so that program changes can be included in the new catalog. Various criteria and methods of evaluation are used.

The primary criterion for evaluating the success of a career educational program at Jefferson State is how well the program is meeting the occupational needs of its students. If students are not completing the program, or are not employable once they graduate, the program is not accomplishing its primary objective. If students are completing the program and are able to obtain employment in the occupational field for which they are trained, then this is an indication that the program is successful.

Another measure of success used at Jefferson State is the number of students enrolled in a program. If the
enrollment progresses upward each term, this is an indication of success. If the enrollment begins to drop, then something is wrong. Each career program is allowed three years to achieve some pre-determined degree of achievement. If a program has not gained a substantial number of enrollees by the end of its first three years of operation, it is phased out.

The program coordinator plays a major role in the collection of feedback from graduates and from employers who employ graduates of career educational programs at Jefferson State. The coordinator makes contact with employers each week in relation to the supervision of on-the-job trainees, so he gets continuous feedback on the effectiveness of the training. He also comes in contact with Jefferson State graduates who are employed locally and gets feedback from them on what they think of their training.

The advisory committee for each program meets once or twice a year to discuss curricular matters and employment possibilities. Many of the committee members employ graduates of Jefferson State's occupational programs, so they have first-hand knowledge of the effectiveness of the training. The advisory committee evaluates the program and makes recommendations for revision to keep the program up to date. If it can see that certain courses in the program are no longer needed, and others are, they advise the college of the needed changes.
Golden Triangle Vocational-Technical Center
(A Division of East Mississippi Junior College),
Mayhew, Mississippi

Background.—Golden Triangle Vocational-Technical Center, Mayhew, Mississippi, is a division of East Mississippi Junior College which is located some forty miles south of Mayhew at Scooba, Mississippi. East Mississippi Junior College is one of seventeen public junior colleges which make up the state junior college system. Each institution in the system is operated by a district board of trustees. All institutions are under the general supervision of the State Junior College Commission.

The financing of the junior college system is the joint responsibility of the state and local district. State funds are distributed to the institutions on a per capita basis.

Although East Mississippi Junior College has been in operation since 1927, when one year was added to the local high school, it did not add career education to its curriculum until 1967. The board of trustees had earlier decided to locate the vocational-technical division closer to the largest population center in the northern half of the enrollment area (Columbus, Mississippi). So, in 1967, the vocational-technical division began operation in the

232Information concerning Golden Triangle Vocational-Technical Center (A Division of East Mississippi Junior College) was obtained through a personal interview, conducted April 19, 1972, in Mayhew, Mississippi, with Mr. Aaron Langston, Director of Golden Triangle Vocational-Technical Center, Mayhew, Mississippi.
Columbus area. For the first two years, it operated out of temporary facilities (the Columbus Civic Center) while permanent facilities were being erected. In the fall of 1969, Golden Triangle Vocational-Technical Center began operation in Mayhew, which is about eleven miles west of Columbus. It serves three of the six counties (Lowndes, Oktibbeha, and Clay) which make up the East Mississippi Junior College District.

Golden Triangle has the third largest enrollment among institutions of its kind in the Mississippi Junior College System. Its present enrollment is approximately 2,000. However, only 212 of these are full-time junior-college-level career educational students. The others are part-time, adult basic education, and evening extension students.

Golden Triangle offers ten different career educational programs. Nine of these are certificate programs and one is an A.A.S. degree program. The nine certificate programs require from nine to twelve months of training and the A.A.S. degree program is a technical program which takes two years to complete.

Golden Triangle is administratively attached to East Mississippi Junior College. The chief administrator at the Vocational-Technical Center is the Director of Vocational-Technical Education who reports directly to the President of East Mississippi Junior College. The director is the
person who is directly responsible for developing, implementing, and evaluating career educational programs.

The success that Golden Triangle has had in planning career educational programs is demonstrated by the fact that every class is filled to capacity, with several qualified applicants having to be refused admission or placed on a waiting list for a later class. In addition, there are from one to five jobs available for each student who completes one of these programs. The director also stated that every program that they have developed and submitted to the State Department of Education has been approved and funded at the state level.

Procedure for Developing, Implementing, and Evaluating Career Educational Programs.—The steps followed by Golden Triangle in developing career educational programs are as follows:

1. Identify the possible need for a particular career program.

2. Introduce the proposed program to the overall advisory committee (a sixteen member general advisory committee composed of five persons from each of the three counties in the enrollment area, plus the chief administrator of the Columbus Area Office of the Mississippi Employment Securities Commission) which determines the extent of the need.

3. Submit the proposed program to the East
Mississippi Junior College Board of Trustees for approval and appropriation of local matching funds (18 1/2 per cent local funds are required).

4. Introduce the proposed program to the craft committee (composed of local persons qualified in the trade area of the proposed program) which develops the scope and sequence of the curriculum and compiles a materials, tool, and equipment list.

5. Submit the proposal to the State Junior College Commission for approval.

6. Submit the proposal to the Vocational-Technical Division of the State Department of Education for approval and appropriation of state and federal matching funds (81 1/2 per cent state and federal funds are provided).

Once a program has been approved by the State Department of Education, it can then be implemented at Golden Triangle.

In order to identify the employment needs, the guidance department at Golden Triangle conducts an annual survey of all the businesses and industries and of all the high school juniors and seniors in the enrollment area. In addition, these surveys are occasionally conducted in the surrounding areas.

When conducting the survey of business and industry, the guidance department first sends survey forms to the
businesses and industries by mail. If a business or industry does not return the form, a member of the guidance department makes a personal visit to this business or industry and seeks out the information needed to complete the survey form.

The occupational interest survey of high school junior and seniors is conducted by the guidance departments of the various high schools. The data collected by the local high school guidance departments are then forwarded to the guidance department at Golden Triangle.

The survey data are then compiled and analyzed in order to identify the occupational areas in which there is the greatest amount of interest and need. If the survey reveals that there is probably sufficient interest and need to justify a particular career program, and if the director thinks that local matching funds can be obtained to support such a program, then the overall advisory committee is asked to begin the process of confirming the extent of the interest in the program and the number of employment opportunities requiring this type and level of skill. If the advisory committee can verify that there is an adequate number of qualified students interested in pursuing this particular career, and if it can establish that there is a sufficient number of job openings in this field to justify the cost of the program, then a proposal for developing the program is submitted to the East Mississippi Junior College Board of Trustees.
If the board of trustees approves the proposal, arrangements are made to secure local matching funds, and the Director of Golden Triangle appoints the craft committee. The craft committee then begins the process of developing the curriculum for the proposed program.

The Vocational-Technical Division of the State Department of Education has curriculum specialists on its staff who are available to provide assistance to the local institutions. Golden Triangle coordinates with these people throughout the process of curriculum development so that the program which is being developed will not be too narrow in scope and the graduates of these programs can be employed anywhere in the state. Furthermore, if the State Department of Education is informed early that a particular program is being developed, it will have more time to make arrangements for funds to support the program.

The Vocational-Technical Division of the State Department of Education maintains a curriculum laboratory at Mississippi State University. If an occupational program has been offered at another institution in the state, a copy of the curriculum will normally be filed in the curriculum laboratory at Mississippi State. If the proposed program has been offered by another institution in the state, and if a copy of the curriculum is available, it is introduced to the craft committee. The craft committee then reviews it and decides what is needed and what is not needed for the situation at Golden Triangle.
The State Department of Education, the Southern Association of Colleges and Schools, and the Veterans Administration require that a certain percentage of general education courses be included in the curriculum of each career educational program for which a degree is awarded. Golden Triangle fulfills these requirements when developing technical programs. The content of laboratory and related courses is determined by the craft committee.

When the task of curriculum development has been accomplished, a proposal for the program is submitted to the State Junior College Commission. When it is approved, the proposal is forwarded to the Vocational-Technical Division of the State Department of Education for approval and funding. Once this phase has been completed, the director of Golden Triangle can hire the coordinator-instructor for the program.

The minimum qualifications for instructors are established by the State Department of Education. A masters degree is required for all instructors who teach courses included in a degree program. For certificate programs, a high school diploma and occupational competency is sufficient. However, an instructor who does not have a baccalaureate degree must complete certain recertification requirements. In most cases, he is required to pass six semester hours of college credit each year.

During the implementation phase, the coordinator-instructor works closely with the craft committee. Together,
they determine the maximum number of students for each class; decide which textbooks to adopt; further develop the content of the curriculum; develop the general layout of the shop area and classrooms; complete the equipment, tool, and materials list; and make sure that necessary textbooks, materials, tools, and equipment are purchased early enough to be delivered in time for the opening of the first class. In some cases the coordinator-instructor is employed as long as a year before the program begins operation.

The guidance department is in charge of recruiting, testing and selecting students for the program. Members of the guidance staff also work closely with students during the training phase. If a student is having difficulty, a member of the guidance department makes contact with this student and attempts to help him solve his problem. The guidance staff tries to avoid calling the student into the office for consultation. The preferred technique is to approach the student in the lounge area, lunchroom, or shop area, and strike up a conversation. After the ice has been broken, and the student is more at ease, the problem can be discussed more comfortably, and there is a better chance of helping the student solve his problem.

If someone drops out of the program, he is required to meet with a member of the guidance staff. At this time, an attempt is made to determine if he was getting what he expected to get out of the program; whether the academic part of the program was too difficult for him to cope with;
whether there was a personality conflict with the instructor; whether he dropped out for monetary reasons; or whether he has accepted a job in a related field. This information is used to determine whether the program was doing what it was designed to do, or whether the instructor was doing the job that he should have been doing. If the student is leaving because he has acquired marketable skills and has secured employment, no action is taken and in his case the program is considered to be successful.

The placement section of the guidance department at Golden Triangle works with the craft committee to secure employment for graduating students. If placement is a valid criterion for evaluating the success of a program, the career programs at Golden Triangle can be considered highly successful, because each graduate has had from one to five jobs to choose from upon graduation.

Annually, for five years after graduation, the guidance department conducts a follow-up survey on each student who completes an occupational program at Golden Triangle. In addition, when the employment needs survey forms are mailed to business and industry, employers are asked to evaluate employees who are products of career programs at Golden Triangle. By analyzing the information obtained through these follow-up surveys, the guidance staff can determine whether its graduates stay on the job and progress, or flounder and move into related or totally unrelated job areas.
The craft committee is called in annually to assess what is presently being done in the classes at Golden Triangle. Its findings are compared to what the needs were at the beginning of the program and to the changes that are taking place in business and industry each year. Annually, the curriculum is revised and updated to meet the new and expanded needs of business and industry, both locally and statewide.

Background.—Clayton Junior College, Morrow, Georgia, is the largest junior college included in the University System of Georgia. At present, the University System of Georgia (which encompasses all state-operated institutions of higher learning in Georgia) includes eleven junior colleges and seventeen senior colleges and universities. The Board of Regents of the University System aided by the University System Advisory Council, is the governing body for all universities, senior colleges, and junior colleges operated by the state.

The junior colleges in Georgia are financed by a cooperative state-community plan under which funds for acquisition, development, and initial construction of the campuses are provided by the local community, and funds for the

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233 Information concerning Clayton Junior College was obtained through a personal interview, conducted May 3, 1972, in Morrow, Georgia, with Mr. Steve Edwards, Chairman of the Division of Social Science, Clayton Junior College, Morrow, Georgia.
operation and expansion of the colleges are provided by the Board of Regents from state appropriations.

Clayton is situated twelve miles south of the heart of Atlanta. Its service area includes the counties of Clayton, Henry, Fayette, and part of Spalding and Fulton (including the southern portion of metropolitan Atlanta).

Clayton is in its third year of operation. When the fall term opened in 1971, its enrollment numbered 2,250 students and its staff included 60 faculty members. Of the total student population, approximately 1,350 were classified as full-time and 900 as part-time. About 40 per cent of the students were enrolled in career educational programs.

All of the career educational programs at Clayton are two years in length. At present, it awards the A.A. degree for completion of eight different two-year career programs. It is in the process of developing another program.

There is no administrative segregation of career and transfer programs at Clayton. The various career programs are under the direction of the chairmen of the divisions in which they operate. The division chairmen report directly to the Dean of Instruction. The chairmen work with selected members of their division in the development, implementation, and evaluation of career educational programs. Five of the eight career programs operate within, and have been developed by, the Division of Social Science.
Procedure for Developing, Implementing, and Evaluating Career Educational Programs.—The steps followed by Clayton Junior College in developing career educational programs are as follows:

1. Identify the possible need for a particular career program.

2. Propose the program to the chairman of the division in which it would operate (there are two divisions which operate career educational programs: social science, and natural science and mathematics) who determines the extent of the need and identifies a program director to complete the preliminary work involved in curriculum development.

3. Introduce the proposed program outline to the advisory committee (composed of citizens who are competent in the occupational field of the proposed program, as well as other interested citizens) which works with the program director to further develop the curriculum and identify potential employment opportunities for graduates of the program.

4. Submit the proposal to the Educational Policies Committee (composed of the President of the College, as ex officio chairman; the Dean of Instruction, as chairman; all division chairmen;
and one faculty-elected representative from each division) for approval.

5. Submit the proposal to the Board of Regents of the University System of Georgia for approval.

Once a program has been approved by the Board of Regents of the University System of Georgia, it can then be implemented within the division from which it originated.

There is usually an impetus outside of the college that causes the development of a career program to be initiated at Clayton Junior College. In one instance, the state implemented a new licensing requirement, and the college developed a training program to satisfy this requirement. A local school board decided to implement a new career level (teacher assistant), and the college developed a program to fulfill this need for trained personnel. Because there was a national need to upgrade the education of police officers, the federal government made money available for law enforcement training programs, and the college developed a program in response to this need. A local community group realized that the demand for nursing home administrators was rapidly increasing, and asked the college to develop a program to satisfy the demand for trained personnel in this career field. In each of these ways, the need for a particular career program was brought to the attention of the Dean of Instruction at Clayton.

Once the need for a particular career program comes to the attention of the Dean of Instruction, he identifies
the division in which the program is most related, and directs the chairman of the division to take appropriate action to initiate the development of the program, if the need is sufficient to justify the cost. The division chairman then appoints someone in his division to serve as program director and to develop an outline of courses for the program.

The first thing that the program director does is review available literature (trade association publications, college catalogs, etc.) to see what skills are required for this particular occupation and to see what other colleges are doing in this area. If another college has a similar program in operation, he might visit this college to get first-hand knowledge of what its program is like. He might pay a visit to the state trade association, which represents this career field, to find out what it thinks should be included in a program of this nature. He checks with the Veterans Administration and the college accrediting association to see what general education courses they require.

The Dean of Instruction requires that certain general education courses be included in every program within the college; the program director identifies these courses. Although the main purpose of the career programs at Clayton is to equip the student for employment after two years of study, some of the programs (such as law enforcement) can be either terminal or transfer. In this situation, the courses required in a four-year program of this type are
identified. Through each of these methods, the program director identifies the courses that are appropriate for his particular career program, and then he puts together a skeleton outline of the program.

The next thing that the program director does is examine the existing courses to see which ones are relevant to the program he is developing. At this point the advisory committee is appointed to help the program director determine the content of the new courses which must be developed. After the task of curriculum development has been completed, the director writes the program proposal and submits it to the Educational Policies Committee.

The Board of Regents of the University System of Georgia prescribes a format that must be followed when writing the proposal for a new program. Questions such as the following must be answered:

1. What are the objectives of the program?
2. How much will the program cost?
3. How many new staff members will be required?
4. What library acquisitions will be necessary?
5. Who else has a program like it?

The program proposal is submitted to the Educational Policies Committee in the format required by the Board of Regents. The committee examines it to determine whether the courses are college level and relevant to the program, and whether requirements of the Veterans Administration, college accrediting association, licensing agency, and local college
are fulfilled. When it approves the proposal, the president signs it and submits it to the Board of Regents for approval. When the Board of Regents approves the program, the task of recruiting faculty members can begin.

All junior college faculty members in the University System of Georgia are required to possess at least a masters degree. In addition, career educational instructors must be competent in their occupational fields.

The recruitment of students for career programs at Clayton has been quite successful. The respective program directors are in charge of recruitment for their particular program. They have observed that their best recruiters have been students enrolled in the program who have spread the word to their friends. These students like what they are getting, so they tell their interested friends. Sometimes, members of the advisory committee know persons who have indicated an interest in the program, and they gave the names of these persons to the director. When the director gets the name of a prospective student, he contacts him, explains the program, and sometimes takes him an application form, helps him fill it out, and returns it to the registrar for him.

A brochure describing the program is developed and printed for each career program at Clayton. The people there are convinced that an attractive brochure is an essential vehicle for the dissemination of information to students, parents, guidance counselors, and other persons
interested in a program. Each brochure contains information dealing with the scope of the program, types of courses offered, course objectives, employment opportunities, and employment standards.

Another recruiting technique used by program directors at Clayton is the presentation of a slide show to various groups. The director develops a slide show which describes the program and presents it to high school, civic, and other interested groups. After the presentation, he conducts an informal question and answer session and distributes application forms and brochures to interested persons.

Another function of the program director is job placement. The advisory committee aids the program director in identifying job openings. So far, Clayton Junior College has had great success in placing graduates of its career programs in jobs for which they were trained.

Due to the fact that Clayton Junior College has graduated only one class, which included about sixty career educational students, its evaluative procedures have not been refined at this time. However, each program director keeps track of his graduates and receives feedback from them on their employment success. The advisory committee also gets periodic feedback from employers on the occupational competency of employees who are products of career programs at Clayton. In addition, at the end of each term the
students fill out a faculty evaluation form for each course. The form contains questions such as:

1. Was the material relevant to what you were supposed to be doing?
2. Were the course objectives clearly outlined?
3. Did you get what you wanted out of the course?

Feedback from these sources is evaluated and curriculum changes are made in response to the feedback. The college catalog is revised biennially and major program changes (such as the deletion and addition of courses) are made at this time. Course content is updated at the end of each term.

Florida Junior College at Jacksonville, Jacksonville, Florida

Background.—Florida Junior College at Jacksonville, Jacksonville, Florida, is the second largest of twenty-eight two-year institutions of higher education operating in a statewide system of community colleges. Each college in the system is governed by a district board of trustees appointed by the governor. The State Board of Education, assisted by a seven-member State Junior College Advisory Council, is the policy-making body at state level.

The majority of the financial support for the community college system comes from state funds. The state

\[234\]Information concerning Florida Junior College at Jacksonville was obtained through a personal interview, conducted June 1, 1972, in Jacksonville, Florida, with Dr. Eric Mills, Dean of Career Education, Florida Junior College at Jacksonville, Jacksonville, Florida.
provides 70-75 per cent of the colleges' operating expenses. Federal funds and student fees provide the remainder. Capital outlay is provided by both state and federal funds.

Florida Junior College is a multi-purpose institution operating three two-year college campuses, a central adult center, a technical adult evening center, and a MDTA center in the city of Jacksonville, and numerous adult evening centers in the public schools throughout the service area. Its service area includes the counties of Duval and Nassau. Jacksonville is located in the extreme northeast corner of Florida. It is only fifteen miles below the Georgia border at its closest point and is bordered by the Atlantic Ocean on the east.

When the fall term opened in 1971, Florida Junior College was beginning its sixth year of operation. At this time, the total student population had grown to over 20,200 and the faculty and staff numbered 1,265. The college-credit student population numbered 8,303. This total included 2,293 students who were enrolled in college-credit career education programs. Non-college credit career education students numbered 5,986.

Florida Junior College awards the A.S. degree for successful completion of nineteen two-year career programs. For those persons desiring to spend less than two years in preparation, one-year certificate programs are available in seven areas. In addition, seventy non-college credit career programs are offered.
The overall planning, coordination, and evaluation of career education at Florida Junior College is under the general direction of the central Dean of Career Education who reports to the Executive Vice President of the College. The central dean is assisted by two associate deans and a small office staff. Each of the three main campuses also has a Dean of Career Education who is responsible for the implementation and operation of career educational programs and who reports to the Provost of the Campus. A closer study of the administrative framework of career education at the three main campuses reveals service area directors, program directors, program chairmen, and instructors, who work with the campus Dean of Career Education in the implementation and operation of career educational programs at the respective campuses.

Procedure for Developing, Implementing, and Evaluating Career Educational Programs.—The steps followed by Florida Junior College in developing career educational programs are as follows:

1. Identify the possible need for a particular career program.
2. Conduct a survey of local businesses and industries to verify present and future employment opportunities.
3. Form an advisory committee (composed of five to nine local citizens who are competent in the occupational field of the proposed program) to
verify the source of students and to advise the central staff on what is needed in the form of a product.

4. Prepare the program proposal and submit it to the President's Council (composed of the three Provosts, the Executive Vice President, and the Dean of Career Education) and the district board of trustees for approval and funding.

5. Identify or employ a program chairman to develop the detailed curriculum.

6. Submit the detailed curriculum to the proper central staff committee for approval.

Once the detailed curriculum for a program has been approved by the central staff committee responsible for curricular matters, it is ready to be implemented at the designated campus.

The possible need for a particular career program is sometimes identified through a request from a community agency, and at other times through analysis of survey data by members of the college staff. Biennially, the central staff at Florida Junior College coordinates a comprehensive occupational survey of the Jacksonville area. This survey is conducted jointly by the Chamber of Commerce, public school system, and the college. When the data from this survey are examined closely, the need for training in certain occupational areas is identified.
After the possible need for a career program has been identified, the next step is to assemble all of the information that might be available on present and future employment opportunities in this occupational field, in an attempt to verify the need. There are several sources from which information may be obtained to verify the need for a particular program. The Florida Employment Service puts out a quarterly job demand by cities which shows each occupation and the relative demand for the job in each area. Some professional organizations keep up-to-date information on employment opportunities in their field. Both the Chamber of Commerce and the Navy conduct occupational surveys in the enrollment area. The State Department of Education conducts specialized surveys. It recently did one on dental hygienists and engineering technology and broke the results down by geographical areas so that the public schools and colleges could make use of the data.

If the data are not adequate when all available information has been assembled, the central staff will either conduct a survey itself or ask one of the professional organizations or the state to conduct a survey of the potential employers in the particular career field that they are considering. This is usually done on a formal basis using a printed survey instrument. The central staff feels that the employer will give a printed questionnaire more thought than a telephone call. However, if the results of the survey are needed in a hurry, it may conduct a comprehensive
telephone survey of the employers listed in the telephone book.

When the need for a particular program has been established, the next step is to form a lay advisory committee to verify the source of students for the program and to advise the college on what is needed in the form of a product. In some cases, the program is tied to a professional organization which furnishes the students. One way to verify the source of students is through surveys done in the high schools. There are two surveys which are normally conducted in the public schools each year. The Boy Scouts conduct an occupational survey of all ninth graders, and the high schools conduct a survey of the tenth, eleventh, and twelfth grades. The college gets the results of both surveys.

The next step is to write a proposal for the program and present it to the President's Council and to the district board of trustees for consideration.

The program proposal contains information such as:

1. The total cost by category for three years.
2. Facilities, equipment, and teachers required.
4. Outline of courses and type of curriculum.
5. Campus at which the program will be implemented.
6. Overall priority of this program in relation to other programs not yet funded.
8. Recommended time frame for implementation.

When the proposal has been approved by the President's Council and the district board of trustees, the program can normally be turned over to the designated campus. However, the State Department of Education reserves the right to make the final decision on certain high cost programs, such as mortuary science and dental hygienists. There is an unwritten understanding at Florida Junior College that when a program is approved, it will be funded for at least three years so that it will have adequate time to get on its feet.

In most cases, when a program has been approved for implementation, the designated campus will assume the responsibility for developing the detailed curriculum. However, if the campus does not have the capability, the central staff will assume the responsibility of curriculum development until the campus has the capability. If a program is to be implemented at more than one campus, the central staff will coordinate curriculum development so that the curriculum will be standard at each campus.

Until recently, each career program had to be approved by the college-wide curriculum and instruction committee before it could be implemented. However, a recent decision was made to dissolve this committee, and at the time of this interview, no decision had been made as to which central committee will have the final word on curricular matters. Once the curriculum has gained the
required approval, the next step is to execute the imple-
m entation plan.

The State Department of Education establishes the quali-
ifications for career education instructors. Instruc-
tors who teach college credit courses are required to have at least a bachelors degree and two years experience in the occupational area. The requirement for instructors who teach non-credit courses is at least a high school diploma and six years experience at the journeyman level.

Recruitment of students for a particular career pro-
gram is normally done cooperatively by program directors and the guidance staff of the campus where the program is lo-
cated. There is a field representative on the central guid-
ance staff whose primary responsibility is recruiting for career educational programs. He visits the high schools in the area and explains the programs. There is a district-
wide coordinating council for vocational education (composed of the Dean of Career Education and the President of Florida Junior College, and the Superintendents of Education and the Directors of Vocational Education for the two counties in the junior college district) which meets once each month to discuss articulation and other problems. The college guid-
ance staff holds a half-day workshop for high school counsel-
lors each year to furnish them with information about the programs at Florida Junior College. Most of the high schools in the area have a "college night" and representa-
tives of Florida Junior College attend these sessions and
make presentations. Annually, the college helps sponsor a "career fair." This event is a joint effort of the junior college and the community. Last year, approximately 25,000 high school students attended this affair.

One of the functions of the program director is job placement of students. The central guidance staff has a person who does some placement work. However, for the most part, student placement is handled by the program director, assisted by the program's advisory committee.

Florida Junior College is developing an extensive follow-up program. In the past, it conducted periodic follow-up studies on graduates, but the only time that it received feedback from dropouts was when a student officially withdrew and filled out the required withdrawal form. The guidance staff collected information from students when they graduated and again six months later to get feedback on their employment success and the effectiveness of their training program. Beginning with the 1972-73 academic year, the state is expected to require each junior college to conduct two follow-up studies. One is a follow-up study on employers to get feedback from them on the competency of employees who are products of the institution's career educational programs. The other is a follow-up study on career education students. On December 15, each year, the career education staff will be required to submit a status report to the State Department of Education on every student who was enrolled in a career education program the year before.
Another source of feedback is the faculty evaluation sheet which the students fill out on faculty members each year. In addition, the program advisory committee provides feedback on the employment success of Florida Junior College graduates.

The criteria for evaluating the success of career educational programs at Florida Junior College are, are the students finishing the program? are they getting jobs? and how well are they doing on the job? Another indication of the success of a program is the enrollment. Is the enrollment static, increasing, or decreasing?

Using the above mentioned standards of measurement, the career educational programs at Florida Junior College are continuously evaluated and updated to keep pace with an ever-changing technological society.

Summary of Findings of Programs Surveyed

The purpose of this section was to present some specific examples of current procedures for developing, implementing, and evaluating career educational programs which have proved successful in community colleges. Four individual community colleges and one state system of community colleges in five southern states were reviewed. The administrative framework for career education, extent of state control and support, and emphasis on career education varied greatly among the colleges examined. However, their procedures for developing, implementing, and evaluating
career educational programs followed a basic pattern. This pattern was the primary source of the model presented in Chapter III of this study.

Analysis of Interviews

Upon completion of the first draft of the model, four judges were asked to react to it in order to provide input into any refinements or revisions deemed necessary. The judges were: Oliver R. Finch, Provost and Dean of Instruction, North Campus, Florida Junior College at Jacksonville; LeHoy A. Cornelsen, Director of Program Analysis, Bureau of Adult, Vocational, and Technical Education, United States Office of Education; Vaughn A. LaCombe, Associate Professor of Educational Administration and Higher Education, College of Education, University of Alabama; and Hugh H. Stegall, Superintendent, Tuscaloosa City Schools.

A structured interview was held with each judge. Each interview was tape recorded so that an accurate account of the conversation would be available for use in compilation and analysis of content. A copy of the interview guide and a summary of the interviews are included as Appendix III of this study.

Finally, the inputs from the judges interviewed were incorporated into the model as appropriate. The expertise in planning, development, organization, and management displayed by the judges contributed to significant refinements of the model.
CHAPTER III

MODEL FOR DEVELOPING, IMPLEMENTING, AND EVALUATING CAREER EDUCATIONAL PROGRAMS IN COMMUNITY COLLEGES

Introduction

The primary purpose of this chapter is to provide a model which will facilitate a better understanding of the techniques involved in the development, implementation, and evaluation of career educational programs in community colleges. The community college has experienced a phenomenal growth in the last decade. This enrollment potential gives the community college the capability to make a significant impact on the nation's middle level manpower problem. However, administrators have been slow to initiate career programs in these institutions because the development of such programs demands diligent gathering of information and careful planning. Limited resources of time, manpower, and finances have retarded these processes in community colleges. The above factors magnify the need for guidelines for the development and change of career educational curricula. A conceptual model can be a critical tool in both processes.

The model presented in this chapter is intended to assist community college administrators in the development,
implementation, and evaluation of career educational programs. It is not designed for any particular career program. The procedures and planning questions are illustrative of those that must be addressed if one is to adequately develop, implement, and evaluate any career educational program. The model is designed to provide a framework that will allow community colleges to adapt their own unique requirements within the framework while preserving an orderly and rational approach to educational planning. The procedures outlined in this model were the ones most frequently utilized by the colleges which were surveyed in Chapter II.

**Description of the Model**

The model as developed is divided into four sections (See Figure 1). Column one outlines eleven significant steps involved in the development, implementation, and evaluation of career educational programs. The format of the model might suggest that the major steps should be completed in the numbered sequence as outlined in column one. This is not necessarily the case. Some of the steps could be carried out concurrently. Furthermore, some institutions may see fit to complete the steps in a different sequence. Each institution should utilize the elements of the model in the manner which best suits its own unique set of circumstances.

Column two describes detailed tasks that need to be completed in order to accomplish the major steps.
Column three identifies the person, or persons, who the author feels would be the most logical person, or persons, to charge with the responsibility of completing the tasks described in column two. However, for various reasons, the individuals who are charged with the responsibility of accomplishing these tasks may vary with the different state systems and among individual colleges within a system.

Column four lists planning questions to be considered in carrying out the detailed tasks. The author does not claim that this is a complete list of the questions which should be considered, or that all of the questions should be considered each time a program is initiated. They are illustrative of those which should be considered.

The following is a further explanation of the eleven major steps which are outlined in the model.

Step 1

Identify possible need for a particular program.—

The possible need for a particular program can be identified through a variety of sources both internal and external. A business, industrial, or professional group might contact the college and indicate that there is a need for trained personnel in their career field. After discovering that there is a pressing need for certain occupational skills, the federal vocational people may notify the colleges that federal funds are available to support career educational programs in these occupational areas. The state may
initiate a new licensing requirement and ask the college to
develop a training program to satisfy this requirement. A
possible need might be identified within the college through
a study of manpower surveys which have been conducted by the
Department of Labor, various state and local agencies, the
college itself, or other agencies. Or, the impetus may be
provided by an individual faculty member within the college.
These are but a few of the ways in which the possible need
for a career program is brought to the attention of communi-
ity college administrators.

When the possible need for a career program comes
to the attention of the Dean of Instruction, he should com-
plete an informal planning cycle to assess the feasibility
of initiating the program. If he determines that a decision
to proceed with further planning is defensible, he should
inform the Dean of Career Education of his decision and
direct him to further investigate the matter.

Step 2

Form divisional or departmental curriculum committee
and identify program chairman.—When the need for a program
comes to the attention of the Dean of Career Education, he
should identify the division of department to which the pro-
gram is most related and direct the chairman of that divi-
sion or department to take appropriate action to determine
the extent of the need. Then he should generate a formal
request for such a program if the need is sufficient and
the college has the ability to support it.
The appropriate action for the division or department chairman would be to form a small curriculum committee within his division or department and appoint a program chairman who would then complete the preliminary tasks of curriculum development and validate the need for the program and the college's ability to support it.

**Step 3**

Form lay advisory committee.—Soon after Step 2 has been accomplished, a lay advisory committee should be formed. The role of the advisory committee is to provide dynamic guidelines for developing and maintaining the program. Ideally, the committee would consist of from five to nine lay citizens who are currently active in the occupational area of the proposed program. Members of the committee should be carefully selected from the community and should be individuals who are qualified to provide a wide spectrum of related occupational information to the college administration and faculty involved in program planning. The variables of age, race, and sex should also be considered when determining the composition of the committee.

It is probably better if committee members are not appointed for a definite period of time. The tenure of office should depend on the individual. If a member shows a genuine interest, has a good attitude, and makes a definite contribution, he might be retained as long as he continues to be an asset. If a member isn't interested, doesn't attend meetings, and doesn't make a contribution, he
should be replaced at the end of the first year. If appointments are made for specific terms, they should be staggered to insure continuity and permit new members to learn from those with more experience. Regardless of the appointment method, a briefing should be provided for each new member in order to orient him to the duties of the committee and to familiarize him with past accomplishments and plans for the future. It would be a good idea for the college to establish, and publish in a handbook, official guidelines for the operation of lay advisory committees. It should be made clear from the beginning that the role of the advisory committee is to give advice and not to make policy.

The faculty program chairman should meet with the committee each time it meets. The role of the program chairman in the functions of advisory committees might vary. In some cases, he might be ex officio chairman. On other committees, he might serve as recording secretary. However, in all instances, it is important to note that he should be considered an ex officio member of the committee. He is present to seek advice, not to give it.

It is not considered advisable to standardize the number of meetings that each advisory committee will hold during the course of a year. The general rule should be that committee meetings will be called whenever there is important business to be conducted. Initially, this may be
frequently. Once the program is well established, two to four meetings per year should be adequate.

If utilized effectively, the advisory committee can be a great asset to any program. There are many ways in which it can make a contribution. Albert J. Riendeau has summarized its functions as follows:

1. Serves as a communication channel between college and community occupational groups.
2. Lists the specific skills and suggests related and technical information for the courses.
3. Recommends competent personnel from business and industry as potential instructors.
4. Helps evaluate the program of instruction.
5. Suggests ways for improving the public relations program at the college.
6. Assists in recruiting, providing internships, and placing qualified graduates in appropriate jobs.
7. Keeps the college informed on changes in labor market, specific needs, surpluses, etc.
8. Provides means for the college to inform the community of occupational programs.
9. Assesses program needs in terms of the entire community.¹

Step 4

Develop preliminary curriculum.—Once the curriculum and advisory committees have been formed, the next step involves the collection of information on what is needed in

the form of a product, the development of an outline of courses, and the establishment of entrance requirements for students. The curriculum committee, program chairman, and advisory committee should work together in the completion of this step.

Step 5

Collect needs and resource assessment data.—The program chairman, guidance staff, advisory committee, and curriculum committee should be involved in the accomplishment of this step. The United States Department of Labor keeps up-to-date data on employment opportunities which have been projected for most occupational fields. Most state and many local employment agencies also conduct periodic manpower studies and are usually willing to provide colleges with the results of their surveys. Some trade and professional associations keep up-to-date data on the number of employment opportunities and the number of students interested in pursuing occupations in their career field. Other civic and professional organizations (i.e., the Chamber of Commerce, Boy Scouts, and health professions) are often willing to participate in surveys free of charge. The information which is already available from sources such as these should be reviewed by a college before it undertakes the task of conducting its own survey.

If the entrance requirements for a program are not extremely rigid, a visit with the high school counselors in the enrollment area will probably be adequate to gain
the information needed in regard to the number of students interested in pursuing a career. However, if special talents or capabilities are required for admission to a program, a more extensive survey will probably be necessary.

If it is necessary for the college to conduct its own survey of business and industry, it would be best to conduct a formal survey using a printed survey form. The employer will probably give more thought to filling out a printed form than to answering questions over the telephone. As a result, the data from the formal survey will likely be more reliable than that from a telephone survey.

Step 6

Analyze needs and resource assessment data.—This step should involve all levels within the Division of Career Education. A consensus should be obtained at each level, up to and including the Dean of Career Education, before a formal request for a program is submitted to higher authority.

Step 7

Write program proposal, submit it to proper authorities, and obtain approval and funding.—Once it has been determined that the need for a program is sufficient to justify its projected cost and that the college and the community have the ability to support it, the next step is to draft a formal request for the program and then forward it to the proper authorities for approval and funding.
Step 8

Make preparations necessary for implementing delivery system.—After a proposal has gained the required approval and funds have been made available, the next task is to employ the instructional staff. Once the instructional staff has been employed, the program chairman should involve all of these persons who are going to teach courses in the program, in the other tasks of preparing for the opening of the first class.

Step 9

Implement delivery system.—The tasks included in this step are training and placement.

During the training phase, the responsibilities of the college to the students should include:

1. Offering occupational guidance.

2. Developing, through the curricular offerings, the necessary competencies in communications and public relations to insure success in the field.

3. Meeting the occupational needs of the student through professional knowledge.

4. Giving students periodic evaluations of their classroom and laboratory progress.²

Eugene Staley states that the main reasons that general and related educational courses should be included along with specialized occupational training are to:

1. Provide the knowledge and appreciation of techniques necessary to enable a trainee to do his job.

2. Indicate a broad understanding of relevant science and technology so that the trainee appreciates the problems of those working in associated occupations and is also better equipped to adjust to changes in the nature of his work.

3. Widen the trainee's understanding of the society in which he lives and to develop him as a person.

4. Prepare suitable trainees for more advanced study leading to more highly skilled work.3

After graduation, the responsibilities of the college to the graduate, and his employer, should include:

1. Assisting the graduate in obtaining suitable employment.

2. Offering to the employers the best possible candidates to meet their employment needs.

3. Keeping the graduates and employers informed of the school services which are available.

4. Aiding the student, after his formal training, by providing continuing educational and guidance services.4

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4Crockett and Stinchcomb, Guidelines for Law Enforcement Educational Programs, p. 15.
Step 10

Collect evaluative data.—The guidance or institutional research staff should coordinate the execution of this step if their services are available. Their staffs should include persons who are skilled in gathering follow-up data. Standardized survey instruments should be utilized, and it would be advisable to design these forms so that the information on them can be stored and retrieved by computer.

Step 11

Evaluate effectiveness of program.—It is essential that community colleges provide continuous evaluation of career educational programs. This information can be used to modify and improve the program as well as to measure and publicize the achievements of the community college and its graduates.

The preparation of students for employment should be the basic purpose of any career educational program. The quality and quantity of graduates who enter and are successful in a career should be the prime criterion for evaluating the training program.

Program evaluation is usually directed by the administration of the local community college. However, many states provide state department of education consultants for this purpose. Regional accrediting associations also are interested in program evaluation and in most instances will assist the local colleges in this process when asked.
### FIGURE 1

**MODEL FOR DEVELOPING, IMPLEMENTING, AND EVALUATING CAREER EDUCATIONAL PROGRAMS IN COMMUNITY COLLEGES**

<table>
<thead>
<tr>
<th>Major Steps</th>
<th>Detailed Tasks</th>
<th>Person(s) taking action</th>
<th>Planning Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify possible need for a particular program.</td>
<td>Analyze input from internal and external sources.</td>
<td>Dean of Instruction</td>
<td>What are the potential sources of funds for the program?</td>
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<td></td>
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<td>What would be the goals and priority of the program?</td>
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<td>What would be the criteria for evaluating the program?</td>
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<td>Do manpower surveys indicate a substantial long-range need for this type of training?</td>
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<td>Do population trends indicate that the supply of potential students will be adequate to support this program?</td>
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<td></td>
<td>Does it appear that the need for this program will justify its projected cost?</td>
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<td>What are the political, legal, and fiscal constraints or parameters which must be considered?</td>
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<tr>
<td>2. Form divisional or departmental curriculum committee and identify program chairman.</td>
<td>Identify the division or department within which this program would operate.</td>
<td>Dean of Career Education</td>
<td>To which division or department is the program most related?</td>
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<td></td>
<td>Appoint committee members.</td>
<td>Division or department chairman</td>
<td>Which instructors in the division or department have the most expertise in this area?</td>
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<td></td>
<td>Identify program chairman.</td>
<td>Division or department chairman</td>
<td>How many members should the committee have?</td>
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<td></td>
<td>Call first meeting to organize and explain duties, responsibilities, and operational guidelines.</td>
<td>Division or department chairman</td>
<td>Which instructor has the time and expertise required for this assignment?</td>
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<td></td>
<td>What will be the duties and responsibilities of the committee?</td>
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<td>What are the guidelines within which the committee must operate?</td>
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<td></td>
<td>What will be the role of the program chairman?</td>
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<td>When and where will meetings be held?</td>
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<td>Develop scope and sequence of courses.</td>
<td>Curriculum committee Program chairman Advisory committee</td>
<td>What combination of technical, related, and general education courses will constitute a valid curriculum and provide the training and education needed for successful placement and advancement in this career field? What sequence of courses is most desirable? Is the unit value of the courses in harmony with that of similar offerings in other programs? Does the proposed curriculum satisfy the minimum requirements of the state licensing board, veterans administration, college accrediting agency, state education agency, and local college? What attributes, capabilities, and/or talent should the potential student possess in order to cope with the demands of the program?</td>
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<tr>
<td>Establish entrance requirements for students.</td>
<td>Curriculum committee Program chairman Advisory committee</td>
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<tr>
<td>5. Collect needs and resource assessment data.</td>
<td>Collect information which is available from sources such as the Department of Labor, Bureau of the Census, Chamber of Commerce, professional organizations, etc. Program chairman Advisory committee Guidance staff</td>
<td>Is the information which is already available adequate, or will additional surveys be necessary?</td>
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<tr>
<td>Conduct survey of local high school students.</td>
<td>Program chairman Advisory committee Guidance staff</td>
<td>How many students with the necessary ability and interest are available?</td>
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<tr>
<td>Conduct survey of local businesses or industries which might employ products of this program.</td>
<td>Program chairman Advisory committee Guidance staff</td>
<td>How many employment opportunities for persons with this type of training will be available each year for the next five years?</td>
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<tr>
<td>Identify tool, instrument, equipment, materials, facility, and manpower requirements.</td>
<td>Program chairman</td>
<td>What tools, instruments, equipment, textbooks, and other materials will be required initially?</td>
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<tr>
<td>Conduct survey of available resources.</td>
<td>Curriculum committee</td>
<td>How often will they need to be replaced?</td>
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<td></td>
<td>Advisory committee</td>
<td>What classroom, laboratory, and shop space will be required?</td>
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<td>What cooperative work/study facilities will be required?</td>
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<td>How many additional instructors will be required?</td>
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<tr>
<td>6. Analyze needs and resource assessment data.</td>
<td>Program chairman</td>
<td>What sources of funds are available to support this program?</td>
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<td></td>
<td>Curriculum committee</td>
<td>Where can tools, instruments, equipment, textbooks, and other materials be obtained?</td>
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<tr>
<td></td>
<td>Division or department chairman</td>
<td>What classroom, laboratory, and shop space is available?</td>
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<td></td>
<td>Dean of Career Education</td>
<td>Where can cooperative work/study experiences be provided?</td>
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<td>Where can qualified instructors be obtained?</td>
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<td>What evidence is there that a need for this program exists?</td>
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<td>Is it clearly a program appropriate for the community college, rather than upper division or high school?</td>
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<td>Will the program duplicate, supplement, or replace another program?</td>
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<td>Can an existing program be modified to satisfy the need?</td>
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<tr>
<td></td>
<td></td>
<td>How much will it cost to implement and operate this program for three years?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are employment opportunities sufficient to justify expending the funds required to support this program?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are the rewards of this career (salary, working conditions, opportunities for promotion, and other benefits) worth the time, money, and effort required to successfully complete the training?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is the priority of this program in relation to other programs not yet funded?</td>
<td></td>
</tr>
</tbody>
</table>
### FIGURE 1—Continued

<table>
<thead>
<tr>
<th>Assess ability to support this program.</th>
<th>Program chairman</th>
<th>Are students with the necessary ability and interest available in sufficient numbers?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum committee</td>
<td>Can tools, instruments, equipment, textbooks, and other materials be provided?</td>
</tr>
<tr>
<td></td>
<td>Division or department chairman</td>
<td>Will suitable space for classrooms, laboratories, and shops be available?</td>
</tr>
<tr>
<td></td>
<td>Dean of Career Education</td>
<td>Will suitable cooperative work/study facilities be available?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are qualified instructors available?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can coordinating, placement, and guidance services be provided?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are sufficient funds available to implement and support the operation of this program for three years?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Write program proposal, submit it to proper authorities, and obtain approval and funding.</th>
<th>Write program proposal.</th>
<th>Program chairman</th>
<th>What format is required by higher authority?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>What detailed information is required by higher authority?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there sufficient evidence presented in the proposal to show that there is a substantial need for this program, and that the program will satisfy community and student needs at a reasonable unit cost?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>What levels of authority must approve the proposal before the program can be funded and implemented?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Submit proposal to proper authorities and obtain approval and funding.</th>
<th>Program chairman</th>
<th>College-wide curriculum committee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>President of the College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local Board of Trustees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State Education Agency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Federal vocational funding source</td>
</tr>
<tr>
<td>8. Make preparations necessary for implementing delivery system.</td>
<td>Recruit and employ instructor(s).</td>
<td>Division or department chairperson</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dean of Career Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>College personnel section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program chairman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plan specific content of courses in detail.</td>
<td>Program chairman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrange cooperative work/study experiences with local employers.</td>
<td>Program chairman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advisory committee</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select and order tools, instru- ments, equipment, textbooks, and other materials.</td>
<td>Program chairman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor(s)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business office</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Responsible Party</td>
<td>Questions</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Arrange for adequate classroom, laboratory, and shop space.</td>
<td>Program chairman, Instructor(s)</td>
<td>What is the space presently being used for?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Will additional facilities have to be constructed?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Will the facilities be available at the desired time?</td>
</tr>
<tr>
<td>Prepare information brochures.</td>
<td>Program chairman, Instructor(s)</td>
<td>What are the rewards of this career?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How much will the training cost?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What scholarships or other financial aid are available?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are the admission requirements?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are the employment standards for this career?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are the objectives, scope, and content of the course?</td>
</tr>
<tr>
<td>Recruit and select students.</td>
<td>Program chairman, Guidance staff, Advisory committee</td>
<td>Where are potential students located?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are they presently doing?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Which students meet the admission requirements?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How can students who meet the admission requirements be attracted to the program?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How many students are needed for the first class?</td>
</tr>
<tr>
<td>Supervise the delivery of tools, instruments, textbooks, and installation of equipment.</td>
<td>Program chairman, Instructor(s)</td>
<td>When is delivery desired?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Does the supplier indicate that delivery will be made on time?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Where are materials to be stored?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is the floor plan for installation of equipment?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Will everything be delivered and installed in time for the opening of the first class?</td>
</tr>
<tr>
<td>9. Implement delivery system.</td>
<td>Execute training plan</td>
<td>What should be the responsibilities of the college to the students during this phase?</td>
</tr>
<tr>
<td></td>
<td>Program chairman, Instructor(s), Guidance staff</td>
<td>What is the most efficient method of coordinating the work of the instructional staff with that of the guidance staff?</td>
</tr>
</tbody>
</table>
| 10. Collect evaluative data. | Collect feedback from currently enrolled students. | Guidance staff  
Program chairman  
Instructor(s)  
Advisory committee | Where are the job openings located?  
What is the beginning salary?  
What are the opportunities and requirements for advancement?  
What are the working conditions and other benefits? |
|----------------------------|-------------------------------------------------|---------------------------------------------|
| Collect feedback from faculty. | Conduct follow-up on graduates. | Guidance staff  
Program chairman  
Faculty  
Graduates | Was the instructional material presented in a well-arranged sequence?  
Did the instructor have some mannerisms or characteristics which distracted from his teaching?  
Did the instructor make clear the objectives of the course?  
Were the learning experiences related to the objectives of the course?  
Did the students possess the attributes and capabilities necessary to cope with the demands of the program?  
Were the courses arranged in the best possible sequence?  
Were the facilities, equipment, instructional materials, and administrative support satisfactory?  
How many graduates are employed in jobs for which they are trained?  
How long after graduation did they wait before they were employed?  
Were they placed by the college or did they get the job on their own?  
Did they get what they expected out of the program?  
Which courses or experiences were the most helpful in preparing them to perform on the job?  
Which courses or experiences were the least helpful in preparing them to perform on the job?  
Are the rewards of the job (salary, working conditions, opportunities for promotion, etc.) worth the time, money, and effort required to complete the training? |
### FIGURE 1—Continued

<table>
<thead>
<tr>
<th>Conduct follow-up on dropouts.</th>
<th>Guidance staff</th>
<th>What was their reason for dropping out?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect feedback from employers.</td>
<td>Guidance staff</td>
<td>Are products of the program performing satisfactorily?</td>
</tr>
<tr>
<td></td>
<td>Program chairman</td>
<td>What additional skills or competencies are needed?</td>
</tr>
<tr>
<td></td>
<td>Employers</td>
<td>What future job openings do they anticipate?</td>
</tr>
<tr>
<td>Collect feedback from advisory committee.</td>
<td>Program chairman</td>
<td>What new skills and competencies are needed to keep pace with technological changes?</td>
</tr>
<tr>
<td></td>
<td>Advisory committee</td>
<td>What skills are no longer required?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are the projected manpower requirements for this career field?</td>
</tr>
</tbody>
</table>

11. Evaluate effectiveness of program. **Analyze evaluative data.**

| | Program chairman | Is the enrollment in the program increasing, remaining stable, or decreasing? |
| | Advisory committee | How many students graduated from the program? |
| | Division or department chairman | How many students dropped out of the program? |
| | Dean of Career Education | What were their reasons for dropping out? |
| | Dean of Instruction | How many graduates were placed in jobs for which they are trained? |
| | | Were they able to perform as desired? |
| | | Are they progressing satisfactorily? |
| | | Is the instructional program satisfactory? |
| | | Is the guidance and placement satisfactory? |
| | | Is the administrative and financial support adequate? |
| | | Is the community support adequate? |
| | | What new skills and competencies are required for this occupation? |
| | | Should the curriculum be added to, modified, or discontinued? |
FIGURE 1—Continued

<table>
<thead>
<tr>
<th>Revise program as necessary.</th>
<th>Curriculum committee</th>
<th>Which courses should be discontinued?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Division or department chairman</td>
<td>Which courses should be modified?</td>
</tr>
<tr>
<td></td>
<td>Program chairman</td>
<td>What new courses should be added?</td>
</tr>
<tr>
<td></td>
<td>Advisory committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructors</td>
<td></td>
</tr>
</tbody>
</table>
Summary

This chapter provides a model that will permit community college administrators to conceptualize their procedures for developing, implementing, and evaluating career educational programs. The model is designed to provide a framework that will allow community colleges to adapt their own unique requirements within the framework while preserving an orderly and rational approach to educational planning. This model is not designed for any particular career program. The procedures and planning questions included in this model are illustrative of those that must be addressed if one is to adequately develop, implement, and evaluate any career educational program. Hopefully, the model presented in this chapter will serve as a useful reference and will encourage community college administrators to add career educational programs to their curricular offerings.
CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary
The primary purpose of this study was to generate a conceptual model to provide a framework for the development, implementation, and evaluation of career educational programs in community colleges. Chapter III provides such a model. The current procedures of four individual community colleges and one state system of community colleges in five states were reviewed, and the procedures most frequently utilized by these colleges were used as the source of the model.

In addition to generating a conceptual model, this study considered the following general areas:

1. The past and present structure of career education in America.
2. The potential of the community college for providing career education.
3. New directions in higher education which should bridge the gap between men and jobs.
4. The spectrum of "middle level manpower" (the semiprofessional occupations) and the placing of
these in proper perspective within the total manpower picture in America.

The increasing need for career educational programs in the community college is emphasized in Chapter II. The national need for semiprofessional and technical manpower is critical. Technological change has, rather suddenly, thrown up a dramatic challenge to this nation's political, economic, social, and educational institutions. The community college is the logical answer to solving the nation's middle manpower problem. It is the only institution with enough enrollment potential to make a significant impact on the problem.

Some community colleges are providing career educational programs in the areas where the greatest need for competent personnel has been determined. However, many other two-year colleges are content to offer programs which are designed primarily as the first two years of four-year degree programs because they lack the expertise and resources to adequately develop career educational programs.

Adequate development of career educational programs demands painstaking gathering of information and careful planning. The model conceptualized in this study should facilitate a better understanding of the techniques involved in the development, implementation, and evaluation of career educational programs and should serve as a useful reference for community college administrators. Hopefully, it will provide impetus for administrators of two-year colleges with
partial programs, to add career educational programs to their curricular offerings, thereby, becoming true community colleges and making a contribution to the solution of the nation's middle manpower problem.

Conclusions

The conclusions that are apparent from a review of this study are as follows:

1. Technological change will continue at an increasing rate.

2. As a result of technological change, the manpower shortage in semiprofessional, technical, and skilled categories will continue to increase in contrast with increased unemployment in the unskilled and semiskilled categories.

3. Expansion of career educational programs in the community colleges is necessary to reduce technological manpower shortages.

4. The model generated in this study can serve as a useful tool in the processes of development, implementation, and evaluation of career educational programs in community colleges.

Recommendations

The recommendations for dealing with the problems addressed in this study are as follows:

1. Community colleges with partial programs should utilize the model generated in this study to
expand their curricular offerings to include career educational programs and, thereby, provide the full scope of services implied by their title and make a contribution to the solution of the nation's middle manpower problem.

2. Community colleges which presently offer career educational programs should utilize the model generated in this study to evaluate and, where necessary, update their career educational programs in order to keep pace with our ever-changing technological society.
APPENDIXES
APPENDIX I

RECOMMENDATIONS OF THE ADVISORY COUNCIL
ON VOCATIONAL EDUCATION

Legislative Recommendations

It is recommended that:

1. All Federal vocational education acts administered by the Office of Education be combined into one act.

2. A Department of Education and Manpower Development be established at Cabinet level.

3. Funds and permanent authority be provided for the Commissioner of Education to make grants or contracts to State boards and with the approval of the State board to local educational agencies, organizations, or institutions for planning, development, and operation of exemplary and innovative programs of occupational preparation.

4. Funds and permanent authority be provided to develop and operate new and expanded vocational educational programs and services specifically designed for persons who have academic, social, economic, or other handicaps.

5. The act provide permanent authority for work study and include work study and work experience programs in the secondary schools and those at the post-secondary levels related to vocational and technical education.

6. Funds and permanent authority be provided for the Commissioner to make grants to State boards of vocational education and, with the approval of the State board, to colleges and universi-

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ties, and/or to public educational agencies, to construct facilities and operate residential vocational schools.

7. The act provide for at least 25 per cent of the funds appropriated for allocation to the States to be used for purposes set forth in purpose (2), post-secondary schools, and (3), adult programs, or the Vocational Education Act of 1963.

8. The act include vocational homemaking education in a separate section of the act with specific funding authorization.

9. The act provide for the distribution of funds to the States on bases which will encourage increased enrollment, attendance, and improved performance.

10. The act permit matching of the Federal allotment on a statewide basis.

11. Provision be made for States to receive allotments earlier in the calendar year, and expenditure of funds be authorized through the succeeding year.

12. The act provide that salaries and expenses needed for the administration of vocational and technical education be included in the annual appropriation for this act.

13. Provisions for developing a State plan in the act provide that a State shall, through its designated State board for vocational education:

   a. Submit for approval a properly executed legal contract to the commissioner of Education on such forms and in such detail as the Commissioner deems necessary to assure compliance with the provision of the act and regulations;

   b. Submit a 5-year projected plan for administering and operating programs of vocational and technical education. An annual updating of the plan to reflect changes and modifications contemplated would be submitted on or before the beginning of each fiscal year.

14. The act recognize the need and provide support for professional and paraprofessional staff recruitment, preparation, and upgrading at all levels, including leadership, administration,
teacher education, and counseling and guidance, on a State, regional, and national basis.

15. Twenty-five per cent of the funds appropriated for title IV of the Higher Education Act of 1965 be set aside for opportunity grants for students interested in entering post-secondary technical and vocational programs.

16. Funds be authorized for pilot projects to study the feasibility of reimbursement to employers for unusual costs of supervision, training, and instruction of part-time cooperative students in publically supported education.

17. Ten per cent of the sums appropriated for the purposes listed in section 4(a) of VEA 1963 shall be used by the Commissioner of Education for the following purposes:

a. For grants or contracts to colleges and universities and other public or nonprofit private agencies and institutions to pay part of the cost of research, and dissemination of research results in vocational and technical education;

b. For grants or contracts approved by the operating bureau for evaluation, demonstration, and experimental programs in vocational and technical education and for dissemination of results;

c. For grants to States for paying part of the cost of State research coordinating units, State research, evaluation, demonstration, and experimental programs in vocational and technical education, and dissemination of results.

18. The act provide funds and require the Office of Education to be responsible for collecting data and preparing an annual descriptive and analytical report on vocational education to be submitted to the President and Congress.

19. The act provide that each State conduct a periodic statewide review and evaluation of its vocational education program.

20. The act include within the definition of vocational education "pre-vocational" education and "employability skills."
21. Section 4(a) of the Vocational Education Act of 1963 be changed to delete the word "area" and that section 8.2 be changed to read: "The term vocational education facilities refers to ** **

22. The definition of vocational education in the act be expanded to include the responsibility of education for initial job placement and followup for persons who:

a. Have completed or are about to complete a program of education,

b. Require part-time employment to remain in school,

c. Need work experience which is an integral part of an education program.

23. In order to meet current needs, authorization levels for administering and operating programs of vocational and technical education under the act be established as follows:

I. Grants to States and grants authorized by the Commissioner of Education—$500 million. (Students served—8 million.)

   A. Grants to States for: (1) Maintenance and expansion of operating programs; (2) construction; (3) ancillary services; (4) teacher education and professional development—($437,500,000) (50-50).

   B. Grants to be authorized by the Commissioner for: (1) Research, development, evaluation, and experimentation (10 per cent)—($50 million) (100). (2) Special programs for teacher education and professional development (25 per cent)—($12,500,000) (100).

II. Work-Study Program—$350 million (90-10). (Students served—575,000.)

III. Innovative Programs—$200 million (100). (Students served—175,000.)

IV. Residential Vocational Schools (50)—$200 million (90-10). (Students served—25,000.)

V. Program for Socially, Economically, and Culturally Disadvantaged—$300 million (90-10). (Students served—175,000.)
VI. Vocational Homemaking—$15 million (50-50).
   (Students served—2 million.)

   Total authorization—$1,565 million.
   (Total students served—10,950,000 including
   2 million in home economics.)

   Administrative Recommendations

   It is recommended that:

   24. There be established two to four centers for
       curriculum development in vocational education.

   25. The Office of Education provide staff for the
       National Advisory Committee on Vocational Educa-
       tion and establish guidelines for helping the
       States make more effective use of State advisory
       boards.

   26. A Learning Corps be established on a pilot basis
       to provide improved learning experiences for
       economically disadvantaged youths, particularly,
       inner-city youths. Such corps would arrange for
       young people to have the opportunity of living
       in selected homes in rural, small city, and sub-
       urban communities and to enroll in the local
       schools where skill development for employment
       would be a part of their educational program.
### APPENDIX II

**SUMMARY BY STATES—TWO-YEAR COLLEGES**

**AS OF OCTOBER, 1970**

<table>
<thead>
<tr>
<th>STATE</th>
<th>NUMBER OF COLLEGES</th>
<th>ENROLLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Public</td>
</tr>
<tr>
<td>Alabama</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Alaska</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Arizona</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Arkansas</td>
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<tr>
<td>California</td>
<td>97</td>
<td>92</td>
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<tr>
<td>Colorado</td>
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<tr>
<td>Connecticut</td>
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<tr>
<td>Delaware</td>
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<tr>
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</tr>
<tr>
<td>Florida</td>
<td>32</td>
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<tr>
<td>Georgia</td>
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<td>14</td>
</tr>
<tr>
<td>Hawaii</td>
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</tr>
<tr>
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<td>2</td>
</tr>
<tr>
<td>Illinois</td>
<td>57</td>
<td>47</td>
</tr>
<tr>
<td>Indiana</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Iowa</td>
<td>26</td>
<td>20</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>STATE</th>
<th>NUMBER OF COLLEGES</th>
<th>ENROLLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Public</td>
</tr>
<tr>
<td>Kansas</td>
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<td>20</td>
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<tr>
<td>Kentucky</td>
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<tr>
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<td>7</td>
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<tr>
<td>Maine</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Maryland</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>34</td>
<td>15</td>
</tr>
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<td>Michigan</td>
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<td>Minnesota</td>
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<tr>
<td>Mississippi</td>
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<tr>
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<td>Montana</td>
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APPENDIX III

INTERVIEW GUIDE AND SUMMARY OF INTERVIEWS

Interview Guide

1. What recommendations, if any, would you offer for improving the format of the model?

2. Do the eleven major steps, outlined in the model, adequately cover the processes of developing, implementing, and evaluating career educational programs?

3. Are the major steps presented in the proper sequence?

4. Should any of the major steps be combined, eliminated, or restated?

5. Are the detailed tasks, which are listed, sufficient to accomplish the major steps?

6. Are the detailed tasks presented in the proper sequence?

7. Should any of the detailed tasks be combined, eliminated or restated?

8. Are the persons listed as taking action the persons who should take action in carrying out the tasks?

9. Will the planning questions adequately facilitate collection of the information needed to accomplish the detailed tasks?
10. Are the planning questions presented in the proper sequence?
11. Should any of the planning questions be combined, eliminated, or restated?
12. Is the model too detailed?
13. Is the model detailed enough to be functional?
14. Is the description of the model adequate?
15. Is the description of the model too detailed in some areas?
16. What is your overall reaction to the model?

Summary of Interviews

Oliver R. Finch

Finch offered no specific recommendations for revising or refining the model. He suggested that for certain career programs, some of the tasks, which are listed in the model, could be combined and others eliminated. However, he stated that as a general model it covers the processes and tasks which must be covered if one is to adequately develop, implement, and evaluate any career educational program. He further indicated that he felt that the model could serve its stated purposes in its present form.

LeRoy A. Cornelsen

Cornelsen offered specific suggestions for improving the model. They are as follows:

1. The first step should be an examination of the potential revenues which might be available for
funding an expansion, if the need for a new program is verified and documented.

2. In relation to Step 3, a planning question should be added to call attention to the fact that the members of the lay advisory committee should be representative of the power structure of the local business or industry for which the program is being developed.

3. In relation to Step 4, the first planning question which should be considered is, what are the performance levels required for graduates of the program?

4. In relation to Step 5, the data which are already available should be reviewed before collecting additional data, the potential sources of students should be researched before employers are contacted about possible employment opportunities, and a planning question should be added to call attention to the fact that "in-plant" facilities should be utilized whenever possible.

Cornelsen's overall reaction to the model was that it is a good model and would be useful to anyone faced with the task of initiating or expanding career educational programs.
Hugh H. Stegall

Stegall offered some suggestions for improving the model. They are as follows:

1. In relation to Step 3, planning questions should be added to call attention to the fact that the lay advisory committee should have broad representation among its membership. The variables of age, race, and sex should be considered when determining the composition of the committee. In addition, when selecting members for the lay advisory committee, the preferred procedure is for the college to identify the business, industrial, or professional groups from which representation is desired, and then to let the members of these groups select the specific individuals who will serve on the committee.

2. In relation to Steps 3 and 4, planning questions should be added to call attention to the fact that students should be included in the membership of both of these committees.

3. Consideration should be given to using the term "occupational education" in the model instead of "career education" to lessen the chances that Commissioner Marland's concept of career education will be confused with the idea which is being conceptualized here.
Stegall's overall reaction to the model was that it would be very useful for the purposes for which it was developed.

**Vaughn A. LaCombe**

LaCombe offered suggestions for making the model more useful. They are as follows:

1. The description of the model should stress that the need for a particular program can be identified through both internal and external sources.

2. A step or task should be added between Steps 1 and 2 which gives consideration to planning questions such as: what are the legal, political, and fiscal constraints, or parameters, within which the program would operate?

3. In relation to Step 3, a planning question should be added to call attention to the fact that the role of the lay advisory committee is that of offering advice and not policy making.

LaCombe's overall reaction to the model was that it is something that is needed and it could be very useful. He indicated that the model offers a logical approach to a problem which is facing many community colleges. He further stated that it gives a very good pictorial representation of how to go about the tasks of developing, implementing, and evaluating career educational programs.
SOURCES CITED
SOURCES CITED

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______. Public Law 702, Chap. 153, 70th Cong., 2d sess., February 5, 1929.

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Reports


