The development of vocational technical institutes in Maine

William Carleton Warren

Iowa State University

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The history of the Maine Vocational Technical Institutes was traced and recorded for the 31-year period since the first institute was established in 1946. The six campus system of post-secondary institutes is administered by the Bureau of Vocational Education under the authority of the State Board of Education. Enrollment for the 1976-77 year was 3025 full-time day students with an additional 12-15,000 registrations in the adult evening divisions.

The development of the VTI's had never been recorded, giving significance to this first historical study of the VTI system. Primary sources contributing to this historical documentation included legislative acts and appropriations, institute publications, State Board of Education actions and policies, and Bureau of Vocational Education administrative policies. Legislative funding for the system and each VTI was collected and presented providing a basis for comparative growth observations of the institutes.

Significant in the development of the VTI's are recommendations contained in a variety of external reports to merge the VTI's with the University of Maine state-wide system. No less than five major studies made this recommendation between 1966 and 1972. The State Board of Education has maintained a strong position of total jurisdiction over both secondary and post-secondary vocational-technical education. The recommendations for merging all public post-secondary
institutions received legislative action regarding the University of Maine, Orono and the five State Teachers Colleges only. The VTI's remain as a separate system offering less-than-baccalaureate programs with certificate, diploma, and associate degree award options.

The mission established for the first VTI in 1946 was to provide training for returning World War II veterans. This mission was broadened to the general public and between 1963 and 1971, five more campuses were developed. Programs remain to be vocational-technical with no attention given to transfer or college-parallel curricula.

Although pride in and a commitment to quality vocational-technical education continues to flourish among administration, faculty, and students at the Maine Vocational Technical Institutes, concern for future growth due to decreased funding, conflicts of mission with the University and eroding State leadership is plaguing the VTI's in 1977.

Results of a survey in 1962 contain recommendations for a plan for vocational-technical education in Maine. The review of the historical development of the VTI's suggests that a replication of the 1962 study would be beneficial. Consideration should be given to the present philosophy of less-than-baccalaureate post-secondary education and the available system resources to provide for efficiency and effectiveness in providing a variety of educational and rewarding opportunities for citizens of Maine.
CHAPTER I. INTRODUCTION

The development of vocational education and technical education in Maine has been closely allied. Vocational education by definition has included both vocational and technical education since the Vocational Education Act of 1917. Congressional and legislative enactments and the subsequent regulatory guidelines at the federal and local level have been vague in discriminating between vocational and technical education. The recent attention given to occupational and career education has contributed further to a precise definition. Since the passage of the National Defense Education Act in 1958, which allocated funds for post-secondary technical education; the Vocational Education Act of 1963; and the Vocational Education Amendments of 1968; more concern has been evident in program identification. However, vocational and technical education in Maine has, as a matter of record, been referred to as vocational-technical education.

Vocational-technical education at the post-secondary level is offered in the State of Maine by the Maine Vocational Technical Institutes (VTI's). There are six campuses throughout the State administered by the Bureau of Vocational Education and governed by the State Board of Education. The Bureau, a division of the Department of Educational and Cultural Services, also administers vocational education at the secondary level in grades eleven and twelve.

The increased complexity of vocational-technical education to meet
the needs of industry and developments in the para-professional occupa-
tions has required post-secondary institutions offering less-than-
baccalaureate level vocational-technical education to become more aca-
demic. Simultaneously, the increasing interest and demand for associate
degree programs during the 1960's resulted in a "500 per cent increase
in enrollments and doubling of the number of institutions" (Bushnell,
1973, p. 7) of community colleges across the nation.

Nationally, the community college has become the educational arena
for public post-secondary education at the less-than-baccalaureate
level. There is, however, no comprehensive community college system in
Maine. The VTI's continue to offer occupational programs with no trans-
fer programs included in their curricula. This is consistent with the
legislation which established the VTI's with a single mission of pro-
viding post-secondary vocational-technical education -- a mission
adhered to until the present time (Maine Public Law, 1947, Chapter 382).
This legislatively stated mission and the regulatory perspective of the
Bureau of Vocational Education has precluded program expansion from
including university parallel/transfer options.

This lack of educational opportunity has resulted in the develop-
ment by the University of Maine of a variety of associate degree pro-
grams in the last eight years. Connick, Andrews, and Sturgeon (1973)
reported a need of eight associate degree graduates to one baccalau-
reate graduate in a survey of York County industries and businesses.
This need and the increased interest in associate degrees coupled with
leveling enrollments in four year baccalaureate institutions have
resulted in a shifting of priorities in the University of Maine to associate degree programs.

The University of Maine is comprised of seven campuses located in close proximity to the VTI campuses throughout the State. The University is governed by a Board of Trustees through a central administrative office headed by a Chancellor. The original land-grant institution at Orono was merged with the five state teachers colleges in 1968. A two-year campus established in 1970 at Augusta and a school of community college programs at Orono were designated by the University Trustees as the "first campuses of a community college system for Maine" (1969). This resolution has placed the VTI's and the University in a position of simultaneous coordination and conflict in providing community college opportunities. The conflict was brought about by the definition of a community college which states that they are to provide "programs leading to an associate degree, or acceptable credit towards a bachelor's degree, and also . . . vocational, technical, occupational, and specialized education" (Department of Education -- referenced to U.S.C.A. Section 20, Chapter 1135a-7--, 1959, p. 11). The definition encompasses the mission of the VTI's in totality.

State-wide studies of higher education by the Academy for Educational Development (1966) and the Higher Education Planning Commission (1969, 1972), a campus study by the Joint Action Committee on University Goals and Directions, University of Maine, Portland-Gorham (1972a,b) and the Maine Management and Cost Survey reported by the Governor (Curtis, 1974, p. D-32), all contained recommendations to merge the VTI
and University systems. A study by the Department of Education, Maine (1959) and a study by Flesher, Flesher, Reese, and Spring (1962) dealt with a master plan for vocational-technical education at the secondary and post-secondary level; neither of these last two studies considered relationships with the single University of Maine campus or the five State teachers colleges. Although the two public post-secondary systems continue to exist autonomously, it is inevitable that consolidation will again surface in light of increased cost-consciousness and the lack of action regarding previous recommendations.

Vocational-technical education at the VTI's expanded rapidly with five of the six campuses being established between 1961 and 1970. Consequently, the predominant concern during this period of ten years was to establish, equip, and staff the new campuses. This commitment resulted in the lack of documentation of the development of the vocational technical institutes. In addition, the granting of associate degree status in 1968 to the VTI's and the subsequent activities leading to accreditation, coupled with rapid growth, contributed further to this lack of formal documentation of their development.

Future recommendations concerned with the continued development and growth of the Maine Vocational Technical Institutes should be based on a thorough review and analysis of their history.

Problem of the Study

The problem of this study was to trace the development of the Maine Vocational Technical Institutes for historical and analytical purposes.
Purpose of the Study

The purpose of this study was to review and interpret the legislative acts, State Board of Education actions and policies, and Bureau of Vocational Education administrative policies relating to the development of the Maine Vocational Technical Institutes. This historical record will be available to assist the Bureau of Vocational Education, Maine State Board of Education, and the State Legislature in developing a comprehensive understanding of the VTI's. Additionally, the analytical documentation should aid them in their deliberations, decisions, and resolutions affecting the future of the VTI's.

Need of the Study

A review of literature reveals a void of published works or formal studies on the historical development of the Maine Vocational Technical Institutes. The study by the Department of Education focused on "what needs for revising and/or expanding vocational or technical training exist in Maine" (Department of Education, Maine, 1959, p. i). Although the report acknowledged that employment opportunities for technicians were increasing and that technical training should occur at the post-secondary level, no specific recommendations were made for technical training at the Maine Vocational Technical Institute level. A system of primarily area vocational high schools was recommended in which "certain areas of instruction be extended to grades 13 and 14 when and if the need is determined" (p. 91).
Flesher et al. (1962) in a survey conducted by the School Survey Service developed a master plan of vocational-technical education for Maine. Some 50 specific findings and conclusions were made regarding the two VTI's — South Portland (est. 1946) and Presque Isle (est. 1962). Recommendations for a master plan at the post-secondary level included:

1. Four two-year post-secondary institutions to be designated as TECHNICAL EDUCATION CENTERS [includes the two existing campuses] be planned, developed, and placed into operation as soon as economically feasible. ... 

2. That trade and industrial education (secondary level) be limited to semi-skilled, service, and operator type occupations. ... 

3. That the TECHNICAL EDUCATION CENTERS be responsible [for] all educational programs of an extension basis for adult workers. ... 

4. Educational leaders in Maine view the occupational spectrum in terms of manipulative skills and technical knowledge. (pp. 69-70)

Additional recommendations included the expansion of the South Portland campus and implementation of the plans for the campus at Presque Isle to serve 1000 students each. The two additional TECHNICAL EDUCATION CENTERS were recommended for the Augusta and Bangor area to complete the state-wide system (Flesher et al., 1962, p. 74). Although the present post-secondary system of vocational-technical institutions reflects the master plan to a degree, it is evident that some of the secondary and post-secondary recommendations which have been implemented do not reflect the mission of the two levels of education as outlined in the Flesher Report.
A resolution by the University Board of Trustees (1969) to establish a community college system and subsequent activity in program development by the University prompted a joint meeting of the Trustees and the State Board of Education in the Spring of 1970. They met to investigate program duplication between the two post-secondary educational systems. A staff report indicated that very little undesirable duplication was occurring. However, it was recommended:

a. That a committee to screen one and two-year program proposals be appointed by the Commissioner and Chancellor.

b. That the committee be delegated to determine where they can be most effectively and efficiently offered so as to avoid unjustified duplication of effort.

c. That recommendations be based on criteria approved by the State Board and the Trustees.

d. That no new programs will be approved by either body until a recommendation of the screening committee has been received. (May 6, 1970, pp. 2-5)

The criteria adopted and used by the Joint Screening Committee are addressed to skill development vs. cognitive (academic) development. These criteria have resulted in some disagreement in program reviews due primarily to the inherent difficulty of defining the skill and academic portions of technical curricula.

As a result of these minor conflicts regarding appropriateness of programs relative to institutional missions, the Commissioner and Chancellor in 1975 directed the Associate Commissioner of Vocational Education, and the Vice Chancellor for Academic Affairs, to assemble a meeting of representative administrators from both systems. The meeting
was called for the purpose of discussing the "criteria for determining the proper institutional home for one and two-year vocational programs which require a relatively high content of academic studies" (Padham, July 10, 1975). The only administrative decision made as a result of the meeting was that a review of the policies and procedures of the Joint Screening Committee be undertaken.

The State Board of Education upon receiving a report of the joint administrative meeting by the Associate Commissioner of Vocational Education established a sub-committee of the State Board of Education in October, 1975 to consider the differing philosophies of one and two-year program development of the University and the VTI's (State Board of Education, October 16, 1975). The major concern of this sub-committee was focused on the appropriateness of programs relative to the missions of the VTI's and the University. As a result of their deliberations, the sub-committee's charge was narrowed to concentrate on a review of the mission of the VTI's (State Board of Education, November 13, 1975).

A paper by the Bureau of Vocational Education entitled, The State Board of Education's Responsibility for Delivery of Vocational-Technical Education Programs in Maine, reviewed the roles in vocational-technical education of the VTI's and the University. The paper concluded that "as a matter of law, custom and policy, the VTI's should maintain exclusive jurisdiction over vocational-technical education" and that only "by continuing to maintain exclusive jurisdiction over vocational-technical education can the VTI's adequately fulfill the 'separate mission'
entrusted to them" (1975c, pp. 5-7).

A recommendation was included in the Governor's Report (Curtis, 1974, p. 32) to transfer the VTI's to the University of Maine and that an office of Vice-Chancellor of Community and Vocational Education be established. The lack of any action by the legislature on these recommendations for merging the two systems since the first study in 1966 by the Academy for Educational Development suggests public support for two distinct public post-secondary educational systems.

A study of Ohio Technical Colleges by Light (1975) expressed a concern of the possible negative effect of University controlled vocational-technical education. He reported that the realignment of the technical institutes under the Ohio Board of Regents generated assumptions that "there would be increased pressure . . . to change its technical institute philosophy, programs, contact hours, and laboratory hours to fit the collegiate pattern. . . . The more pressure from state, school counselors, and parents to include collegiate transfer objective; the weaker the technical programs will become" (p. 4). He concluded that "this study indicates that at this point in time collegiate pressures have not weakened technical programs offered at technical institutes in Ohio". A contributing factor to the maintenance of quality is the continued funding with vocational funds which "have enabled the technical institutes to maintain a high number of technical hours as they meet the standards of the State Department of Education" (pp. 254-5).

A newsletter at one VTI campus in the Fall, 1975 conveyed concerns
regarding the lack of funding, the need for expanded offerings and increased program flexibility, and the financial inability to maintain facilities and equipment adequately. The failure to provide appropriate levels of funding reflects a lack of sufficient understanding of the role and mission of a vocational-technical institute by the executive and legislative branches of Maine government. The Director of SMVTI concluded in his newsletter that "any attempt to look ahead to the future of an institution requires a basic familiarity with past and present conditions to better form judgements, reach conclusions, and make recommendations" (Greer, 1975, p. 1).

The recent concerns on cost management and administrative efficiency in state government in Maine including higher education demonstrates the need for a comprehensive understanding of the Maine Vocational Technical Institutes. Additionally, recurring concerns of maintaining two publicly supported higher education systems in Maine require a full understanding by those who will recommend and make decisions affecting long-range plans of the VTI's and the University.

The lack of any formal studies on the VTI's since 1962 while at least four studies have dealt with the University of Maine in the last ten years further demonstrates the need for a documented history of the Maine Vocational Technical Institutes.

Questions of the Study

This study will review the development of the Maine Vocational Technical Institutes with a focus on the following questions:
1. What legislative acts and executive orders established each of the vocational technical institutes?

2. Did the enabling legislation establishing each of the vocational technical institutes reflect a consistency in the mission with existing VTl's?

3. What was the developmental pattern of funding, staffing, curriculum, and enrollment of the Maine Vocational Technical Institutes?

4. Do the curricula at each of the VTI's reflect missions and goals consistent with the vocational-technical education?

5. Have the missions and goals of the Maine Vocational Technical Institutes been affected by external educational reports which have implicitly or explicitly included consideration for the Institutes?

6. Does the mission of the University of Maine reflect efforts in the development of less-than-baccalaureate programs?

Assumptions of the Study

This study will be undertaken recognizing the following assumptions:

1. The primary and secondary sources of information are available to trace adequately the development of the Maine Vocational Technical Institutes;

2. The sources can be judged accurate with regard to external criticism.

Limitation of the Study

This study is limited to the historical development of the six Maine Vocational Technical Institutes which offer less-than-baccalaureate level post-secondary programs in vocational-technical education and are operated under the jurisdiction of the Maine State Board of Education.
Procedure of the Study

Historical research is the systematic and objective location, evaluation, and synthesis of evidence to establish facts and draw conclusions concerning past events. The specific procedures for the historical review of the Maine Vocational Technical Institutes were developed as follows:

1. A review of literature was made of all publications relating to the VTI's held by the Maine State Library and the Maine State Law Library.

2. Legislative acts establishing each of the VTI's was documented.

3. Official minutes of the State Board of Education were reviewed for policies relating to the operation of the VTI's.

4. The records of the Bureau of Vocational Education were reviewed for administrative policies relating to actions affecting the operation of the VTI's.

5. Internal and external committee reports were reviewed to determine what action was taken on recommendations affecting the VTI's.

6. Catalogs were reviewed to determine the consistency of curricula with regard to the missions and goals established for the VTI's.

7. Accreditation self-study reports were reviewed to determine if the stated missions at each of the VTI's reflect consistency with the legislative mission.

8. The material contributing to the historical development of the VTI's was assembled into a chronological and thematic presentation format.

9. A synthesis of the historical development was presented, conclusions were drawn, and recommendations were made.
Definition of Terms

For the purpose of the study, the following terms are defined:

**Community College** -- Any junior college, postsecondary school, technical institute, or any other educational institution (which may include a four year institution of higher education or a branch thereof) in any State which:

1. is legally authorized within such State to provide a program of education beyond secondary education;
2. admits as regular students persons who are high school graduates or the equivalent, or at least 18 years of age;
3. provides a two-year, postsecondary educational program leading to an associate degree, or acceptable for credit toward a bachelor's degree, and also provides programs of postsecondary vocational, technical, occupational, and specialized education;
4. is a public or other nonprofit institution;
5. is accredited as an institution by a nationally recognized accrediting agency or association.

*Department of Education, Maine, 1959, p. 11 -- referenced to U.S.C.A., Section 20, Chapter 1135a-7*

**Technical Education** -- That body of knowledge organized in a planned sequence of classroom and laboratory experiences, usually at the postsecondary level, to prepare pupils for a cluster of job opportunities in a specialized field of technology. The program of instruction normally includes the study of the underlying sciences and supporting mathematics inherent in a technology, as well as methods, skills, materials, and processes commonly used and services performed in the technology. A planned sequence of study and extensive knowledge in a field of specialization is required in technical education, including competency in the basic communication skills and related general education. Technical education prepares for the occupational area between the skilled craftsman and the professional person such as the doctor, the engineer, and the scientist. (U. S. Office of Education, 1969, p. 85)

**Vocational Education** -- Means vocational or technical training or retraining which is given in schools... under
public supervision and control or under contract with a State Board or local agency and is conducted as part of a program designed to prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or sub-professionals in recognized occupations and in new and emerging occupations, or to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations which the Commissioner determines, and specifies by regulation, to be generally considered professional or which require a baccalaureate or high degree. (Department of Education, Maine, 1959, p. 11 -- referenced to U.S.C.A., Section 20, Chapter 1135a-7)
CHAPTER II. VOCATIONAL-TECHNICAL EDUCATION: A REVIEW

A review of the congressional acts supporting vocational education in the United States is presented here with the intent of providing background for the reader in respect to the historical development of vocational education. Reference is made to the State of Maine legislation which enabled the State to participate in the federal funding of vocational education since 1917. Secondary sources were used for this chapter since the intent was not to extract specific information from the United States Congressional Acts as such information was not pertinent to the purpose of this study. Primary sources are used in the remainder of the study.

The technical education component of vocational education existed by implication and practice prior to the passage of the National Defense Education Act in 1958. It is consumed within the definition of vocational education and, thereby, becomes a part of the vocational education movement.

Efforts prior to the early 1900's to determine national priorities for public education were aimed for the youth less than 14 years of age. No less than five Acts, however, were passed between 1862-1907 providing funds for the "professional" level education at land-grant universities (Swanson, 1962, p. 21). Evidence indicates that this funding, by omission of consideration for the skilled worker, left the farmer, mechanical worker, and homemaker to gain training by the "pick-up" method. This group represented the gap between education for less than 14 year-
olds and education at the college level.

Swanson in his introduction to the Development of Federal Legislation for Vocational Education, reflects on the training process prior to systemized vocational education:

Vocational education made very early beginnings among the races of mankind. In all man's effort to conquer his physical environment -- the dangers and rigors of the external world -- manual skill and knowledge pertinent to specific tasks have in one way or another been transmitted from man to man and from generation to generation. (1962, p. 1)

Three types of preparation for work existed prior to vocational education; (1) apprenticeship training, either voluntary or involuntary, (2) the father/son and mother/daughter transmission of skills, (3) the pick-up method (Barlow, February 1976, pp. 1-2).

Swanson continued:

In a primitive and static society there was no wealth of useable knowledge upon which to draw when man pondered better ways of doing things and means of easing burdens. Discoveries were rare and inventions so slow that man could only inch his way towards a better and safer existence. . . . Skill and knowledge handed down from generation to the next had been traditional among races for centuries. (1962, p. 1)

On the whole, the content of an industrial occupation easiest to secure by pick-up and practice is the manipulative skill. (1962, p. 4)

With the turn of the century, however, the industrialization movement demonstrated to those with foresight that knowledge of the skills (the why component of the how) was necessary to provide the workers with resourcefulness to complement this national economic growth and development.
The National Society for the Promotion of Industrial Education led the way in urging Congress to enact federal legislation for vocational education. Organized in 1906, the Society under the very able leadership of Charles R. Richards, professor of manual training at Columbia University, and James P. Haney, director of art and manual training in New York City, issued numerous papers over a period of eight years calling for state and federal support for vocational education. The theme of the Society's annual conventions between 1908 and 1916 related primarily to state and federal legislation for the agricultural, homemaking, and trades and industry education.

It was not until a compromise was worked out with Senator Hoke Smith regarding the passage of the Smith-Lever Act (1914) that a federal Commission on National Aid to Vocational Education was proposed and authorized. This important resolution of the Congress was approved on January 20, 1914 (Roberts, 1971, p. 91).

This movement at the federal level in vocational education was preceded at the state level by the significant contribution of the Douglas Commission in Massachusetts. This Commission, appointed by Governor Douglas, was charged in 1905 to "investigate how far the needs are met by existing institutions and shall consider what new forms of educational effort may be advisable and shall make such investigations as may be practicable" (Swanson, 1962, p. 15). The results of the Commission efforts were looked upon as a "history making document" affecting even the Smith-Hughes Act of 1917 some ten years later.
The Douglas Commission arrived at the following conclusions which are summarized here:

1. Drop-outs to employment at age 14/15 spend three to four years without increasing their industrial or productive efficiency and they enter non-educative employment.

2. Training of a practical nature for those who drop-out at the seventh grade would be found attractive and an increase to their productivity.

3. Those who continue to complete high school are well prepared for mercantile pursuits, mainly, because of maturity and better mental training, but are lacking in industrial intelligence.

4. The lack of training opportunities lowers quality and industrial output and results in unrealistic competition between industries who can recruit technically trained personnel and those depending on non-trained personnel.

5. The industries of Massachusetts need training in the broader principles of the trades with a finer culture in taste as applied to workmanship and design.

6. A wider diffusion of industrial intelligence is needed for the foundation of technical success and should be an integral part of the general education system.

7. Women should be given an increased opportunity to gain training in those industries most closely allied with the home. (Swanson, 1962, pp. 16-17)

As the Commission did not perceive its mission to include the formulation of a plan, it made three recommendations for the State of Massachusetts:

1. That cities and towns so modify the work in the elementary schools as to include for boys and girls instruction and practice in the elements of productive/industry, including agriculture and the mechanic and domestic arts, and that the instruction in mathematics, the sciences, and drawing should show application and use of these subjects in industrial life.
2. That all towns and cities provide, by new elective industrial courses in high schools, instruction in the principles of agriculture and the domestic and mechanical arts; that, in addition to day courses, cities and towns provide evening courses for persons already employed in trades; and that provision be made for instruction in part-time day classes of children between the ages of 14 and 18 years who may be employed during the remainder of the day.

3. The Commission recognized that there should be no interference with the public school system. Yet it believed that the elements of industrial training, agriculture, domestic, and mechanical sciences, should be taught in the public schools. They also recognized that there should be, in addition to this elementary teaching, distinctive industrial schools separated entirely from the public system. (Swanson, 1962, pp. 17-18)

A concluding recommendation of the Commission was the creation of a second Commission to implement the educational plan.

This second Administrative Commission was appointed, but due to the lack of agreement of the new Commission on the implementation plan, the Courts merged the work of the Commission with the State Board in 1909 resulting in a single-unit education system.

The progress made by the original Douglas Commission and the second Commission was to have a profound influence on the Congressional enactments in 1917. The new thrust envisioned in vocational education with the application of state aid as outlined in Massachusetts was later adopted as the philosophic base of federal vocational education aid.

The resolution adopted on January 20, 1914 by the Senate and approved by the President to create a Commission of National Aid to Vocational Education reflected much of the Douglas Commission's efforts. The recommendations of this Commission for a federally aided system for
vocational education with the matching element of state aid and cooperation were submitted to Congress five months later on June 1, 1914. This 90-day study by four members of Congress and five national leaders did not result in Congressional action and final adoption until February 23, 1917. Congress was urged by the National Chamber of Commerce, the Society for the Promotion of Industrial Education, and President Woodrow Wilson over a three-year period to take action on the vocational education act. Although the Commission acted expediently, it required these three years to obtain passage of legislation aimed "to reach that great mass of our citizenry which is unmoved by our present educational system and by offer of the self-help which comes from proper education and training of head and hand to ensure a gradual elevation from the lower to the higher levels of mankind without changing from vocation to profession" (Swanson, 1962, p. 54). The Smith-Hughes Act incorporated the proposed bill included in the report of the Commission on National Aid to Vocational Education. This report culminated over ten years of efforts to establish (1) a new and vital kind of education in cooperation with the Federal Government; (2) federal funds to assist the states in sharing the cost of the new educational program; and (3) a safeguarded system of federal expenditures for designated purposes (Swanson, 1962, p. 56).

The Smith-Hughes Act provided continuing appropriations for the trade areas of agriculture, trades and industry, and homemaking, as well as teacher education in each of these areas. The unique feature of the
federal legislation was the "partnership" arrangement providing federal
funding without the normal regulatory control. The requirement of a
"state plan" was contained in the basic law. This concept was incor­
porated into the first guidelines of the Federal Board of Vocational
Education and remains a unique ingredient of the present vocational
laws. The state plan required in 1917 when written and approved
became the:

contract or agreement between the federal and state author­
ities. It assures the state complete freedom from federal
interference in administration of the program. It assures
the federal office that the money which Congress appropriated
for specific purposes will be properly expended so long as
the state does not violate the provisions of its plan.
Finally, it provides the local schools with a set of 'speci­
fications' to use in building their programs of vocational
education if they desire to be reimbursed by the state for
salaries paid their teachers. If the local school authorities
are not interested in reimbursement, they are free to follow
or not to follow the provisions of the state plan. (Swanson,
1962, p. 60)

This concept embraced a trust partnership between the Federal
Government and a State Board of Vocational Education. The first State­
ment of Policies of the Federal Board for Vocational Education in 1917
stated:

the machinery established by this Act is devised to secure
effective cooperation in promoting vocational education.
The law provides for the appointment by the President of a
representative Federal Board for Vocational Education. It
also provides for administrative agencies representing the
states. The Act requires that state boards of not less than
three members shall be created by state legislation. Each
state board is to work in cooperation with the Federal Board
in carrying out the provisions of this Act. (Swanson, 1962,
p. 60)
The Vocational Education Act was adopted and approved in the State of Maine by the 78th State Legislature (Maine Public Law, 1917, Chapter 186). The Federal Board at its first meeting on October 18, 1917, approved the first seven state plans which included Maine's plan. Also among the seven were Arizona, Arkansas, California, New York, Pennsylvania and Utah (Swanson, 1962, p. 65). This first Maine State Plan for Vocational Education for the fiscal year July 1, 1918 to June 30, 1919 provided for full-time vocational education programs and evening industrial schools or class. Criteria for approval were primarily the potential of useful employment at the completion of the instruction (DECS, 1975b).

The Federal Board's first guidelines outlined the attitude in which state plans were to be scrutinized and implemented:

These plans the Federal Board must carefully examine. If it finds them to be in conformity with the spirit and purpose of the Act, it is authorized to direct the moneys apportioned to the various states be paid. In other words, partly by the Act itself, partly by the Federal Board, and partly by the state board in cooperation with the Federal Board, standards of vocational education are established meeting the approbation of both state and federal governments. Each in its own field supreme, the state board and the Federal Board, in order to function at all, must come together on the ground thus briefly described. (Swanson, 1962, p. 60)

Although the state plan for vocational education continues to be the binding link between state and federal authorities, the Vocational Education Amendments of 1976 provides more explicit detail of conformance than the concept of a state plan did in 1917.
A summary of the state plan requirements of 1976 follows:

1. A five-year plan is to be submitted during 1977 and each 5th year following.

2. Annual program and accountability plans will be submitted.

3. The state board shall involve active participation of representatives from the secondary vocational agency, the post-secondary vocational agency, the community college agency, the higher education agency, a local board, the vocational education teachers, the local school administrators, the State Manpower Services, the State post-secondary commission, and the State Advisory Council.

4. No less than four meetings will be held when formulating the five year plan.

5. No less than three meetings will be held when formulating the annual plans.

6. The plans shall include manpower projection assessment, program projections, enrollment projections, and institutional and agency allocation, as well as justification for all implementation intentions. (U.S.C.A. S. 2657, 1976, Section 104)

The similarity of legislation and the continuing concept of the state-federal trust partnership for providing vocational education over the sixty years of its existence reflect the conscientious effort from 1908 to 1917 to obtain passage of federal legislation for such education. Amendments offered over the years provided funds for expansion and attributed to the continued success of this new kind of education.

During the 40 years following the Smith-Hughes Act, no less than 64 bills were introduced which amended or expanded the Vocational Education Act (Swanson, 1962). The more influential and significant Congressional enactments are summarized as follows:
The George Reed Act (1929)

Annual appropriations for agriculture and home economics education were appropriated for a five-year period. The sum appropriated to be equally divided provided $500,000 the first year to be increased by $500,000 yearly to a total of $2,500,000 in 1934 (Roberts, 1971, p. 112).

The George Ellzy Act (1934)

An annual appropriation to the amount of $3,000,000 was provided for agriculture, home economics, and trades and industry for the years 1935-1937 (Roberts, 1971, p. 112).

The George Deen Act (1937)

Continued funding at a $12,000,000 level was authorized for the three education areas with an additional $1,200,000 for distributive education. $1,000,000 was also included for teacher training bringing the estimated total to $14,413,000 with administrative allotments (Roberts, 1971, p. 113).

The George Barden Act (1946)

Increased flexibility in the use of the much increased annual authorizations was the thrust of this Act. Specific authorizations of the estimated total of $28,500,000 were $10,000,000 for agriculture, $8,000,000 each for home economics and trades and industry, and $2,500,000 for distributive education. No specific allocation was made for teacher training, and discretion was allowed for this
and other related costs (Roberts, 1971, p. 113).

Although technical education was not spelled out in this act, it did provide within it increased flexibility and the opportunity for technical education to develop. Specifically, it allowed for pre-employment schools or classes for persons over eighteen years to operate without the former requirement that 50 per cent of the time be given to productive shop work (Swanson, 1962, p. 91).

The Vocational Education Act of 1963

This Act represented the first comprehensive redesign of previous vocational education legislation. In addition to amending the Smith-Hughes Act (1917) and the George Barden Act (1946), it incorporated the intent and spirit of the National Defense Education Act (1958).

Annual authorizations of $15,000,000 were provided by the National Defense Education Act through 1962 to be administered by the State Board for "training of individuals designed to fit them for useful employment as highly skilled technicians in recognized occupations requiring scientific knowledge as determined by the State Board for such state in fields necessary for the national defense" (Swanson, 1962, p. 97).

The National Defense Education Act (1958) was primarily a higher education act. The technical education component, however, was tied specifically to vocational education as it added Title III "Area Vocational Education Programs" to the 1946 Act. Section 307(d) stated:

The term 'area vocational education program' means a program
consisting of one or more less-than-college-grade courses conducted under public supervision and control in an organized, systematic class basis, which is designed to fit individuals for useful employment as technicians or skilled workers in recognized occupations requiring scientific or technical knowledge, and which is made available to residents of the state or an area thereof designated and approved by the State Board, who either have completed junior high school, or regardless of their school credits, are at least sixteen years of age and can reasonably be expected to profit by the instruction offered. (U.S.C.A. H.R. 13247, 1958, Section 307d)

A contradiction is contained between the intent of providing technical education and the institutions who were to provide this newly defined education experience. The type of institution is defined in Section 103 of the Act, amended in 1968, as follows:

An educational institution in any State which (1) admits as regular students only persons having a certificate of graduation from a school providing secondary education, or the recognized equivalent of such certificate, (2) is legally authorized within such State to provide a program of education beyond secondary education, (3) provides an education program for which it awards a bachelor's degree or provides not less than a two-year program which is acceptable for full credit toward such a degree, (4) is a public or other nonprofit institution, and (5) is accredited by a nationally recognized accrediting agency or association approved by the Commissioner for this purpose or, if not so accredited, (A) is an institution with respect to which the Commissioner has determined that there is satisfactory assurance, considering the resources available to the institution, the period of time during which it has operated, the effort it is making to meet accreditation standards, and the purpose for which this determination is being made, that the institution will meet the accreditation standards of such an agency or association within a reasonable time or (B) is an institution whose credits are accepted by not less than three institutions which are accredited, for credit on the same basis as it is transferred from an institution so accredited. For purposes of Title II such term includes any school of nursing as defined in subsection (1) of this section; any proprietary institution of higher education (as defined in section 461(b) of the Higher Education Act of 1965) which includes in its agreement under
section 204 of such title such terms and conditions as the Commissioner determines to be necessary to insure that the availability of assistance to students at the school under such title has not, and will not, increase the tuition, fees, and other charges to such students; and any school which provides not less than a one-year program of training to prepare students for gainful employment in a recognized occupation and which meets the provisions of clauses (1), (2), (4), and (5). (U.S.C.A. H.R. 15247, 1958, Section 307d)

The explicitness of technical training to occur in institutions of higher education while applying Title VIII of this Act as an amendment to the George Barden Vocational Education Act (1946) created the paradox that is with us at the present time. Technical education continues to be, philosophically and administratively, vocational education while, at the same time, its success is most evident at the post-secondary level.

The Vocational Education Act of 1965 authorized expenditures of $60,000,000 for 1964 increasing to $225,000,000 for 1967 and thereafter. The sums were allocated for (1) vocational education below the baccalaureate level, (2) teacher education, administrative and ancillary services, and (3) for construction of area vocational education facilities. National and state advisory committees were also required by the Act. (Roberts, 1971, p. 115)

Vocational Education Amendments of 1968

The Vocational Education Amendments of 1968 would be more appropriately viewed as a complete revision rather than as amendments. The prime purpose for such a complete revision was to provide access to vocational-education for persons of all ages in all communities in all
states. This education was to be suitable to their needs and abilities.

Authorized funding levels were for $355,000,000 in 1968 increased to $675,000,000 in 1972 with a continued authorization of $565,000,000 thereafter. Post-secondary opportunities along with programs for the disadvantaged and handicapped were identified as priority areas.

The 1968 law became more specific regarding advisory councils. It required a 21-member national council appointed by the President and a state council of not less than nine members appointed by an elected Board or by the Governor. These advisory bodies reflect efforts to ensure that local and national responsiveness be evident in meeting the needs for vocational education.

**Vocational Education Amendments of 1972**

This Act of 1972 continued the provisions of the 1965 Act with increased emphasis on improving post-secondary occupational education. Post-secondary authorizations were for $100,000,000 in 1973, $250,000,000 in 1974, and $500,000,000 in 1975 aimed at giving a "boost to badly needed post-secondary occupational education". Full realization was noted that administrative problems may occur in the coordination and articulation of post-secondary vocational education programs now administered by the state boards (Arnold, 1972, p. 63).

The provisions of the *Vocational Education Act* (1972) were to be continued within the generic term of vocational education but administered nationally by a newly created Bureau of Occupational and Adult Education within the Office of Education. The new Bureau's responsi-
bility included the:

Administration of the Vocational Education Act of 1965 including Part C, Research and Training, and Part I, Curriculum Development, the Adult Education Act; functions of the Office of Education related to manpower training and development; functions of the Office relating to vocational, technical, and occupational training in community and junior colleges and any other Act vesting authority in the Commissioner for vocational, occupational, adult, and continuing education and for those portions of any legislation for career education which are relevant to the purposes of other Acts administered by the Bureau. (Arnold, 1972, p. 63)

It is, perhaps, with these amendments of 1972 that the simplicity of the "state plan" concept required by the Smith-Hughes Act of 1917 was becoming lost. The broadened base of "occupational and career education" as a concept to include vocational as well as technical education demanded articulation between state agencies which heretofore may not have existed -- at least as formally as now required.

Vocational Amendments of 1976

Significant changes in the planning process required for funding approval is at the heart of the Vocational Educational Amendments of 1976. The declaration contained in the bill states its purpose "to assist States in improving planning in the use of all resources available to them for vocational education and manpower training by involving a wide range of agencies and individuals concerned with education and training within the state in the development of the vocational education plans" (U.S.C.A. S. 2657, 1976).

The involvement of, specifically, the higher-education agencies
in this planning process places an increased responsibility for coordi-
nation and articulation particularly at the post-secondary level. The
allotment for vocational education for "(1) persons who have completed
or left high school and who are enrolled in organized programs of study
for which credit is given towards an associate or other degree but
which programs are not designed as baccalaureate or higher degree pro-
grams and (2) persons who have already entered the labor market, or
are unemployed, or who have completed high school or left high school"
(U.S.C.A. S. 2657, 1976) remains at 15 per cent of the total of
the state allotment. Only through increased total appropriations to
each state will there be more available funds to reflect the wider
spectrum of interested post-secondary agencies.

Authorized funds through 1982 are as follows: $500,000,000 for
1977, $880,000,000 for 1978, $1,030,000,000 for 1979, $1,180,000,000
for 1980, $1,325,000,000 for 1981, and $1,485,000,000 for 1982. These
funds are provided for basic grants to continue and develop vocational
education and for program improvement and supportive services.

The first guidelines offered in 1917 by the Federal Board viewed
the prospective of funding state plans for vocational education "if it
finds them in conformity with the spirit and purpose of the Act"
(Swanson, 1962, p. 60). This has given way to a highly specified
developmental procedure and review process greatly limiting the flexi-
bility envisioned by the early movers of vocational education in the
1900-1920 era.
It is clear that federal funds for technical education which was a national priority in the National Defense Education Act of 1958 and made an amendment of the Vocational Education Act of 1946 have emerged to be administered by vocational education. Although the "area-vocational schools" have been defined as both secondary and post-secondary, technical education has also emerged to be post-secondary with a different nature and scope than the traditional vocational education programs.

Light (1975) in his study of Ohio Technical Institutes quotes Maurice W. Roney's work of 1969. Light cites Roney's work as the most significant for providing a common base for identifying and developing technical education. "The guide would enable states . . . to follow a somewhat common ground that still gives us a basis for evaluating the mission and objectives of technical education. Noteworthy portions of Roney's document included two basic assumptions" (Light, 1975, p. 51).

1. The technical occupations, whether or not they are closely related to engineering functions, require broad technical competence based on a knowledge of engineering and scientific principles.

2. A significant part of this knowledge can best be provided by formal systematic training in organized programs of instruction. (Roney, 1960, p. 3)

For occupation identification, Roney suggested five points (Light, 1973, p. 31):

1. Facility with mathematics; ability to use algebra and trigonometry as tools in the development of ideas that make use of scientific and engineering principles; and understanding of, though not necessary facility with, higher mathematics through analytical geometry, calculus,
and differential equations, according to the requirements of the technology.

2. Proficiency in the application of physical science principles, including the basic concepts and laws of physics and chemistry that are pertinent to the individuals' field of technology.

3. An understanding of the materials and processes commonly used in the technology.

4. An extensive knowledge of a field of specialization with an understanding of the engineering and scientific activities that distinguish the technology of the field. The degree of competency and the depth of understanding should be sufficient to enable the individual to do such work as detail design using established design procedure.

5. Communication skills that include the ability to interpret, analyze, and transmit facts and ideas graphically, orally, and in writing. (Roney, 1960, p. 5)

Roney identified twelve technical criteria describing technical activities. These included (Light, 1973, p. 32):

1. Applied knowledge of science and mathematics extensively in rendering direct technical assistance to scientists or engineers engaged in scientific research and experimentation.

2. Designs, develops, and plans modifications of new products and processes under the supervision of engineering personnel in applied engineering research, design, and development.

3. Plans and inspects the installation of complex equipment and control systems.

4. Advises regarding the maintenance and repair of complex equipment with extensive control systems.

5. Plans production as a member of the management unit responsible for efficient use of manpower, materials and machines in mass production.

6. Advises, plans, and estimates costs as a field representative of a manufacturer or distributor of technical
equipment and/or products.

7. Is responsible for performance or environmental tests of mechanical, hydraulic, pneumatic, electrical or electronic components or systems and the preparation of appropriate technical reports covering the tests.

8. Prepares or interprets engineering drawings and sketches.

9. Selects, compiles, and uses technical information from references such as engineering standards, handbooks, and technical digests of research findings.

10. Analyzes and interprets information obtained from precision measuring instruments and recording instruments and makes evaluations upon which technical decisions are based.

11. Analyzes and diagnoses technical problems that involve independent decisions.

12. Deals with a variety of technical problems involving many factors and variables which require an understanding of several technical fields. (Roney, 1960, pp. 6-8)

Greer (1967) in a national study of the organization and administration of technical education specifically related to teacher education reviewed several definitions of technical education and summarized them in an operational definition thus:

The role of the technician in the industrial field holds a key spot between the engineer and the craftsman in industry, between theory and production. He uses drawing instruments, gauges, applied science, mathematics, common sense, initiative, analysis and diagnosis. He turns in reports. He builds, supervises, trouble-shoots and controls the machine in our plants and offices. He is classified as a semi-professional, but even within this designation there exists various levels of technical competency. (Greer, 1967, pp. 5-6)

Among his conclusions Greer stated that "there are no universally accepted definitions or standards relative to technical education as presently practiced in this country" (Greer, 1967, p. 147).
Technical education was a phenomenon growing out of vocational education. Arising specifically out of the National Defense Education Act of 1958, becoming an amendment to the Vocational Education Act of 1946 and being incorporated into the definition of "vocational education" in the Vocational Education Act of 1965, "technical education" exists in its own right by operational and specific definition. Although often mistaken for a type of education for the engineering technologies, there appears general agreement that technical education reflects a "level of education" as it relates to the sophistication of content and experiential learning. (Evans, 1971, p. 133)

The term vocational-technical education at the post-secondary level in Maine, although used synonymously as in the federal acts, provides for the differentiation of vocational and technical education. In time, refinement will greatly aid the planning, development, and expansion of technical education as a complementary aspect of the total vocational education spectrum in Maine.
CHAPTER III. A LEGISLATIVE REVIEW OF POST-SECONDARY VOCATIONAL TECHNICAL EDUCATION IN MAINE

The state of Maine has funded post-secondary vocational education and technical education through general appropriations since FY/1948. The Maine Vocational Institute has been expanded from the single campus established in 1946 to a system of Maine Vocational Technical Institutes with six campuses located throughout the State. The legislative appropriations from 1946 to 1977 reflect the State support for post-secondary vocational-technical education. Details of this support will be presented later in this chapter. Comparisons to other systems or states are not presented, but, rather, a factual profile of dollar appropriations and growth over the 31-year period. Other significant legislative matters concerning the VTI's will also be introduced.

Maine Vocational Institute, the first of the six campuses, was established by order of the Governor and Council in 1946. The sum of $125,000 was provided to establish an institution to provide training for the returning World War II veterans at a time when neither the public schools nor industry was able to cope with the training need. "It was thought that this first undertaking would test the value of post-secondary vocational schools in serving the needs of the State and its citizens" (DECS, 1975b, p.3).

Although the intent of establishing the Maine Vocational Institute in 1946 was experimental, Maine had been responsive and active in the field of vocational education for many years. It was one of the first seven states to receive approval of their State Plan for Vocational
Education under the Smith-Hughes Act of 1917 (Swanson, 1962, p.65).

A Public Law was enacted in Maine on April 5, 1917 to provide for the cooperative funding of vocational education by the individual states and the federal government. It provided for:

1. The authorization to cooperate with the federal government in the matter of vocational education, acceptance of the benefits of the Smith-Hughes Act, and agreement to comply with all the requirements of the Act.

2. The creation of a three-member state board for vocational education with the state superintendent of schools to serve as chairman with the necessary power to administer the provisions of the act.

3. The assignment of the Treasurer of State to serve as custodian of all federal funds received under the authority of the Smith-Hughes Act (Maine Public Law, 1917, Chapter 186).

Legislation occurring between 1917 and 1950 reflects changes necessary for Maine law to be compatible with federal enactments allowing for continued funding of vocational education. An administrative restructuring of State Government occurred in 1951 resulting in the establishment of a Department of Education with a Commissioner of Education to be the chief officer. The duties included all those previously vested in the state superintendent of schools. Consistent with the reorganization, the vocational education board was restructured to include the commissioners of education, health and welfare, and labor with the Commissioner of Education to serve as chairman (Maine Public Law,1951, Chapter 216).

State appropriations for vocational education at the secondary level from 1917 through 1947 show that financial support increased from $15,000 to $46,972 annually.

National and world activities of 1939 and 1940 leading to World War
II prompted the United States Office of Education, at the request of the President, to compile budget estimates for expanding vocational education to train war-production workers. The subsequent estimates were reviewed and recommended for appropriation by the President of the United States and enacted on June 27, 1940 (Swanson, 1962, p.39).

The public laws of Maine in 1941 address this potential vocational education expansion. The emergency preamble of enabling legislation for expanded vocational education identified four areas of concern:

1. New federal legislation will provide additional funds for vocational education.
2. Vocational education is desirable for young people.
3. It is essential for vocational education to assist in the national defense.
4. Facts related to implementation create an emergency as related to Section 16, Article XXXI of the Maine Constitution.

The law provided for "An Act Incorporating the Maine Vocational School" as follows:

1. Six Maine men were incorporated as a charitable and educational corporation with a place of business in Augusta, Maine (provided for under Chapter 70 of the Maine Revised Statutes).
2. The corporation was given the authority to acquire property and to deed or convey to the State for the purpose of vocational education enabling Maine to take advantage of potential federal funding. In addition, it was given authority to cooperate with the federal government for purposes of vocational education.
3. Power to acquire property for the purpose of maintaining a training school was provided with:
   the right to equip and maintain such building for said purposes and to make suitable arrangements for the instruction of students in the various vocations regardless of whether said students are residents of the State of Maine or not; and to enter into agreements with persons, firms, and/or corporations
for their assistance in furnishing opportunities for practical vocational training and instruction, and to charge such fees for instruction and use of facilities, including housing and boarding facilities (Maine Public Law, 1941, Chapter 75).

Although not specifically stated, this appears to be the first legislation with implications for vocational education for out-of-school youth to occur at the post-secondary level. The charging of fees for instruction, use of facilities, and housing and boarding facilities appear to project beyond secondary-level opportunities. No further references, however, to the "Maine Vocational School" are found in public law from 1941 through 1977, nor were there references to legislative appropriations for any "training activities" which might be attributed to this corporation.

In 1945, the vocational education board was expanded by Maine law from three to five members to also include the Commissioner of Agriculture and head of the home economics department of the University of Maine, Orono. The Commissioner of Education was to remain as permanent chairman (Maine Public Law, 1945, Chapter 185). The Vocational Education Board's responsibility for Maine Vocational Institute was provided by legislation in 1947. The Revised Statutes, Chapter 57, were amended as follows:

Sec. 177-A. Vocational education board to operate and maintain technical and vocational schools. In addition to its duties connected with vocational education and vocational rehabilitation, the vocational education board shall have authority to establish, maintain, and operate state technical and vocational institutes to promote specialized training for returning veterans of World War II and other persons who give evidence of special aptitude or need and desire specialized training designed specifically to train for service in trade, industry, or commerce.
Sec. 177-B. The vocational education board shall have power to offer such courses of study, give such diploma or certificate on completion of a course of study, charge such tuition and other reasonable fees, and set up such qualifications for admission as it deems necessary, in any such technical and vocational schools. (Maine Public Law, 1947, Chapter 382)

Appropriations in this bill provided $33,350 for FY/1948 and $36,850 for FY/1949 to be distributed for disbursement to the vocational education board by the Commissioner of Education (Maine Public Law, 1947, Chapter 382).

Two years after the Vocational Education Board's responsibilities were expanded to include the post-secondary institutes, a State Board of Education was created. In 1949 the State Board was given the responsibilities formerly vested in the Commissioner of Education. The newly created Department of Education was to consist of the State Board of Education, a Commissioner of Education chosen by the Board, and the Departments' officials and clerical staff.

Important to vocational education was the replacement of the Vocational Education Board by the State Board of Education (Maine Public Law, 1949, Chapter 403). The funding pattern following this change does not reflect any major alterations with this new policy-making board.

Maine Vocational Institute continued its operation in Augusta until a federal installation at Fort Preble, South Portland, was acquired in 1952. Four programs were offered during this period with a 22% increase in annual appropriations from FY/1948 to FY/1952 (See Figure III-1).

The move of Maine Vocational Institute from Augusta to South Portland was facilitated by appropriations amounting to $180,000 during
Figure 111-1. State appropriations for SMVTI, 1948-1963
FY/1951 to FY/1953. This amount was for renovating buildings at the former Fort site (Maine Public Law, 1951, Chapter 174; 1953, Chapter 88) and represents the total supplemental monies appropriated prior to 1956 from the general fund for such purposes other than the initial $125,000 authorized by the Governor and Council for establishing the Institute.

The importance of this new post-secondary Institute in Maine is capsulized in a Twenty-fifth Anniversary publication of SMVTI (formerly MVI):

> Shortly after World War II many of the veterans in the State of Maine found themselves unequipped to find suitable jobs. These young men, who had served in the war, yearned to be absorbed into the economic world.

> There was a man of great vision who sought to do something about this situation and to provide opportunities for the veterans and others of our youth with mechanical and technical skills and aptitudes. This man brought before the Governor of Maine a proposition to establish a new and unique institute of learning. His brainchild was to have a profound effect on the youth of Maine and the state's educational system.

> In 1946, Morris Cates /Deputy Commissioner of Education/ solicited and gained the support of Governor Horace A. Hildreth, who authorized a draft on the general fund of $125,000 to finance the establishment of the Maine Vocational Technical /sic/ Institute. The new school was the first in a chain of six such facilities now existing in the State of Maine dedicated to the service of its youth. In the beginning, the student body consisted of eighty World War II veterans, and ten faculty and staff -- a far cry from the 800 students and close to 100 faculty and staff of our present facility in South Portland. (SMVTI, 1972, p.2)

General appropriations bills for the period FY/1950 through FY/1957 listed funds for MVI as the "vocational-education training program" within the Department of Education's appropriations. In FY/1958 "technical" was added to MVI and MVTI was identified specifically in the
appropriations bill for the first time and was so noted through FY/1967 during which three more institutes were added to the system.

Expansion of MVI between the move to Fort Preble, South Portland (FY/1952) and the establishment of the second VTI FY/1963) represented a 390% increase in funding (see Figure III-1). The budget increased from $40,728 to $199,654 during this period.

Inasmuch as MVI was to have been evaluated for its effectiveness in providing post-secondary vocational and technical education for the State and its citizens, a funding growth of 498% over a 15-year period between 1943 and 1965 does not appear to have demonstrated a progressive expansion of post-secondary vocational and technical education. This expansion represents a growth rate of about 11 per cent per year.

The 100th Legislature in 1961, responding to the need of post-secondary educational opportunities in the northerly section of the State of Maine, resolved to appropriate monies for a vocational institute in northeastern Maine. An amount of $250,000 was appropriated with directives:

that the Department of Education establish an area vocational and technical institution . . . to provide specialized post-secondary vocational and technical training for high school graduates, . . . for those who have reached their 18th birthday but who have not graduated from high school, and for adults who . . . desire specialized or refresher training for employment in service of trade, industry, or commerce. (Maine Resolves, 1961, Chapter 119)

This legislative directive given to the Department of Education was effective on September 16, 1961. It represented the first evidence of the Legislature to expand the post-secondary vocational-technical concept.
Set in motion by this resolve was a move by the Department of Education, and, specifically the Commissioner of Education to make a formal and orderly assessment of vocational-technical education needs of the State.

Seven months after funds for Northeastern Maine Vocational Institute were provided, the Commissioner of Education invited representatives of the School Survey Service, Columbus, Ohio, to discuss vocational and technical needs of Maine and the possible assistance they might provide. Following a meeting on April 9, 1962, the submittal of a survey proposal on the 16th of April, and State Board approval of the proposal on the 27th of April, a survey was carried out and submitted to the Department of Education on October 10, 1962 (Flesher et al., 1962, p. iv). The emphasis to be placed on the post-secondary level is reflected in that "the State Department of Education was interested primarily in securing professional help with the problem of post-high-school education in the trade, industrial, and technical occupations and its relationship, again primarily, to the high school programs of the State in trade and industrial education" (Flesher et al., 1962, p.1).

The study reviewed the post-secondary educational opportunities in the public and private colleges of Maine and noted the lack of opportunity in the trade and technical field. "None of these institutions concern themselves with those students who desire trade and technical training at the post-high-school level but at less than the four-year college degree level although developments in technology have created thousands of jobs in all kinds of endeavor which require trained workers. To fill the need for this kind of training, the State of Maine has
established Maine Vocational Technical Institute and is preparing to open a second institution, Northeastern Maine Vocational Institute" (Flesher et al., 1962, p. 47).

It is apparent that the School Survey Service was to provide a master plan for vocational-technical education with emphasis on the post-secondary level. Considerations were given to the economic, geographic, and social aspects of the State, as well as the educational philosophy. The recommendations of the study for post-secondary centers were as follows:

1. That to serve the skilled and technical manpower needs of the State and its people, four two-year post-high school institutes be designated as TECHNICAL EDUCATION CENTERS be planned, developed, and placed into operation as soon as economically feasible, and that these centers offer appropriate two-year programs in agriculture, home economics, and business and distributive areas in addition to a wide variety of skilled trade and technical curriculum for industry.

2. That to support the programs of these TECHNICAL EDUCATION CENTERS, the high schools of the State improve and expand their vocational education offerings in agriculture, home economics, distributive education and trade and industrial education; but that the trade and industrial education be limited to semi-skilled, service, and operator types of occupations and for those students for whom high school is likely to be their last direct contact with formal education.

3. That the TECHNICAL EDUCATION CENTERS be responsible for the promotion, organization, and implementation of all educational programs of an extension nature for adult workers and supervisors in industry, agriculture, business, distribution, and homemaking areas.

4. That in considering the Master Plan and its implementations, educational leaders in Maine view the occupational spectrum in terms of manipulative skills and technical knowledge . . . and that those responsible for planning and development recognize the major functions and
basic relationships of the TEC's and the high schools . . .
with respect to vocational-technical education.

^Including the two Centers already authorized (MVTI at South Portland and NMVI at Presque Isle).
(Flesher et al., 1962, pp. 69-70)

Recommendations in the Flesher Report to implement the Master Plan in regards to post-high school vocational-technical education in Maine were:

1. That immediate steps be taken to extend TECHNICAL EDUCATION CENTER #1 (MVTI) to serve at least 750 to 1,000 students, that the Center serve basically the southern section of the State from Brunswick south to the State line, an area having a population of approximately 300,000 people, with "Satellite" extension centers as the need develops in a number of towns and cities such as Bath, Biddeford, Brunswick, Sanford, and Westbrook . . . and that the Center take the steps indicated in later special recommendations related to MVTI to expand its enrollment and to improve its program.

2. That existing plans for TECHNICAL EDUCATION CENTER #2 (NMVI at Presque Isle) be implemented as soon as possible to serve an enrollment of at least 750 to 1,000 students; that this Center serve the basic area from Fort Kent to Houlton, an area having a population of almost 100,000 with possible "Satellite" extension centers as the need for such programs develops in communities such as Caribou, Fort Kent, Houlton, Madawaska, and Van Buren . . . that the Center offer initially, as planned practical nursing, office occupations (business), automechanics, auto body and fender, and general building trades; that electronic data processing be considered as program additions; and that at an early date a second entrance to the campus be provided for the convenience of persons living in the direction of Caribou, Madawaska, and Fort Kent.

3. That immediate and preliminary plans, including any needed legislation, be started toward the authorization and development of two additional TECHNICAL EDUCATION CENTERS to serve eventually 750 to 1,000 students each.

4. That TEC #3 be located near the Augusta exit of Interstate Route 95 so as to serve best an area encompassing over 250,000 population and including towns and cities
such as Augusta, Gardiner, Lewiston, Rumford, Skowhegan, and Waterville with "Satellite" extension centers as needs for such programs develop in the population centers of the area . . . .

5. That TEC #4 be located slightly south of Bangor to serve an area of about 200,000 population, including the towns and cities of Bangor, Belfast, Brewer, Bucksport, Ellsworth, Machias, and Newport, with "Satellite" extension centers as needs for such programs develop in the population centers of the area. (p. 72)

The locations of the two centers which existed (TEC #1 and #2) and the two proposed centers (TEC #3 and #4) with the respective area to be served is illustrated in Figure III-2. Three of the six existing Institute locations are consistent with the study's recommendation of the location of TEC #1, #2, and #4. The Augusta area was not selected as a site and is served by two Institutes -- one at Auburn (CMVTI) and one at Waterville (KVVTI). The eastern section of Maine is served by an Institute in Calais on the boundary of Maine and New Brunswick, Canada.

The Flesher Report also made recommendations for a general and basic pattern of policy for the four TEC's:

1. That although each of the four TEC's is assigned a geographic area of major responsibility, each school be expected and permitted to accept enrollment from the entire state in those curriculums unique to the given school; e.g., Culinary Arts at MVTI or Business at NMVI (Presque Isle).

2. That in plans for administering all TECHNICAL EDUCATION CENTERS, procedures be set up whereby under certain conditions and with appropriate administration procedures and controls, designated high school pupils (Boys and girls who are 16 years of age or older) be considered for possible reassignment to a TECHNICAL EDUCATION CENTER for vocational preparation if the student meets the entrance requirements of the curriculum he desires.
Figure III-2. Technical education center locations recommended in 1962 in the Flesher Report and showing VTII locations in 1977.
3. That in each TEC a qualified professionally trained person be provided the necessary time to work with the teaching staff on curriculum planning, teaching methods, and use of instructional aids.

4. That for each TEC a representative Advisory Council from the area served be formed to advise and counsel the Center regarding the nature of offerings, adjustments in curriculum, standards for student achievement, advisers to particular courses, sources of competent staff, public relations activities, placement of graduates, and related items.

5. That plans be made and implemented for awarding the Associate Degree for those two-year programs of technical education in the TEC's which require equivalent of at least 20 semester hours of general education in addition to the technical courses, and that in all other TEC curriculums appropriate certificates be issued to graduates.

6. That each TEC be held responsible for all two-year post-high school education and all adult vocational classes in its basic geographic area and be considered the administrative unit to provide such instruction and that such instruction include agriculture, home economics, distributive education, and trade and industrial education (including practical nursing, fire training, and supervisory development programs for industry. (Flesher et al., 1962, p. 74)

The review of legislative action over the historical period of the VTI's presents no evidence of the present system reflecting the "implementation of a Master Plan". MVTI and NMVI were recommended to serve 2,000 students with a third and fourth center to serve an additional 2,000 students. Implementation of these recommendations would have provided post-secondary vocational and technical opportunities for 4,000 students by the mid 1960's. The present VTI system has six campuses and served 3176 students in 1976 -- a decade after the recommendations were made there were 800 fewer students than the target of the "Master Plan" of 1962 projected originally.
The four additional VTI's were established in 1965 (CMVTI at Auburn), in 1967 (EMVTI at Bangor), in 1970 (WCVTI at Calais), and in 1971 (KVVTI at Waterville).

The 101st Legislature in 1965 authorized and directed the Department of Education to "establish, maintain, and operate a State Vocational Educational Institute . . . in Androscoggin County . . . to promote specialized training for those who give evidence of special aptitude or need and who desire specialized training designed specifically to train for service in trade, industry, and commerce" (Maine Resolves, 1965, Chapter 114). CMVTI at Auburn became this third institute.

The fourth institute at Bangor (EMVTI) was authorized by appropriation for the "purchase of land and planning in Penobscot County" in the amount of $25,000 (Maine Private and Special Law, 1965, Chapter 186).

The special Session of the 103rd Legislature authorized a bond issue for the VTI's which included $650,000 for a new building designated as WCVTI (Calais) (Maine Private and Special Law, 1967, Chapter 188). This appears to be the only legislative authorization for the fifth institute which opened in 1970.

The 104th Legislature appropriated monies for a VTI in Waterville to be operated by the State Board of Education commencing in the Fall, 1970, under the administration of the Waterville School Board, a local educational agency. The law also stated that "such an institute shall be experimental for approximately two to three years of operation. Future funding requests shall be based on a thorough evaluation of the
institute". An appropriation of $98,000 was made for KVVTI for the FY/1971 (Maine Private and Special Law, 1969, Chapter 182).

At its December 14, 1972 meeting, the State Board of Education approved a status report on KVVTI's operation for its first two years. Included in this action was the approval of the "principle for funding and continued operation subject to detailed planning with the State Board of Education and the Waterville Board of Education".

A review of the appropriations was made covering the period beginning with 1964. This year was selected as it was the year that the second institute (NMVI) commenced operation and followed the Flesher Report. Total State appropriations for general operation increased 1100% over this period from 1964, when two institutes were operating, to 1977, when a total of six institutes were in operation (see Figure III-3). Student enrollment over this same period increased at a rate one-half that of funding from 458 to 3025 or a 560% increase. Qualitative and quantitative evaluation of an 1100% increase in appropriations would have to take into consideration the stability of the economy and the purchasing power of the dollar. However, the appropriations for 1977 represent State expenditures to support a student body of 3025, 1000 students below the recommendations for the four TEC's which were to have been implemented in the mid 1960's.

Growth of the individual campuses (see Figure III-4) is represented by a 579% appropriation increase for SMVTI from 1964 to 1977 and a 97% increase for KVVTI from 1971 to 1977. Percentages of growth in funding over a period in which all institutes operated would be more
Figure III-3. State appropriations, federal post-secondary support, and student enrollment -- VTE system totals
Figure III-4. State appropriations by VT1 campus, 1964-1977
comparable. The period of 1971 through 1977 shows a growth ranging from 75% (CMVTI) to 176% (WCVTI). EMVTI, KVVTI, and NMVTI doubled their appropriations within the 97% to 104% range, and SMVTI increased by 152%. This growth pattern appears to reflect the areas served when considering population and geographic location and also appears to reflect the growth pattern projected by the Flesher Report.

All federal funds for vocational education are distributed by the Bureau of Vocational Education. Information obtained from the Bureau's accounting department shows that post-secondary vocational funds allocated to the VTI's increased by 205% from FY/1971 ($208,720) to FY/1977 ($637,496). Eighty-three percent of the funds were allocated to SMVTI (62%) and NMVTI (21%) with the other four VTI's sharing the remaining 17%. It would appear that efforts to increase student enrollment with federal post-secondary funds have been successful when State funding has been inadequate. Post-secondary vocational funds equal 20% of the State appropriations at SMVTI and 10% at NMVTI. The 205% increase in federal post-secondary vocational funding exceeded the growth of State appropriations of 114% over the same six-year period (See Table III-3).

Appropriations by the Maine Legislature have required line-item-budgeting since FY/1956 within three categories -- personnel, all other, and capital. Trends in the funding of the VTI's in these three categories between 1970 and 1977 as shown in Figure III-5 reflect decreasing allotments for "all other" and "capital" and an increasing percentage of the total appropriation allotted to personnel. "Personnel" allotments have taken an increased portion of the total
Note:

KVVTI is not included; appropriation is "all other" and transferred to a local educational agency for disbursement.

Figure III-5. Total VT personnel, all other, and capital appropriations, 1964-1977
budget by increasing from 58.7% in 1970 to 70.6% in 1977 of the total appropriation. "All other" has decreased by 13% from 32.5% to 28.8%, and "capital" has decreased continually over the seven-year period by 93% from 8.8% to 0.6% of the total appropriation.

The profile of general fund capital appropriations illustrated in Figure III-6 gives an apparent "cause and effect" relationship when viewed with supplemental appropriations. Supplemental appropriations for new classrooms, capital improvements, repairs, and laboratory facilities represent significant capital expenditures. A relationship of general fund capital expenditures and new construction is observed when viewing the occurrences of building funds and capital expenditures. It appears that funding for capital procurement has not been provided for new and replacement acquisitions except when prompted by new construction and expansion.

Figures 7 through 12 present the appropriations by campus during the period 1964 to 1977. Inspection of these figures reveals a consistent trend across campuses of the "personnel" category taking an increasingly significant portion of the total campus appropriations. Table III-1 summarizes the percentage changes by campus in a comparison of FY/1970 with FY/1977 appropriations.

The decrease in percentage points between institutions from FY/1970 to FY/1977 was quite consistent for the two categories of personnel and all other -- 14 to 12 percentage points for "personnel" and 14 to 11 percentage points for "all other". It is clearly evident, that total appropriations are not keeping pace with the needs of the
Figure III-6. General fund capital appropriations compared to supplemental appropriations for capital improvements, construction, and repairs, 1964-1977 for all VTI's
Figure III-7. SMVTI personnel, all other, and capital appropriations, 1964-1977
Figure III-8. NMVTI personnel, all other, and capital appropriations, 1964-1977
Figure III-9. CMVTI personnel, all other, and capital appropriations, 1965-1977
Figure III-10. EMVTI personnel, all other, and capital appropriations, 1967-1977
Figure III-11. WCVTI personnel, all other, and capital appropriations, 1970-1977
Note:

KVV1 appropriation is "all other" and transferred to a local educational agency for disbursement.

Figure III-12. KVV1 appropriations, 1971-1977
Table III-1. Percentage of appropriations for personnel, all other, and capital compared for 1970 and 1977 by VTI campus

<table>
<thead>
<tr>
<th></th>
<th>All Campuses</th>
<th>SMVTI</th>
<th>NMVTI</th>
<th>CMVTI</th>
<th>EMVTI</th>
<th>WCVTI</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel</strong></td>
<td>58.7</td>
<td>58.7</td>
<td>59.0</td>
<td>60.8</td>
<td>57.9</td>
<td>56.4^a</td>
<td>56.4 - 60.8</td>
</tr>
<tr>
<td><strong>All Other</strong></td>
<td>32.5</td>
<td>25.9</td>
<td>37.2</td>
<td>32.8</td>
<td>32.6</td>
<td>40.0^a</td>
<td>25.9 - 40.0</td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>8.8</td>
<td>15.3</td>
<td>3.8</td>
<td>6.4</td>
<td>9.5</td>
<td>3.6^a</td>
<td>3.6 - 15.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>All Campuses</th>
<th>SMVTI</th>
<th>NMVTI</th>
<th>CMVTI</th>
<th>EMVTI</th>
<th>WCVTI</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel</strong></td>
<td>70.6</td>
<td>75.1</td>
<td>63.4</td>
<td>71.2</td>
<td>71.1</td>
<td>69.7</td>
<td>63.4 - 75.1</td>
</tr>
<tr>
<td><strong>All Other</strong></td>
<td>28.8</td>
<td>24.6</td>
<td>35.8</td>
<td>27.1</td>
<td>28.9</td>
<td>30.0</td>
<td>24.6 - 35.8</td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>0.6</td>
<td>0.4</td>
<td>0.7</td>
<td>1.6</td>
<td>0.01</td>
<td>0.3</td>
<td>0.01 - 1.6</td>
</tr>
</tbody>
</table>

^aPercentage represents FY/1971, second year of operation, as more representative.

^bDoes not include KVVTI as total appropriation is "all other" and transferred to a LEA.
institutes in that the "all other" and "capital" categories are being reduced to accommodate the increased "personnel" costs.

It would appear inaccurate to state that significant financial support had not been provided by the State Legislature for the VTI system over the past 13 years. On the contrary, the expenditure of funds has increased. The quantity of support and the rate at which the support was provided, however, is a qualitative judgement outside of the scope of this research.

Several legislative actions between 1964 and 1977 other than general appropriations appear significant for the VTI's. The 102nd Legislature amended the authorization for state technical and vocational institutes by striking "returned veterans of World War II and other" (Maine Public Law, 1965, Chapter 440) making the law more generalized to the population of Maine.

Also, effects of the Educational Acts of 1963 are found with the authorization of regional-vocational centers at the secondary level. Within this authorization, programs at the 13th and 14th grade were provided for -- "Vocational and technical courses on grade 13 and 14 levels may be operated in regional-technical and vocational centers when approved by the State Board of Education, and, when so operated, tuition charges for these courses at rates approved by the State Board of Education may be charged directly to the students enrolled" (Maine Public Law, 1965, Chapter 440). It is under this authorization that KVTII is operated within a LEA regional vocational center.

Following this enabling legislation for secondary regional-
vocational centers, an authorization for a bond issue in York County located in southern Maine was passed by the 102nd Legislature. Within the preamble it was stated that there are four post-secondary institutes and "until the State or local communities establish regional-vocational education centers as feeders, only then can we expect the post-secondary vocational schools to do the job intended" (Maine Private and Special Law, 1965, Chapter 199). This statement of secondary and post-secondary vocational education relationships is the only reference found in the search of legislation that refers to a "plan" or an expectancy of the secondary and post-secondary systems by the Legislature.

In 1967, the 103rd Legislature amended the laws related to the State Vocational Technical Institutes as follows:

The said board /State Board of Education/ shall have authority to offer such courses of study, give such diploma or certificate on completion of a course of study, charge such tuition and other reasonable fees and set qualifications for admissions as it deems necessary in any such technical and vocational schools, and schools for practical nursing, (the following is added) and in addition the board may confer associate degrees at the state vocational-technical institutes based upon 2 years of instruction with such equipment and facilities as will safe-guard the integrity of the degree awarded. (Maine Public Law, 1967, Chapter 284)

It is noted that this action providing for the granting of associate degrees came five years after being recommended in the Flesher Report.

The supplemental appropriations provided for the VTI's between 1952 and 1977 are listed in Table III-2 and a summary in Table III-3. Of total supplemental appropriations of $14,836,842 over this period,
Table III-2. Supplemental appropriations for all VTI campuses, 1952-1977, for construction and general purpose

<table>
<thead>
<tr>
<th>Year</th>
<th>VTI</th>
<th>Construction</th>
<th>General</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>MVTI</td>
<td>$90,000</td>
<td>30,000</td>
<td>Campus relocation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>General maintenance</td>
</tr>
<tr>
<td>1955</td>
<td>MVTI</td>
<td>60,000</td>
<td></td>
<td>Building renovation</td>
</tr>
<tr>
<td>1956</td>
<td>MVTI</td>
<td>20,000</td>
<td></td>
<td>Engine shop repair</td>
</tr>
<tr>
<td>1958</td>
<td>MVTI</td>
<td>64,227</td>
<td>10,000</td>
<td>General construction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Culinary arts renovation</td>
</tr>
<tr>
<td>1959</td>
<td>MVTI</td>
<td>259,315</td>
<td></td>
<td>Automotive technology building</td>
</tr>
<tr>
<td>1960</td>
<td>MVTI</td>
<td></td>
<td>15,000</td>
<td>General renovations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19,600</td>
<td>Dormitory renovations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15,000</td>
<td>Matching money for fisheries</td>
</tr>
<tr>
<td>1961</td>
<td>MVTI</td>
<td>110,600</td>
<td>15,000</td>
<td>Classroom building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Matching money for fisheries</td>
</tr>
<tr>
<td>1962</td>
<td>MVTI</td>
<td>12,000</td>
<td>152,000</td>
<td>Welding shop addition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Building renovation</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>250,000</td>
<td></td>
<td>Establish institute</td>
</tr>
<tr>
<td>1963</td>
<td>NMVTI</td>
<td>566,000</td>
<td></td>
<td>Renovation and capital equipment</td>
</tr>
<tr>
<td>1964</td>
<td>MVTI</td>
<td>10,000</td>
<td>10,000</td>
<td>Fire safety renovations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NDEA matching funds</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>25,000</td>
<td></td>
<td>Land and planning</td>
</tr>
<tr>
<td>1965</td>
<td>CMVTI</td>
<td>640,000</td>
<td></td>
<td>Initial building</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>269,500</td>
<td></td>
<td>Shop and laboratory wing</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>1,000,000</td>
<td></td>
<td>Administration and classroom bldg.</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>68,000</td>
<td></td>
<td>Auto-body shop renovation</td>
</tr>
<tr>
<td>1966</td>
<td>CMVTI</td>
<td></td>
<td>15,000</td>
<td>NDEA matching funds</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td></td>
<td>121,000</td>
<td>Capital equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>354,000</td>
<td>Laboratory building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,000</td>
<td>Fire protection and safety</td>
</tr>
<tr>
<td>1967</td>
<td>CMVTI</td>
<td>309,000</td>
<td></td>
<td>Dormitory/cafeteria building</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>50,000</td>
<td></td>
<td>Vessel repair, marine science</td>
</tr>
<tr>
<td>1968</td>
<td>CMVTI</td>
<td>17,719</td>
<td>79,981</td>
<td>Dormitory completion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>175,000</td>
<td>Dormitory completion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>225,000</td>
<td>Machine tool addition</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>700,000</td>
<td></td>
<td>Men's dormitory</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Classroom addition</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>270,000</td>
<td></td>
<td>Classroom and administration bldg.</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>540,000</td>
<td></td>
<td>Men's dormitory</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>455,000</td>
<td>Multipurpose building</td>
</tr>
<tr>
<td></td>
<td>WCVTI</td>
<td>650,000</td>
<td></td>
<td>Classroom and administration bldg.</td>
</tr>
</tbody>
</table>
Table III-2. (Continued)

<table>
<thead>
<tr>
<th>Year</th>
<th>VTI</th>
<th>Construction</th>
<th>General</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>CMVTI</td>
<td>35,700</td>
<td></td>
<td>Land development</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>50,000</td>
<td></td>
<td>Site development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55,000</td>
<td></td>
<td>New building</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>12,000</td>
<td></td>
<td>Dormitory repair</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>71,000</td>
<td></td>
<td>General capital</td>
</tr>
<tr>
<td>1971</td>
<td>CMVTI</td>
<td>950,000</td>
<td></td>
<td>Laboratory wing</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>840,000</td>
<td></td>
<td>Laboratory wing</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>650,000</td>
<td></td>
<td>Student dormitory</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>1,010,000</td>
<td></td>
<td>Culinary arts and electrical bldgs.</td>
</tr>
<tr>
<td></td>
<td>WCVTI</td>
<td>110,000</td>
<td></td>
<td>Equipment</td>
</tr>
<tr>
<td>1973</td>
<td>SMVTI</td>
<td>275,000</td>
<td></td>
<td>Heating/air conditioning building</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52,000</td>
<td></td>
<td>Fire prevention</td>
</tr>
<tr>
<td>1974</td>
<td>CMVTI</td>
<td>68,700</td>
<td></td>
<td>Vehicle storage building</td>
</tr>
<tr>
<td></td>
<td>EMVTI</td>
<td>103,000</td>
<td></td>
<td>Capital improvements</td>
</tr>
<tr>
<td></td>
<td>NMVTI</td>
<td>28,000</td>
<td></td>
<td>Auto-body addition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250,000</td>
<td></td>
<td>Building construction building</td>
</tr>
<tr>
<td></td>
<td>SMVTI</td>
<td>870,000</td>
<td></td>
<td>Classroom building</td>
</tr>
<tr>
<td></td>
<td></td>
<td>225,000</td>
<td></td>
<td>Marine science building</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50,000</td>
<td></td>
<td>Capital improvement</td>
</tr>
<tr>
<td></td>
<td>WCVTI</td>
<td>650,000</td>
<td></td>
<td>Laboratory addition</td>
</tr>
<tr>
<td>1975</td>
<td>WCVTI</td>
<td>750,000</td>
<td></td>
<td>Dormitory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>170,000</td>
<td></td>
<td>General capital</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>13,529,542</td>
<td>1,307,500</td>
<td></td>
</tr>
</tbody>
</table>
Table III-3. Supplemental appropriations summarized by VTI campus, 1952-1977, for construction and general purpose

<table>
<thead>
<tr>
<th>Campus</th>
<th>Construction</th>
<th>General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMVTI</td>
<td>$2,509,900</td>
<td>$35,700</td>
<td>$2,545,600</td>
</tr>
<tr>
<td>EMVTI</td>
<td>2,820,000</td>
<td>178,000</td>
<td>2,998,000</td>
</tr>
<tr>
<td>NMVTI</td>
<td>1,632,000</td>
<td>262,000</td>
<td>1,894,000</td>
</tr>
<tr>
<td>SMVTI</td>
<td>4,517,642</td>
<td>551,600</td>
<td>5,069,242</td>
</tr>
<tr>
<td>WCVTI</td>
<td>2,050,000</td>
<td>280,000</td>
<td>2,330,000</td>
</tr>
<tr>
<td></td>
<td><strong>$13,529,542</strong></td>
<td><strong>$1,507,300</strong></td>
<td><strong>$14,836,842</strong></td>
</tr>
</tbody>
</table>

$13,529,542 was provided for capital construction and major building additions. A total of $1,507,300 was provided for a variety of appropriations such as capital equipment, matching funds, vessel repair, land and site development, and general maintenance and renovation.

Legislative activity over the twenty-nine year history has largely been restricted to:

1. Annual general appropriations.
2. Selected supplemental appropriations.
3. Authorizations for VTI campuses.
4. Clarification of potential students.
5. State Board authority to operate VTI's.
CHAPTER IV. STATE BOARD OF EDUCATION POLICIES AND
BUREAU OF VOCATIONAL EDUCATION ADMINISTRATIVE ACTION: A REVIEW

A Department of Education was created by the 94th Legislature in the State of Maine in 1949. This newly created Department was headed by a State Board of Education with the authority that was previously vested in the Office of the Commissioner of Education. From this date the Commissioner, formerly a gubernatorial appointment, was chosen by the newly created Board until the position was returned to the gubernatorial system in 1971. As the Board of Education also assumed in 1949 the responsibilities of the Vocational Education Board, a review of the policies issued by the State Board of Education will provide insight into the leadership role from its creation in 1949 to the present.

The State Board of Education is composed of nine members appointed by the Governor of the State of Maine. The Commissioner of Education serves as the Executive Officer of the State Board and has, among his duties, the general administration of vocational education in the State and is directly responsible to the Governor.

The nine members of the State Board are broadly representative of the public. No person who earns a substantial portion of his income in the educational field other than a college president shall be eligible to serve on the Board.

The term of office for Board members is five years. Any vacancy created is filled for the remainder of the unexpired term. Members of
the Board do not receive compensation for their duties and responsibilities.

Meetings are required at least quarterly. The review of the Board minutes reveals that monthly meetings are prevalent with the exception, perhaps, of July and August.

The State Board of Education is authorized by law to act in an "advisory capacity to the Commissioner of Educational and Cultural Services" (Maine Revised Statutes, Title 20, Chapter 5, Section 51). It is also the responsibility of the State Board to "establish, maintain, and operate State technical and vocational institutes and schools of practical nursing" (Maine Revised Statutes, Title 20, Chapter 5, Section 51). Within this authority the Board "shall have authority to offer such courses of study, give such diploma or certificate on completion of a course of study, charge such tuition and other reasonable fees and set up such qualifications for admission as it deems necessary in any such technical and vocational schools, and schools of practical nursing, and, in addition, the board may confer associate degrees at the state vocational-technical institutes based upon two years of instruction with such equipment and faculties as will safeguard the integrity of the degrees conferred" (Maine Revised Statutes, Title 20, Chapter 307, Section 2356).

Over the 27-year period from 1949 to 1976, 57 policies affecting the VTI's were issued by the Maine State Board of Education. These policies were recently reviewed by the Bureau of Vocational Education
to be contained in the most recent Directors' Handbook. A review of the policies reflects five general categories in which action was taken: 1. Academic, 2. Administrative, 3. Fees, 4. Personnel, and 5. Student Services. (See Table IV-1).

Table IV-1. Categories of policies by the State Board of Education, 1952-1976

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>NUMBER OF POLICIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>4</td>
</tr>
<tr>
<td>Administrative</td>
<td>9</td>
</tr>
<tr>
<td>Fees (Tuition, etc.)</td>
<td>9</td>
</tr>
<tr>
<td>Personnel</td>
<td>5</td>
</tr>
<tr>
<td>Student Services</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
</tr>
</tbody>
</table>

Academic Policies

Academic policies were issued by the Board in 1968 (2), 1970 (1), and 1975 (1). The four policies covered Program Planning, Program Discontinuance, Uniformity of Academic Calendars, and Joint Screening Committees. It is worth noting that the first academic policy was issued the same year that the associate degree authority was granted.

An orderly process for program planning was established in 1968. Considerations to be included in the program proposal were:

1. Objectives or purposes of the program.
2. Employment opportunities with supportive statistics and data.
3. Plans for advisory committee involvement.
4. Typical curricula from other educational institutions.
5. Course descriptions.
6. Admission criteria and enrollment targets.
7. Capital and facility requirements.
8. Staffing requirements. (State Board of Education, November 15, 1968)

Of equal significance were the criteria for program discontinuance based on the single criterion of student enrollment. After a program experiences enrollments of ten students or fewer for two consecutive years, any post-secondary trade or technical course is to be discontinued. Allowance is made in two-year programs for upperclassmen to complete their programs (State Board of Education, December 20, 1968).

The academic calendar was established for the VTI's in 1970 to run for 170 days. At the time of the passage of this policy VTI faculty were contracted for 44 weeks commencing with the third week of August (State Board of Education, March 18, 1970). This appears to be the only policy regulating the length of trade and technical programs during the academic year with no reference as to the total number of contact hours in a given program.

In 1973, the Board approved the formation of a Joint Screening Committee of the State Board of Education and the University of Maine Board of Trustees to review program proposals developed by the VTI's and the University. The primary purpose of this committee is to avoid duplication and to fully utilize the State's resources (State Board of Education, March 5, 1973). This action followed approximately three
years of discussion and review by the two Boards (State Board of Education and the University Trustees, May 6, 1970).

It is important to note that the Board of Education was and continues at the present time to be responsible for vocational and technical education at both the secondary and post-secondary levels. The Flesher Report (1962) recommended discrete responsibilities for the secondary vocational programs and the post-secondary technical centers (See Chapter III). Academic policies to guide the appropriate development of vocational and technical programs at the post-secondary level to reflect this recommended role are not evident in the search of academic policies.

Administrative Policies

The nine administrative policies represent regulatory type actions ranging from rental fees for VTI buildings, energy conservation, activities of administrators to the naming of buildings. Of most significance in this category is the policy statement of September 21, 1972 relating to the operation of the Vocational Technical Institutes:

It is the policy of the State Board of Education to provide each vocational-technical institute campus and school of licensed practical nursing the greatest degree of autonomy possible consistent with the needs of statewide planning, coordination, and accountability. With this autonomy will go the necessary authority. While the Board cannot delegate ultimate responsibility, it will hold the directors accountable for the efficient and effective operation of their institute or school and the Board will exercise its control by periodic reviews of the stewardship of said directors. Direct responsibility for translating policies of the Board into operational regulations shall reside with the Commissioner through the Bureau of Vocational Education. (State Board of Education, September 21, 1972)
Contrasting with this delegation of autonomy is a rather detailed and specific policy statement 15 months later concerning energy conservation (State Board of Education, December 6, 1975). Eleven items including the lowering of thermostat settings, limiting use of State vehicles, turning off unnecessary lighting, reducing academic weekly calendars, and increasing the length of winter vacations were directed by the Board to accomplish energy conservation. This policy was issued in response to the energy emergency existing in the state.

Two policies affecting administrative personnel were issued in 1969. Employment of members of an administrator's immediate family was prohibited unless approved by the State Board (June 23, 1969). Outside employment by the directors of the Institutes or his administrative staff was prohibited unless approved by the Associate Commissioner (State Board of Education, March 21, 1969).

Regulation of the use of VTI buildings and vehicles were the subject of four administrative policies. Fees for the rental of VTI facilities was specified on April 25, 1958 (State Board of Education) and September 12, 1975 (State Board of Education). Capital construction of laboratories, classrooms, and dormitories and the subsequent need to identify buildings was the subject of a policy for naming buildings on May 10, 1973 (State Board of Education). The use of state vehicles was limited to institute business on September 25, 1970 with personal use strictly prohibited (State Board of Education).

The first two VTI's at South Portland and Presque Isle provided
housing for directors and certain other personnel at the time they were established. This authorized housing was dependent upon the necessity of the employees to be available on 24-hour call for campus service. With the authorization of CMVTI in 1963 and the absence of housing for that director, it became necessary to adjust the salary of directors who did not enjoy campus provisions for housing (State Board of Education, July 7, 1964). Previous to this date the State Board had delineated those aspects of supplied housing that the directors would be responsible for including certain furnishings and furniture (December 31, 1956). Housing allowances were adjusted by the State Board on May 10, 1973 to reflect more adequately prevalent housing costs of those who lived off-campus.

Fee Policies

A third category of policies lie in the area of student fees to include activity fees, tuition, and room and board. The first student dormitory at CMVTI in 1966 necessitated refund policies to assure equitable refunds to students and to preserve income projections for self-liquidating bonds used for financing the construction (State Board of Education, April 29, 1966). Room and board charges were adjusted upward over a three-year period through 1975-76 by the Board on April 12, 1973.

Increased concern with the range of student fees charged to students at the various VTIs and the tendency for increasing these activity fees resulted in a maximum fee policy in 1975 (State Board of Education,
March 15, 1975). The setting of this fee within maximum limits was to be the responsibility of the student senate or council with final approval by the administration.

Six of the nine fee policies related to tuition. The number of out-of-state applications in the late 1960's increased with the development of the state-wide system of VTIs resulting in the establishing of dual tuition for in-state and out-of-state students. Out-of-state tuition was set at twice that of in-state tuition (State Board of Education, September 17, 1971).

Short-term program offerings of less than an academic year required differential tuition rates in 1971 (State Board of Education, October 15, 1971). Within the next two years the 12 month programs in practical nursing required a policy to cover programs longer than the academic year base (State Board of Education, April 12, 1975).

Free tuition to senior citizens over sixty-five and to North American Indians was provided for in 1972 (State Board of Education, September 12, 1972).

A policy to cover tuition refunds to students who terminated their educational program at the VTIs was approved on September 11, 1975. This Board policy was consistent with the refund formula covering board and room that was approved in 1966.

Eight of the nine policies in the student fee category were approved after 1971.
Personnel Policies

The five policies issued in the personnel category appear to be the most comprehensive category of all the approved policies.

Administrative personnel policies were established by the Board on January 26, 1966 to apply to the directors, assistant directors, and other administrative personnel. The conditions set forth included areas of employment procedures; retention, promotion and salary; benefits; and dismissal procedures.

On December 15, 1967 a policy to clarify sick-leave provisions for State Board employees was approved.

Although instructors at the vocational technical institutes were placed in the personnel category of unclassified (Maine Public Law, 1965, Chapter 141), there appeared to be no specific personnel policies approved by the Board until a master contract was negotiated. Unclassified personnel policies existed for other State employees and were applied to VTI instructional personnel prior to 1972. A Master Contract was negotiated by the State Board of Education and the Vocational Technical Faculty Association and approved on June 19, 1972 (State Board of Education). This comprehensive contract was premature in the State in that it preceded the collective bargaining laws enacted by the 108th legislature in 1976. The initial three-year contract in 1972 was extended in 1975 and 1976 pending action on state-wide collective bargaining (State Board of Education, June 5, 1975; March 19, 1976).

An administrative salary schedule first approved to be effective
January 1, 1968 was updated on April 12, 1973 (State Board of Education). This new schedule reflected three administrative levels — directors, assistant directors and deans, and other administrative personnel.

Housing and feeding for VTI personnel was the subject of a policy approved on September 11, 1975. Those eligible for campus housing included the director, plant maintenance engineer, and dormitory proctors. The housing and feeding allowance policies were based on criteria concerning the demands of the 24-hour service required of the position. It appears that this policy evolved as necessary to comply with amendments to the Revised Statute relating to subsidized housing for state employees (State Board of Education, September 11, 1975).

Student Service Policies

Eight of the ten policies covering student services were approved after 1968. A set-aside for the promotion and conduct of a student welfare program not to exceed $10 per student was approved in 1952 (State Board of Education, December 10, 1952). The Veterans Readjustment Act of 1966 prompted a policy requiring all program outlines to be submitted for approval to allow qualified veterans to receive educational benefits (State Board of Education, September 18, 1959).

In 1968, two of the VTI's, SMVTI and EMVTI, were authorized to offer associate degree programs. Responding to the New England Regional Student Access Program sponsored by the New England Board of Higher Education, 2% of the previous year's enrollment was to be reserved for
out-of-state students meeting eligibility requirements of NEBHE (State Board of Education, January 17, 1969). Qualifying applicants were charged tuition rates equal to in-state rates.

Preferential treatment to veterans applying for acceptance to any VTI program was a subject of policy on July 16, 1971. With all admissions criteria being equal, veterans were to be given first choice. Should veterans not qualify for admission, academic upgrading activities were proposed to assist veterans with academic deficiencies (State Board of Education).

A prior policy governing free tuition for North American Indians was superseded by a policy on January 14, 1972. The purpose of amending the prior policy was to create consistency with a policy by the University of Maine Board of Trustees for "Scholarships for North American Indians". Basically, the policy remained as approved with more explicit eligibility requirements and a biennial review by the State Board.

An extensive and thorough VTI Student Code of Conduct was approved on February 8, 1973. This thirteen page document provided the vocational technical institutes with sufficient guidelines to "act fairly toward an accused student, conforming to procedures meeting the standards of due process of law". The code was "designed to promote the peaceful pursuit of intellectual and subsidiary activities . . . to insure" the safety of those engaging in institute pursuits (State Board of Education, February 8, 1973).
Pressures resulting from increased out-of-state tuition, changes in voter residency, and an increased mobile society in the early 1970's required a more comprehensive and consistent policy for dealing with residency requirements. In 1973, the Board adopted a policy consistent with the University of Maine residency requirements. Denials to residency reviews could be appealed to the level of Commissioner if the local Institute could not resolve the request (State Board of Education, July 12, 1973).

The 97th legislature in 1955 appropriated $5,000 to establish a scholarship fund for VTI students (Maine Resolves, 1955, Chapter 181). With an increased appropriation of $50,000 in 1973 and six institutes rather than one, a policy statement was issued to provide for equitable financial-aid awards. The policy addressed student eligibility and procedures for making awards (State Board of Education, September 13, 1975).

The 106th legislature in 1972 reduced the legal adult age to 18 years creating the need for addressing the use of alcoholic beverages on VTI campuses. The Board in 1974 issued a policy clearly establishing the rights of students in using alcohol in dormitory living quarters (State Board of Education, May 16, 1974).

Student work-study wage rates were the subject of a 1975 policy. It encouraged that the state minimum labor rates be used at entry level jobs with incentive increases for second-year students and specialty jobs (State Board of Education, July 10, 1975).
Over the 27-year period that the State Board of Education has administered the Vocational Technical Institutes, it has issued 37 policies. Twenty-four (65%) were issued in the last six-year period since 1971. An additional ten were issued between 1966 and 1971. The remaining three policies were issued between 1949 and 1966.

Bureau of Vocational Education Administrative Action

In reviewing policy development by the Board of Education, administrative policy statements issued by the Bureau of Vocational Education surfaced. It appears that these policies do not vary significantly in level nor scope with those issued by the Board of Education. The policy areas are more specific with the policies falling recently into the categories of academic, administrative and personnel.

The administrative policies of the Bureau were of a general nature and included:

1. Policy for Submitting Council Orders. (DECS, February 26, 1975b)
3. Donation of Equipment. (DECR, January 26, 1972)
4. Employment, Retention, and Dismissal of Personnel. (DE, April 5, 1971)
5. Policy for Teaching Summer Programs. (DE, ca. 1970b)

The program screening policy required an internal review of all new VTI program proposals by the Directors of the VTI's with their
recommendations to be forwarded to the Associate Commissioner for review and approval. If approved, the program would then be submitted to the University-VTI Joint Screening Committee for their recommendations (DECS, December 21, 1975).

Donations of equipment exceeding $500 in value requires State Board and Governor and Council approval. Items of lesser value are to be acknowledged by the VTI director to those donating the equipment. Appropriate records are to be kept with periodic inventory notification to the Bureau of Vocational Education (DECS, January 26, 1972).

The employment, retention, and dismissal policy was directly related to the maintenance of adequate records to substantiate administrative action taken against unclassified personnel. Explicit in this policy was the necessity to evaluate instructional staff and to demonstrate assistance in overcoming any instructional weaknesses identified through the evaluation procedure (Department of Education, April 5, 1971).

Salaries for academic-year instructional staff during the summer session required the attention by the Associate Commissioner in the early 1970's. Limitations placed on the maximum earnings when a full-time teaching responsibility was assigned in the summer was set at the weekly rate of a pro-rated annual salary. Less than full-time teaching assignments are paid on an hourly stipend scale (Department of Education, ca. 1970).

The policy relating to instructional projects off-campus involving
students which are non-state related placed responsibility upon each
director of the VTI's to ensure total absence of conflict of interest
or personal gain for any State Board employee. It appears that this
policy relates primarily but not exclusively to the Building Construc-
tion Departments at the various VTI's (Department of Education,
ca.1970).

These six administrative policies covered the time between 1970
and 1975. Three could be categorized as administrative; two as person-
nel; and one as programmatic.

The implementation of the Master Contract between the State Board
of Education and the Vocational Technical Institute Faculty Association
that was approved in 1972 required clarification from the Bureau to
provide equitable and consistent application at each of the five VTI's
covered by the contract. The one VTI operated by contract with the
local educational agency in Waterville (KVVTI) was not included as
personnel were considered local employees.

Requests from the Institute administrators resulted in nine official
interpretations on the Master Contract being issued by the Bureau. The
concerns and tone of the requests can best be presented by listing the
"interpretations":

1. Interpretation of the Master Contract -- Questions.
2. Contractual responsibility of VTI instructional staff.
3. Credit for accumulated years of service.
4. Interpretation of contract week and school year.
5. Interpretation of Director -- Article IV, 4.ID.
6. Placement of new nursing instructors.
7. Interpretation of release, non-renewal, and removal.
8. Reappointment of department heads in the VTI's.

This review of the policies developed by the State Board of Education and the Bureau of Vocational Education reveals: 1. a lack of comprehensive policies developed at the State Board level to govern the VTI's; 2. a lack of discrimination in the type of policies originating at the Board or Bureau level, and 3. a lack of differentiation between policies and implementation directives. The apparent lack of adequate effort or resources has resulted in a staggered and fragmented approach to the development of programmatic and administrative policies to guide the effective and efficient operation and development of the VTI's.

Few policies portraying long-range planning designed to provide stability and growth directives to the VTI's appear in the literature. No evidence was found which represents a total approach to policy development for the operation of the VTI's.

All of the policies reviewed were exhibited in a Director's Handbook compiled by the Bureau of Vocational Education. Due to the State Board of Education being advisory to the Department of Educational and Cultural Services as a regulatory agency of the executive branch, and the VTI's being a state agency under this Board, it appears logical to assume that State regulations governing personnel, fiscal control, and facilities have inhibited the total approach to policy development.
The Maine State Board of Education in January of 1977 operated six vocational technical institutes. The initial legislation providing the Board with this authority does not specifically state that the institutes are post-secondary. It does give the authority to "establish, maintain, and operate state technical and vocational institutes to promote specialized training for persons who give evidence of special aptitude or need and who desire specialized training" (Maine Public Law, 1947, Chapter 532).

Enabling legislation for the second VTI, however, directed the Department of Education to establish an area vocational and technical institute for "specialized post-secondary vocational and technical training for high school graduates" (Maine Resolves, 1961, Chapter 119).

The six VTIs comprising the post-secondary vocational technical institute system in order of their establishment are:

- Southern Maine Vocational Technical Institute 1946
- Northern Maine Vocational Technical Institute 1963
- Central Maine Vocational Technical Institute 1965
- Eastern Maine Vocational Technical Institute 1967
- Washington County Vocational Technical Institute 1970
- Kennebec Valley Vocational Technical Institute 1971

All campuses of the VTI system have as their purpose vocational-technical education. Their administration has been vested in the campus directors with the "greatest degree of autonomy possible consistent
with the needs of state-wide planning, coordination, and accountability" (State Board of Education, September 21, 1972). The development of the Institutes reflects a unique and interesting chain of events. A brief history of each of the Institutes is presented to provide insight of the development of goals, facilities, curricula, staffing, and enrollment.

Southern Maine Vocational Technical Institute

SMVTI was the first institute and was established by order of the Governor and Council in 1946. Its mission was to provide training for returning World War II veterans with a curricula consisting of four programs -- automotives, electrical, machine tool, and radio repair. Related instruction in English, math, drafting, and science played an integral role in this first attempt to provide post-secondary vocational education in a publicly-supported institution. On the occasion of SMVTI's 25th anniversary in 1971, it was stated that "this modest beginning was housed in the old Vickory Hill Building in Augusta with its squeaky wooden floors and its dimly lighted cubicles, partitioned off hastily with wallboard, plywood, and chicken wire. The immediate neighbors of the Maine Vocational Institute were other State agencies on the floors above and in the surrounding wings of the building" (SMVTI, 25th Anniversary, 1972, p. 3).

The administration and faculty consisted of Deputy Commissioner Morris Cates, liaison administrator with the Department of Education; Maynard S. Howe, registrar; and ten faculty. Deputy Commissioner Cates is credited with this beginning of a new opportunity for Maine citizens.
Four members of the original faculty are still serving the Institute at this writing: Romulus Graves, Electrical Technology; Bert Jewett, Machine Tool Technology; James Johnson, Automotive Technology; and George Slocum, Electronic Communications.

The 1974 Self-Study Report of SMVTI submitted to the New England Association of Schools and Colleges (NEASC) for accreditation, lists four specific objectives of the Institute. These objectives are "to provide the student with an educational experience that will":

1. Prepare him for career employment.
2. Allow him to advance in his occupation as opportunities arise.
3. Enable him to continue his education and training according to his changing needs and interests.
4. Enable him to develop a range of skills ensuring flexibility of occupational choice. (1974, p. I-23)

The Self-Study continues with a statement of the Institute's philosophy:

This institution emphasizes the application of knowledge in all its many programs. While education for immediate employment is the most essential goal, it is also vitally concerned with developing a potential for growth and change within the student. Southern Maine Vocational Technical Institute is dedicated to providing a high quality program of instruction which not only recognizes the importance of technical knowledge and development of skills, but, in addition, the need to develop work and social habits and attitudes. The Institute believes in an integrated technical and related education as necessary throughout the occupational curriculum to enable students to develop self-awareness and social responsibility, so as to successfully compete in a chosen occupational field. (1974, p. I-23)

The integration of general education, related technical, and technical courses evident in the first programs of MVI as a philosophic
The four programs of MVI in 1946 have expanded to 50 curricula options. These are administered by 15 technical departments. Table V-1 presents the programs and indicates the date of establishment. The authority to award the associate degree was granted SMVTI in 1968 resulting in eight new degree options within existing curricula.

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AWARD</th>
<th>CERTIFICATE</th>
<th>DIPLOMA</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oceanography</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Communications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronics Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel, Motel &amp; Restaurant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating &amp; Air Conditioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Electricity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law Enforcement Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maritime Technician</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Nursing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Soil Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wastewater Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\*Transferred from Department of Education, established in 1963.
The 1976-77 SMVTI catalog lists the automotive and culinary arts certificate options as having only technical-course content. With the exception of these two, all curricula including one-year certificate curricula appear consistent with the stated goals and philosophy of the Institute and includes general education and related technical courses.

The Flesher Report (1962) presented the Machine Tool Technology curriculum as it appeared at MVI in 1962. A suggested curriculum was also presented which decreased the weekly student contact from 35 hours to a maximum of 29 hours.

Table V-2 contains the MVI machine tool technology curriculum and recommendations as presented by Flesher along with the curriculum contained in the 1976-77 catalog. The major element of the Flesher suggestion was the decrease of 32 weekly-hours in lecture and laboratory over four semesters, credit hours remained constant. The rationale for this was reflected by their observation that a 35-hour week for post-secondary students was unusual as "students at this level are ordinarily mature enough to assume more of the responsibility for their own education" (Flesher et al., 1962, p. 58). The 1976-77 machine tool technology curriculum reflects a decrease in total program credit hours from 74 to 65. Student contact, however, has been reduced by only an average of one hour weekly each semester. It appears, then, that the Institute's commitment to provide quality instruction with integrated technical and related courses has continued through its 31-year history. Of particular interest, is the fact that the technical offerings such as that illustrated by the machine tool technology curriculum with 15
Table V-2. A comparison of 3 Machine Tool Technology curricula

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>SCHEDULE</th>
<th>FLESHER RECOMMENDATIONS</th>
<th>SCHEDULE</th>
<th>1976-77 CURRICULUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LECT.</td>
<td>LAB</td>
<td>CR.</td>
<td>LECT.</td>
</tr>
<tr>
<td>1st Semester</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>English</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Drafting</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Machine Tool</td>
<td>7</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>17</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>2nd Semester</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Drafting</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Machine Tool</td>
<td>7</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>19</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>3rd Semester</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Business</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Related Shop</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Machine Tool</td>
<td>7</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>20</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>4th Semester</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Relations</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Business</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Related Shop</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Machine Tool</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>15</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Grand Total</td>
<td>69</td>
<td>71</td>
<td>74</td>
<td>52</td>
</tr>
</tbody>
</table>

*aEnglish*
contact hours weekly, has also been maintained in the degree options as well as the diploma options. The skepticism reported by Light (1973) of the pressure to become more collegiate resulting in less student contact hours with the introduction of degree status does not appear to be reflected at SMVTI.

In 1962, there were eight programs at SMVTI with a total enrollment of 560 students. The responses to a survey item in the Flesher Report asking about the adequacy of building facilities shows that 54.5% of the students and 41.3% of the graduates indicated the facilities as inadequate. In 1976, with the exception of the Building Construction Department and Machine Tool Department, all of the remaining six programs queried in 1962 are housed in new facilities.

SMVTI was moved from Augusta in 1952 to the site of Fort Preble in South Portland. The beginning of a campus-type institution was begun with the remodeling of the military buildings. Since 1952, a total of $4,517,642 has been appropriated for nine new buildings and renovations as shown in Table V-3.

The SMVTI campus is comprised of about 55 acres located in South Portland on the shore of Casco Bay in Southern Maine overlooking the entrance to Portland Harbor. The property includes about forty buildings ranging from 19th Century military buildings to the most recent Marine Science building (1977).

The instructional staff has increased from 22 in 1962 to 81 in 1977. In this same period, student enrollment as reported by the Bureau of Vocational Education has increased from 392 to 1351 (See
Table V-4). The resulting teacher/student ratio remained at 1:16-17 over this 15-year period.

Table V-3. SMVTI capital construction and renovation appropriations by year and amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952-1956</td>
<td>General Renovation</td>
<td>$274,227</td>
</tr>
<tr>
<td>1959</td>
<td>Automotive Technology Lab</td>
<td>$259,815</td>
</tr>
<tr>
<td>1961</td>
<td>Classroom Building</td>
<td>$110,600</td>
</tr>
<tr>
<td>1962</td>
<td>Building Renovation</td>
<td>$152,000</td>
</tr>
<tr>
<td></td>
<td>Welding Shop Addition</td>
<td>$12,000</td>
</tr>
<tr>
<td>1965</td>
<td>Laboratory Building</td>
<td>$354,000</td>
</tr>
<tr>
<td>1968</td>
<td>Men's Dormitory</td>
<td>$540,000</td>
</tr>
<tr>
<td></td>
<td>Multipurpose Building</td>
<td>$435,000</td>
</tr>
<tr>
<td>1971</td>
<td>Culinary Arts Building</td>
<td>$1,010,000</td>
</tr>
<tr>
<td>1973</td>
<td>Electrical-Electronics Building</td>
<td>$275,000</td>
</tr>
<tr>
<td>1974</td>
<td>Heating &amp; Air Conditioning Building</td>
<td>$870,000</td>
</tr>
<tr>
<td>1977</td>
<td>Classroom Building</td>
<td>$225,000</td>
</tr>
<tr>
<td></td>
<td>Marine Science Building</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$4,517,642</td>
</tr>
</tbody>
</table>

Sixty-six percent of the instructional staff in 1977 held at least a bachelor's degree with an additional 14% having an associate degree or apprentice papers. The 34 percent of the faculty with less than a baccalaureate compare to 70.7% reported in 1962.

The Flesher Report in 1962 contained recommendations to seek accreditation, seek associate degree status, and establish faculty rank, while doing everything possible to "maintain the high morale, the dedication to teaching, and the interest in students and their success so evident now among administrative and instructional staff at the Institute" (Flesher et al., 1962, p.78). It appears that the growth of a professional faculty while maintaining quality artisans, the acquisition of degree granting status, and full accreditation by the NEASC
Table V-4. Maine Vocational Technical Institute enrollments, 1961-1977\(^a\)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SMVTI</td>
<td>311</td>
<td>392</td>
<td>380</td>
<td>449</td>
<td>423</td>
<td>525</td>
<td>582</td>
<td>601</td>
<td>678</td>
<td>586</td>
<td>782</td>
<td>680</td>
<td>828</td>
<td>1120</td>
<td>1468</td>
<td>1351</td>
</tr>
<tr>
<td>NMVTI</td>
<td>78</td>
<td>134</td>
<td>168</td>
<td>226</td>
<td>226</td>
<td>250</td>
<td>285</td>
<td>319</td>
<td>353</td>
<td>369</td>
<td>410</td>
<td>429</td>
<td>451</td>
<td>427</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMVTI</td>
<td>48</td>
<td>103</td>
<td>140</td>
<td>182</td>
<td>258</td>
<td>265</td>
<td>265</td>
<td>286</td>
<td>297</td>
<td>312</td>
<td>329</td>
<td>411</td>
<td>403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMVTI</td>
<td></td>
<td>103</td>
<td>197</td>
<td>257</td>
<td>316</td>
<td>307</td>
<td>374</td>
<td>498</td>
<td>519</td>
<td>502</td>
<td>460</td>
<td>480</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCVTI</td>
<td></td>
<td></td>
<td>7</td>
<td>45</td>
<td>90</td>
<td>137</td>
<td>128</td>
<td>213</td>
<td>241</td>
<td>244</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KVVTI</td>
<td></td>
<td></td>
<td>27</td>
<td>96</td>
<td>71</td>
<td>127</td>
<td>169</td>
<td>145</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>311</td>
<td>392</td>
<td>458</td>
<td>631</td>
<td>694</td>
<td>994</td>
<td>1187</td>
<td>1366</td>
<td>1551</td>
<td>1549</td>
<td>1981</td>
<td>2052</td>
<td>2324</td>
<td>2762</td>
<td>3176</td>
<td>3025</td>
</tr>
</tbody>
</table>

\(^a\)Bureau of Vocational Education, DHCS, Statistical Records.
for a five-year period through 1979 has exhibited very positive growth.

SMVTI in 1975 joined with the University of Maine at Portland-Gorham to offer associate degree courses and programs in York County, the southern most Maine county. This new venture, York County Community College Services (YCCCS), has proved successful and continues with two counseling and learning centers in Biddeford and Sanford. All YCCCS' faculty teaching for both SMVTI and UMPG are contracted on a part-time basis. Instructional costs are covered in total by tuition and laboratory fees with the administrative costs being shared equally by SMVTI and UMPG. Attitudes for cooperative efforts to provide adequate post-secondary educational opportunities reflected by both the State Board of Education and the University Board of Trustees generated the initiative to begin and the desire to continue this effort.

Graduate placement reported in the 1974 Self-Study reflected only 11% unable to find jobs in 1972 and 6% in 1973. In both years, less than 15% of the graduates reported taking jobs not related to their education and training.

It appears that the undertaking of the new post-secondary venture in establishing Maine Vocational Institute in 1946 to "test the value of post-secondary vocational schools in serving the needs of the state and its citizens" (Department of Educational and Cultural Services, 1975b, p. 3) has persisted over a 31-year period bringing many benefits to Maine citizens.
Northern Maine Vocational Technical Institute

The second institute in the MVTI system was Northeastern Maine Vocational Technical Institute. A sum of $250,000 was appropriated in 1961 for the:

Department of Education to establish an area vocational and technical institution in Northeastern Maine... to provide specialized, post-secondary vocational education and technical training for high school graduates, ... for those who have reached their 18th birthday but who have not graduated from high school, and for adults who ... desire specialized or refresher training for employment in service of trade, industry, or commerce. (Maine Resolves, 1961, Chapter 119)

Impetus for the establishing of NMVTI at this time appears to have coincided with the availability of the former Presque Isle Air Base. The Base included some 86 acres of land with 50 buildings including "a chapel, an auditorium, offices and non-commissioned officers clubs, a hospital, feeding centers with some equipment, dormitories with furnishings, service buildings well adapted for shops and laboratories" and other various buildings (Flesher et al., 1962, p. 61).

The 1975 NMVTI Self-Study completed for accreditation by NEASC states the Institute's philosophy as follows:

Northern Maine Vocational Technical Institute strives to develop and maintain programs of vocational and technical education which will provide training or retraining of high quality, realistic in light of actual or anticipated opportunities for gainful employment, and suited to needs, interests, and abilities of persons who will benefit from such training. The faculty and administration are concerned with the social, personal, and cultural growth of the students. In implementing this philosophy, the administration will adhere to State and Federal regulations concerning vocational education and to the following guiding principles.
The Institute will:

1. Provide realistic educational opportunities for those who need, want, and can profit by them.

2. Prepare the individual to be a more responsible and active citizen.

3. Utilize a curriculum that will meet individual needs.

4. Provide instructional programs that are clearly relevant to the requirements of business and industry and designed to serve the interests and abilities of the individual.

5. Provide, whenever possible, individualized instruction which would allow the student to progress at his own rate.

6. Prepare the student to successfully take his place in business, industry and public service at a job level determined both by his knowledge and skill development, and the requirements of the job.

7. Encourage knowledgeable public representatives to participate in determining specific educational needs.

8. Provide guidance and placement services to assist prospective applicants, enrolled students and graduates.

9. Seek out, cooperate with, and utilize services for student assistance provided by other agencies and community groups. (NMVTI, 1975)

An initial appropriation of $250,000 for NMVI was for the purchasing, renovating, and equipping of the Air Base quarters and staffing for maintenance, administration, and practical nursing program operation during the planning year. The first legislative appropriation for educational operation was FY/1964 for a total of $250,000. This
included $123,850 for 25 staff members, $109,504 for operating supplies, and $14,646 for capital acquisition.

Construction appropriations at XVTI have totaled $1,632,000 between 1962 and 1974. New buildings and significant renovation projects are listed in Table V-5.

Table V-5. XVTI capital construction and renovation appropriations by year and amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>Alterations &amp; Capital Equipment</td>
<td>$566,000</td>
</tr>
<tr>
<td>1965</td>
<td>Auto Body Shop Renovation</td>
<td>68,000</td>
</tr>
<tr>
<td>1968</td>
<td>Classroom and Administration Building</td>
<td>270,000</td>
</tr>
<tr>
<td>1971</td>
<td>Student Dormitory</td>
<td>650,000</td>
</tr>
<tr>
<td>1974</td>
<td>Auto Body Addition</td>
<td>28,000</td>
</tr>
<tr>
<td></td>
<td>Building Construction Facility</td>
<td>250,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$1,652,000</strong></td>
</tr>
</tbody>
</table>

The first curriculum offering at XVTI was Practical Nursing in the 1962-63 year. This existing program was transferred from the State Teacher's College in Presque Isle; the five teachers' colleges in Maine were then also under the direction of the State Board of Education. Projected curricula for the first full year of operation included automechanics, building trades, business, and cosmetology. (Flesher et al., 1962 p. 61)

The five initial programs offered in 1963-64 have expanded into 40 program options within 16 curricula programs (See Table V-6). Award options include certificates (14), diplomas (14) and associate degrees (12). Of particular significance are the certificate options. These reflect versatility and flexibility in meeting needs of individual stu-
dents. With emphasis on the multiple-exit philosophy this flexibility is illustrated within the Auto Body Repair program.

Table V-6. NMVTI programs offered in 1976-77 listed by award

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>CERTIFICATE</th>
<th>AWARD</th>
<th>DIPLOMA</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Auto Body Repair</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Auto Mechanics</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Agricultural/Industrial Mechanics</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Carpentry</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Computer Programming</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Construction Drafting</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Consumer Electronics</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Electronics</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Masonry</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Plumbing &amp; Heating</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Practical Nursing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Aide</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secretarial Science</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Sheet Metal</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

The base program in Auto Body Repair is the two-year diploma requiring the technical course major, related technical and general education courses. Three certificate options are available to the student including:

1. Auto Body Repair - Certificate (one year) 2 semesters of Auto Body Repair lab with competency in metric math.

2. Auto Body Repair - Certificate (one year) 2 semesters of first year diploma option.

3. Auto Body Repair - Certificate (two years) 4 semesters of Auto Body Repair lab with competency in metric math. (NMVTI, 1975)
This flexibility in program options appears to be prevalent in the trade and industrial programs in particular. The programs providing for degree options reflect a more rigid curriculum structure inherent in programs with a higher degree of academic accountability.

The 1971-72 Report on Post-secondary Vocational Technical Institutes in Maine (DECR, 1971) reported 29½ instructional positions at NMVTI. Student enrollment in 12 programs was 353 with an instructor/student ratio of 1:12. Thirty-six instructional positions were reported for 1975-76 and 464 students in 13 programs with a ratio of 1:15 (DECS, 1975a).

Student enrollment from 1974 to 1977 remained between 410 and 431. The past ten-year period reflects a growth of 47% from 226 to 427 students.

A enrollment of 427 students in 1976-77 compares quite inadequately to the recommendations of the Flesher Report which made specific recommendations for NMVTI as follows:

That existing plans . . . be implemented as soon as possible to serve an enrollment of at least 750 to 1000 students; that this center serve the basic area from Fort Kent to Houlton, . . . with possible 'Satellite' extension centers as . . . Caribou, Fort Kent, Houlton, Madawaska, and Van Buren. (1962, p. 72)

Fourteen years later in 1977 the enrollment is 42.7% of the target set in the Flesher Report. The 1975 Self-Study application statistics show that 680 applications were received by NMVTI for the 501 freshman capacity -- 126% over the capacity of the institution.
Central Maine Vocational Technical Institute

The first of the vocational technical institutes to be housed in a new facility was Central Maine Vocational Technical Institute. In 1963 the 101st legislature appropriated general funds of $640,000 to provide for a vocational education institute in Androscoggin County (Maine Private & Special Law, 1963, Chapter 186).

Later in the session of the 101st a Resolve was passed as follows:

Department of Education is authorized and directed to establish, maintain, and operate a State Vocational Educational Institute . . . in Androscoggin County . . . to promote specialized training for those who give evidence of special aptitude or need and who desire specialized training designed specifically to train for service in trade, industry, and commerce. (Maine Resolves, 1963, Chapter 114)

Subsequently, the City of Auburn was identified for the location of the third vocational technical institute. Programs were planned to commence in the fall of 1964.

The first operational budget for FY/1965 provided $77,222 for 14 staff members and $62,500 for all other expenditures. Classes were held in leased industrial facilities until the completion of the single building complex in 1965.

In 1976 the CMVTI community completed its Self-Study for an accreditation review by the NEASC. The study indicated agreement with the statement of philosophy for the Maine Vocational Technical Institutes as published in the MVTI System catalog as its philosophic base:

The Vocational Technical Institutes are dedicated to provide high quality programs of occupational instruction which recognize the importance of technical knowledge and the
development of skills in addition to the acquisition of work and social habits and attitudes. While education for immediate employment is essential, another goal is to develop a potential for growth and change. (CMVTI, 1976, p. 2)

In addition, the philosophy of CMVTI is as follows:

Central Maine Vocational Technical Institute is a vocational technical institute offering trade and technical courses. It provides instruction for those in need of training and retraining to meet the needs of changing business and industrial workers and responsible citizens for business, trade, and industry. The courses offered reflect the practices and procedures used in modern industry. Occupational advisory groups review curriculum content and evaluate the competency of graduates. (CMVTI, 1976, p. 3)

The supportive objectives to the institutional and system philosophy clearly delineate the desired result of a graduate's experience. The Self-Study goes on to state:

More specifically, the principal objectives of Central Maine Vocational Technical Institute is to conduct a series of planned learning experiences in an educational atmosphere that will enable the student to:

1. Become familiar with labor and management practices, policies, and regulations.
2. Develop the craft, technical and human relations skills necessary for immediate employment and subsequent advancement in a selected career.
3. Logically analyze and resolve problems.
4. Gain the skill and confidence required to make meaningful decisions.
5. Develop behavior patterns and attitudes that will permit occupational and cultural successes.
6. Develop the learning skills required for unsupervised study to encourage technical and cultural advancement and mobility following graduation. (CMVTI, 1976, p. 2)
Six major curricula areas were offered at CMVTI in 1976. (See Table V-7). This compares to nine offered in 1972. The apparent decrease is explained by the consolidation of several similar programs of studies with provision for majors within programs.

Table V-7. CMVTI programs offered in 1976-77 listed by award and year initiated

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AWARD Initiated</th>
<th>AWARD</th>
<th>DIPLOMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotives</td>
<td>1964</td>
<td></td>
<td>1964</td>
</tr>
<tr>
<td>Construction Technology</td>
<td>1964</td>
<td></td>
<td>1964</td>
</tr>
<tr>
<td>Electro-Mechanical Technology</td>
<td>1964</td>
<td></td>
<td>1964</td>
</tr>
<tr>
<td>Graphic Arts Technology</td>
<td>1966</td>
<td></td>
<td>1966</td>
</tr>
<tr>
<td>Machine Tool Operation &amp; Technology</td>
<td>1967</td>
<td></td>
<td>1967</td>
</tr>
<tr>
<td>Practical Nursing</td>
<td></td>
<td></td>
<td>1966</td>
</tr>
</tbody>
</table>

A Mechanical Drafting program was merged with the Machine Tool program. The program in Process Control was merged with Electro-Mechanical Technology. Architectural and Civil Engineering was merged with Building Construction giving rise to Construction Technology.

Diplomas and certificates are awarded in each of the six programs with the exception of Practical Nursing. The diploma is awarded for the completion of a two-year program which includes a "minimum of 60 credit hours in a recognized program of studies". All "required courses and sufficient elective courses to obtain 60 credit hours" must be completed (CMVTI, 1976, p. 12)

The certificate programs vary significantly from those certificate options at SMVTI and NMVTI. The Self-Study reports on "Certificate
Programs" as follows:

1. A program of less than two years duration that leads to a career objective. Career objectives are identified through the Dictionary of Occupational Titles.

2. Requirements may be met by completing the number of credits in that career objective specified by the program. (CMVTI, 1976, p. 13)

Within the above definition it appears that a student could obtain a certificate for as few as 15 credits (76-77 Catalog) or up to the minimum number required for a diploma.

The career options available in the Machine Tool program include fourteen occupations such as machinist, millwright, maintenance machinist, and machine and tool and die draftsman. Close inspection reveals that all of these options include in excess of 60 credits. In addition, at least 45 credits of the required courses in these career options are offered by the Machine Tool (MT) department. This program format appears to vary significantly from the format recommended by the Flesher Report for a typical two-year diploma program. One of the contributing factors is the inclusion of basic algebra and geometry; applied trigonometry, strength of materials, mechanics, and drafting in selected options under the MT department designation (CMVTI, 1976, pp. 87-106)

A typical curriculum is shown in Table V-8.

CMVTI does not offer the associate degree options. A cooperative program is available, however, in Graphic Arts Technology. Students majoring in applied art at the University of Maine-Augusta may attend
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 11</td>
<td>Introduction to Trade Mathematics</td>
</tr>
<tr>
<td>MSC 12</td>
<td>Applied Geometry</td>
</tr>
<tr>
<td>MSC 13</td>
<td>Applied Algebra</td>
</tr>
<tr>
<td>MSC 14</td>
<td>Applied Trigonometry</td>
</tr>
<tr>
<td>NSC 15</td>
<td>Fundamentals of Mechanics I</td>
</tr>
<tr>
<td>MSC 16</td>
<td>Fundamentals of Mechanics II</td>
</tr>
<tr>
<td>MSC 17</td>
<td>Strength of Materials</td>
</tr>
<tr>
<td>MTR 9</td>
<td>Blueprint Reading and Sketching</td>
</tr>
<tr>
<td>MTR 22</td>
<td>Industrial Relations</td>
</tr>
<tr>
<td>MTR 24</td>
<td>Metallurgy</td>
</tr>
<tr>
<td>MTR 25</td>
<td>Technical Reports</td>
</tr>
<tr>
<td>MTR 26</td>
<td>Fluid Power</td>
</tr>
<tr>
<td>MT 10</td>
<td>Lathes</td>
</tr>
<tr>
<td>MT 11</td>
<td>Drills</td>
</tr>
<tr>
<td>MT 12</td>
<td>Turret Lathes</td>
</tr>
<tr>
<td>MT 13</td>
<td>Shapers</td>
</tr>
<tr>
<td>MT 14</td>
<td>Planers</td>
</tr>
<tr>
<td>MT 15</td>
<td>Grinders, Surface</td>
</tr>
<tr>
<td>MT 16</td>
<td>Grinders, Cylindrical</td>
</tr>
<tr>
<td>MT 17</td>
<td>Milling Machines</td>
</tr>
<tr>
<td>MT 18</td>
<td>Sawing</td>
</tr>
<tr>
<td>MT 19</td>
<td>Numerical Control Machines</td>
</tr>
<tr>
<td>MT 20</td>
<td>Heat Treatment</td>
</tr>
<tr>
<td>MT 21</td>
<td>Layout and Measurement</td>
</tr>
<tr>
<td>MT 22</td>
<td>Inspection</td>
</tr>
<tr>
<td>MT 23</td>
<td>Tool And Cutter Grinding</td>
</tr>
<tr>
<td>MT 24</td>
<td>Welding</td>
</tr>
<tr>
<td>MT 25</td>
<td>Jig and Fixture Design</td>
</tr>
<tr>
<td>MT 26</td>
<td>Die Making</td>
</tr>
<tr>
<td>MT 27</td>
<td>Electrical Discharge Machining</td>
</tr>
<tr>
<td>MT 28</td>
<td>Drafting I</td>
</tr>
<tr>
<td>MT 29</td>
<td>Drafting II</td>
</tr>
<tr>
<td>MT 30</td>
<td>Planning and Estimating</td>
</tr>
<tr>
<td>MT 31</td>
<td>Tool and Die Design</td>
</tr>
<tr>
<td>MT 32</td>
<td>Jig Borer</td>
</tr>
<tr>
<td>MT 33</td>
<td>Utility Machinery</td>
</tr>
<tr>
<td>MT 34</td>
<td>Presses</td>
</tr>
</tbody>
</table>
CMVTI their second year and earn an Associate in Applied Graphic Arts from UMA. Evidence of cooperation with the University for the benefit of increasing educational opportunities for students is the existence of a University of Maine-Augusta extension office on CMVTI's campus.

The physical plant for CMVTI is the first VTI complex to be under a single roof and to commence operation with new construction. The original building was constructed at a cost of $640,000. A total of $2,509,900 has been appropriated for capital construction (See Table V-9).

Table V-9. CMVTI capital construction and renovation appropriations by year and amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>VTI Complex</td>
<td>$640,000</td>
</tr>
<tr>
<td>1965</td>
<td>Shop and Laboratory Wing</td>
<td>269,500</td>
</tr>
<tr>
<td>1966</td>
<td>Dormitory - Cafeteria</td>
<td>309,000</td>
</tr>
<tr>
<td>1968</td>
<td>Dormitory - Cafeteria Completion</td>
<td>17,719</td>
</tr>
<tr>
<td></td>
<td>Dormitory - Cafeteria Completion</td>
<td>79,981</td>
</tr>
<tr>
<td></td>
<td>Machine Tool Addition</td>
<td>175,000</td>
</tr>
<tr>
<td>1971</td>
<td>Laboratory Wing</td>
<td>950,000</td>
</tr>
<tr>
<td>1974</td>
<td>Vehicle Storage Building</td>
<td>68,700</td>
</tr>
</tbody>
</table>

In addition to the main building, three dormitories and three storage buildings complete the campus. CMVTI is located on 111 acres in Auburn bounded on two sides by the Auburn Water District wooded land; on one side by Lake Auburn, the water supply for the Lewiston-Auburn area; and on the remaining side by a residential-business zone.

The 1971-72 Report on Post-Secondary Vocational Technical Institutes of Maine reported an instructional staff of 30 with an enrollment
of 286 students. This instructor/student ratio of 1:9.5 increased to
1:12 in 1975-76 with 35 instructors and 411 students.

Student enrollment in the last ten years increased 121% from 182
in 1967-68 to 403. The major increases occurred at the first and last
of this ten-year period with only a 28% increase in the seven-year
period between 1968-69 and 1974-75 from 258 to 329 students.

Eastern Maine Vocational Technical Institute

The purchase of land and funds for planning a Vocational Technical
Institute in Penobscot County was provided by the 101st Legislature in
1963. This $25,000 appropriation resulted in the fourth VTI located
just north of Bangor in the central section of the state.

Classes commenced in the 1966-67 academic year with a staff of
ten. The appropriation for the first year's operation totalled
$95,695 and provided for a principal, five instructors, one secretary,
one accountant, one clerk, and one custodian.

The goal set forth for EMVTI was to offer educational programs
at the one and two-year level to train technicians to function as pro-
ductive members of society. Educational experiences were to consist
of balanced classroom and laboratory work in order for the student to
develop capability to apply his knowledge to practical problems. The
prime principle of this goal was the preparation of individuals for
immediate employment (EMVTI, 1975, p. 12).

The aims and objectives as stated in the 1975-77 Catalog Supple-
ment were as follows:
It is the purpose of the Institute to graduate students who are able immediately to hold, and to be useful in, jobs in the areas for which they have been trained; to have the mathematics, scientific, and reading skills required to continue their education independently after graduation, and on the job; and to assume social and political responsibilities as members of their home communities. The important contributions of the humanities and the arts to fullness of living is recognized and every attempt is made to expose students to as much involvement in these areas as time will permit, both in curricular and extra-curricular offerings. The overall aim is to help students become skilled workers, responsible and aware of the opportunities their society presents to them.

The specific objectives of the Institute are:

1. To promote specialized training for those who give evidence of scholastic aptitude or need and desire vocational and technical training designed specifically for service in trade, industry, and commerce.

2. To provide each graduate with a job-entry skill at the time of graduation.

3. To develop communicative and computation skills in the student so that he will be proficient and make progress in the learning process either in the occupation he has entered or in the pursuit of further formal education.

4. To expose the student to the humanities and social sciences so that he may have some idea of his cultural heritage, and an understanding of the social, political, and economic structure of the society he is about to enter.

5. To furnish a program of adult education for upgrading skills and trades for those already in the trades, or who are seeking knowledge of trades.

6. To institute special studies for the disadvantaged and handicapped so that they may make the best use of their talents and aptitudes.

7. To provide special learning situations for those who have not graduated from high school in order
that they may develop trade and industrial skills. (EMVTI, 1975, pp. 12-13)

The award options at EMVTI include the associate degree, two-year diploma, and one-year certificate. All options listed in the 1976-77 catalog represent the commitment to the integration of the general and related technical education with the major technical courses. Meeting the need for further education does not appear to have negatively influenced student contact in the technical courses. Standard semester curricula provide for a minimum of 15 contact hours weekly for six to eight credits.

Six programs offered in 1966-67 have expanded to fourteen curricula options. These are administered by nine technical departments. Associate degree, diploma, and certificate programs are listed in Table V-10.

Table V-10. EMVTI programs offered in 1976-77 listed by award and year initiated

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AWARD</th>
<th>CERTIFICATE</th>
<th>DIPLOMA</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Technology</td>
<td></td>
<td>1966</td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Building Construction Technology</td>
<td></td>
<td>1966</td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Electrical Power Technology</td>
<td></td>
<td></td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Electronics Technology</td>
<td></td>
<td></td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Machine Tool Technology</td>
<td>1966</td>
<td></td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Radiological Technology</td>
<td></td>
<td></td>
<td></td>
<td>1973</td>
</tr>
<tr>
<td>Environmental Control Technology</td>
<td></td>
<td></td>
<td></td>
<td>1971</td>
</tr>
<tr>
<td>Medical Laboratory Technology</td>
<td></td>
<td></td>
<td></td>
<td>1971</td>
</tr>
<tr>
<td>Distributive Education</td>
<td></td>
<td></td>
<td></td>
<td>1968</td>
</tr>
<tr>
<td>Practical Nursing</td>
<td></td>
<td></td>
<td></td>
<td>1971</td>
</tr>
<tr>
<td>Foods Technology</td>
<td></td>
<td></td>
<td></td>
<td>1971</td>
</tr>
</tbody>
</table>
A typical technical curriculum is represented by Machine Tool Technology (MTT) in Table V-11. The weekly contact hours over four semesters total 128 hours (32 semester average) in the associate degree option, 114 hours (28.5 semester average) in the diploma option.

The MTT curriculum at EMVTI closely compares to the 1962 MVTI Machine Tool curriculum recommended by Flesher et al., (1962). Total contact hours for four semester weeks were 140 (35 semester average) with 74 credit hours. The Flesher recommendation was to reduce total weekly hours to 112 and credits to 74. The present curriculum at SMVTI is 107 four-semester-week contact hours and 65 credits.

EMVTI's first classes were held in temporary quarters in Bangor until the completion of the main laboratory-classroom building in January 1968. The site of EMVTI is north of Bangor adjacent to I-95 the north-south interstate in Maine. The campus is 90 acres in a location well-suited for a predominantly commuter campus.

In addition to the laboratory-classroom complex there are four buildings -- dormitory, dormitory-cafeteria, maintenance, and gymnasium. The schedule of construction and cost is provided in Table V-12.

The instructional staff of five in 1966 has increased to 45 in 1975-76. In the five-year period between 1971-72 and 1975-76 an increase from 36 instructors to 43 occurred.

During this same five-year period enrollments increased from 374 to 458 maintaining a teacher/student ratio of 1:10-11 over this five year period.
Table V-11. EMVTI Machine Tool Technology curriculum 1976-77 -- 2 year diploma

<table>
<thead>
<tr>
<th>COURSE NO.</th>
<th>CREDITS</th>
<th>CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>301</td>
<td>English Composition</td>
<td>5</td>
</tr>
<tr>
<td>105</td>
<td>Technical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>401</td>
<td>Physics I</td>
<td>4</td>
</tr>
<tr>
<td>201</td>
<td>Machine Drafting I</td>
<td>2</td>
</tr>
<tr>
<td>801</td>
<td>Machine Tool Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>18</strong></td>
<td><strong>51</strong></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>106</td>
<td>Technical Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>202</td>
<td>Machine Drafting II</td>
<td>2</td>
</tr>
<tr>
<td>402</td>
<td>Physics II</td>
<td>4</td>
</tr>
<tr>
<td>802</td>
<td>Machine Tool Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>18</strong></td>
<td><strong>51</strong></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>413</td>
<td>Metallurgy</td>
<td>3</td>
</tr>
<tr>
<td>303</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>917</td>
<td>Business Management I</td>
<td>2</td>
</tr>
<tr>
<td>307</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>309</td>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td>203</td>
<td>Machine Drafting III</td>
<td>2</td>
</tr>
<tr>
<td>803</td>
<td>Machine Tool Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>21</strong></td>
<td><strong>53</strong></td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>406</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>918</td>
<td>Business Management II</td>
<td>2</td>
</tr>
<tr>
<td>504</td>
<td>American Literature</td>
<td>3</td>
</tr>
<tr>
<td>308</td>
<td>Contemporary Civilization</td>
<td>3</td>
</tr>
<tr>
<td>204</td>
<td>Machine Drafting IV</td>
<td>2</td>
</tr>
<tr>
<td>804</td>
<td>Machine Tool Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>21</strong></td>
<td><strong>27</strong></td>
</tr>
<tr>
<td><strong>Two Year Totals</strong></td>
<td>78</td>
<td>128</td>
</tr>
<tr>
<td><strong>Semester Average</strong></td>
<td>19.5</td>
<td>32</td>
</tr>
</tbody>
</table>
Table V-12. EMVTI capital construction and renovation appropriations by year and amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>Central Lab-Classroom</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>1968</td>
<td>Men's Dormitory</td>
<td>700,000</td>
</tr>
<tr>
<td></td>
<td>Classroom Addition</td>
<td>225,000</td>
</tr>
<tr>
<td>1970</td>
<td>Maintenance Building</td>
<td>55,000</td>
</tr>
<tr>
<td>1971</td>
<td>Laboratory Building</td>
<td>840,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$2,820,000</strong></td>
</tr>
</tbody>
</table>

The Flesher Report in 1962 made the following recommendation for the Bangor area regarding the Technical Education Centers covered in their Master Plan:

That TEC #4 be located slightly south of Bangor to serve an area of about 200,000 population, including the towns and cities of Bangor, Belfast, Brewer, Bucksport, Ellsworth, Machias, and Newport, with satellite extension centers as needs for such programs develop in the population centers of the area. (p. 72)

The projected student population of the recommended TEC #4 was to be between 750 to 1000. This projection was consistent with each of the four recommended Technical Education Centers. (Flesher et al., 1962, p. 72)

Fourteen years following the recommendations for a master plan for Maine and eleven years after the first classes at EMVTI, student enrollment is 50% of the recommendations made in 1963. Although success and expansion has occurred at EMVTI, its potential as envisioned in 1963 has yet to be met due to the inadequacy of funding.
Washington County Vocational Technical Institute

The special session of the 103rd legislature in 1967 authorized a bond issue for capital construction at the VTI's totaling 1.5 million dollars. Included was $650,000 for a "new building" in Washington County for a VTI. With the approval of this bond issue, Washington County Vocational Technical Institute was added as the fifth institute in the state-wide post-secondary VTI system.

WCVTI's 1976 Self-Study states that:

During the first few years, WCVTI was strictly a two-year school -- much in the pattern of several of the other institutes. In consideration of many factors, this institute changed direction. Since 1972, emphasis has been placed on programs that are one year or less in length. The three principle factors that influenced the development of short-term programs were admissions, attrition, and placement. (1976, p. 4)

The change in mission and goals within a short period of two years which WCVTI experienced reflects the campus autonomy each of the VTI's enjoys regarding program development. Considerations involved with the significant change from a two-year institute to one with programs of one year or less in length included:

1. An open-door policy which resulted in a majority of applicants having academic backgrounds inadequate for highly technical two year programs.

2. An economically depressed area in which a program of more than one year was less feasible.

3. The advice from area counselors that non-academic post-secondary vocational education was needed.

4. A rejection by students to the portion of the class day devoted to academic classes.
5. The relatively high attrition rate of 40% indicating the desirability of shorter, concentrated programs.

6. The positive reaction of craft committees for employment opportunities for one-year graduates.


The resulting approach to job-oriented post-secondary vocational education "has proved to be a viable alternative to traditional two-year associate degree programs for many high school graduates, as evidenced by the growing enrollment of the Institute, the low attrition rate, the broad acceptance of graduates by employers and the continued support of high school counselors" (WCVTI, 1976, p. 6).

Through careful and planned refinement, the WCVTI community has developed the following philosophy and objectives:

It is the primary purpose of Washington County Vocational Technical Institute to prepare students to be responsible, productive members of society who will be able to obtain jobs upon graduation. In the seven years of its existence, the Institute has formulated specific objectives in the realm of career education consistent with this stated purpose. These objectives, determined by the faculty and administration, have . . . the approval of the State Board of Education, the State Department of Educational and Cultural Services and the Maine Advisory Council on Vocational Education. (WCVTI, 1976, p. 3)

Each of these objectives relates to student growth and includes the development of:

1. The specific skills necessary for entry-level employment in industry.

2. The communication and computational skills necessary to pursue career goals.
3. A more positive self-image and greater self-confidence.
4. A positive work attitude.
5. The skills necessary to secure and maintain employment.
6. Career awareness and career goals. (p. 3)

Although WCVTI is a significantly different type of VTI, it appears to be providing educational opportunities consistent with legislative authority to "promote specialized training for persons who give evidence of special aptitude or need and who desire specialized training designed specifically to train for service in trade, industry or commerce" (Maine Revised Statutes, Title 20, Chapter 3, Section 57).

The 1976-77 catalog lists 12 curricula areas at WCVTI. Eleven are one-year certificate programs, and one remains a two-year diploma program. All are listed in Table V-13 giving the year of their initiation.

General education as course entities continues to be an integral part of all curricula at WCVTI except boatbuilding, wood harvesting, and welding. In these three programs the general education is integrated with the technical courses. All other curricula require at least six hours weekly per semester of math, science, communications, and personal finance. A minimum of twenty-five hours in the technical courses is required each week resulting in a minimum of 30 hours per week student-contact loads.
Table V-13. WCVTI programs offered in 1976-77 listed by award and year initiated

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CERTIFICATE</td>
</tr>
<tr>
<td>Automotive</td>
<td>1973</td>
</tr>
<tr>
<td>Home Construction</td>
<td>1969</td>
</tr>
<tr>
<td>Residential Electricity</td>
<td>1974</td>
</tr>
<tr>
<td>Plumbing</td>
<td>1974</td>
</tr>
<tr>
<td>Heating</td>
<td>1974</td>
</tr>
<tr>
<td>Diesel Service</td>
<td>1974</td>
</tr>
<tr>
<td>Welding</td>
<td>1974</td>
</tr>
<tr>
<td>Electronic Communications</td>
<td>1973</td>
</tr>
<tr>
<td>Food Service</td>
<td>1969</td>
</tr>
<tr>
<td>Wood Harvesting</td>
<td>1971</td>
</tr>
<tr>
<td>Secretarial Studies</td>
<td>1974</td>
</tr>
<tr>
<td>Boat Building</td>
<td>1969</td>
</tr>
</tbody>
</table>

A typical curriculum listed in the 1976-77 catalog is Automotive Technology. (Table V-14)

Table V-14. WCVTI Automotive Technology curriculum -- one year certificate

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CLASS HOURS</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Technology I</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Communications</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Related Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td><strong>Semester II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Technology II</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Physical Science</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Personal Finance</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29</td>
<td>16</td>
</tr>
<tr>
<td><strong>Average Semester</strong></td>
<td>50</td>
<td>17</td>
</tr>
</tbody>
</table>
The classroom, administration, and laboratory complex completed in 1970 was enlarged in 1975 to accommodate five new programs. Five other buildings -- a dormitory, two renovated farm houses serving as a media center and craft shop, a wood-harvesting facility, and a storage building -- are situated on a 400-acre site south of Calais. A five-acre extension campus housing the boatbuilding program is located 60 miles south in Lubec. It was formerly a Coast Guard Lifeboat Station.

Capital construction projects at WCVTI since 1968 total $2,050,000 (See Table V-15).

Table V-15. WCVTI capital construction and renovation appropriations by year and amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>Administration &amp; Classroom</td>
<td>$650,000</td>
</tr>
<tr>
<td>1974</td>
<td>Laboratory Addition</td>
<td>650,000</td>
</tr>
<tr>
<td>1975</td>
<td>Dormitory</td>
<td>750,000</td>
</tr>
</tbody>
</table>

$2,050,000

The instructional staff has increased from ten in 1971-72 to 22 in 1975-76. Student enrollment during this same period increased from 90 to 241 resulting in a rather stable instructor/student ratio of 1:9-11.

Fifty percent of the instructors hold at least a bachelor's degree. Of significance is the "conviction of the WCVTI administration that in teaching trade skills, the work experience of the instructor is more telling than academic degrees" (WCVTI, 1976, p. 30). Consistent with this is the evidence that the 22 instructors in 1975
represented 261 total year's experience -- an average of 14.5 years.

Student enrollment due to the problems encountered with the traditional two-year curriculum was low the first two years. The instructor/student ratio was 1:1 with seven students in 1969-70. Enrollment increased to 45 and 90 in the next two years. In 1974, enrollment had increased to 128. With five new programs in 1974, enrollment has increased to 214 for 1976-77.

A unique institute located in the most eastern section of Maine overlooking the St. Croix River, the boundary between New Brunswick, Canada and Maine, WCVTI looks forward to an enrollment goal in 1980 of 500 students.

Kennebec Valley Vocational Technical Institute

The sixth and last VTI to be established was Kennebec Valley Vocational Technical Institute in Waterville. Its location resulted in a second discrepancy between the geographic locations recommended for the four TECHNICAL EDUCATION CENTERS by Flesher et al., (1962) and three of the established Institutes -- SMVTI in South Portland, NMVTI in Presque Isle, EMVTI in Bangor. Augusta was recommended as the third site to be "located near the Augusta exit of Interstate Route 95 so as to serve best an area encompassing over 250,000 population and including such towns and cities as Augusta, Gardiner, Lewiston [Auburn], Rumford, Skowhegan, and Waterville, with 'Satellite' extension centers as needs for such programs develop in population centers of the area" (Flesher et al., 1962, p. 72). Inasmuch as the southern most area to
be served by the recommended Augusta location was the Lewiston-Auburn area, the selection of Auburn for the third VTI left the Waterville-Skowhegan area without commuter VTI opportunities.

The 104th Legislature in 1969, then, authorized the State Board of Education to operate a VTI under contract with the Waterville School Board. Full operation was implemented in the Fall of 1970 using facilities and equipment of the recently completed secondary Waterville Regional Technical Vocational Center. The legislation stated that "such an Institute shall be experimental for approximately two to three years of operation. Future funding requests shall be based on a thorough evaluation of the institute" (Maine Private & Special Laws, 1969, Chapter 182) which was carried out and approved by the State Board of Education on December 14, 1972. A sum of $98,000 was appropriated for the first year's operation in FY/1971. Official enrollment reports by the Bureau of Vocational Education show enrollments of 35 for 1970-71 and 96 for 1971-72.

This legislation for contracting VTI services follows some logic. In 1965, the 102nd Legislature acting consistent with the 1963 vocational education acts, enacted enabling legislation establishing regional technical vocational centers. They were authorized as administrative units which "may offer a program of technical and vocational education which may consist of programs at the secondary levels through grade 12, programs at the post-secondary levels of grades 13 and 14, and part-time or evening programs for out-of-school youth and adults". The authorization for post-secondary education was
further defined in that "vocational and technical courses on grade 13 and 14 levels may be operated in regional technical vocational centers when approved by the State Board of Education and, when so operated, tuition charges for these courses at rates approved by the State Board of Education may be charged directly to the students enrolled" (Maine Public Law, 1965, Chapter 440).

Thus, Kennebec Valley Vocational Technical Institute is the one VTI operated under contract by a local educational agency within a secondary regional vocational center. The 1971-72 catalog states that the "post-secondary programs offered at KVVTI are intended to prepare students for job entry vocational positions in several demand occupational areas. The school's continuing goal is to develop and place emphasis upon programs of an experimental nature in which students, faculty, and administrators are engaged in learning in different ways and at different levels from each other and with each other" (KVVTI, 1971, p. 2).

In 1976-77 KVVTI subscribes to the system philosophy of the VTI's to "provide high quality programs of occupational instruction which recognizes the importance of technical knowledge and the development of skills in addition to the acquisition of work and social habits and attitudes. While education for immediate employment is essential, another important goal is to develop potential for growth and change".

The general objectives of the institutes are:

1. To provide vocational, technical and occupational education for those who give evidence of aptitude and
need and desire training designed for service in trade, industry, or commerce.

2. To provide each graduate with the requisite job-entry skills.

3. To provide the general education necessary to complement the requirements of specific vocational and technical skills.

4. To provide supplementary educational programs for upgrading those employed or retraining for new employment.

5. To provide special programs for the disadvantaged and handicapped, allowing them to make maximum use of their talents and aptitudes. (NWITI, 1976, pp. 11-12)

The curricula in 1971-72 included six one-year and two-year certificate and diploma programs. Each of the programs included the general education and related technical courses in fulfillment of the goal to assist each student "to become worthy of himself and his society, and that this worth in both respects increases through education and the development of his abilities" (KVVTI, 1971, p. 2). In 1976-77, KVVTI listed six programs in the catalog with awards of certificates and diplomas as shown in Table V-16.

Table V-16. KVVTI programs offered in 1976-77 listed by award and year initiated

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AWARD</th>
<th>CERTIFICATE</th>
<th>DIPLOMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpentry</td>
<td></td>
<td>1970</td>
<td>1970</td>
</tr>
<tr>
<td>Electrical</td>
<td></td>
<td>1973</td>
<td>1974</td>
</tr>
<tr>
<td>Health Occupations</td>
<td></td>
<td>1970</td>
<td>1970</td>
</tr>
<tr>
<td>Heavy Equipment Maintenance</td>
<td></td>
<td>1970</td>
<td>1970</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td>1970</td>
<td>1970</td>
</tr>
<tr>
<td>Secretarial Science</td>
<td></td>
<td>1971</td>
<td></td>
</tr>
</tbody>
</table>
A cooperative degree program exists in Secretarial Sciences between KVVITI and the University of Maine-Augusta. Students completing the first year at KVVITI and who have matriculated at UMA can complete their second year at either KVVITI or UMA and receive an associate degree.

Administrative, classroom, and laboratory space is provided in the secondary vocational center. Because of this joint occupancy, KVVITI operates on a 3:00 p.m. to 10:00 p.m. daily schedule Monday through Friday.

Preliminary plans have been developed and negotiations initiated to acquire an unused city school building. This would be renovated to house the KVVITI operation and provide adequate space to allow the Waterville School of Practical Nursing to be merged with KVVITI.

The Waterville School of Practical Nursing is the only school not operating in a VTI. The merger of these two operations in a new facility would prove economically advantageous and allow for moderate expansion (Notes from conversation with Mr. Bernard King, Director, KVVITI).

The instructional staff in 1971-72 consisted of four full-time and eight part-time instructors. In 1975-76 the full-time staff had increased to seven with 11 part-time instructors. Using an assumed one-half load for all part-time instructors, the instructor/student ratio has increased from 1:12 in 1971-72 to 1:14 in 1975-76.

Student enrollment reached a peak in 1974-75 with 169 students. It has decreased over the past two years by 29% to 120. In the last six years enrollment has increased from 96 (1971-72) to 120 (1976-77)
This institute, as well as WCVTI, appears to play a role different from the first four institutes in the VTI system. The move to obtain facilities separate from the secondary regional center suggests an identity and autonomy problem unique only to KVVI.

Summary

Each of the six Maine Vocational Technical Institutes has developed with a great degree of autonomy. Evidence gathered in reviewing the campus developments suggest two basic reasons:

1. Although the Flesher Report in 1962 recommended a "master plan" for post-secondary education for Maine, there appears to have been no firm plan or commitment to implement the Report's recommendations, and

2. Political considerations in the geographic regions appear to have influenced the location of CAVTI in Auburn rather than Augusta, the establishment of WCVTI in Calais, and the contractual establishment of KVVI in Waterville.

The goals and objectives of the Vocational Technical Institutes appear quite consistent with the original intent of legislation creating MVI in 1945. With the exception of its particular reference to returning World War II veterans, the enabling legislation remained constant over the past 51-year period. The autonomy granted the Directors of the VTI's in 1972 by the State Board of Education has provided a local responsiveness with State-wide accountability of benefit to all campuses. The inhibiting factor appears to be the inflexibility of State financial and personnel policies. The apparent inability of the institutes to respond adequately to changing needs
and requirements is reflected in a recommendation contained in the Self-Study Report of WCVTI:

The committee /Self-Study Committee on Finance/ favors changing the system by which funds are budgeted for the vocational technical institutes and recommends specifically that (1) the legislature provide the Commissioner of Educational and Cultural Services with an appropriation for post-secondary vocational technical education, (2) the Commissioner provide WCVTI with its share of those funds as a bottom-line budget to be spent at the discretion of the Director of WCVTI, and (3) the Director be held responsible for expending allotted funds in the best interest of the Institute and of the people of Maine. (1976, p. 18)

KVTI and WCVTI in 1971-72 were overcoming the complications of newly opened institutes with one and two years' experience respectively. Using the 1971-72 and 1975-76 Reports on Post-Secondary Vocational Technical Institutes in Maine, Tables V-17 and V-18 compare the personnel in the categories of instructional, administrative, office, custodial (to include maintenance) and food service/dormitory. In addition, official Bureau enrollments for the same periods by VTI are provided.

Increases over the five-year period are shown in Table V-18. Total personnel increased 36% with a range of 29% to 79%. Administration increased 79%, office staff 47%, with the remaining ranging from 29% to 55%. Disregarding the increases at KVTI and WCVTI due to their developmental stage, administrative and office staff increases at the other four VTI's were 58% and 27% respectively.

Student enrollments had increased from 1987 in 1971-72 to 2729 in 1975-76 -- a 37% increase. Instructional staff over the same period increased by 29% while maintaining an instructor/student ratio of 1:12. The instructional staff represents 58% of the total employees in the
Table V-17. Distribution of VTI personnel by category and enrollment by VTI, 1971-72, showing category ratios

<table>
<thead>
<tr>
<th>Category</th>
<th>CMVTI</th>
<th>EMVTI</th>
<th>KVVTI</th>
<th>NMVTI</th>
<th>SMVTI</th>
<th>WCVTI</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional</td>
<td>30</td>
<td>36</td>
<td>8</td>
<td>29\frac{1}{2}</td>
<td>61</td>
<td>10</td>
<td>174\frac{1}{2}</td>
</tr>
<tr>
<td>Administration</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Office</td>
<td>6</td>
<td>5</td>
<td>1\frac{1}{2}</td>
<td>7\frac{1}{2}</td>
<td>15</td>
<td>2</td>
<td>37</td>
</tr>
<tr>
<td>Custodial</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>14</td>
<td>15</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>Food Service/Dorm</td>
<td>1</td>
<td>1</td>
<td></td>
<td>8\frac{1}{2}</td>
<td>7</td>
<td></td>
<td>17\frac{1}{2}</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>48</td>
<td>12\frac{1}{2}</td>
<td>62\frac{1}{2}</td>
<td>105</td>
<td>15</td>
<td>288</td>
</tr>
<tr>
<td>Enrollment</td>
<td>292</td>
<td>374</td>
<td>96</td>
<td>353</td>
<td>782</td>
<td>90</td>
<td>1987</td>
</tr>
<tr>
<td>Administration/Instructor Ratio</td>
<td>1:15</td>
<td>1:12</td>
<td>1:4</td>
<td>1:10</td>
<td>1:8.7</td>
<td>1:5</td>
<td>1:9.2</td>
</tr>
<tr>
<td>Instructor/Student Ratio</td>
<td>1:9.7</td>
<td>1:10.4</td>
<td>1:12</td>
<td>1:12</td>
<td>1:12.8</td>
<td>1:9</td>
<td>1:11.4</td>
</tr>
</tbody>
</table>
Table V-18. Distribution of VTI personnel by category and enrollment by VTI, 1975-76, showing percentage of increase from 1971-72 and category ratios

<table>
<thead>
<tr>
<th>Category</th>
<th>CMVTI</th>
<th>EMVTI</th>
<th>KVVTI</th>
<th>NMVTI</th>
<th>SMVTI</th>
<th>WCVTI</th>
<th>TOTALS</th>
<th>% INC. 71-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional</td>
<td>35</td>
<td>43</td>
<td>12½</td>
<td>36</td>
<td>81½</td>
<td>20</td>
<td>228</td>
<td>29%</td>
</tr>
<tr>
<td>Administration</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>6</td>
<td>34</td>
<td>79%</td>
</tr>
<tr>
<td>Office</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>9½</td>
<td>18</td>
<td>8</td>
<td>54½</td>
<td>47%</td>
</tr>
<tr>
<td>Custodial</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>16</td>
<td>16</td>
<td>5</td>
<td>53</td>
<td>35%</td>
</tr>
<tr>
<td>Food Service/Dorm</td>
<td>5</td>
<td>2½</td>
<td>9</td>
<td>7</td>
<td></td>
<td></td>
<td>23½</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>65½</td>
<td>18½</td>
<td>75½</td>
<td>132½</td>
<td>39</td>
<td>393</td>
<td>36%</td>
</tr>
<tr>
<td>Enrollment</td>
<td>411</td>
<td>458</td>
<td>170</td>
<td>464</td>
<td>985</td>
<td>241</td>
<td>2729</td>
<td>37%</td>
</tr>
<tr>
<td>Administration/Instructor Ratio</td>
<td>1:7</td>
<td>1:7.2</td>
<td>1:6.3</td>
<td>1:7.2</td>
<td>1:8.5</td>
<td>1:3.4</td>
<td>1:6.7</td>
<td>(28%)</td>
</tr>
<tr>
<td>Instructor/Student Ratio</td>
<td>1:11.7</td>
<td>1:11.6</td>
<td>1:13.6</td>
<td>1:12.9</td>
<td>1:12</td>
<td>1:12</td>
<td>1:12</td>
<td>6%</td>
</tr>
</tbody>
</table>
Vocational Technical Institutes.

Of particular significance to the VTI system is the continuing education programs. Each Vocational Technical Institute has a full-time director of adult education to provide for the general objective "to provide supplementary educational programs for upgrading those employed or retraining for new employment" (MVTI, 1976, p. 12). Comparative adult enrollments released by the Bureau of Vocational Education for 1971-72 and 1975-76 are presented in Table V-19.

The continuing education division at each Vocational Technical Institute operates within the "dedicated revenue" financial policy. All income including tuition, laboratory fees, training grants, and gifts are credited to the adult education account. Hence, this enables the institutes to provide "more services with increased income". All other revenue generated by the institute with the exception of adult education monies, are credited to the general fund of the State of Maine.

It appears that the development of the individual campuses rested with the institute's administration; a fact acknowledged and confirmed by the State Board of Education in its policy on campus autonomy issued in 1972. Consistent with this historical perspective, it appears logical to assume that the continued development of the Maine Vocational Technical Institutes rests with the collective influence of the administration of the six VTI's.
Table V-19. Adult education enrollments for 1971-72 and 1975-76 showing percentage of increase

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>1971-72</th>
<th>1975-76</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMVTI</td>
<td>1000</td>
<td>750</td>
<td>-25%</td>
</tr>
<tr>
<td>BMVTI</td>
<td>430</td>
<td>893</td>
<td>+108%</td>
</tr>
<tr>
<td>KVVTI</td>
<td>339</td>
<td>701</td>
<td>+107%</td>
</tr>
<tr>
<td>NMVTI</td>
<td>15</td>
<td>1600</td>
<td>N/A</td>
</tr>
<tr>
<td>SMVTI</td>
<td>750</td>
<td>2500</td>
<td>+233%</td>
</tr>
<tr>
<td>WCVTI</td>
<td>300</td>
<td>300</td>
<td>0%</td>
</tr>
<tr>
<td>Totals</td>
<td>2834</td>
<td>7044</td>
<td>+148%</td>
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*(DECR, 1971; DECS, 1975a)*
In 1968 educational opportunities for citizens of the State of Maine at the post-secondary level were provided by three publicly funded higher education systems. They included the six campus system of the University of Maine, the Maine Maritime Academy, and the four-campus system of the Vocational Technical Institutes. Each of these systems was governed by their separate boards. Governing the Vocational Technical Institutes was the State Board of Education which had, in addition to the VTI's, the responsibility of the public educational system of K-12.

Prior to 1968, there were five State Teachers Colleges also under the jurisdiction of the State Board. In 1967 the Advisory Commission for the Higher Education Study (January 14, 1967) recommended the formation of a state-wide higher education system merging all existing institutions. Following this study, the State Teachers Colleges were merged with the University of Maine, Orono, the land-grant university, to form the "super-university" system for the State of Maine. The Maine Maritime Academy and Vocational Technical Institutes were not included in the 1968 higher education merger.

It is appropriate to review the various external reports since 1966 that have carried recommendations to remove the VTI's from the jurisdiction of the State Board of Education. The significance of this review is suggested by:

1. The significant change in higher education resulting from the higher education merger in 1968;
2. The opposition of the State Board of Education to relinquish the Vocational Technical Institutes from their control;

3. The refusal of the state legislature to include the VTI's in the higher education merger of 1968; and

4. The continued consideration and discussion of the feasibility of including the VTI's within the University system.

No less than four significant reports and studies have been made on higher education in Maine since 1966. The Academy for Educational Development (1966) reported that:

No comprehensive appraisal of all higher education in the state has been undertaken since the survey of 1928. The 1928 study did not indicate, nor have subsequent specialized studies suggested, how the state should achieve results on the actions recommended. Higher education in the State of Maine has therefore developed without benefit of any statewide plan, and with varying degrees of coordination ranging from the onerous to the permissive. (p. 11)

Responding to the apparent void of any statewide plan for higher education, the 102nd Legislature in 1965 created the Advisory Commission for the Higher Education Study for the State of Maine (Maine Resolves, 1965, Chapter 29). The subsequent Coles Report recommending a "master plan for higher education" was presented to Kenneth M. Curtis, Governor of Maine and Legislature on January 14, 1967. This report marked the beginning of serious and dramatic discussions of higher education in Maine.

The Commission in its introduction set the tone of its charge. It stated that for any group of citizens to undertake a study with recommendations for a master plan for the development of all state public institutions of higher education:
is a large task. The Advisory Commission for the Higher Education Study has accepted the task, and by this Report sets forth a plan by which it believes the greatest quality, coordination, and efficiency can be obtained among all publicly supported institutions of higher education in Maine, while at the same time offering the fullest opportunities for their development. Such important factors as providing diversity of offerings for students for differing interests, abilities, and backgrounds, autonomy of institutional units within a coordinated overall framework, and as eliminating unnecessary duplication of expensive facilities and programs, have governed the Commission in its recommendations, and should govern whatever action and developments may be based upon them. (Advisory Commission for the Higher Education Study -- State of Maine, 1967, p.3)

The Academy of Educational Development, Inc. (AED) was contracted by the Advisory Commission to assess higher education in Maine and to present its findings and recommendations to the Commission. The Commission set forth the philosophy that no more urgent need confronted the citizens of the State of Maine than the improvement of higher education. It observed that the Maine Legislature was sufficiently dissatisfied with the higher education systems to fund this study as there was a confusion of voices in the public and in the Legislature pleading for current and capital budgets. It was the opinion of AED that the benefit of the recommended changes would result in greater availability of diversified and quality higher-educational opportunities for Maine's youth.

Two major recommendations requiring legislation were contained in the ACHES Report (1967), both of which were enacted in part prior to July 1, 1968. A statement of Public Policy on Higher Education was adopted by the Legislature in 1967 placing high priority on the continued
development and support of a higher education system (Maine Private and Special Law, 1967, Chapter 498). The second recommendation was to incorporate all public post-secondary institutions into THE UNIVERSITY OF THE STATE OF MAINE. This state-wide system was to include the University of Maine, Orono; the five State Teachers Colleges; the four Vocational Technical Institutes, and the Maine Maritime Academy. With the exception of the VTI's and the Maritime Academy, this incorporation was legislated effective July 1, 1968.

Recommendations in the ACHES Report relating specifically to the VTI's were contained in the proposed "Master Plan" and were as follows:

3. The Commission RECOMMENDS that various campuses . . . should be assigned program and service responsibilities . . . including the identification of certain campuses as University Community Centers. These centers should be established in Portland, Auburn, Augusta, Bangor (Dow Campus), Fort Kent, and Machias, and they should provide a variety of terminal and transfer opportunities offering certificates and associate degrees in vocational, technical, and general education for commuting students . . . .

High priority . . . to the development of the recommended University Community Centers . . . at which almost phenomenal growth in two-year terminal and transfer programs must be accomplished if the goals proposed are to be attained. Projected growth in this program area is 8 times present size in 1975 and 13 times present size by 1985 . . . .

3. The Commission RECOMMENDS, therefore, the UNIVERSITY OF THE STATE OF MAINE give special attention to the following listed areas of basic needs . . .

a. general academic programs which enable students to complete the first two years of college with associate degrees and transfer, if they desire, to a four-year program as a junior;

b. two-year technical programs offering associate degrees and one- and two-year vocational programs designed for . . . immediate employment or possibly
carry some transfer credit to four-year programs;

c. remedial programs . . . which permit such students another opportunity to make up deficiencies . . .

d. continuing or adult education programs which will enable adults to upgrade themselves culturally as well as occupationally . . .

9. The Commission RECOMMENDS that in order to assure the highest quality of offerings in the future in vocational and technical education, the State of Maine should plan to develop in the secondary schools preparatory programs leading to admission to post-secondary vocational and technical programs, public and private.

10. The Commission RECOMMENDS that THE UNIVERSITY OF THE STATE OF MAINE should be responsible for all public post-secondary programs in vocational and technical education. To this end:

a. the University should create a division responsible for the development and administration of one- and two-year vocational-technical education programs . . . a separate body reporting to the Trustees of the University of the State of Maine . . . to advise and recommend with respect to policy; program of technical and vocational education should have a distinct budget within the University's total budget; and

b. the centers, branches, and campuses of the University should develop curriculums balancing vocational, technical, and general education, leading to the associate degree or one- and two-year certificates of proficiency within specialized fields; . . . if it is the considered judgment . . . advisory committees . . . might assist with recommendations for given campuses, centers, or branch curriculums. (pp. 12-17)

The full findings and recommendations reported by the Academy of Educational Development (1966) to the Advisory Commission dealt in detail with vocational-technical education in the State of Maine. At the time of the AED study, plans were in the developmental stage by the
Maine State Department of Education for the expansion of vocational education. The main thrust, however, was at the secondary level to which the AED addressed itself briefly:

The plans which have been submitted to the State Board of Education for area vocational centers envisions that total enrollment in future high-school vocational programs could be as high as 40 percent of the students in grades 11 and 12. We question seriously whether the State of Maine, or any state, will wish to channel, at the 11th grade level, such a high percentage of its young people into programs which are so specialized.

The Consultant Panel feels that students should not be separated from the range of high school subjects in English, social studies, science, and mathematics after the 10th grade ... although the area-vocational center is supposed to minimize this problem by permitting the student to spend time in the center and in the school, we doubt that a satisfactory balance is possible if the student is to have a quality experience in both.

The general national trend toward more post-secondary education and training for virtually all youth questions the advisability of a state investing extensively at this time in highly-specialized vocational programs at the secondary level. The question should also be raised as to whether the student should cut himself off from higher education by too early specialization in the high school. (AED, 1966, p. 59)

Although the post-secondary VTI's were identified to become an integral component of THE UNIVERSITY OF THE STATE OF MAINE, it was clear that the Consultant Panel placed significant emphasis in appraising and making recommendations for vocational-technical education. It observed that:

A diversity of quality post-secondary two-year technical and vocational programs is a seriously-underdeveloped aspect of higher education in Maine. Quality programs of this kind require higher yearly expenditures per student than do two- and four-year programs in business, education, the arts, the humanities, and the social and behavioral sciences.
reasonable estimate is that quality technical and vocational educational programs, per full-time student will cost half again as much as programs in other non-scientific, non-technical fields. (AED, 1966, p. 119)

Two-year associate degree opportunities in the vocational and technical areas continued to be the responsibility of the VTI's following the formation of the new University of Maine. Increased program efforts of less-than-baccalaureate level within the newly expanded University of Maine, however, was also evident. Cooperative efforts to minimize unjustifiable duplication was addressed through a Joint Screening Committee of the University and VTI's. This Committee was charged with making program-approval recommendations to their administrations on all less-than-baccalaureate programs.

The newly appointed Chancellor of the University of Maine early in 1969 appointed a Higher Education Planning Commission (HEP Commission) to advise him of a "master plan" for the six campus university. A preliminary Progress Report of the Higher Education Planning Commission was submitted on November 11, 1969. A significant question asked by the twenty-eight member Commission was "what commitment, if any, should the University make in the future toward providing two-year programs below the baccalaureate level" (p. 2)?

In addressing this question, the findings and the recommendations of the ACHES Report (1967) were reviewed and accepted by this Commission to the end that the Commission recommended "that the University should plan for an immediate expansion of program offerings below the baccalaureate level. . . . It is further recommended that these offerings be more
widely available . . . . To broaden educational opportunity throughout the state, students must be able to move readily from lower level programs on one campus to upper level specializations on another campus" (p. 9).

In planning its discussion of two-year program expansion, the Commission did not formally include vocational education on its agenda as "the legislature had not seen fit to adopt the Coles Commission's recommendation that post-secondary vocational education be part of the responsibility of a single system of higher education" (p. 9). The Commission did acknowledge the fact that the five institutes constituted a major and significant response to the needs of young people and adults in the preparation for immediate employment. It also noted that expansion was needed to meet a growing demand in the immediate future. Because of the VTI's contribution to higher education, the Commission's deliberations necessitated constructive consideration of the VTI's.

It is significant to note that the Commission felt that "the initiative for the development and growth of the vocational-technical institutes has come from legislators more than educators" (p. 10). This observation coupled with the Commission's concern for increased community-college type activities suggests a lack of confidence of future growth of vocational-technical education. In considering the merger, the Commission stated that "the continuation and enlargement of vocational-technical programs must be guaranteed" (p. 12).

The emphasis on general education was observed to vary from Institute to Institute suggesting that a much more closely coordinated effort
between the University and VTI's in meeting the needs of the State of Maine should be made. Three alternatives of the two existing systems were discussed:

1. A voluntary sharing of plans with coordinated activities resulting in efficient staff and facility utilization.

2. The creation of a third regulating board to coordinate the State Board of Education's and University Board of Trustee's separate plans for higher education.

3. Placing all two-year and less educational programs offered by the University and the VTI's under a third and autonomous board of community colleges resulting in a third higher education system in the State of Maine.

These three alternatives were all rejected with a reiteration of the recommendations of the AED (1966) and the ACHES Report (1967) to "combine the technical institutes with the University in a single administrative unit effective at the end of 1969-71 biennium" (p. 12). The Commission noted that the trend nationally is to link more closely that education referred to as "academic" with that referred to as "vocational" as class distinctions between the two do not exist, or at least are difficult to determine. It was further recommended that a systematic study be undertaken to determine how this merger could take place organizationally "so that 'vocationalism' would not be swallowed up in the University bureaucracy. The task force on two-year programs which is about to commence its work could be the vehicle for this study since it represents the State Department of Education, the vocational-technical institutes, the University, and private education" (p. 12).
The only VTI identified to assume leadership in the suggested campus mergers was SMVTI in South Portland. It was designated to become the community college in Southern Maine. The remaining four campuses of the VTI's were to be subsumed by University campuses to round out the community college offerings in the various geographic areas.

The close proximity of SMVTI to the University of Maine at Portland and Gorham -- less than two miles to the Portland campus and less than 15 miles to the Gorham campus -- and SMVTI's broad curricula offerings justified this community college designation. Although legislation prior to this study and subsequent to it through 1976 has never merged the VTI's with the University, the following rationale of this recommendation provides a significant insight by the HEP Commission as to the capability of the vocational technical institutes:

Nature of Present Programs. The Southern Maine Vocational Technical Institute currently offers the widest range of two-year educational opportunities with the highest enrollment (714 in Fall 1969) of any public institution in Southern Maine. Most of the programs lead to an associate degree in fields such as culinary technology or marine technology. In recent years, in order to provide a broader background for students in technical programs, the faculty resources in general education fields have been greatly strengthened in accordance with the accreditation standards of the New England Association of College and Secondary Schools. Although the primary purpose of the programs is to prepare students for immediate employment and not for transfer to four-year programs, a significant number of students, finding that their capabilities and motivation for educational advancement are sufficient to advance beyond the two-year level, have been accepted with credit for work completed at SMVTI.

Recognition of SMVTI as the focal point for development of a community college to serve Southern Maine would lead to added
status and continued strengthening for present technical and academic programs. In addition to this, it would permit extensive diversification not only in occupational areas, but also in levels and emphasis of programs in line with the innovation and experimentation which has become the earmark of the community college. In all areas of Maine, but especially within the Greater Portland area, there is a need to search out and stimulate the significant portion of the youth and adult population to continue on to some form of post-secondary education. . . .

In summary, the Commission believes that the most effective and economical approach to meet the growing needs for manpower and economical opportunity below the baccalaureate level in the Greater Portland area would be to use the present programs and facilities of the Southern Maine Vocational Technical Institute as the foundation for a comprehensive community college to serve all of Southern Maine. (pp. 31-35)

Prior to the November release of the Progress Report of the HEP Commission the State Board minutes of October 24, 1969, report a concern that Southern Maine Vocational Technical Institute and the other vocational technical institutes are recommended to be merged into the University system. "The opinion was expressed that 'It seems of crucial importance for the State Board to think about a policy' regarding this matter" (p. 4).

The next Board meeting dated November 21, 1969 followed the release of the Progress Report of the HEP Commission. It contains the following account of the action taken regarding the recommendation to combine the Institutes with the University at the end of the 1969-71 biennium.

The chairman of the subcommittee on vocational education reported that discussion by the State Board members:

reaffirmed the Board's position that the vocational technical institutes should remain under the supervision of the State Board of Education. He recommended that the Commissioner and
staff prepare a letter to the Chancellor setting forth in full detail the Board's reasons for believing that the vocational technical institutes should remain under Board administration; that the letter be as frank as possible about the efficiency of the operation, outlining in general what the Board feels are the major considerations. Mr. Hazelton said he was most anxious that the Board not imply that the University's interest is less serious than its own. He also suggested that each member convey to the Commissioner whatever response he feels should be made. (p. 7)

The recommended action was voted in that same session to establish the Board's position of retaining the authority and responsibility for the vocational technical institutes.

During the time of the study by the HEP Commission there was a special task force studying "less-than-baccalaureate programs". This task force appointed by the Chancellor of the University was made up of representatives of the various University campuses, the Department of Education, the Vocational Technical Institutes and the private colleges. Their report to the Chancellor (University of Maine, May 11, 1970) followed the general context and recommendations of the AED Report (1966), ACHES Report (1967), and the HEP Commission's Progress Report (1969).

The documentation by these previous studies for expanded less-than-baccalaureate programs within commuting distance of all Maine citizens was reinforced. Programs in the three areas of (1) general studies for transfer purposes, (2) career opportunities such as those offered by the VTI's, and (3) remedial programs for those who for various reasons have not reached their learning potential when leaving high school were recommended.
The inefficiency of a dual system of two-year education was again pointed out with the recommendation that the University assume all and total "responsibility for public post-secondary education" (p. 8). There were, however, two minority reports by two different groups of this task force. It is not surprising that one of the minority reports represented the vocational-technical proponents.

The majority report did reflect the concern for "academic control" of vocational-technical education and further proposed "that a separate division within the Office of the Chancellor, headed by a Vice-Chancellor, be established with the responsibility for less-than-baccalaureate programs. To establish close liaison between the University system and the State Board of Education, it is suggested that the Maine Advisory Council for Vocational Education becomes the advisory board for this division on vocational-technical education matters" (p. 10).

The minority report by the vocational-technical proponents was authored by the Associate Commissioner of the Bureau of Vocational Education, a bureau member and a Director of a VTI. It was their contention that "the occupational needs of the citizens of Maine can best be served by a separate system of vocational-technical institutes which may continue to concentrate its efforts in this very specific direction" (p. 13).

Their underlying premises included:

1. Evidence has shown that the generalization of vocational-technical education occurs when merged within the community college.
2. Tampering with an effective program performing the distinct function that it was created for appears unwise.

3. The need for coordination is acknowledged but over-centralization leads to loss of identity and minimizes consideration for individuals.

4. Growth and maturity of the VTI's will occur under the State Board of Education and the potential of state and federal funding.

5. Disunification of secondary and post-secondary vocational education now under the State Board might occur.

6. Academic snobbery, though abhorred, should not be reconciliated by forced integration.

7. Coordination and cooperation might just as well effect the implementation of the community college system as a structural reorganization.

8. Occupational education requires the expertise and supportive philosophy of vocational educators.

9. Greater insight should be gained by all of those who might be concerned with post-secondary vocational education.

10. It would be pure folly to tamper with a vocational education system which is finally being supported in its effort toward coming to grips with long-unmet needs (University of Maine, May 11, 1970, pp. 13-15).

The second minority report was made by the private college representative and one representative of the University system. This minority report proposed a new Board of Trustees to oversee a community college system composed of the Vocational Technical Institutes and the two-year campuses of the University -- the south campus of the University of Maine, Orono, and the Augusta campus. Removing the two-year campuses from the University would allow the University to devote its mission to its "traditional purposes" having no responsibility for
delivery of two-year programs. It was the feeling of this two-member minority report that "if Maine is to have and enjoy a successful development of less-than-baccalaureate degree programs in comprehensive community colleges, it had best establish these as separate institutions not affiliated with the University or the State Board of Education" (University of Maine, May 11, 1970, p. 16).

The Progress Report of the HEF Commission received critical review at various public hearings across the State. In consideration of the results of these hearings, the HEF Commission made a final report in January, 1972 to the University of Maine Chancellor, Donald R. McNeil. The chairman of the Commission, Frank M. Coffin, in his transmittal letter pointed out that the efforts of the Commission were addressed to "the content of education putting our action recommendations in terms of measurable time-phased goals and objectives" in looking ahead to the next decade.

The Report reviewed recommendations of the Coles Report which had been fulfilled. Among the 16 cited accomplishments, four have significance to the Vocational Technical Institutes:

4. The Trustees of the University and the Board of Education have established working agreements and procedures for deliberate coordination of effort and activity between the University and the vocational technical institutes.

6. The trustees of the University have directed that a high priority shall be given to the expansion of two year program opportunities.

7. The Trustees of the University have announced their intention of establishing a system of community colleges.
which will offer expanded counseling and remedial services
in addition to pre-employment and academic programs. . . .

15. The merger of Portland and Gorham, the use of Central
Maine Vocational Technical Institute facilities for Uni­
versity classes, the offering of University of Maine at
Augusta courses for CMVTI students are all examples of
movement toward consolidation of facilities and programs.
(p. 3)

The most significant recommendation of the Coles Report in 1967,
to merge all publicly-supported institutions with a purpose for post-
secondary education, was most obvious in its omission in the Final

Although consolidation of the VTI's and the University did not
come to fruition, in 1968 a cooperative relationship had developed and
was commended by the Commission. The HEP Report indicates that "the
State Department of Education is responsible for both secondary and
post-secondary vocational and technical education, and deliberate
actions have been taken to achieve greater articulation between levels.
Cooperative efforts are now underway to increase student mobility be­
tween the University and the vocational technical institutes" (1972,
p. 4).

The need for increased coordination is reinforced with an action
recommendation within the HEP Report to:

Strengthen and streamline the coordinating activities which
have been established between the Department of Education and
the University.

A joint committee of the University Trustees and the Board of
Education has been formed to explore the mutual concerns such as
. . . less-than-baccalaureate education. A screening commit­
tee for all two year program proposals for the university and
the vocational technical institutes has been established. Joint planning for cooperative programs between VTI's and University campuses is underway. These and other collaborative activities promise expanded educational opportunity and full use of public facilities, but care must be taken to avoid the build-up of bureaucratic procedures which slow down and stifle creative enthusiasm among faculty and students. (1972, p. 24)

Although the Joint Screening Committee was created by a joint resolution of both Boards, as late as 1975 a call to a workshop was made "to develop criteria for determining the proper institutional home for one- and two-year vocational programs which require a relatively high content of academic studies" (Padham & Haas, August 7, 1975). Vice-Chancellor Haas of the University and Associate Commissioner Padham of the Department of Education hoped to arrive at recommendations to the University Chancellor and the Commissioner of Education regarding program selection criteria. Specifically the workshop was to address itself to:

What criteria shall be used to determine if a program should be the sole responsibility of a single institution, or should be undertaken as a consortium project of two or more institutions?

If the program is to be offered by a single institution, what criteria should be applied to determine where it should be located?

What other issues may be identified regarding cooperation between systems which may need further discussion?

Similar concerns were reported in a study by the University Trustees entitled Guideposts for the Future of the University of Maine (1976). This report questioned the effectiveness of coordination between the two systems and stated that:
in both systems, clearer definitions are needed as to what constitutes an improved program. The plan for assigning program responsibility by the Screening Committee drawn from both systems has not been fully implemented. It is often viewed as a detriment to effective administration in that it is cumbersome, time-consuming and lacking of conciseness. The ad hoc Committee is seeking views and comments with regard to the following questions regarding the University and VTI relations:

How effective have been the past efforts and coordination?

What is the appropriate degree of cooperation that will encourage the combined use of human and fiscal resources?

Would the coordination effort be more effective if access to higher education was more clearly understood and given greater priority?

In what ways can the separate missions of each institution be preserved and understood while, at the same time, effecting cooperative agreement as to academic standards? (November 1976, p. 26)

Raising the issue of the preservation of "separate missions" suggests that a clear delineation of missions within the post-secondary arena of public higher-education exists. This same report by a sub-committee of the Trustees of the University stated that:

The Maine Management and Cost Survey recommendation to move the VTI into the University and under the Chancellor is not deemed a desirable option based on the history and success of the VTI. We support the continued separate organization and identity. The growth of both the University and the VTI in the past ten years has been in response to community demands for appropriate educational offerings for their citizens . . . . Although the Committee found that currently little duplication exists, there may be a potential for programmatic overlap and unnecessary duplication of effort. Already there is confusion between the University and the VTI regarding training for certain aspects of business administration courses and health sciences. The same problem may soon arise in connection with increased interest
in courses in management, the environment, and human services. It is appropriate to the VTI's to be able to respond quickly to a variety of specific short-term training needs while the responsibility of the University is to broader long-term education. (pp. 25-26)

A recent bulletin by the American Vocational Association (September, 1972) discussed "training" as it relates to occupational education. As the AVA is the national organization for vocational education, it is interesting to note the following comments regarding training:

Attempts have been made to deprecate the importance of the occupational program by calling it 'training' rather than education. In reality, training and the sharpening of skills are but a part -- albeit an important part -- of the total program. There are those who have said it is not a part of education at all; the absurdity of such a statement is reflected in its own comment. (p. 12)

It would appear that the perception of the separate missions of the University and the Vocational Technical Institutes viewed by the University proponents and the VTI proponents lies, perhaps, within the definitions of the institutions providing two-year educational opportunities. A publication by Ohio State University identified the types of institutions offering occupational education. This publication included the area vocational technical school often found within a secondary school setting; community and junior colleges; technical institutes; senior colleges and universities; and proprietary schools (Miller and Gillie, September 1970, p. 7).

Significant enrollment increases between 1965 and 1970 were reported to occur in the community and junior colleges. Occupational
enrollments in these institutions varied from "30 to 75 percent of total enrollments. Proponents of the community-junior college feel that occupational education in this institutional setting is ideal in that it provides a broader curriculum, makes possible a richer mix of vocational and general education, and allows the student to adapt his program more readily" (p. 7) with flexibility of choice.

Technical institutes are portrayed as special institutions "to educate highly skilled technicians" in broadly based competencies in the field of applied science in such "sufficient depth that the graduate technician may be employed in one of a cluster of jobs" (p. 7). Although the technical institute is aimed primarily at gainful employment at the supportive level, they do not completely preclude the objective of transferability to baccalaureate or professional degrees.

The Maine Management and Cost Survey (MMCS) Commission (1973), which was chaired by James B. Longley prior to his election to Governor of the State of Maine, in recommending the transfer of the VTI's to the University of Maine, stated that the "higher education at the community college level is fragmented with the Department of Educational and Cultural Services and the University of Maine having a similar mission . . . . Implementation will provide a coordinated higher education program at the community college level and eliminate costly duplication" (p. 89). In recommendations for the University of Maine, the Commission stated that the "operation of six baccalaureate degree granting campuses would appear to be weakening the university's overall academic excellence. At the same time, the campuses are failing to
provide full community college services as contrasted to the rapid growth of neighboring Vocational Technical Institutes" (p. 114).

The MMCS Commission viewed the VTI's with community college potential. It appears that a narrower vision of the VTI is existent from within the system and that the University study committees which continually recommend expanded less-than-baccalaureate education and community colleges are merely moving to fill a void not envisioned by the VTI system.

This point of view is reinforced by the HEP Commission in making further recommendations in a section devoted to "Education for Employment". In pointing out that existing programs are available at the two, four and professional degree levels, they stressed the "priority attention which should be given to the one and two-year program area if Maine's more immediate needs for upgrading its working force and preparing for emerging new careers are to be filled. New programs, especially appropriate to Maine, should be created at the associate degree level" (p. 35).

Four of five objectives aimed at education for employment to meet the goal of providing "multi-level programs appropriate to student interests and predicted job opportunities" (p. 35) relate directly to the mission of the VTI's:

4.1 Provide maximum relevance in programs preparing for employment.

Students deserve to be able to move from college into the job market with salable skills which give them maximum opportunity to compete to initial employment and to progress
through a series of steps in career development. The most useful pre-employment education is that which equips the student with a process of defining and attacking problems by applying basic principles to his profession. Students should also be guaranteed familiarity with the current tools and procedures of their profession through the University curriculum.

4.2 Expand paraprofessional and technical programs at the two-year level.

The University offers preparation for employment at the two-year level in twenty-two programs on six campuses. Estimates of opportunities for employment in the near future indicate that there will be more rapid expansion of the paraprofessional and technical occupations than of the professions requiring four or more years of college preparation. Therefore, the University should place a higher priority on expanding its two-year curricula, moving into new areas suggested by the manpower planning already underway.

In this program expansion, a meaningful differentiation of program and function must be maintained between the University and the vocational technical institutes. Procedures to accomplish this have already been established with the Department of Education (relates to the Screening Committee).

4.3 Provide continuing education, refresher, and retraining courses to update the occupational skills of managerial, professional, technical, and paraprofessional personnel.

In presenting these programs, the University should enter appropriate partnerships with technical institutes and industry itself to make wisest use of all resources in advancing Maine's technical capacities.

4.4 Create new programs based on Maine's needs and student interests. (pp. 55-56)

The Commission recommended appropriate actions to meet the objectives, five of the thirteen of which have significance to the VTI's:

5. Add two-year programs, not duplicating programs of the vocational technical institutes, to the offerings of each campus.
4. Provide community college programs in York County . . . .

5. Provide community college programs in Androscoggin County . . . .

10. Extend some occupational programs from the University of Maine at Bangor to northern Penobscot County . . . .

13. Determine whether need exists for community college programs in the mid-coast region. (pp. 37-38)

Of interest in the discussion of the community college in Androscoggin County is the acknowledgement of "an excellent vocational technical institute". However, "an enrichment of the educational opportunities in the area with new two-year programs could help many young people and adults improve their employability" (p. 36).

Inasmuch as community college enrollments many times represent occupational education by as much as 75 percent of their student body, it appears that the recommendations of the University suggests a dual system of post-secondary less-than-baccalaureate education for the State of Maine.

Kendrick (1976) in a graduate paper "On Becoming a University Center: UMPG's Role in the Development of Maine's Human Resources" observed that documents "as recent as the early 1970's deal with the University's eventual control of the vocational technical schools in a manner that is reminiscent of the 19th Century concept of Manifest Destiny" (p. 4).

Connick et al., (1973) presented a paper on an alternative model of post-secondary education for southern Maine. This plan for expanded educational opportunities for York County specifically, and southern
Maine secondarily accepted the need of less-than-baccalaureate programs without question. "The need for such education is generally accepted as the major educational priority in Maine in 1973; the major issue remaining is the selection of a method and a structure for responding to that need" (p. 1).

The previous studies by the Academy for Educational Development (AED) Report (1966), the ACHES Commission (1967), and the HEP Commission (1969) were reported by Connick to recommend the transfer of the vocational technical institutes to the University. He reported that the HEP Commission recommended that "all post-secondary institutions be combined under the Chancellor, but added that a separate division of less-than-baccalaureate degree programs be established within the Chancellor's Office" (p. 2). This recommendation was contained in the "Progress Report of the Higher Education Planning Commission to the Chancellor of the University of Maine" in 1969. The purpose of this report was to allow the Chancellor and his staff to hold hearings for public input. Between the issue of this report and the subsequent Final Report by the HEP Commission (1972), it is evident that separate systems for the VTI's and the University had been agreed to. Clear evidence of contrary perspectives are contained in the introduction to Connick's educational model:

Since 1970, when the Chancellor indicated that the number one priority for the next biennium was to be the development of one- and two-year programs on all campuses of the University, less-than-baccalaureate opportunities have been increased. However, the reorganization of the higher education system has not been completed. The vocational-technical institutes and the Maine Maritime Academy have not been transferred to
university control, and a functional division to administer less-than-baccalaureate programs within the Chancellor's Office has not been developed.

The report of the Chancellor's Task Force on less-than-baccalaureate programs (May, 1970) indicated that there was not agreement on either the consolidation of the VTI's and the university or the organization within the Chancellor's Office. In a section titled 'Statements of Exceptions', Chairman Blewett and Mr. Frye reported 'It would appear, however, that if Maine is to have and enjoy a successful development of less-than-baccalaureate degree programs in comprehensive community colleges, it had best establish these as separate institutions not affiliated with the university or the State Board of Education.

The evidence is clear in state after state across the nation. The comprehensive community college flourished best when it is a separate institution; where administration, faculty, and students share a single purpose; namely, the successful education of the two-year (or one-year) student. There is no need to share teaching between two-year and four-year or graduate students. There is no denigration (disintergration) of the two-year student as frequently happens in the four-year college. There is a great sense of community and it is possible to make a unified effort in behalf of institutional development.

Representatives of the vocational-technical institutes have been concerned also about an organizational structure which would subsume them under the university system. Some people believe that the vocational-technical institutes would suffer if they were under the administrative control of university presidents. The other side of this concern has been discussed in a report titled Decision Time -- 1973. The author, Dr. Larry Stinchcomb, stated that 'On the other hand, it will behoove planning agencies to organize programs that are as economical as possible and that, in general, avoid undue overlap and duplication. In this connection, there is a potential danger of duplication and excessive cost when states organize both community colleges and area vocational schools, both of which may be attempting similar programs. It is urgent, therefore, that planning agencies consider the role of these two types of institutions to determine whether, in the State of Maine, both are needed or whether the comprehensive community college may well be the most appropriate medium for rendering the multiplicity of programs needed in the average community'.
The two factors which must be taken into account before one can develop a concept of an organizational structure to deliver less-than-baccalaureate programs are first the population which is to be served and second the delivery model for that education. In regard to the first issue, it seems quite clear that the State of Maine will not be able to afford a system of community college campuses which will provide access for the great majority of Maine citizens. The cost of constructing comprehensive community college campuses and staffing them with competent faculty will be prohibitive with the population dispersion of the State of Maine. Furthermore, it is probably an accurate judgement that most of the organizational structures recommended thus far, have assumed that the educational delivery model would be of a traditional variety. In other words, it was probably assumed that the education would be campus-based, with a resident faculty working with students in traditional classrooms and laboratory situations. (pp. 3-5)

The alternative model for Southern Maine established a Vice-President for Southern Maine Regional Community Learning Centers (SMRCC) reporting directly to the President of UMPG. The administrative staff included a Dean of Instruction, Business and Personnel Manager, and Director of Public Information and Alumni with a Director for Program Development to be added the second year of operation. A staff of twelve in curriculum and teaching would facilitate learning in up to six Regional Community Learning Centers (p. 19). This model, though prepared in consultation with academic officers of four private colleges in Southern Maine and SMVTI, assumed the total administrative direction and authority for less-than-two-year education vested within the administration of the University of Maine, Portland-Gorham.

The model as presented by the UMPG Planning Groups was not implemented. A cooperative arrangement between Southern Maine Vocational Technical Institute and the University of Maine, Portland-Gorham was
implemented and continues to offer community college services in a manner recommended by the HEP Commission.

The HEP Commission (1972) projected two-year enrollments for the University based upon national trends. In 1969, 26% of the aggregate higher education enrollment was in two-year programs. The University of Maine experienced a 6.1% enrollment in two-year programs in 1970. Projected enrollments in 1977 of 5655 FTE's would result in a percentage of 20.3% with the 26% to be achieved in 1981. The enrollment in 1977 would represent a 282% growth from 1971.

An assumption of the projection indicated that "For the purpose of this report, it is assumed that the VTI enrollments will continue to grow at their historical rate" (p. 78).

The preceding ten-year period (1961-1971) saw an increase in VTI students from 311 to 1549. In the same time period the number of VTI campuses increased from one (1) to six (6). Although the real growth was 398% over this ten year period, the growth pattern of SMVTI which was in existence in 1961 over that ten-year period perhaps reflects more adequately effective growth. Student enrollment at SMVTI increased from 311 to 586, a growth of 88%. From 1971 to 1977 in which the HEP Commission projected a 282% growth in University two-year enrollments to approach a national norm, the VTI enrollment increased from 1549 to 3025, an increase of 96%, eight percentage points more than from 1961-1971.

Included in the University enrollment projection were three new "community colleges" with projected enrollments increasing from 540
with one college in 1973 to 3223 with three colleges in 1977, an 847% increase. The Community College was described to have become:

a post-secondary institution concerned with meeting the total educational needs of less-than-baccalaureate degree level of residents in a prescribed geographical area. Programs offered in a Community College are designed to meet the needs of the following groups of students:

1. Those who have completed high school and are preparing to transfer to four year degree programs.

2. Those who are continuing their general education.

3. Those who are preparing for definite occupations which require two years of training beyond high school in programs not offered in Vocational Technical Institutes.

4. Those who have ability to profit from a post-secondary education but are lacking in basic reading and mathematical skills necessary to do post-secondary work.

5. Those who require mid-career vocational retraining.

6. Those who need or desire a change in occupation. (p. 86)

In the recommendations for implementation of the three Community Colleges, basic budget considerations are suggested. Of particular significance was that proportion of the budget to be allocated to occupational education. "Overall 1/3 of the instructional budget should be directed towards liberal arts programs and 2/3 towards occupationally oriented programs" (p. 87).

The HEP Commission in presenting its Final Report to the Chancellor of the University of Maine in April, 1972, did acknowledge the separate existence of the VTI's and the University. It also stressed increased structured relationships between the two. However, it appears that the
proposed system of two-year community colleges and expansion of two-year programs at the existing six four-year campuses is in effect a dual system with evident encroachment into the occupational educational programs typically the responsibility of the VTI's.

A report of a scientific sampling survey of Maine citizens by Northeast Markets, Inc. (1973) attempted to determine the effectiveness of state services, identify priorities for legislation, assess attitudes related to concerns of environment and economic development, and to determine the geographic attitudes on issues.

The Vocational Technical Institutes were chosen out of sixteen choices by 81% of the respondents to receive increased support from tax dollars. The VTI's were identified to be equally important as Improved Health Care (81%) and among the top six with a percentage of 74 or more. When asked to respond to the same sixteen items if a moderate tax increase were to be made, the priorities changed slightly. The Vocational Technical Institutes moved from 2 to 1; public schools moved from 7 to 2; Police Protection from 8 to 6; Aid to the University from 12 to 7; New Industry from 4 to 10; and Fishing Industry from 3 to 8.

It is interesting to note that the questions on public education included the University and public elementary and secondary schools at the exclusion of the VTI's. However, within this section, 49% of the respondents felt that the University should put increased emphasis on vocational education. The HEP Commission (1972) reported a survey of University of Maine, Orono freshmen on their college philosophy choices.
The choices were vocational, academic, collegiate, and non-conformist. The vocational choice was made by only 23% while 60% chose the collegiate philosophy. Fifteen percent chose the academic philosophy, and non-conformist was chosen by 2%. Although, by no means a conclusive study, the Commission noted that "our suggestion here is simply that students bring a complexity of values and attitudes with them to the University" (p. 10).

The preoccupation during the last several years of education for the "world of work", career education, and the varying definitions of occupational education has resulted in much of the population questioning the worth of "liberal education". The concern among the academic community is reflected by the University's Academic Planning Committee in stating that:

The public should be made aware that the value of a University to the individual cannot be conclusively measured. There is pressure to equate successful completion of University studies with instant job placement. The University can help develop marketable skills while at the same time it educates the whole person and addresses acquisition of knowledge as a life-long process in a complex society . . . . The University should evince concern for balance between the liberal arts and programs that are vocational and professional in their emphasis. Two-year programs of the community colleges, associate degrees, and graduate programs leading to advanced degrees are basically vocational or professional in nature. (University of Maine, Trustees, 1976, pp. 22-23)

That the "general mission approved and established for the University of Maine system by the Trustees is essentially sound" was reported by the ad hoc Academic Planning Committee of the Board of Trustees (1976). In its inclusion of undergraduate teaching as one
prime responsibility, the report noted that this included "programs leading to associate, baccalaureate, masters and doctoral degrees, professional study, and programs in continuing education, cooperative education and those offered through community colleges" (p. 19). The goal of the University includes "commitment to work cooperatively with the vocational technical institutes" (p. 20). Difficulty in defining the aspects of "cooperation" is evident in the recommendation that "policies and procedures should be established to detail more closely the points of contact vis-a-vis the vocational technical institutes" (p. 22).

The concern and commitment to an appropriate balance of the liberal arts and the occupational is apparent in the various studies of higher education. The predominant concern for increasing less-than-baccalaureate opportunities implies a perception of inadequacy of the VTI's. This inadequacy is emphasized in the discussion of the future of the Continuing Education Division of the University. The committee stated that "citizen involvement has led to the expansion of the two-year programs and an increase in the number of associate degrees awarded, and has resulted in higher opportunities for great numbers of citizens otherwise denied such opportunity" (p. 29). Even this Committee in its early deliberations and review of previous studies debated such problems as "the feasibility of encompassing the vocational technical institutes within the University's higher education structure" (p. 24). The committee, however, then endorsed continued support for the separate structure and identity for the University and the VTI's.
Recommendations contained in a report to the President of the University of Maine, Portland-Gorham identified the need for cooperation between UMPG and Southern Maine Vocational Technical Institute (SMVTI), and increased transferability, while stressing the need to increase two-year options in business, paraprofessionals, and health areas. The report stated further that "the Commission further feels that there is a potential for undesirable duplication between SMVTI and UMPG. At present, these two state funded institutions are enjoying a constructive cooperative relationship on a voluntary basis. More efficient use and broader application of resources is perhaps possible through a formal structured relationship between the two institutions that will make coordination of programs mandatory" (University of Maine, Portland-Gorham, December 1972b, p. 16).

The Board of Trustees for the University of Maine reacted to the two-year recommendations of the ACHES Report (1967) and Progress Report of the HEP Commission (1969) with expedition. Their policy statement of December 18, 1969 regarding expanded "community college" opportunities in the State of Maine included the following:

We resolve that the University accept as a commitment an orderly plan for the development of one and two year programs throughout the State . . . .

We resolve that the Bangor and Augusta campuses be developed as the first units of a community college system within the University . . . .

We resolve that community colleges be added to the system to serve heavy population concentrations where there are no public higher educational opportunities in the vicinity.
The next significant and constructive evidence in community college development was reflected in the results of a public meeting by the Board of Trustees on April 25, 1973. A reaffirmation of the Board's resolves on December 18, 1969 was made with the expansion of that policy that new campuses not be established but, rather, delivery be implemented through new and unique approaches to post-secondary educational opportunities.

Cooperation of joint services by the University and the Vocational Technical Institutes was stressed with active involvement of the private colleges desired. This expanded policy was a direct result of the expanded services being planned at that time by the University of Maine, Portland-Gorham which resulted in the Southern Maine Regional Community Learning Center (SMRCC) proposal authored by Connick et al., (1973).

A statement of support and endorsement to the University Trustees Resolution on Extension of Community College Opportunities was voted by the State Board of Education on May 10, 1973. By indication of this vote it appears that the Vocational Technical Institutes have been placed in a responsive position to the University of Maine in the expansion of community college opportunities for the citizens of the State.

A review of the State Board of Education minutes clearly demonstrates continual support by this body to maintain the authority to "establish, maintain, and operate" the Vocational Technical Institutes. There appears to be a lack of thorough understanding, however, of the community college movement initiated by the University and recommended by the various higher education reports. In a November 1968 Board
meeting the question was raised "if Maine had any legislation which would permit the establishment of public community colleges". The Commissioner of Education reported that "It did not" (Minutes, p. 5).

On April 25, 1969, Chancellor McNeil of the University met with the Board of Education to discuss mutual cooperation with the University. He stated that "The community college, in which he is vitally interested, is closely related to vocational education" (Minutes, p. 4). The following November the Progress Report of the WEP Commission was released. The Board minutes of November 21, 1969 capsulize the relative attitudes of the State Board of Education and the Chancellor in their discussions:

Chancellor Donald McNeil, University of Maine, met with the Board to discuss implications of the Higher Education Planning Commission report as it refers to the vocational-technical institutes. Possible merger of these institutes with the University system and increased cooperation between existing administrative agencies was discussed. Board members questioned the concept of a community college in relation to vocational education. The Chancellor said the two-year college would be more service oriented than the four-year institutions. It would serve the community as the first two years of University, and would also provide two-year credit and noncredit-community related educational programs that would in no way conflict with the four-year program. He expressed his belief that some kind of academic content should be available in the vocational-technical institutes so that the students could transfer to other institutions . . . .

The Chancellor expressed concern for the development of vocational education and pointed out the dangers of duplicating two-year courses in the institutes and the University system.

Chairman Bragg explained the Board's position in favoring its continued responsibility for vocational-technical education for secondary and post-secondary programs. He said there is a pattern in this complete educational process which is acknowledged by the Federal Government in its distribution of funds. (p. 1)
The State Board minutes of March 19, 1971 reflects a continued lack of resolution with the community college question. The Chairman reported that after a three-hour discussion by the Board on the Vocational Technical Institutes' relationship with the community college, the Board "has a better idea of what it expects of the Vocational Technical Institutes. There is still some question on the role of the community college in its relationship to the institutes" (p. 7).

The conclusion of a position paper issued by the Bureau of Vocational Education, Department of Educational and Cultural Services in 1975, stated that:

As a matter of law, custom, and policy, the VTIs' should maintain exclusive jurisdiction over vocational technical education. By use of the Federal definition of 'vocational education', a proper allocation of jurisdiction can be made for borderline programs. In this way, conflict and duplication between the University and the VTIs can be avoided. (August 5, 1975, p. 7)

The position of the Department of Educational and Cultural Services and the State Board of Education maintains a separate and very distinct mission and responsibility for the occupational needs of Maine citizens at the post-secondary level. This position is at the exclusion of the transfer, terminal, and community college programs recommended for significant expansion by the ACHES Report (1967), and the HEP Commission (1972). Although the various higher-education studies authorized by the Legislature and the University of Maine have stressed the need for rapid expansion of one- and two-year educational programs within the framework of the community college environment, there does not appear
to be a unified approach to providing that opportunity. The University has made it clear that vocational-technical education is an important element of this movement, but the vocational-technical proponents do not appear to be in agreement.

The very positive approach that the University has taken over the past ten years reflects a leadership position not wholly evident within the Vocational Technical Institutes' system. Leadership of a progressive nature for the VTI's by the State Board of Education and the Department is visibly absent as reflected by a publication "150 Years of Education in Maine" covering the growth and development of the Maine State Department of Education. The Vocational Technical Institutes though mentioned twice as a responsibility of the Department, did not share any singular write-up as one "of the many improvements in Maine education and of the progressive accomplishments since the establishment of the State Department of Education in 1854" (Department of Education, Maine, 1970a, p. 5).

Since 1966 when the first comprehensive study was released on higher education in Maine, there have been continued recommendations and dialogue about merging the Vocational Technical Institutes with the University of Maine. The State Board of Education and the Department of Educational and Cultural Services have held steadfast in their opposition to this merger. The State Legislature and the State Advisory Committee have also shared this commitment. In 1976 there remain three publicly supported post-secondary educational systems
providing opportunities to Maine youth and adults -- the University of Maine with seven campuses, the Maine Maritime Academy, and the Vocational Technical Institutes with six campuses -- each system with its separate and responsible Board and its designated mission.

There also remains the preamble of Chapter 400 of the Public Laws of the State of Maine enacted by the 103rd Legislature in 1967:

Because education is the cornerstone in the building of a happy and productive society, and is the passkey to prosperity, realistic state education goals are declared essential.

The people of Maine are desirous of and entitled to the bountiful benefits of a substantially expanded system of higher education.

The people of Maine are desirous of and entitled to equal opportunity for a quality post high school education.

We declare that we can no longer afford to waste any of our human resource, that higher education must be made available to our youth irrespective of economic status or geographic location.

We declare our responsibility to recognize education as a continuing need of our people and to afford widespread opportunities in adult education.
CHAPTER VIII. MAINE VOCATIONAL TECHNICAL INSTITUTES, 1977: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The first Maine Vocational Technical Institute was established in 1946 in leased facilities in the City of Augusta. Its purpose was to provide post-secondary vocational education for returning World War II veterans. The Legislature in 1947 amended the authority of the Vocational Education Board to include responsibility to establish, maintain, and operate state vocational and technical institutes in addition to its advisory responsibility for secondary-vocational education. This authority was transferred by law to the State Board of Education when it was created in 1949.

It was not until 1961 that further expansion of the vocational technical institute campuses occurred. The 100th Legislature directed the Department of Education to establish a second institute in northeastern Maine. Within the next ten years, 1961-70, four more campuses were authorized completing the present six-campus post-secondary system of Maine Vocational Technical Institutes. This system has operated under the jurisdiction of the State Board of Education since 1949.

Spurred by the directive to establish the second vocational institute in northeastern Maine, the Department of Education contracted a professional survey service to study and make recommendations for a master plan for vocational and technical education. A post-secondary
recommendation for four TECHNICAL EDUCATION CENTERS located strategically in a north-south line between Presque Isle and Portland was made. The projected enrollment for each of these four TECHNICAL EDUCATION CENTERS was 750 to 1000 students with the capability of establishing satellite centers to serve surrounding population centers. With the exception of Washington County Vocational Technical Institute, the existing VTI system is located on the geographic line recommended in the Flesher Report in 1962. However, Central Maine Vocational Technical Institute in Auburn and Kennebec Valley Vocational Technical Institute in Waterville are located 20-25 miles south and north of the Augusta area which was designated by the Flesher Report to be served by a single institute. Their combined enrollment in 1976-77 was 523 students.

The VTI enrollment totaled 5025 students in the 1976-77 academic year. This enrollment represented an increase of 121% from 1366 in 1969. With a median of slightly over 500 students per institute it is apparent that the target enrollments projected in 1962 were either unrealistic or beyond the capability of the State.

Secondary-vocational education enrollment in the State of Maine has increased 259% during this same period (Maine Advisory Council on Vocational Education, 1977, p. 10). The Council's annual report further stated that "by the end of fiscal year 1976 some 50.7% of our high school juniors and seniors were enrolled in vocational courses" (p. 10), comparing favorably with the national average of 50.4%. The report stresses the existing need for continued expansion of vocational
educational opportunities at the secondary level.

The consultants of the Academy for Educational Development in 1966 questioned the expansion of secondary-vocational education to 40% of grades 11 and 12. That goal was exceeded by 25% in 1976 with recommendations for increasing the percentage above the 50.7% level. A 259% increase in secondary-vocational education while post-secondary vocational-technical education enrollment increased 121% suggest that priorities for vocational education in Maine favor the secondary system over the post-secondary system.

The Commissioner of Education testified at a legislative appropriation hearing on the FY/1978 budget supporting a need of greater flexibility of operation and of the use of tuition income. The Commissioner further stated that, "It is our feeling that these schools have demonstrated a capacity for providing educational opportunities to an ever increasing segment of the State's population in program directions which inevitably and directly contribute to the State's economy". He further stated that "the future of these schools and their individual and collective ability to further grow in response to present needs is at a critical crossroads" (Millett, 1977).

Enrollments between 1976 and 1977 in the six VTI's decreased by 5% from 3176 to 3025 due to financial constraints and enrollment ceilings. Two of the six campuses exhibited an increase of 23 students while a total decrease of 174 students occurred at the other four campuses.

The success of vocational education in Maine appears to be measured by the collective efforts of secondary and post-secondary vocational-
technical education. This is clearly observed in the Maine Advisory Council on Vocational Education's Seventh Annual Report as follows:

MACVEs recommendations must also be seen against the backdrop of unprecedented growth and expansion of vocational education. Since MACVE was established in 1969, total vocational education enrollments in Maine has increased by 259%. A comprehensive delivery system of seven (sic) post-secondary and 25 secondary institutions has brought vocational education to within reach of 98% of the State's inhabitants. Federal legislation (primarily the Vocational Education Amendments of 1968) provided incentives for this growth, but the phenomenal development of Maine's vocational education system represents a remarkable accomplishment for a predominantly rural State faced with severely limited financial resources and the need to deliver programs to a widely scattered, often geographically isolated population. Indeed Maine has demonstrated a firm commitment to vocational education and can take great pride in what it has done to open more opportunities for vocational training. (1977, p.4)

Greer (1967) in a study of technical education reported Schaefer's (1959) observation of the overlapping functions of institutions with a mission for occupational education. This conceptualization was reported in a study to determine a post-secondary vocational-technical master plan for Ohio. The functions of institutions presented in Figure VII-1 are not significantly different from the existing public institutional structure as it exists in the State of Maine in 1976.

The technical institute as an institution did not exist in Maine as of 1976. The Maine Vocational Technical Institutes serve the institute function as well as the vocational-technical school function. The University with its community college mission has established goals cutting across the entire post-secondary spectrum. While secondary area-vocational schools exist across the state with 13 centers and 13 cooperative regions, the fact that they are called "vocational-technical
centers/regions" has created a lack of understanding and confusion among the public.

Figure VII-1. Overlapping functions of different types of schools

<table>
<thead>
<tr>
<th>Training Objectives</th>
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<tr>
<td>Single Skill Occupations</td>
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<tr>
<td>/Non-existent/ Technical Institute</td>
</tr>
<tr>
<td>Community/Junior College /University/</td>
</tr>
<tr>
<td>Vocational-Technical School /VTI's/</td>
</tr>
<tr>
<td>Vocational-Industrial or Area Vocational School /Secondary/</td>
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</table>

Since the higher education merger of the University of Maine, Orono and the five State Teachers Colleges in 1968, a conflict of mission has existed between the University of Maine and the Vocational Technical Institutes. This conflict of program responsibility coupled with an apparent lack of appropriate discrimination between the secondary and post-secondary vocational/vocational-technical systems has apparently left the Vocational Technical Institutes in a middle ground between the secondary-vocational system and the University of Maine.

The authorizing legislation for the VTI's provides a mission for specialized post-secondary programs for those with special aptitude or desire for specialized training. Prior to 1968 and the significant
growth in the secondary-vocational system, the VTI mission could and did, without conflict, include the "vocational" type occupational preparation. In addition, it also provided the technical level opportunities in selected areas. The growth of the secondary-vocational centers and regions throughout the State of Maine since 1968 has not resulted in a deemphasis in the vocational options in the occupational programs at the VTI's.

On the other hand, although the secondary vocational centers and regions were established by law as Regional Technical Vocational Centers, there are at the present time no secondary programs which include a study of "the underlying sciences and supporting mathematics inherent in a "technology". These criteria are included in the definition of technical education by the U. S. Office of Education. Therefore, the inclusion of "technical" in the name of the secondary vocational schools implies a level of instruction which in reality did not exist in the State of Maine at the time this study was conducted.

The Vocational Technical Institutes, however, continue to provide educational opportunities ranging from vocational through technical. While a few programs in the VTI system consist of totally shop/laboratory oriented curriculum, related and general education courses are generally included in the vocational options as a regular component. The inclusion of the related technical education courses strikes the significant difference between vocational education at the secondary level and vocational education at the post-secondary level.

With considerations given to the supportive educational courses
and the "mature post-secondary" age level of students, it would appear that although the vocational-technical school (institute) and area-vocational school have overlapping functions, they are not in duplication of each other.

The difficulties with defining "post-secondary" as it relates to the occupational education areas was addressed in "The Role of Post-Secondary Occupational Education" published by the AVA:

Some have used it as though it were synonymous with the collegiate level. This erroneously implies different strata of courses, each representing a more sophisticated, more difficult, more academically involved curriculum, and thus wrongly suggests that only students of specified qualification and preparation may enter the higher strata of curriculums. If education is to survive and serve the new age, the new society, the new technologies, and the new breed of man, then old rigidities must be abolished, and the focus in education must turn from the program to the student. Post-secondary education, therefore, ought to be regarded as an age level, not a program level; it is best directed toward clientele in the community that it serves, rather than to a chosen educational level. In this way, postsecondary, adult, and continuing education are responsible for shaping their offerings to serve individuals who cannot be served in any other way. (1972, pp. 12-13)

This definition of post-secondary vocational-technical education lends support to the continuation of vocational programs in the VTI's in which adequate numbers of applications are received. However, should the applicants to the post-secondary programs reflect a significant portion of those who have already completed secondary vocational education in the same area, a duplication of effort would appear to exist. This does not seem to be the case as the proportion of VTI students who graduated from a secondary-vocational school in the same occupational area was reported by the Bureau of
Vocational Education in 1976 to be less than 5%.

The 102nd Legislature viewed the secondary and post-secondary education systems in a different manner. In the preamble to the enabling legislation for the first secondary technical vocational center, it was noted that there were four post-secondary vocational-technical institutes with no secondary centers yet established. It further stated that "until the State or local communities establish regional-vocational centers as feeders, only then can we expect the post-secondary vocational schools to do the job intended" (Maine Private and Special Law, 1965, Chapter 195). With less than 5% of the students coming from secondary vocational centers, the "feeder" concept does not appear to be in place, nor has it been established as a desirable continuum.

The recommendation to the Governor and Legislature of the State of Maine in 1967 to merge all public post-secondary educational institutions and form THE UNIVERSITY OF THE STATE OF MAINE has had far reaching and continued effects on public higher education in Maine. The merger in 1968 of the University of Maine, Orono and the five State Teachers Colleges was to include also the four campuses of the Maine Vocational Technical Institutes and the Maine Maritime Academy. At that time, the strength of two-year post-secondary vocational-technical educational opportunities rested with the VTI system.

The recommendations of the Advisory Commission for the Higher Education Study (1967) to implement the master plan of THE UNIVERSITY OF THE STATE OF MAINE included strong and immediate action to increase educational opportunities at the less-than-baccalaureate level.
Underlying this recommendation was the assumption that all of the existing public post-secondary institutions would become a part of the "super university". This assumption proved invalid as the Legislature did not include the VTI's in the merger.

Subsequent action in 1968 by the newly appointed Board of Trustees for the expanded University of Maine, however, reflected adoption of the recommendations included in the Coles Report pertaining to two-year program development without regard for the lack of incorporation of the VTI's. One year later, the Progress Report of the HEP Commission (1969) appointed by the Chancellor of the University of Maine contained basically the same recommendations for merger as the Coles Report. This resulted in the same types of recommendations of implementation and expansion for two-year programs. Again, the administrative unit was to be the University based upon the assumption that the VTI's would be merged with the University of Maine within two years.

Public hearings held following the release of the Progress Report of the HEP Commission (1969) contributed to the rejection of the recommendation to merge the VTI's and the University system. Studies since 1969 have recommended firmer and sounder cooperative relationships between the VTI's and the University to provide maximum opportunities in public post-secondary education for State of Maine citizens.

The commitment made by the University Board of Trustees in a resolution of December, 1969 for an orderly plan of development for one-year and two-year programs to be offered by the University in a statewide system of community colleges appears to have formalized the
existing conflict of institutional mission. Although joint agreements and reaffirmations of joint planning by both the University of Maine Trustees and the State Board of Education have been made as late as April, 1975, there continues to be a lack of resolution as to the separate and distinct missions of the two institutions. The narrow and specialized mission committed to and practiced by the Vocational Technical Institutes and the broad community college concept envisioned and being implemented by the University of Maine leads to overlapping functions similar to those illustrated in Figure VII-1 by the community college and the vocational-technical school. Although the rhetorical approach to cooperation and coordination appears satisfactory, in practice, conflict, frustration, and lack of resolution plague those at the campus administrative level in both the University of Maine and the VTI system.

The six VTI campuses, though created over an extended period of 24 years, reflect a continuity of purpose and mission safeguarded by the Bureau of Vocational Education and the State Board of Education over their 31 year history. The philosophy, objectives, and curricula of the Vocational Technical Institutes have remained quite similar with the exclusive difference of the three associate degree granting campuses -- EMVTI, NMVTI, and SMVTI. The other three campuses -- CMVTI, KVVTI, and WCVTI -- remain more vocationally oriented with emphasis on one-year and shorter term educational programs.

Financial problems are a continual concern of those in education. The VTI's in their early development enjoyed riding a crest of relatively
inexpensive growth in terms of total State dollars appropriated for their expansion. Increases in the State appropriated budget from $2,764,681 in 1970 to $6,410,946 in 1977 reflecting a State dollar growth of 132%, changed the perspective with which the budget requests by the VTI's were viewed. Considerations for inflation based on the Consumer Price Index would reflect an increase of only 40-45 percent during this period between 1970 and 1977. Concurrently, the percentage of appropriations in the three categories of personnel, all other, and capital in 1970 and 1977 as shown in Table VII-1, indicate a questionable shift in categorical allocations. Appropriations for capital decreased to the almost non-existent level of 0.6%. Personnel appropriations increased to over 70% of the total appropriation compared to the 58.6% in 1970. A continued trend such as this in vocational technical institutes could result in curtailment of programs or the inability to provide adequate laboratory experiences necessary to develop technical competence required of VTI graduates.

Table VII-1. Percentage of appropriations for all VTI's in personnel, all other, and capital categories for 1970 and 1977

<table>
<thead>
<tr>
<th>Category</th>
<th>1970</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>58.6%</td>
<td>70.6%</td>
</tr>
<tr>
<td>All Other</td>
<td>32.6%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Capital</td>
<td>8.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
The 132% appropriation increase from 1970 to 1977 compares to a 95% enrollment increase over the same period from 1549 to 3025 students. Placement percentages reported for 1972 through 1975 reveal that more than 90% of those available for work were working. Between 70% and 80% of the graduates reported that they were working in their field or a related field (MACVE, 1977, p. 34). This placement record and the number of applicants who are not accepted at the VTI's suggest that expansion over the past ten years has not been adequate to meet the State's needs. The application activity for the VTI's in 1975, 1976, and 1977 shown in Table VII-2 reveals that over 48% of those applying each of these three years have not been admitted (MACVE, 1977, p. 33). As the reason for non-admittance reported by all institutions is lack of space, it appears that inadequate opportunities are provided in vocational-technical education at the post-secondary level.

Table VII-2. Applications received and accepted for 1975, 1976, and 1977

<table>
<thead>
<tr>
<th>Year</th>
<th>Applications Received</th>
<th>Applications Accepted</th>
<th>Per Cent Not Admitted</th>
<th>Per Cent Increase 1975-1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>3785</td>
<td>1797</td>
<td>52.5</td>
<td>12.4</td>
</tr>
<tr>
<td>1976</td>
<td>4007</td>
<td>2082</td>
<td>48.0</td>
<td>16.8</td>
</tr>
<tr>
<td>1977</td>
<td>4422</td>
<td>2019</td>
<td>54.3</td>
<td>3.4</td>
</tr>
</tbody>
</table>

The trend towards less-than-baccalaureate career or occupational education in the last few years is reflected in the VTI's by the
increase in applications from 1975 to 1977 of 16.8%. The percentage of applications accepted, however, increased by only 12.4% resulting in an increasing number of applicants being denied access to the VTI's. Here again, it appears that VTI growth, though impressive, has not kept pace with demand.

Of increasing significance in each of the VTI's is the Adult Education Division serving Maine citizens in upgrading, retraining, apprenticeship training, and vocational training. Adult education courses are offered on campus or in-plant. Many are designed specifically for industrial needs. Each VTI has a director of adult education. The majority of funds for supportive staff and operating expenses are provided by income from tuition and fees. This division is the only fiscal program in each of the VTI's with a dedicated revenue operation. This funding feature allows for growth, flexibility, and versatility quite evidently not available in the regular general funded programs in which all tuitions and fees generated are returned to the general fund.

Fall semester Adult Division registrations in 1971-72 totaled 2495 students and had increased in 1975-76 to 6343. This growth represented an increase of 154%. Full-time enrollment in the Day Division over the same period increased at a rate less than half that of the Adult Division with a 60% increase from 1981 students to 3176. Increased interest of the adult student to pursue post-secondary education would indicate that this trend will continue.

The state-wide VTI system appears to have evolved more from the
direction provided by the political process rather than from analytical and systematic educational planning. Although the State Board of Education and the Bureau of Vocational Education have clearly supported the VTI's in their establishment and development, there is insufficient evidence of progressive leadership directed to planned growth and expansion of the VTI system.

The years between 1970 and 1975, when appropriations favored the VTI's more generously, did not appear to test leadership capabilities of the State Board of Education or the Commissioner of Education. Since 1975, however, it appears that the regulatory authority vested in the Department of Educational and Cultural Services and the State Board of Education is undergoing some pragmatic interpretation. Pertinent to this attitude is the increased action taken by the State Board and the Commissioner.

The Annual Report, Maine State Government, 1975-76, in the section covering the Department's authority and responsibility states that:

The powers of the Board were further diminished in State Government reorganization of 1971 when the Department of Education became the Department of Educational and Cultural Resources and the authority to appoint the Commissioner was transferred from the Board to the Governor. . . .

The role of the Board was changed to be advisory to the Commissioner of Educational and Cultural Services in 1973. (p. 278)

There was no mention in this section of the Board's authority to establish, maintain, and operate vocational technical institutes.

The write-up on the State Board of Education, however, reflects a varying perspective in that the Board is viewed to serve in an advisory capacity to the Commissioner "in matters concerning State
laws relating to education" (p. 306). The Annual Report further states:

In addition, the Board is delegated specific powers . . . to establish, maintain and operate State technical and vocational institutes and schools of practical nursing. (p. 306)

The authors representing these two points of view were listed as the Commissioner and State Board Chairman. These contrary perceptions of responsibility which continue to surface as late as April, 1977, appear to be testing the authority role, and, subsequently the leadership role of the Commissioner and the State Board of Education. This internal conflict is generating concerns for VTI administrators and faculty regarding the immediate and long range future of the VTI's.

Conclusions

The conclusions drawn as a result of the review and interpretation of the 31-year history of the Maine Vocational Technical Institutes are focused on the "questions of the study" as they appear on page 11.

1. What legislative acts and executive orders established each of the vocational technical institutes?

Southern Maine Vocational Technical Institute was established by executive order in 1946 in Augusta and was later relocated in South Portland. NMVTI in Presque Isle, CMVTI in Auburn, and EMVTI in Bangor were established by separate legislative acts directing the Department of Education to purchase land and establish an institute. WCVTI in Calais was authorized through legislation for a bond issue which included a "new building" for a VTI in Washington County. KVVTI in Waterville was established through legislation directing the Department of Education to operate a VTI under contract with the Waterville School Board in space to be provided by the newly constructed secondary vocational center.

2. Did the enabling legislation establishing each of the vocational technical institutes reflect a consistency in the mission with existing VTI's?
The enabling legislation for each of the VTI's established after 1947 reflects a mission consistent with the authorizing legislation in 1947 which amended the Revised Statutes, Chapter 37. The Revised Statutes state that the "Board shall have the authority to establish, maintain, and operate state technical and vocational institutes to promote specialized training . . . for persons who give evidence of special aptitude or need and desire specialized training . . . for service in trade, industry, or commerce (Maine Public Law, 1947, Chapter 382).

3. What was the developmental pattern of funding, staffing, curriculum, and enrollment of the Maine Vocational Technical Institutes?

Funding for the VTI's increased 1100% between 1964 and 1977 from less than $600,000 to over $6,000,000 annually. The individual campus appropriations increased within the range of 75% to 176% over this same period.

Staffing patterns reviewed and compared for the years 1971-72 and 1975-76 revealed an increase in the total number of personnel of 36%. This included the categories of instructional, administrative, office, custodial, and food service/dormitory personnel. Instructional staff increased by 29% over this period.

Curricula in the VTI's have remained quite similar at all campuses with the exception of the three degree granting campuses -- EMVTI, NMVTI, and SMVTI. The other three campuses remain more vocationally oriented with emphasis on one-year and shorter term educational programs. All six campuses offer the awards of diploma and certificate. Contact hours in the skill-oriented laboratory curricula are in excess of 240 clock-hours per semester in the vocational/technical courses. General education and related education courses increase the clock-hour contact by a minimum of 160 hours per semester to total 400 hours per semester as a minimum in a majority of the programs.

Enrollment in the VTI system increased 560% between 1964 and 1977 from 458 to 3025 full-time students. Between 1971-72 and 1975-76, enrollment increased 37% while the instructional staff increased a similar amount by 29%. The resulting faculty/student ratio was 1:12 which is close to the national average of 1:13. Adult education enrollments in the predominantly evening programs increased by 148% over this same five-year period.
4. Do the curricula at each of the VTI's reflect missions and goals consistent with the vocational-technical education? 

The curricula at the VTI's represent a mission consistent with the national definitions of vocational and technical education as defined on pages 13 and 14. The "training objectives" represented by the VTI's is also consistent with the concept of the vocational-technical school mission visualized in Figure VII-1 on page 169 which ranges from the skilled craftsman to the engineering technician.

5. Have the missions and goals of the Maine Vocational Technical Institutes been affected by external educational reports which have implicitly or explicitly included consideration for the Institutes?

The mission and goals of the VTI's do not appear to have been affected by the various external reports since 1966 which, in a majority of them, recommended and assumed that a merger would take place between the VTI's and the University of Maine. There is, however, deliberate and structured coordination of effort and activity between the VTI's and the University while maintaining their separate missions in higher education in Maine.

6. Does the mission of the University of Maine reflect efforts in the development of less-than-baccalaureate programs?

The mission of the University of Maine does reflect a strong commitment to less-than-baccalaureate education. Many of the study recommendations reported in Chapter VI have been implemented including a policy by the Trustees to establish a state-wide system of community colleges and/or services. The high priority placed on the development of two-year programs resulted in the Board of Trustees and the State Board of Education forming a joint committee in 1970 to review all program planning prior to approval by either body.

Recommendations

The review of the 31-year history of the Maine Vocational Technical Institutes leads to the following broad recommendations:

1. Records of historical significance should be maintained in a systematic manner at each of the Vocational Technical Institutes.
2. The goals for a master plan reported in the Flesher Report (1962) relating to TECHNICAL EDUCATION CENTERS should be reviewed and reassessed for their applicability to the 1980's.

3. The progress of the Vocational Technical Institutes should be determined, analyzed, and evaluated in respect to the post-secondary vocational-technical goals stated in the Flesher Report in 1962.

4. Actions by the University of Maine based upon various study recommendations which assumed a merger of the VTI's with the University should be reviewed with the purpose of stating the commitment of the VTI's to post-secondary less-than-baccalaureate education.

5. An administrative Council consisting of the Directors of the Vocational Technical Institutes should be formed to act as the administrative-policy group to serve in an advisory capacity to the State Board of Education relative to matters concerning the Maine Vocational Technical Institutes.

6. Administrative policies regulating the Vocational Technical Institutes should be reviewed, updated, and expanded to meet the present needs of the total VTI system.

7. The authority of the State Board of Education to establish, maintain, and operate the Vocational Technical Institutes must be reaffirmed with a purpose of renewed leadership to promote growth, to increase quality, and to seek adequate funding.

8. Clearly stated and articulated missions of the secondary vocational schools, the VTI's and the University of Maine should be developed.

9. The State Board of Education should sponsor a legislative resolve for the establishment of an Advisory Commission for the Study of Less-than-Baccalaureate Education with the charge to develop a master plan for public post-secondary vocational-technical education. This Commission, in addition to providing direction for long range planning efforts of the Maine Vocational Technical Institutes, should investigate the coordination and/or structured relationships with regard to the University of Maine.
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Through my darling wife's prayers, I have Him to thank.

Moose Pond
Bridgton, Maine
June 23, 1977
APPENDIX. RECOMMENDATIONS FOR VOCATIONAL-TECHNICAL EDUCATION BY FLESHER, FLESHER, REESE & SPRING (1962)
Special Needs of the Maine Vocational-Technical Institute

The Survey Staff has already made in this report recommendations of a rather general nature concerning MVTI as a basic component of Maine's plans for improving post-high school vocational-technical education. With regard to a more specific approach to improving MVTI, IT IS RECOMMENDED:

1. That an Advisory Council, similar to that recently appointed for the Northeastern Maine Vocational Institute, be appointed for Maine Vocational-Technical Institute; that the Council be formally organized with officers, by-laws, regular meeting dates, terms of appointment, etc.; that at least the following committees be appointed within the Council: Budget and Finance, Curriculum, Buildings and Grounds, Personnel Services, and Public Relations and Placement; that regular attendance be expected of the members, and that members who show lack of interest be replaced; and that arrangements be made to pay the expenses of members for attending meetings.

2. That Advisory Committees be appointed for each curriculum; that these committees be composed of representatives of industry, labor, and business (including employers of graduates); that appointments be made by the Chief of the Bureau of Vocational Education on the basis of recommendations made by the administrative and instructional staff of the Institute; that these Committees meet at least twice each year; that the functions of these committees be to advise the staff concerning training needs, to assist in determining course content and allocating time to individual courses, to make recommendations concerning facilities and equipment, to assist in making known to the public the services provided by the Institute, and to assist in the placement of graduates; and that committee members who do not attend meetings regularly be replaced.

3. That serious consideration be given at once to the reduction of the student work week to not more than 30 hours in the interest of improving the educational program by placing greater responsibility upon the student for his own training, reducing the teaching load of the instructional staff to bring it more into line with that of other post-high school institutions within the State, making it possible to increase enrollment within the present facilities, and making more effective use of laboratories and shops by using them longer hours, provided enrollment is increased.

4. That steps be taken as soon as possible to provide an adequate library facility that will contain a substantial, varied, and
carefully selected assortment of textbooks, reference books, and materials pertinent to each curriculum and subject matter area as well as such other books and materials as should be contained in an adequate professional library; provide subscriptions to a variety of periodicals and publications and in sufficient numbers to meet curriculum requirements (100 to 150 different magazines and periodicals); provide study areas adequate in space and conducive to good study habits; and be served by a competent professional library staff sufficient in number to provide professional library service and to keep the library open during day and evening hours throughout the week.

5. That the chief executive of MVTI be designated as Director rather than as Principal; and that additional supervisory personnel be supplied to MVTI: a Dean of Students as soon as possible, other personnel as enrollment increases, and especially a supervisor of adult and extension education.

6. That consideration be given to the establishment of academic rank, with differences in salary between ranks, in the interest of designating curriculum heads with responsibility for effective operation, subject area heads with responsibility for related and general subjects, and with provisions for encouraging self-improvement through merit raises based upon excellence of instruction and/or earned degrees.

7. That the organization as shown in Figure 4.4 serve as guidelines in improving the organization of MVTI and other Technical Education Centers as parts of the State's Master Plan for vocational-technical education.

8. That the curriculum title, Industrial Electricity, be changed to Electrical Technology as more truly descriptive of its level of content; and that, under the new name, applications be made for Title VIII funds.

9. That the new Electrical Technology (Industrial Electricity) curriculum be combined with Electronics Technology, having the first year in common and with options of specialization the second year.

10. That a two-track curriculum system be adopted whenever and wherever feasible as registration warrants, with trade and technical curriculums being operated in the same occupational area as follows:
Automotive Technology (Trade)  
Building Construction (Trade) - Construction Technology (Technical)  
Electricity (Trade) - Electrical Technology with Options, Technical  
Machine Tool Technology (Trade) - Mechanical Technology, Technical  
- Marine Technology, Technical  
Oil Burner Heating (Trade) - Instrumentation (Technical)  

11. That, with the assistance of curriculum advisory committees, up-to-date course outlines be prepared, concerning course content and subjects to be taught, with the time to be allotted to each; and that proper course titles be assigned to each course; e.g., mathematics should be described as mathematics; strength of materials as strength of materials, etc.

12. That the WTI catalog be improved to the point where it describes more effectively the services provided by the Institute.

13. That consideration be given in the near future to the establishment at WTI of a strength of materials laboratory, with adequate equipment to support all curriculums.

14. That a study be made in the interest of utilizing the feeding services at the Institute for practical on-the-job training for the students in the Culinary Arts curriculum.

15. That consideration be given to offering the following curriculums for whose graduates Maine industries should have urgent need: Chemical Technology (with emphasis on paper, leather, etc.), Printing (Newspaper and publishing industries), Industrial Technology (Quality Control, Time and Motion Study, Manufacturing Processes), Construction Technology (Highway Construction, Structural Design, Architectural Drafting, Estimating, Surveying), Mechanical Technology (Tool and Die Design, Machine Design, Production Processes), Instrumentation (All manufacturing industries), and Radio and T-V Service and Repair.

16. That for a potential capacity of from 750 to 1,000 students, as recommended earlier for WTI, needed additional building space and reconstruction of present structures be provided.

17. That any request of WTI for accreditation by ECPD be deferred until library facilities are available, course outlines are
brought up to date and are complete, and some of the growing pains have subsided.

18. That the same kind of approach be made to WTI for State accreditation as is made to other State accredited institutions in Maine.

19. That everything possible be done to maintain the high morale, the dedication to teaching, and the interest in students and their success so evident now among administration and instructional staff at the Institute.

20. That an adult education program be developed at the Institute to serve out-of-school youth and employed adults, and that special attention be given to cooperation with industry in the development of special programs for employees.

21. That girls be encouraged to enroll although the campus is not very well suited to accommodate both boys and girls.

22. That although the new practical nurse program in the Portland area is not being operated on the WTI campus, it be administered as a part of the WTI educational program.

3As an example: department Head, senior instructor, instructor, junior instructor, technical assistant.

4The new curriculum would be Electrical Technology, with second year option in Power or Electronics. Combining the two curriculums, with common courses during the first year, would make for more flexibility in scheduling and should not interfere with the quality of the program.

5In a system of this kind provisions can be made for transfer between the two levels in terms of interest and ability of students. In addition, it would make possible the acceptance of more of the students who apply. Since they are high school graduates, most of them should be acceptable in one of the two tracks.

6Sample course outlines may be secured from sources supplied by the Office of Education or from institutions having similar courses.
Special Needs of the Northeastern Maine Vocational Institute

As in the case of NVTI, The Survey Staff early in its recommendations made rather general proposals regarding the school just being started at Presque Isle in order to establish its relationship in the total plan for post-high school education in the vocational and technical fields. In order to provide for the more specific needs of NVTI, IT IS RECOMMENDED:

1. That expert advice be secured before reconstruction of the Presque Isle facility is started in the interest of not "overstocking" the facility with one or two classrooms for every shop and laboratory when they will be used only a fraction of the school day and also in the interest of flexibility, with different sized classrooms for different purposes - some provided with visual aids and lightproof shades and others large enough to hold more than one class.

2. That, since a library is essential to an institution of this kind and since there are several areas which are spacious, attractive, and admirably suited to this purpose, the library area be selected immediately and plans be made for equipping and stocking it concurrently with the opening of the institution for boarding students.

3. That since business has been selected as one of the offerings at NVTI, specialties within the field be considered, such as medical secretary, which could share the use of the clinical facilities used by the Practical Nursing curriculum, and legal secretary; that the assistance of the State Medical Association and the State Bar Association be sought in determining the need for such specialties; and that the need in the State for electronic data processing be assessed, with the possibility of including training for this work in the program of NVTI.

4. That consideration be given to the establishment at NVTI of a Food Service Administration course, integrated with the feeding services of the institution, and that this curriculum be considered different from Culinary Arts in that it trains supervisors and managers, not cooks and bakers, and in other states appeals to young women who, through the training, become assistant dietitians in hospitals and school cafeteria managers.

5. That curriculums, such as Dental Assisting and/or Dental Hygiene which offer services to the dental profession be considered if and when a survey of need mandates their inclusion, and that the assistance of the State Dental Association be
sought in determining need.

6. That a careful survey of the need for a curriculum in Agriculture at NMVI be made.

7. That special consideration be given to the establishment of curriculums that will attract girls since this institution is better equipped for coeducational housing than at MVTI.

8. That the Principal of NMVI be provided with an Assistant, experienced in the development of vocational education, to help with publicity, development of course materials, catalogs, selection of staff, etc.

9. That course outlines be requested from institutions offering similar courses, from the U. S. Office Education, etc. so that valuable source material will be available when course outlines are developed.

10. That curriculum Advisory Committees similar to those recommended earlier in this report for MVTI be appointed to assist in the same manner as recommended for that center.

11. That a system of faculty rank be provided.

12. That serious study be given to scheduling to provide effective use of the physical facilities at NMVI.

13. That the student work week not exceed 30 hours, and that the student be expected to do a considerable amount of home assignments.

14. That the Advisory Council recently appointed be organized in the same manner as that recommended earlier in this report for MVTI.

7If partitioning for classrooms were held to a minimum, additional partitions and other interior remodeling, as experience in use dictated the need, could be 'live' work for the Building Trade students. The instructors in Automechanics and in Building Trades at MVTI could give advice, but even at MVTI classrooms are attached to each shop, with resulting fractional use.
High School Vocational Education

The recommendations to this point in Section 4 have dealt primarily with post-high school vocational-technical education, which was the major critical problem for which the assistance of SCHOOL SURVEY SERVICE was sought. There is, however, an important relationship between the vocational programs of the high schools and the vocational-technical programs of the Technical Education Centers recommended earlier in this report, for these two types of programs should serve a complementary and supporting rather than a competitive, function.

The Survey Staff's recommendations for high school vocational education are made in the light of the observed effort, experience, and educational philosophy which characterize public secondary education in Maine. For the programs of vocational education in the high schools of Maine, therefore, IT IS RECOMMENDED:

1. That the high schools of Maine make no effort to provide the necessary quality vocational education for the highly skilled trade, industrial, and technical occupations such as machinist, printer, automechanic, sheet metal worker, draftsman, or technician of any type.

2. That the home economics vocational education programs in the high schools be continued and strengthened to the end that a much larger per cent of girls may graduate with a maximum of homemaking skills and knowledge and understanding of home and family living.

3. That high schools establish or continue and strengthen their vocational agriculture in schools having an adequate number of farm boys who desire to prepare for agricultural pursuits.

4. That schools now attempting to operate trade and industrial education programs continue to operate such programs wherever housing, equipment, and instructional supplies budgets are adequate, but that they be operated as "general industrial or occupational" (normally called Type B) programs of a semi-skilled and operator level for the quality student now enrolled; that each high school trade and industrial education program be re-evaluated in terms of the above proposed conditions, and that those which fail to improve adequately their programs be dropped as approved occupational programs; that reimbursement from State and Federal vocational funds be reduced to not more than 25 per cent of the portion of the instructor's salary chargeable to the program; and that those schools which cannot improve their programs to meet adequate minimum standards continue the courses as industrial arts.
(general education) for exploratory, consumer, avocational, and general education values.

5. That high schools in communities of 5,000 or more population, and other schools wherever possible, initiate, with proper safeguards, standards, space, and qualified teacher coordinators, diversified (part-time) cooperative programs of vocational education; that organized pre-service and in-service teacher training program for coordinators precede expansion of this type of program; that reimbursement from State and Federal vocational funds be not more than 30 per cent of that portion of the coordinator's salary chargeable to the program; that a minimum of 12 and a maximum of 24 students be established for eligibility for reimbursement; and that no program be approved for reimbursement until a functioning advisory committee is formed and is scheduled to meet a minimum of two times each year.

6. That no vocational trade and industrial education program, either occupational or cooperative, be undertaken by any local school until it has shown that potential student enrollment and interest are adequate to support the program, job opportunities in the service area of the school indicate the need for particular types of training, the school district is able and willing to support financially the classes, members of the policy making board and the school administration of the district involved are sympathetic, interested, and willing to establish a favorable climate for quality vocational instruction, the school staff has been apprised of plans and are sympathetic to the vocational program, local employers will cooperate in the development of the program, parents understand the objectives of the program and are interested in its special education services, skilled journeymen and other employees in the community will support the program, that the educational philosophy of the school recognizes the contribution vocational courses can make to the total educational program of the community, and all individuals, groups, and agencies involved insist on a quality program's being organized and operated.

7. That high schools not now offering vocational distributive education courses be encouraged to do so as outlined in Recommendation 6 above.

8. That high schools strengthen their business education (office occupations) programs by reorganizing them in line with recommendations of a local advisory committee composed of selected employers and potential employers of graduates.
9. That high school districts become "satellite", or extensions, of the proposed Technical Education Centers for purposes of extension courses for skilled, technical, and supervisory personnel; that space for the extension courses be provided by the local school at no cost, with the possible exception of custodial service when essential; and that all other costs, program organization, teaching staff, and supervision be the responsibility of the TEC. (pp. 74-81)

This type of program has proved to be, with proper organization and coordination, a very economical method of preparing noncollege-bound high school youth for successful employment in both distributive occupations and trade and industrial occupations of the semi-skilled and service type.