

**VOCATIONAL/TECHNICAL EDUCATION
AND
KANSAS ECONOMIC DEVELOPMENT**

A Research Report
prepared for

The Kansas Council on Vocational Education

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PREFACE

Federal law mandates that each state conduct a biennial evaluation of its vocational education delivery system in order to receive funds under the Job Training Partnership Act (JTPA). In response to this mandate and to other interests of Kansas policymakers, the 1986 Kansas Legislature requested the Kansas Council on Vocational Education to produce an evaluation of the state's system of vocational/technical education, with special emphasis on the system's linkage to Kansas economic development priorities. The analysis and recommendations that follow, which were prepared by the Institute for Public Policy and Business Research at the University of Kansas, constitute the research component of the Council's evaluation.

The research task defined by the Council included the following objectives:

- to assess the extent to which vocational education currently contributes to economic development in Kansas and to identify factors that limit the role of vocational education in this area;
- to assess the coordination between the Job Training Partnership Act and the Department of Education's Vocational Education Programs with respect to the 8 percent set-aside funds, including an identification of the extent to which coordination currently exists and the extent to which barriers to present and future coordination exist; and
- to develop recommendations to the Kansas Council on Vocational Education for vocational education concerning ways to a) strengthen coordination with JTPA on the 8 percent funds and b) strengthen vocational education's contributions to Kansas economic development.

Three strategies comprised the research methodology for this study. The first involved data analysis and a review of the literature on contemporary trends affecting the U.S. labor market. Data analyses included examinations of: 1) Kansas industry and its labor force; 2) demographic patterns and occupational projections for Kansas and the nation; and 3) vocational education trends in Kansas, especially those regarding courses, programs, funding, placement, enrollment, and expenditures.

The second research strategy involved a comparison of the Kansas vocational education delivery system with those of other states. Of special interest were examples of: 1) incentives for improved delivery; 2) the business/education collaborative linkage; and 3) the articulation of statewide interests in the policies and operational goals of vocational education.

The third research strategy involved personal interviews with business, political, and educational leaders throughout the state. Among those interviewed were 13 directors of area vocational/technical schools, 16 presidents of community colleges, and 19 representatives from Kansas industry. The research team also interviewed leaders from Kansas Technical Institute, Pittsburg State University, the Kansas legislature, the Kansas Council on Vocational Education, and the Departments of Education, Commerce, and Human Resources. Those interviewed identified issues and problems that affect vocational/technical education in Kansas and offered their suggestions for strengthening the state's education system. Summaries of these interviews are provided in Appendix A of the attached report.

The principle interests of the research study include the following:

- 1) an examination of the challenges for vocational/technical education, especially its linkages with economic development priorities;
- 2) analysis of the issues for the Kansas policy agenda, including the business/education partnership and linkages with JTPA objectives; and
- 3) recommendations for the consideration of Kansas policymakers to strengthen the Kansas system of vocational/educational education.

Our overriding objective throughout was to consider the role of vocational/technical education in the Kansas economic development strategy. A comprehensive state strategy is composed of three major policy priorities: the availability of technology, financial capital, and a highly skilled work force. Other economic development initiatives in Kansas have already addressed the finance and technology objectives. This report examines the importance of the state's labor force--its human capital--to the competitive position of Kansas industry and the Kansas economy in global markets. The principal force in the development of the state's human capital is the Kansas Vocational/Technical Education System. As such, it deserves the considered attention of policymakers regarding a role in economic development that is at once visible, dynamic and appropriate to its educational mission.

The authors gratefully acknowledge the assistance and cooperation offered by all those who participated in this study, especially the AVTS directors, community college presidents, and business representatives who gave their time to answer our questions. Special thanks go to Dr. David DePue and members of the Kansas Council on Vocational Education, Dr. Fred Gainous and his staff at the Department of Education, Representative Sandy Duncan of the House Appropriations Committee, Mr. Steve Jack of the Department of Commerce, and the research staff of the Kansas Legislature.

Although we thoughtfully considered the opinions and suggestions of all those who participated in the interviews for our research, the authors are solely responsible for the analysis and recommendations offered in this report.

A quarter-century ago, companies looked for cheap labor, cheap power, and good transportation. Physical infrastructure was the key. Today, companies look for educated workers, excellent universities, entrepreneurial climates, and an attractive quality of life. Good roads and airports are still important, but intellectual infrastructure is the key.

David Osborne
The New Role Models, 1987

EXECUTIVE SUMMARY

Vocational/technical education in Kansas faces a challenging future.

In the past, when the state's industries were characterized by low-skill jobs and stable, mass-manufacture technologies, the vocational educational system served those industries well by providing them with workers trained for lifetime vocations. The system, however, is being forced to respond to three major trends that affect the Kansas economy: radical changes in production technologies, demographic shifts that reduce the size of the nation's labor force, and the impact of international competition on industry at state and local levels. In order for the Kansas education system to continue its service to Kansas industry, it must be positioned to quickly and efficiently adapt to these trends. This can be accomplished through coherent state-level policy and through an effective linkage with other economic development priorities.

The standardized, assembly-line, mass-manufacture production process is no longer the recognized symbol of industry in the United States or the world. Instead, companies must be poised to effectively manage rapid changes in equipment, technologies, and the demand for labor skills. Low-skill jobs are fast becoming obsolete; the work force must be highly skilled and highly adaptable to rapid technological change in order for its employers to remain competitive in international arenas. New-process production technologies will increasingly demand an upgrading of both general and specialized technical skills throughout a worker's productive worklife in order to maintain employment.

The demographic profile of the United States and Kansas also is changing, and these population shifts will affect how industry uses its labor force. In particular, population growth rates are decreasing for both the nation and the state. As the number of youthful entrants to the Kansas labor force decreases, competition for entry-level workers will greatly intensify. And industry will devote more resources to the retraining of older workers, to the recruitment and training of more workers from nontraditional labor sources, and to the location of business operations in states and communities that offer a high-quality work force and an efficient, quick-delivery training system.

Kansas is now developing an economic development strategy that will require more of its vocational/technical education system in order to meet the state's development objectives. In particular, the system's education and training focus must be directed to producing the highly skilled labor force that will help the state remain competitive and increase its capacity for economic growth. To do so, the Kansas education system must expose the work force to a strong educational background in general technical disciplines and must provide industry with an efficient training system to adapt its workers to swift and radical changes in production technologies.

Vocational/technical education, therefore, is critical to the success of a state program of economic development, and the education system can assume a major role in the successful implementation of the human capital component of a comprehensive economic development strategy. Previous policy

initiatives in Kansas have already addressed the other components of that strategy; the availability of technology and financial capital. How well Kansas is positioned to develop the state's human capital into a skilled and adaptable labor force is the subject of this report.

Kansas already ranks higher than the national average on such indicators as work force quality, quality of educational institutions, and the use of education and training institutions. Per pupil expenditures in grades K-12 and the combined percentage of the 16-to-24-year-old age group attending vocational schools and other institutions of higher education also rate better than national averages. Because its labor force constitutes its principal competitive advantage, Kansas cannot afford to lessen its commitment to the state's education system, and should, in fact, consider the merits of enlarging that commitment especially to the vocational/technical component of the system.

The long-term interests of Kansas and its citizens can best be served by a system of vocational/technical education that consistently offers an adaptable labor force of high quality to the state's industries. At present, however, vocational/technical institutions in Kansas operate primarily from the perspective of service to local markets; there are few incentives for those institutions to activate the state's interests in a longer-term perspective that calls for greater coordination and a more efficient use of available resources.

The articulation of a state-level educational mission and the integration of educational priorities with state-level development strategies should be important objectives for Kansas policymakers. This can be accomplished more readily through statewide coordination of vocational/technical education institutions and through the regional delivery of education and training programs. Any movement toward a coordinated statewide system, however, will advance an evolutionary trend away from the many autonomous local units which now exist in Kansas. This constitutes a major policy statement for Kansas, with implications for who pays for the system: an integrated system implies greater state sponsorship and a more equalized base of citizen support.

Within this context, then, we offer the analysis and recommendations that follow. They are made with the expectation that they will initiate policy discussions concerning vocational/technical education and with the hope that they will contribute to the state's commitment to the development of a highly skilled labor force in Kansas.

RECOMMENDATIONS FOR THE
KANSAS SYSTEM OF VOCATIONAL/TECHNICAL EDUCATION

A. Linkages

1. RELATIONS WITH THE BUSINESS COMMUNITY

Recommendation 1: Strengthen the service linkage between Kansas Industry and the state's vocational/technical education institutions.

Recommendation 1.A: Establish AREA BUSINESS DEVELOPMENT CENTERS at each post-secondary institution of the vocational/technical education system to deliver public information and to market customized training programs to businesses located within its designated service area.

Recommendation 1.B: Establish a BUSINESS TRAINING OFFICE within the Kansas Department of Commerce to market, on a statewide basis, the customized training programs of the Kansas Vocational/Technical Education System and to provide public information about statewide vocational/technical education and training opportunities to Kansas industry.

2. MARKETING AND PUBLIC INFORMATION

Recommendation 2: Implement a comprehensive PUBLIC INFORMATION AND MARKETING PROGRAM for vocational/technical careers and educational opportunities in Kansas.

Recommendation 2.A: Deliver promotions that would:

- a. enhance the image of vocational/technical careers;
- b. encourage enrollment at the state's vocational/technical education institutions;
- c. endorse the value of basic education skills in vocational/technical careers; and
- d. encourage the support of Kansas industry for the state's Vocational/Technical Education System.

Recommendation 2.B: Institute a DATABASE FOR KANSAS CAREERS to provide statewide access to information about:

- a. vocational/technical careers in Kansas;
- b. labor market and job opportunity trends in Kansas and the nation; and
- c. the program offerings of the Kansas Vocational/Technical Education System.

3. INNOVATIVE PROGRAMS

Recommendation 3: Establish innovative programs to facilitate the development of a highly skilled labor force that better serves the skilled-worker needs of Kansas industry.

Recommendation 3.A: Establish the KANSAS INDUSTRIAL RETRAINING PROGRAM to provide state-sponsored customized training to Kansas businesses offering new products or instituting new production processes.

Recommendation 3.B: Establish the KANSAS TRAINING CORPORATION as an organizational link between the Kansas business community and the Kansas Vocational/Technical Training System for the delivery of innovative, high-tech training programs.

Recommendation 3.C: Establish a special fund within the Kansas Training Corporation to provide for the continuing education of instructors in high-technology fields.

4. RETRAINING FUNDS

Recommendation 4: Establish RETRAINING INVESTMENT PROGRAMS, funded through joint employer and employee contributions, in recognition of the need for continual upgrading of the Kansas labor force.

Recommendation 4.A: Establish a KANSAS RETRAINING INSURANCE FUND to assist, on a statewide basis, the retraining efforts of the state's dislocated workers.

Recommendation 4.B: Establish INDIVIDUAL TRAINING ACCOUNTS to finance the continuing education of the state's work force.

5. LINKAGES WITH JTPA

Recommendation 5: Establish a solid linkage between JTPA objectives in Kansas and state economic development priorities by means of customized training programs.

Recommendation 5.A: Designate a percentage of the funds allocated to each JTPA Service Delivery Area for customized training programs to encourage a better linkage between JTPA objectives, employer needs, and the Kansas Vocational/Technical Education System.

Recommendation 5.B: Target a percentage of the funds allocated to each JTPA Service Delivery Area to post-secondary vocational/technical institutions for the education and training of eligible workers to encourage better responsiveness of the Kansas Vocational Technical Education System to employer needs, JTPA objectives, and the state's economic development priorities.

6. COORDINATION WITHIN THE SYSTEM

Recommendation 6: Design a planning and review mechanism for the Kansas Vocational/Technical Education System in recognition of the need for policies that articulate the interests of Kansas from a statewide perspective, and that integrate with the state's overall economic development strategy.

Recommendation 6.A: Define geographic SERVICE AREAS for each post-secondary institution in the System for funding purposes and also to avoid duplication of services and programs.

Recommendation 6.B: Establish DELIVERY REGIONS for the System, and provide incentives for the periodic formulation of REGIONAL PLANS to be prepared cooperatively by all institutions offering vocational/technical education within each region.

Recommendation 6.B.1: Institute CURRICULUM REVIEWS of program offerings within each region and each institution in reference to current statewide labor needs. Assign responsibility for conducting these reviews to an appropriate board of governors.

Recommendation 6.B.2: Establish incentives for systemwide and regional COOPERATION COMPACTS for the shared use of educational resources, such as instructors, facilities and equipment.

B. System Design

7. STRUCTURE

Recommendation 7: Strengthen the delivery of vocational/technical education in the state of Kansas by establishing a more integrated and coordinated system that incorporates statewide interests into a local focus.

Recommendation 7.A: Separate the delivery of vocational/technical education between secondary and post-secondary students. Restructure the state's current Area Vocational/Technical Schools to reflect the separation of secondary and post-secondary delivery components.

Recommendation 7.B: Reorganize the secondary component of current AVTS programs into AREA TECHNICAL CENTERS, to be administered by the school districts, and enlarge the scope of these programs to better serve the evolving needs of all secondary students.

Recommendation 7.B.1: Establish courses in the secondary schools that expose students to the basic principles of technology.

Recommendation 7.B.2: Establish a TECH PREP PROGRAM in the state's secondary schools which links two years of a core preparatory program to selected technical programs at the post-secondary level.

Recommendation 7.C: Join the post-secondary component of current AVTS programs with the vocational/technical offerings of two-year institutions that deliver only postsecondary education. Strengthen the position of vocational/technical education within these institutions, and identify them as the primary providers of basic post-secondary vocational/technical education in the state of Kansas.

Recommendation 7.C.1: In geographic locations where community college and AVTS campuses are located either in the same community or in adjacent counties, incorporate current AVTS post-secondary programs into existing COMMUNITY COLLEGES. This proposal would exclude Wichita because of its large population and extensive industrial base.

Recommendation 7.C.2: In Wichita, Salina, Emporia, Manhattan, and Topeka, where community colleges are not located in near proximity to AVTS facilities, convert current AVTS post-secondary programs into TECHNICAL COLLEGES.

Recommendation 7.C.2.a: Offer both certificate and associates degree programs at the five Technical Colleges. Institute cooperative compacts between Technical Colleges and local Regents institutions or regional community colleges for the delivery of general education courses to satisfy requirements for both types of programs.

Recommendation 7.D: Establish incentives for the cooperative use and management of current AVTS facilities between AREA TECHNICAL CENTERS, COMMUNITY COLLEGES, and TECHNICAL COLLEGES.

Recommendation 7.E: Clearly position Kansas Technical Institute as the state's primary provider of advanced technical education and training programs, particularly engineering technician programs.

Recommendation 7.E.1: Rename the institution the Kansas College of Technology to better reflect its role within the Kansas Vocational/Technical Education System and as a key agent in the state's economic development strategy.

8. MISSION STATEMENTS

Recommendation 8: Establish well-defined missions and clearly articulated operational goals for the Kansas Vocational/Technical Education System and for each component of its educational hierarchy.

Recommendation 8.A: PROPOSED MISSION FOR THE KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM: to provide a comprehensive system of vocational/technical education which seeks to develop human capital as a key strategic resource for the state of Kansas, and which effectively links its two economic constituencies: the state's existing and potential LABOR FORCE and the state's existing and potential BUSINESS.

PROPOSED GOALS FOR THE KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM:

RE: KANSAS LABOR

1. to facilitate career entry and/or enhancement, and
2. to prepare for more advanced educational opportunities.

RE: KANSAS INDUSTRY

1. to provide training and retraining for technical skill development, and
2. to develop the basic communication and analytical competencies necessary for effective job performance.

Recommendation 8.B: PROPOSED MISSION FOR AREA TECHNICAL CENTERS: to provide comprehensive vocational education services to students in the SECONDARY SCHOOLS of a defined service area.

PROPOSED GOALS FOR AREA TECHNICAL CENTERS:

1. to promote career awareness through comprehensive vocational guidance counseling;
2. to complement the basic educational curriculum with career exploration opportunities;
3. to assist in the delivery of courses covering basic principles of technology in preparation for more advanced technical study at institutions of higher education; and
4. to develop basic skills for entry level employment.

Recommendation 8.C: PROPOSED VOCATIONAL/TECHNICAL MISSION FOR COMMUNITY AND TECHNICAL COLLEGES: to provide basic post-secondary vocational/technical education to all communities in a defined service area.

PROPOSED GOALS FOR COMMUNITY AND TECHNICAL COLLEGES:

1. to serve as the state's primary providers of basic post-secondary vocational education and other specialized training and retraining programs that
 - a. develop skills for job entry,
 - b. prepare for more advanced technical education opportunities, and
 - c. enhance the basic technical skills of the area's existing work force in order to meet the demands of industry competition; and
2. to offer curricula and courses that
 - a. satisfy terminal associate degree or certificate program requirements and/or
 - b. transfer to 2- or 4-year institutions and/or
 - c. satisfy the basic training/retraining needs of local industry.

Recommendation 8.D: PROPOSED MISSION FOR THE KANSAS COLLEGE OF TECHNOLOGY (KANSAS TECHNICAL INSTITUTE): to provide advanced technical education and training on a statewide basis at the associates degree level.

PROPOSED OBJECTIVES FOR THE KANSAS COLLEGE OF TECHNOLOGY (KANSAS TECHNICAL INSTITUTE):

1. to serve as the state's primary provider of advanced technical training and retraining programs at the associates degree level that
 - a. prepare for employment at the level of associate engineer,
 - b. prepare for baccalaureate education opportunities, and
 - c. enhance the advanced technical skills of the state's existing work force in order to meet the demands of industry competition; and
2. to offer curricula and courses that
 - a. satisfy terminal associate degree requirements, and/or
 - b. transfer to 4-year institutions, and/or
 - c. satisfy the advanced training/retraining needs of the state's industry.

9. FUNDING

Recommendation 9: Develop STATE AND LOCAL FUNDING FORMULAS for all types of institutions in the Kansas Vocational/Technical Education System that appropriately match institutional mission, goals, and geographic outreach.

Recommendation 9.A: Assign a larger role for state financial sponsorship of the System to be consistent with its statewide mission, structure, and governance.

Recommendation 9.B: Enlarge the local funding base for each Community College and Technical College to include each county assigned to the institution's service area, thereby encompassing all 105 state counties within a statewide funding base.

Recommendation 9.B.1: Provide incentives to each Community College and Technical College to enhance its delivery of educational services to outlying counties in its designated service area.

Recommendation 9.B.2: Abolish the out-district tuition program.

Recommendation 9.C: Establish a strong state commitment to maintain consistent funding levels for capital outlay within the Kansas Vocational/Technical Education System.

Recommendation 9.D: Distribute capital outlay funds to System institutions on a competitive basis. Award funds according to detailed 5-year plans for equipment needs and annual proposals for specific equipment purchases.

Recommendation 9.E: Request a study from the Department of Commerce on other innovative funding mechanisms for the Kansas Vocational/Technical System.

10. GOVERNANCE

Recommendation 10: Establish a GOVERNANCE STRUCTURE for the Kansas Vocational/Technical Education System that is appropriate to the mission and operational goals of each type of institution operating within the system.

Recommendation 10.A: Maintain governance of vocational/technical education at the secondary level, as delivered through AREA TECHNICAL CENTERS, by the State Board of Education.

Recommendation 10.B: Reassign governance of post-secondary vocational/technical institutions to a governing board devoted to post-secondary higher education.

Recommendation 10.C: Establish formal coordination/articulation links between the governing and delivery units of secondary and post-secondary vocational/technical education.

INTRODUCTION

In Kansas, as elsewhere in the United States, policy discussions about labor force issues historically have focussed on the social dimensions of proposed strategies rather than on their economic implications. An unfavorable demographic outlook and a radically reorganized work environment, however, are forcing a nationwide shift in public awareness and policy emphasis regarding labor and employment training issues.

It is no longer sufficient for employment policy to provide easier access to employment opportunities for the nation's disenfranchised populations. In the contemporary international marketplace, U.S. industry faces the prospect of severe worker shortages at home, and U.S. labor faces the reality of competition for low-wage jobs overseas. In order to effectively address the interests of both labor and business, a comprehensive employment policy must redirect its focus away from social priorities considered in isolation of their market context and toward a more holistic consideration of employment opportunity in terms of economic function.

The focal point of a restructured employment policy embraces the classic relationship between supply and demand. Its framework is governed by responsiveness to market forces, and it seeks to supply the skills demanded by industry of the nation's work force at the same time that it seeks to enfranchise the disadvantaged worker and secure continued employment for those already in the work force. The strategic tools that meld these social and economic priorities into a comprehensive market-driven employment policy are vocational education and job training. And the success of this merger of social and economic interests into a coherent policy agenda is highly dependent on a cross-governmental and multi-agency network to coordinate the planning and delivery of employment services.

A major concern of this research is the design of a market-driven employment policy for Kansas and the extent to which its delivery is facilitated by current institutional arrangements or can be made easier by those proposed for future implementation. Our focal interest is the state's system of vocational/technical education, primarily from the perspective of its service to the economic well-being of Kansas and its citizens. We assume, as an underlying premise to this approach, that the system's contribution to the development of human resources is of mutual benefit to labor and business, that it promotes employment security for the employee at the same time that it develops a capital resource for the employer.

To a lesser extent, the scope of this evaluation also includes the interaction of economic policy with social priorities through the vocational/technical education system. The Job Training Partnership Act of 1982 provides for an administrative linkage through financial incentives to the system's governing unit. It is our task to evaluate this linkage, laud its successes, and suggest improvements for its continuing contribution to Kansas and Kansans.

An important challenge for Kansas is to position itself, its work force, and its industry for the competitive pressures of the 21st century. The dual choice facing the state is between productive skilled workers or an unemployed labor force, and between competitive industrial strength or industry relocation to more hospitable labor markets. In an economic environment increasingly driven by knowledge and its applied technologies, this choice represents a critical investment decision for Kansas and its leadership.

I. MARKET CHALLENGES FOR VOCATIONAL/TECHNICAL EDUCATION

Of critical importance to the health of a state's economy are the manufacturing and service firms that export their goods to other markets. These firms generate new wealth for the local economy and thereby constitute its economic base. The competitive posture of those industries and the entire state economy is highly dependent on the productivity of the local labor force. A work force in service to the state's economic base and well-prepared to meet the rigors of competition endows its employers with a distinct economic advantage and provides strong incentive for their continued residence within state boundaries.

A Value-Added Labor Force in Kansas. For a state to supply cheap labor rather than quality labor to a rapidly changing marketplace, however, is to weaken industry's competitive posture and that state's capacity for growth. The Education Committee of the National Conference of State Legislators has recognized the economic implications of an underskilled labor force interacting with a dynamic marketplace. In a 1987 policy statement on Employment and Training, the committee discussed the need for partnerships between federal and state governments regarding funding, policy, and legislation. The committee stated:

"The shortage of skilled labor, which is projected for the [middle and] late 1980s, will have a negative impact upon American industrial growth and, unless addressed, may weaken the entire national, social, and economic structure. The changing nature of work in America demands a national effort--in partnership with the states--toward a systematic commitment to the preparation of the nation's work force. Such a joint commitment should be accomplished with the full coordination of the employment and training system and the education system, including vocational education."

The statement also calls for continued involvement by the private sector in all aspects of the employment and training process, from planning to assessment, to ensure that the education system is responsive to business needs.

But the linkage of business to education through training, and business to state government through training policy, need not be a one-way transfer of resources. Michael Brody reports in *Fortune* that many service companies and manufacturers regard training expenses as cost-effective capital expenditures and spend heavily on teaching new and upgrading old skills. In the process, he states, "Companies supplementing their in-house training staffs have become the biggest clients of two-year community technical colleges around the U.S." (Brody, 1987, pp. 86-87).

Given a dynamic marketplace, then, and the potential of a state's education industry to harness economic contribution, it is clearly not in the best long-term interests of Kansas and Kansans to compete for the low-wage jobs that belong to cheap labor. It is in the state's best long-term interests, however, to compete for employers on the basis of a high quality labor force with value-added credentials. This choice between

cheap labor and quality labor, between low-wage jobs and economic-base employment, is critical to the future of Kansas and its economy.

A highly qualified labor force must be capable of continual adaptation to a competitive, technology-driven marketplace. In a discussion of the challenges facing the U.S. work force, Peter Drucker (1987) cites two major causes of the transformation of traditional blue-collar jobs: a steady shift from labor-intensive to knowledge-intensive industries and enhanced worker productivity in developing nations through the world-wide spread of two American innovations, training and management concepts. Both of these market factors impose considerable pressure on the U.S. work force to adjust their skills to more knowledge-based products and their accompanying new-process technologies.

Investments in Human Capital. For Kansas to maintain a labor force that is capable of making these adjustments requires a substantial allocation of financial resources to the development of human capital. Authors Friedman and Schweke, who contributed to the publication, *Building the New Economy: States in the Lead*, contend, however, that "state employment initiatives should be viewed not as expenditures of taxpayer dollars, but as investments in the state's future prosperity." They go on to say that training and education strategies "must be part of an entire portfolio of complimentary (sic) policy investments in new ideas, in people, in entrepreneurs, in public works, and natural resources" (Friedman and Schweke, 1986, p.29). In other words, state employment policy, to be effective, must be designed as an integral component of a state's comprehensive portfolio of investment strategies for economic development.

As industry evolves more toward knowledge-intensive technologies, workers will work differently and will change jobs more often (*News*, U.S. Bureau of Labor Statistics, 1987). The scope of individual jobs will be broadened into more generalized operations that require teamwork and the management of highly coordinated tasks and unstructured problem solving. General technical education will assume an increasingly significant role in a worker's portfolio of training credentials given that an expanding base of knowledge fundamentals will be required to perform conceptual work functions in a productive and quality-conscious manner. Leadership, analysis, innovation, and conceptual thinking are abilities that will be in high demand as knowledge and knowledge-based technologies evolve.

Many firms, for example, are modifying their quality control procedures, breaking a long tradition of inspecting finished products for manufactured defects. In these companies, a statistics-based methodology is used to monitor the production process--rather than the finished product--for manufacture within pre-determined limits. For these procedures, employees must have adequate training in math, statistics, and communication skills--skills that have not received much emphasis in traditional vocational education programs.

Workers and the vocational/technical education system must keep pace with these new demands on the labor force through increasing emphasis on general education curricula. A model human resource investment strategy might focus, then, on the delivery of solid programs of general technical education, which are designed to prepare the state's citizens for continued

employment in an economy marked by constant change, and customized technical training, which are job-specific and which should be targeted for service to the state's economic-base industries.

Education as an Investment Priority. In this report, we explore four principal reasons for targeting the vocational/technical education system as an investment priority for the state's policymakers.

- First, the development of human capital is a necessary component of economic development policy; establishing that linkage and demonstrating its significance is a principal objective of this study.
- Second, the changing nature of the new jobs that emerge from technological advances requires corresponding adjustments in worker skills and programs of technical education.
- Third, the nation and its states are subject to the rigors of competition in international arenas; a well-skilled work force can endow an industry and its host economy with a distinct competitive advantage in global markets.
- Fourth, the emergence of a national demographic profile that is vastly different from that of the recent past is forcing industry to depend heavily on a state's training system to retool the existing labor force.

It is in this context, then, that we examine the existing delivery system for vocational education and technical training in Kansas and offer recommendations for its realignment as a key strategic resource for the state's developing economy.

This report does not constitute an examination of the Kansas education system per se. We do not, for instance, evaluate the academic quality of that system as a team of educators might do. Nor do we limit our efforts to a more narrow examination of education policy, funding concerns, or the perspective of any one institutional component of the system, such as the community colleges.

Rather, we distinguish between issues of economics and education policy, and propose that the state's education system is of vital importance to Kansas and its economic health. Our attention is directed to an assessment of the extent to which vocational/technical education in Kansas contributes to economic development through the enhancement of human capital. We target the institutional factors that limit the economic potential of the state's education system and that implicate forward-thinking changes within the state's employment and training programs.

A final objective is to identify the extent to which the Kansas Department of Education coordinates its efforts with the federal Job Training Partnership Act through its 8 percent set-aside funds; barriers to present and future coordination are also considered.

Linkages with Economic Development Policy

A first reason for giving priority to vocational/technical education is its relationship to state economic development policy. Historically, economic development efforts have focussed on the availability of physical capital as a means to influence plant location/relocation decisions. Financial incentive packages have received far greater attention from state and local policymakers than have human capital incentives (MacManus, 1986).

A finance-based location strategy can be effective for as long as production processes remain primarily capital-intensive. The market demands on contemporary industry, however, increasingly generate production processes that are driven by higher technologies and, ultimately, by applied knowledge. Firms affected by these technological changes and in the process of deciding where to locate a plant will determine whether a skilled labor force is available or if the educational mechanisms are in place to train workers for the skills that are necessary. They will locate where training and retraining are taken seriously and considered important by local policymakers. The availability of highly developed human capital thus becomes an incentive of considerable consequence for the business location decision: A skilled labor force thereby constitutes a wealth-producing resource of great strategic value to the host community.

Labor as Economic Infrastructure. A skilled and adaptable labor force, because of its contribution to economic growth, is one of the three components of a state's economic infrastructure identified by the AmeriTrust Corporation and SRI International in their 1986 evaluation of the U.S. economy, its regions, and its states. The other two components that contribute to an area's capacity for economic growth are accessible technology and capital availability. Previous economic development initiatives in Kansas have already addressed technology and financial capital issues. This study discusses the human resource component and completes the basic architecture of a comprehensive state strategy for economic development.

The design of a coherent policy of human capital development should complement and with other components coordinate the economic infrastructure, and its objective should be to produce a highly skilled and adaptable labor force. State investment in this third strategic component of the infrastructure will be accomplished primarily through its system of vocational/technical education and should respond to coherent policy and state mission as well as dollar cost. To do so will shape a training system with a results rather than a cost orientation and one better adapted to local goals in the service of statewide interests.

The AmeriTrust/SRI study identified three primary indicators of labor's skill, adaptability, and capacity to contribute to economic growth:

- **Work Force Quality**--as indicated by educational attainment;

- **Quality of Educational Institutions**--as indicated by education expenditures, average college entrance exam scores, and percentage of college students attending state schools; and
- **Use of Education and Training Institutions**--as indicated by the proportion of 16-to-24-year olds attending noncollege vocational schools, and two- and four-year colleges.

For the indices used to measure these indicators, AmeriTrust/SRI ranks the West North Central region, of which Kansas is a part, in the low to midrange based on data from 1982 through 1985. Kansas, however, consistently ranks at or better than the national average (The AmeriTrust/SRI, 1986). Of particular importance are the state's relative positions on two indices: per pupil expenditures in grades K-12 (\$3,058 in Kansas compared to \$2,948 across the U.S.) and the combined percentage of the 16-to-24-year-old age group attending vocational schools and other institutions of higher education (39.83 percent in Kansas compared to 34.64 percent across the U.S.). (See Table 1.)

TABLE 1
AMERITRUST/SRI SKILLED AND ADAPTABLE LABOR INDICATORS
UNITED STATES AND WEST NORTH CENTRAL STATES
1986

	Per Pupil Expenditures in Grades K-12	Combined Percent of 16-24-Year Olds Attending Vocational Schools and Other Institutions of Higher Education
United States.....	2,948	34.64%
Kansas.....	3,058	39.83%
Iowa.....	3,095	31.69%
Missouri.....	2,468	33.01%
Nebraska.....	2,984	37.30%
North Dakota.....	2,853	31.40%
South Dakota.....	2,486	31.05%

Source: The AmeriTrust/SRI, *Indicators of Economic Capacity*, First Report, December 1986.

Kansas's favorable position on these rankings can be interpreted to represent a comparative advantage for the state as it seeks to attract and retain its resident industries: As judged by AmeriTrust/SRI, Kansas was producing a relatively well qualified labor force as compared to the

national average and for the technologies existing in the state at the time of study. For a state possessing few comparative advantages with which to foster economic growth, the calibre of the Kansas labor force increasingly assumes the status of a strategic capital resource that the state's policymakers should seek to protect and strengthen. Any state investment strategy concerning this resource must address the issue of labor force quality in the context of rapid industrial innovation and technological change.

Kansas Policy Objectives. To this end, a coherent state policy for the development of human capital should seek to:

- target major human resource initiatives to the retention and growth of businesses and industries that contribute to the economic base of Kansas;
- design an education and training system that is highly responsive to current and projected employment needs, especially for the state's economic-base industries; and
- reinforce a planning and investment ethic within the system to maintain that responsiveness in a context of rapid technological change.

Capital investment in the state's human resources must occur through each of the education system's three distinct levels--grades K-12 and two- and four-year institutions of higher education. Each component of the system has a unique function and a distinct educational perspective for the education and training of Kansas citizens. The state's two-year institutions, however, deserve the focussed attention of policymakers for their role as primary providers of technical education and training for the Kansas work force. In contrast, secondary vocational programs should prepare the potential labor force for higher levels of technical instruction, while 4-year programs should enhance basic technical skills with advanced theoretical studies.

Moreover, the state's long-term strategy for the development of its human capital should be designed to benefit and link several key economic constituencies:

- STATE GOVERNMENT - to improve financial accountability by appropriating dollars in a more systematic fashion;
- EDUCATIONAL INSTITUTIONS - to encourage a more long-term and less internally competitive survival strategy;
- BUSINESS AND INDUSTRY - to provide incentives to locate/ remain in Kansas; and
- LABOR - to encourage long-term employment security rather than immediate job security.

Of particular importance is the business/labor linkage as forged through the state's system of vocational/technical education. In the

absence of a strong linkage, the system's ability to develop the state's human capital and strengthen its economic base is greatly diminished. The strength of this relationship is highly dependent upon the mechanisms in place that allow responsiveness by the education system, and, ultimately, by labor, to innovation and technological change.

Responsiveness of the Education System to a Dynamic Marketplace

A second reason for giving priority to vocational/technical education is the changing nature of work.

The standardized, assembly-line, mass-manufacture production process is no longer the recognized symbol of U.S. industry. With increasing rapidity, and because of new equipment and new technologies, the manufacturing environment is evolving into a customized shop where the capital/labor ratio is changing radically. Workers must adapt their skills to new technologies and new work environments much more frequently than in the past, as must programs of vocational/technical education. This adaptive process, to be successful, requires considerable investments of effort and financial resources by labor, business, the education system, and state policymakers.

Technology and the Work Force. In the U.S., the total number of manufacturing firms is stabilizing or declining. And, to remain competitive in international markets, the firms that remain must exact large decreases in production costs and must increase total investment in physical capital with the continual introduction of knowledge-based technologies. Modern production processes are reorganizing the workplace and reorganizing jobs by eliminating basic repetitive tasks and by compelling new mixes of higher-level skills from industry's technical work force.

These factors generate new types of jobs that are defined by more sophisticated skill sets and influence a downward trend in the aggregate number of people employed in traditional manufacturing fields (Otten, 1987). The realities of declining employment, especially for lower-skilled workers, impose a new urgency on the work force to adapt their skills to changing circumstance. This new manufacturing outlook and its emerging technologies, while requiring a smaller work force, increasingly demand an educated, trainable, and retrainable worker with skills that are flexible, versatile, and adaptable to frequent changes in production technology.

For labor, these new-process technologies result in continuing pressure to upgrade both general and specialized technical skills just to maintain employment. A growing emphasis on teamwork requires more coursework in the basic communications disciplines, and increasingly complex production processes demand more exposure to general math, science, and engineering principles (Brody, 1987). Production processes that are subject to continual evolution compel labor's commitment to lifelong retraining efforts.

In its June 8, 1987, issue, *Fortune* reported the results of a 1986 Rand Corporation study for the U.S. Department of Labor. This study determined that nearly 40 percent of the U.S. labor force has participated in on-the-job training programs. It also revealed that "training increased

earnings more than any other type of education and sharply reduced the likelihood of unemployment, as well." The availability of retraining programs tend to improve employee morale, as well (Brody, 1987, p.86).

Technology and Training Policy. For the state, the insistent demands of economic growth and diversification and the expansion of technology-intensive occupations require more than continuing financial commitment to the state's training system. The state's leadership must be prepared to target vocational areas of critical importance to economic-base industries, and designate customized training programs as investment priorities for those industries. To do so recognizes the lasting contribution of economic-base industries to the state's economy.

A selective approach to resource appropriation by the state's policymakers can also establish service priorities for a state system of vocational/technical education. In an environment constrained by scarce financial resources, it is important to differentiate traditional vocational education, which prepares for noncritical service occupations, from specialized training programs, which are oriented to critical occupational clusters, and basic technical education, which is designed to provide solid conceptual foundations for specialized training.

Traditional occupations, while enhancing the local quality of life and while offering a wider range of career opportunities to the state's citizens, do not contribute new wealth to the state's economy. Within the scope of a comprehensive policy of economic development, then, educational service to these traditional occupations deserve lower priority status than general technical education and service to economic-base industries. Through enhanced sponsorship of specialized training programs and through disciplined investment in basic technical education, the state can ensure a continuum of educational opportunities for the lifelong retooling of technical skills that will maintain the high calibre of the Kansas work force.

Technology and the Education System. For educators and educational institutions, certain philosophical adjustments can help to reorient priorities toward market service and continuing responsiveness to industry's changing demands on labor.

- Vocational/technical education must be vigorously promoted as an integral and essential component of an education system and one that prepares for careers with high economic and social value.
- Vocational/technical education must increasingly become involved in the business of lifelong skill transformation rather than one-time occupational preparation.
- Ongoing skill transformation implies worker adaptability and trainability and a corresponding requisite for solid programs of general technical education to support, enhance, and complement specialized technical training.

- Specialized technical training should be offered primarily for jobs that are currently available in economic-base industries to upgrade the skills of workers already in the labor force and to encourage the placement of disadvantaged workers in jobs with long-term employment potential.

These philosophical adjustments transform the delivery of vocational/technical education into a two-tier process:

- General Technical Education, which is employee-driven and oriented to long-term employability in a context of rapidly changing technologies; and
- Customized Technical Training, which is company-specific and oriented to long-term competitiveness in a context of continuing investment in product and production quality.

Through this transformation, vocational/technical education can function within a new economic context and in the service of an expanded role for the development of human capital.

The Kansas Vocational/Technical Education System must be poised to internalize this service mission and incorporate into its curricula the dynamic vigor of the new manufacturing outlook and its emerging technologies. An education and training system that services a dynamic economy cannot itself afford to be static.

International Competition

A third reason for giving priority to vocational/technical education involves increasing pressures on American industry from international competition.

Competitive threats from abroad traditionally have been managed at the national level in the United States. In the recent past, however, these threats are imposing much greater impact on state and local economic units. As noted by Reidenbach and Festervand, "Cheaper labor rates, national subsidization of key industries, and, in some cases, greater technological know-how are undermining what were once considered to be competitively unassailable American industries." These traditional industries are relying on plant closings and production cutbacks in order to regain their competitive position (Reidenbach and Festervand, 1987, p.14).

Foreign Competition and the American Worker. International competition for manufacturing jobs in traditional sectors imposes the greatest burden on U.S. labor. Says David Birch in *Inc.* magazine,

"Much of the plant-closing stress falls directly on the shoulders of those being laid off. Innovation and dislocation, while essential to the preservation of a healthy manufacturing sector,

take a very heavy toll in terms of the pressure they put on the manufacturing workers to learn new skills, to change employers often, to leave the place where they grew up in order to stay employed, and, in general, to live with a degree of uncertainty and anxiety unprecedented in the past 150 years. . .Manufacturing will never be the source of employment growth it once was. On the other hand, there are strong indications that the workers who remain will have the opportunity to perform increasingly skilled tasks for an increasingly progressive (and) innovative collection of companies. . ." (Birch, 1987, p.36).

The implications of these trends in manufacturing for the American labor force, then, are not entirely pessimistic. Birch contends that reversals in the manufacturing sector have occurred largely in industries with traditional technologies. Jobs that are characterized by repetitive tasks and that produce items that have changed little over the years have been moving overseas gradually. But, "In statistically significant terms, (the U.S. hasn't) eliminated a single manufacturing job" between 1966 and 1986 (Birch, 1987, p.35).

The Rebuilding of U.S. Manufacturing. This apparent inconsistency is explained by Birch as the transformation of U.S. industry from a few large, traditional companies into a multitude of "younger, smaller, highly innovative businesses"--companies that are driven by innovation and technologies based more on applied knowledge and less on simple mechanical principles. Also, it is the traumatic closing of these large, established manufacturing plants that receive the attention of citizens, the media, and policymakers. The frequent openings of small, entrepreneurial companies that are grounded in applied knowledge and innovation are not highly visible to observers of American commerce.

The rebuilding of manufacturing in the U.S. has far-reaching consequences for the American worker and important implications for the national system of vocational/technical education. A clear message to both worker and educator is the critical need for continual skill transformation through lifelong education and training. Another imperative is for the American worker to achieve a more sophisticated level of awareness about the nature and meaning of changes in the contemporary work environment. For that worker, international competition means fewer unskilled jobs located in nearby plants and more highly skilled jobs offered by small companies scattered across the nation.

Kansas will not be able to compete in an international economy based on low wages and low labor costs. Firms and industries that compete on that basis will likely move overseas and diminish employment opportunities for Kansas workers. The future of Kansas lies in firms that stress innovation, technological change, and a highly skilled and productive labor force.

The role of the education system, then, is to activate its response to worker needs through high-quality programs of general technical education and customized technical training. That mission becomes more important to the economic well-being of the state, its workers, and its industry as the marketplace becomes increasingly more global in its scope.

The Emerging Demographic Profile

A fourth reason for giving priority to vocational/technical education involves demographic changes that expand the importance of the state's system of job training and vocational/technical education.

From 1965 to the mid-1970s, the United States experienced falling birth rates and a corresponding decrease in population growth (Otten, 1987). Because of this so-called "baby bust," the nation's youth population and its labor force are expected to continue their declining rates of growth through the year 2000 (*News*, Bureau of Labor Statistics, 1987).

These changes in the demographic profile of the U.S. will produce significant shifts in the age distribution of the civilian labor force. For the 1980-1995 time period, the proportion of 16-24 year-olds will decrease from 24 percent to 16 percent, while that for 25-54 year-olds will increase from 62 percent to 74 percent. (See Table 2.) The total labor force will grow more slowly than in the past, with the future work force comprised of higher proportions of women, minorities, and older workers. (See Table 3.)

TABLE 2
AGE DISTRIBUTION OF THE CIVILIAN LABOR FORCE
UNITED STATES
1980-1995

Age Group	1980	1985	1990	2000
16-24	24%	21%	17%	16%
25-54	62%	67%	72%	74%
55 +	14%	13%	11%	10%

Source: Data from 1980-1985 from the United States Bureau Labor Statistics Current Population Survey. Projections are from *Employment Projections for 1995: Data and Methods*. United States Bureau of Labor Statistics, Bulletin 2253, Table B-1.

TABLE 3
 UNITED STATES CIVILIAN LABOR FORCE BY SEX, AGE, RACE, AND ORIGIN
 1972, 1986, AND PROJECTED 2000

	Number Increase (in thousands)		% Change		Annual Rate of Change	
	1976-1986	1986-2000	1972- 1986	1986- 2000	1972- 1986	1986- 2000
Total, 16 and over..	30,800	20,938	21.6	17.8	2.2	1.2
Men, 16 and over..	11,867	7,713	18.1	11.8	1.4	0.8
16 to 24 years...	1,008	-745	8.2	-6.1	0.6	-.4
25 to 54 years...	11,273	8,618	25.4	19.4	2.1	1.3
55 years +	-414	-160	-4.7	-1.8	-0.3	-0.1
Women, 16 and over	18,933	13,225	36.1	25.2	3.3	1.6
16 to 24 years...	2,174	8	19.6	0.1	1.6	0.0
25 to 54 years...	15,967	12,597	45.4	35.8	4.4	2.2
55 years +	792	620	12.9	10.1	1.0	0.7
White.....	24,526	14,900	24.1	14.6	2.0	1.0
Black.....	3,936	3,650	31.1	28.8	2.7	1.8
Asian and Others*.	---	2,388	---	71.2	---	3.9
Hispanic**.....	---	6,010	---	74.4	---	4.1

* The "Asian and Other" group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders. Labor force data for Asians and others are not available for 1972.

** Persons of Hispanic origin may be of any race. Labor force data for Hispanics are not available before 1976.

Source: United States Department of Labor, Bureau of Labor Statistics, *News*, June 25, 1987.

These same demographic factors have similar impacts on the Kansas population and labor force. The Kansas percentage of U.S. population, for example, declined from 1.04 in 1980 to 1.00 in 1985. (See Table 4.) And the projected rate of growth for the Kansas population is expected to change by 13.1 percentage points from the 1950-60 period (14.4 percent) to the 1990-2000 period (1.3 percent). Moreover, the projected rate for 1990-2000 will be lower than that for the United States, and for the neighboring states of Colorado, Oklahoma, and Nebraska. (See Table 5.) Younger age groups in the state will also decrease. (See Table 6.)

TABLE 4
POPULATION GROWTH, KANSAS AND THE UNITED STATES
1980-1985

	Population		Decade Rates of Growth		Kansas Population as a % of U.S. Population
	<u>Kansas</u>	<u>U.S.</u>	<u>Kansas</u>	<u>U.S.</u>	
1980	2,364,236	226,545,805	5.1	11.4	1.04
1981	2,388,000	229,542,000	1.0	1.3	1.04
1982	2,408,000	230,822,000	1.8	1.9	1.04
1983	2,427,000	234,023,000	2.6	3.3	1.04
1984	2,440,000	236,158,000	3.1	4.2	1.03
1985	2,450,000	238,740,000	3.6	5.4	1.00

Source: U.S. Bureau of the Census, *1940 Census of Population*, Vol. 1, Number of Inhabitants; *1980 Census of Population*, Vol. 1, Chapter A; *Statistical Abstract of the United States*, various issues.

TABLE 5
STATE POPULATION GROWTH RATES (%)

<u>Period</u>	<u>US</u>	<u>KS</u>	<u>CO</u>	<u>OK</u>	<u>MO</u>	<u>NE</u>
1950-1960	18.5	14.4	32.4	4.3	9.2	6.5
1960-1970	13.2	3.2	25.8	9.9	8.3	5.2
1970-1980	11.4	5.1	30.7	18.2	5.1	5.7
1980-1990 (Projected)	9.7	4.0	29.5	15.5	3.0	4.2
1990-2000 (Projected)	7.3	1.3	24.0	12.6	0.1	1.4

Source: Bureau of the Census, Series P-26, #937.

TABLE 6
PROJECTIONS OF KANSAS POPULATIONS BY AGE GROUP

<u>Age Group</u>	<u>1980</u> <u>Actual</u>	<u>%</u>	<u>1990</u> <u>Projection</u>	<u>%</u>	<u>2000</u> <u>Projection</u>	<u>%</u>
Under 5	180,877	7.7	199,200	8.1	174,200	7.0
5-14	344,378	14.5	373,300	15.2	374,100	15.0
15-19	217,721	9.2	166,200	6.7	192,900	7.7
20-24	232,788	9.9	178,300	7.2	175,100	7.0
25-34	374,618	15.9	404,800	16.4	308,500	12.4
35-44	249,600	10.6	359,900	14.6	379,800	15.2
45-59	351,300	14.9	342,200	13.9	458,900	18.4
60-69	200,241	8.4	203,800	8.3	180,100	7.2
70 and over	212,055	8.9	235,800	9.6	250,800	10.1
Total	<u>2,363,679</u>	<u>100.0</u>	<u>2,463,500</u>	<u>100.0</u>	<u>2,494,400</u>	<u>100.0</u>

Source: Bureau of the Census

As the number of youthful entrants to the Kansas labor force decreases, competition for entry-level workers will greatly intensify. And industry will activate three major strategies to meet its labor needs:

- Devote more resources to the retraining of older workers who cannot be as easily replaced by young entrants;
- Recruit more workers from nontraditional labor sources, from groups such as women, minorities, the disadvantaged, and those approaching retirement age;
- Locate business operations in states and communities that offer a high-quality work force and training system.

Under each of these scenarios, a state's education and training system assumes a prominent role in the development of its human resources and, therefore, deserves the commitment and financial support of its political leadership.

The Bureau of Labor Statistics indicates that,

"Employment in the broad occupational groups that require the most educational preparation--such as executive, administrative, and managerial workers; professional workers; and technicians and related support workers--will grow faster than the average. The occupational groups requiring the least educational preparation are expected to grow slowly or decline, except for the rapidly growing service workers" (*News*, 1987, p.1).

The state that has positioned its educational institutions to meet the challenge of preparing these groups of highly educated workers for highly productive employment then can enjoy a distinct advantage in the competition for wealth-generating industries. And, if those industries have incentives to implement each of the three personnel strategies outlined above, the host state benefits from the simultaneous satisfaction of social and economic priorities: experienced workers remain employed, young workers are readily absorbed into the work force, and disadvantaged populations benefit from an enlarged pool of employment opportunities.

JTPA: Linkages with Economic Development Policy

Title II of the Job Training Partnership Act (JTPA) allocates 8 percent of total state funding to the Kansas Department of Education for the coordination of JTPA employment opportunity objectives with the state's education programs and institutions. The remaining 92 percent of total state funding is administered by the Kansas Department of Human Resources (DHR). DHR responsibilities include the coordination of all state-level JTPA activities, the oversight of operations in the state's five service delivery areas (SDAs), and the direct administration of local JTPA services under agreement with each service delivery area.

Effective coordination between JTPA and vocational/technical education is critical to the success of a comprehensive employment program, especially if its policies address economic as well as social priorities. And the effective merger of those interests into a comprehensive and market-driven policy agenda is especially dependent on a multi-agency network to coordinate the planning and delivery of employment services. If responsive to the classic relationship between supply and demand, those services will promote employment security for the employee while developing a critical capital resource for the employer.

For disadvantaged workers--the designated clients of JTPA support--access to employment opportunity is accomplished primarily on the strength of coordinative efforts that link together state agencies and their public service objectives. Human service agencies facilitate employment opportunity by supporting worker participation in high-quality training programs; vocational/technical institutions facilitate employment opportunity by focussing on training programs that serve economic-base industries; and economic development agencies facilitate employment opportunity by implementing policies that promote the economic well-being of economic-base industries. Disadvantaged populations achieve substantial and long-term benefits from the human service/education and education/economic

development linkages only when employment objectives are congruent and when coordination of effort is a priority.

Other sections of this paper discuss the importance of consistent education and economic development priorities. In this segment, we evaluate the linkage between human services and vocational/technical education, particularly regarding program coordination and the administration of set-aside funds for that purpose.

The interviews conducted for this study revealed that the coordination between JTPA and the Department of Education is perceived to be very effective. One JTPA official praised communication between the Department of Human Resources, the Department of Education, and the SDAs as "the best it has ever been. Coordination in Kansas is [among] the best in the country." On the basis of these comments and other observations, it is apparent that each agency is aware of potential conflicts and that difficulties are avoided through an effective network of communication.

The apparent strength of inter-agency coordination creates several opportunities for linking state and local JTPA objectives more closely with economic development priorities, particularly with those that encourage service to economic-base industries through customized training programs. These industries and the training programs that are specialized to meet their labor needs constitute an important employment resource--and one with long-term potential--for disadvantaged workers. Training JTPA-eligible workers for economic-base employment is much more advantageous in the long run than providing training that is job-, time-, or community-specific.

Biggs and Bowes (1986) postulate that devoting a portion of the state's 8 percent set-aside funds to economic development priorities through training programs would improve the visibility of the JTPA program. In the recommendations that follow in Section III, we propose several strategies for integrating those objectives with economic development priorities. These efforts to better prepare the Kansas work force for long-term employment deserve the special attention of the state's leadership. For disadvantaged workers can enjoy the benefits of long-term employment only if they acquire the general technical education that encourages adaptation to a wide range of occupations and the customized training that develops the specialized skills needed for modern production technologies.

II. ISSUES FOR THE KANSAS POLICY AGENDA

The designation of vocational/technical education as an investment priority constitutes a strong policy signal to the Kansas business community. To repackage delivery of vocational/technical education in terms of responsive service to industry's evolving labor needs conveys a solid commitment to the competitive well-being of the state's business community and to the state's economic future. The availability of an adaptable work force and high-quality programs for general technical education and specialized training will greatly promote the retention of skilled employees and their employers within state boundaries.

The Business/Education Partnership: An Interactive Linkage.

The local business community must be encouraged to articulate its education and training needs. And the local vocational/technical institution must be given the explicit responsibility to service those needs directly through the content of its offerings and through the quality of its programs and its students. Proper service to the business community, however, extends beyond the delivery of relevant courses and programs. The institutions that execute those programs must be given incentives to establish active and interactive linkages with local companies for the mutual benefit of Kansas business and the Kansas education system.

The traditional concept of business/education partnership is based on a one-way transfer of resources from education to business. In an era of dwindling financial support from the federal government, however, vocational relationships between business and education must be redesigned into an interactive linkage where current business investment in the vocational/technical system compounds that system's ability to service industry's future training needs. In a fragmented geographic market, such as what exists in Kansas, local educational institutions must be actively supported by local economic-base industries in order survive a fiscal environment that is increasingly competitive for state support.

Two examples of this interactive linkage deserve special attention here. The first is a business/education partnership designed as a mutual investment strategy by the business community and the state government of Massachusetts. The second example is a partnership agreement recently established in Kansas between Johnson County Community College and a local employer, Burlington Northern Railroad.

The Bay State Skills Corporation. The Bay State Skills Corporation (BSSC) of Massachusetts is a quasi-public corporation that is partially funded by the state and that awards grants for training projects on a competitive basis to any state educational institution. Training can take place at universities, communities, vocational/technical schools, and community-based organizations across the state.

BSSC awards are contingent upon matching contributions from the companies that benefit from the training programs. Cash contributions from those businesses, however, are discouraged. Instead, companies are invited

to match BSSC grants with supplies, equipment donations, staff time and expertise, training space at the company site, and other material contributions that enhance the ability of an educational institution to respond effectively to industry's training needs.

In the past five years, the BSSC has appropriated \$21,286,021 for education and training programs and has prepared 19,271 people for full-time jobs in the private sector. And, in 1986, the total private sector match for BSSC projects was valued at \$5,248,724 (Bay State Skills Corporation, 1986). Appendix C describes several training projects that have received joint funding from the BSSC and Massachusetts companies.

The advantages of a skills-based training organization such as the BSSC are numerous. Most importantly, the program is designed to apply to all businesses located within a state--not just new or expanding firms--and trains employees to adapt their skills to technological modifications in production processes. The program is poised to make a significant contribution to economic development, and deserves careful consideration by policymakers for inclusion in a state's portfolio of growth strategies.

Moreover, joint participation in job training programs through an organization similar to the BSSC can achieve a partnership between business and education of great benefit to training institutions. Matching contributions are but one component of this mutually beneficial linkage; another is the transfer of leading-edge technological expertise from industry to the state's education system via instructor training. Innovation, after all, is largely the result of industry-sponsored research and development, and the design of a training corporation encourages the timely adaptation of educational resources to technological change.

Recommendation No. 3.B. of this report proposes the establishment of a training corporation for Kansas. The state's policy leaders are strongly encouraged to consider the merits of an institutional arrangement, such as the Kansas Training Corporation, between industry and education. A training corporation would be of considerable benefit to each of its participants, to the state's labor force, and, to the long-term well-being of the Kansas economy.

The Industrial Technical Center of Johnson County Community College.

In Johnson County, Kansas, a local business has initiated a long-term partnership with the local community college that is based on the company's present and future training needs. Burlington Northern Railroad has contracted with Johnson County Community College (JCCC) to house the company's national technical training center on the JCCC campus in a new 50,000-square-foot building. JCCC will help to administer the railroad's training programs for more than 2000 employees per year. One third of the building's cost will be funded by the college which will use one third of its space for additional classrooms. Burlington Northern will assume the remainder of the cost, but will use only one third of the building's area. The remaining space will be used jointly by the college and the company.

This arrangement clearly benefits the college, the company, and the community. Burlington Northern better ensures the availability of trained manpower. Johnson County expands its job base with new instructors and

administrators and adds revenue to the local economy through income from the sale of hospitality goods and services. And Johnson County Community College acquires needed classroom space in the short term and ownership of the building in the long term once the structure's financial obligations have been met.

The ultimate benefit of this collaboration, though, is the institutionalization of an interactive linkage between industry and education. Through a joint commitment of resources, each participant establishes the development of human capital as an investment strategy of high priority. The vocational relationship is transformed to one where business investment in Johnson County Community College enlarges the institution's capacity to provide quality training to Burlington Northern and other firms in JCCC's service area for many years into the future.

Articulation of State Interests in System Policy

This examination of the Kansas system of vocational/technical education and its economic potential is conducted from the perspective of the state's economic future and is presented in terms of a planning and investment ethic dedicated to the development of human capital. One desired outcome of this endeavor is the focussed attention of Kansas policymakers on any functional and structural impediments to the realignment of the system as a strategic component of a comprehensive state policy of economic development.

Local Control and Statewide Perspective. In deference to a long tradition of local funding and local control, Kansas policymakers historically have chosen a reactive stance regarding the delivery of vocational/technical education and the governance of its training institutions. As a result, the current delivery system in Kansas is characterized by fragmented structure and the absence of a cohesive statewide agenda for vocational/technical education. Each institution in the delivery system is well positioned to address the needs of its local service area, but few mechanisms are in place by which the state can systematically articulate its more comprehensive set of policy interests and financial claims.

Friedman and Schwenke call for the coordination of a state's entire training and educational system. They state that "outmoded programs need to be eliminated, [and the] duplication of services must be leveraged and combined in innovative packages" (Friedman and Schwenke, 1987, p.29) A proactive policy shift in Kansas might benefit from a focus of legislative attention on labor force issues and the relationship of the state's vocational/technical education system to those issues. To do so, the Kansas political and educational leadership must be willing to transcend the prevalent ethic of local initiative and territorial protection, and focus on the deliberate design of a statewide delivery system. A model policy approach might seek to:

- fill existing gaps in the educational system, both programmatic and financial;

- eliminate duplication of programs and functions among institutions, particularly those located within a specified delivery area;
- create more incentives for structural reorganization; and
- encourage entrepreneurship among educators through performance criteria in order to adjust more readily to a dynamic economy.

Rather than impose a more complicated set of operational rules or mandate large-scale organizational change, however, Kansas policymakers should seek to remove any systematic disincentives to change and establish an incentive package designed to foster operational efficiencies, institutional cooperation, and consolidation of functions within the system.

Centralized Planning and Regional Delivery. An incentive-driven system designed to articulate the state's policy interests implies the need for coordination among the system's component institutions. Because the delivery of vocational/technical education in Kansas transcends the jurisdictional boundaries of secondary and post-secondary governing units, some degree of centralization is needed to coordinate the efforts of three levels of educational services. An institutional arrangement for coordination that expands the concept of local funding and local control to regional and statewide arenas involves a centralized planning function operating in tandem with a regional delivery model.

Given a statewide policy agenda for the development of human capital and the constraints of limited financial resources, the value of centralized planning is readily apparent. The state's policy interests must be articulated on a continuing basis through the authority of some organizational unit, and that authority must be delegated the additional responsibility for continuing oversight of system function, structure, and resource allocation. The goal-oriented collaboration of each educational institution towards a unified state system of vocational/technical education requires more clearly defined roles for each type of institution within the system, the elimination of costly duplication in programs and service delivery, and the shared maintenance and use of existing facilities. Centralized planning can ease these requisites of institutional collaboration that are so critical to system unification and the implementation of goal-oriented policy.

A regional model for the delivery of vocational/technical education can respond most efficiently to local needs in the context of a centralized planning environment. Through regionalization, access to a prescribed core of education services can be provided to citizens in every part of the state. In addition, regional planning activities, as components of a statewide planning process, can ease the tough resource decisions that confront the state's policymakers. In an ideal state educational system for the state of Kansas, for example, too many community colleges currently exist; institutional consolidation may well be a financial imperative. Decisions to achieve that consolidation might be more acceptable to the state's leadership and its citizens were those decisions achieved through

regional planning and consensus rather than implemented through state-level directive.

Changing the System: Issues of Transformation

Any set of policy initiatives proposed for the Kansas system of vocational/technical education might better inspire acceptance and support among the system's constituent groups if those proposals were positioned as a **phased program of functional and structural realignment**, and one of great strategic value to Kansas, its citizens, and its industries.

Functional Change. Though our proposals for improving the Kansas system are presented here as a coherent policy package, they do not constitute a set of rigidly interdependent concepts. For example, the recommendations offered in Section III-A, following, seek to enhance the linkage functions of vocational/technical education in Kansas, and expand the role of the state and its other agencies in support of those functions. Any combination of these recommendations can be implemented in carefully planned phases without corresponding changes in the system's structural design, suggestions for which appear in Section III-B.

Given the state's history of local funding and local control, and given the prevailing psychological barriers to systematic consolidation of function and structure, our recommendations for changes in the system's design are sure to generate considerable controversy. Resistance to consolidation and other design changes, however, need not, and should not, have a negative impact on legislative consideration of functional improvements. These suggestions should be considered on the basis of their own merits and as potential contributions of great consequence to a comprehensive program of economic development initiatives.

Structural Change. Recommendations for structural changes, on the other hand, should be evaluated primarily in terms of greater operational efficiencies and fiscal accountability. In order to meet a focussed set of planning goals and economic development objectives, the state must provide for an **integrated and articulated** statewide system for the delivery of employment preparation and job training, and must do so under the guidance of fiscal stewardship. To do so when constrained by scarce financial resources requires structural refinements in a loosely connected system of nearly autonomous local institutions. A delivery system designed for statewide service must transcend purely local concerns, and must do so in the context of changing demographics, technologies, and economic conditions.

Any movement toward an **integrated** statewide delivery system will advance an evolutionary trend away from the many autonomous local units which now exist in Kansas. This constitutes a major policy statement for the Kansas leadership, with implications for who pays for the system: an integrated statewide system implies greater state sponsorship and a more equalized base of citizen support. Ample capitalization of the Kansas Vocational/Technical Education System is necessary to stimulate the mechanisms of collaborative planning that can result in the formation of educational partnerships among institutions within the system. The outcome

will benefit the entire state, and will better link Kansas industry with the Kansas work force.

An articulated statewide system provides better educational opportunities for the state's vocational/technical students through standardized course content and transfer agreements among educational institutions. For students, articulation agreements ease the transition between institutions and from one educational level to the next by minimizing transfer delays and duplicative learning experiences. For industry, a well-articulated delivery system can offer streamlined access to appropriate levels of instruction and course content, and encourages its workers to achieve increasingly higher levels of education and training.

Capitalization of the system should be instituted under the principle of fiscal stewardship. The political and educational leadership must clarify the service mission for each type of institution and, through that clarification, eliminate any duplication of programs and any overlap of function and jurisdiction that imprudently consumes scarce state resources. The stewardship principle implies the existence of an optimal number of institutions as well as the optimal location of program offerings throughout the state, and presents a series of difficult policy choices for the Kansas leadership.

Ultimately, though legislative incentives encourage a common policy framework, an integrated system, and articulated program delivery, they are achieved through collaborative dialogue among all institutions operating within a well-coordinated system. Dialogue breaks the traditional barriers imposed by a long history of local autonomy and turf protection. It can be facilitated by a strong leadership that redefines the business of vocational/technical education as education technology transfer, a conceptual relationship among institutions that crosses budgetary boundaries and directly addresses the issue of service quality.

Without purposeful collaboration, and without a common mission and statewide goals and objectives, attempts to align the Kansas Vocational/Technical Education System more closely with the needs of Kansas industry will produce less-than-optimal results. The health of the Kansas economy is largely dependent on its labor force, and the calibre of that labor force is destined for considerable erosion without a priority investment of dollars by the state and a focussed investment of collaborative effort by educational leaders. The choice for Kansas--between a labor force of high quality and the erosion of the state's principal competitive advantage--is of great strategic consequence. The challenge before the Kansas leadership is that choice; the risk of inaction is unnecessary economic decline.

III. RECOMMENDATIONS

A. Linkages

1. RELATIONS WITH THE BUSINESS COMMUNITY

Recommendation 1: Strengthen the service linkage between Kansas industry and the state's vocational/technical education institutions.

The need for a strengthened service linkage between the state's industry and its education system is grounded in several critical issues:

- First, the continuing evolution of high-technology production processes imposes considerable pressure on the education system to modify its course and program offerings accordingly. Education must be closely linked to client industries in order to maintain a posture that is responsive to business needs and opportunities.
- Second, because of a decreasing number of young labor force entrants, industry will devote considerable resources to the retraining of older workers. The demand for customized training will increase dramatically as companies retrain their work force to keep pace with advancing technologies.
- Finally, many Kansas businesses experience the delivery of vocational/technical education as the isolated offerings of a single institution located nearby rather than as a range of training options available from the many institutions that comprise a state system. (See Interview Summaries: Communication with Industry). Through systematic marketing efforts and other programs of public information, businesses can, and must, be informed of the training opportunities that are available to them on a statewide basis, especially as program specialization becomes more economically viable for education institutions.

A strengthened service linkage, then, will seek not only to train the work force, but also to market training services and provide convenient access for business and labor to the training system. Currently, this linkage is perceived to be less than adequate. A Wellington business representative, for example, stated: "The system needs to improve knowledge [about its services]: Where are programs [located]? Are they good? People need to know."

Recommendation 1.A: Establish AREA BUSINESS DEVELOPMENT CENTERS at each post-secondary institution of the Vocational/Technical Education System to deliver public information and to market customized training programs to businesses located within its designated service area.

The linkage between industry and education can be enhanced through systematic efforts by training institutions to market existing programs and deliver information about other training options to local businesses. Furthermore, each post-secondary institution should formalize its outreach to the local business community and seek to maintain a close working relationship with area companies through an active exchange of feedback and ideas. We recommend that these objectives be accomplished through the formation of Area Business Development Centers (ABDCs) at each post-secondary institution of vocational/technical education.

Area Business Development Centers have already been established by Dodge City Community College, Johnson County Community College, and, most recently, Butler County Community College. The principal objective of a development center is to improve training opportunities for businesses in the host institution's service area. Center representatives attempt to discover the training needs of businesses and help to design programs that are customized to meet those needs. Ideally, the development center functions as a one-stop resource for training information and technical assistance for local industry.

Area Business Development Centers can be positioned as a critical agent for establishing a solid linkage between Kansas business and Kansas education at the local level. Because of their potential to improve relations between education and the business community and to better align the interests of the education system with those of the business community, an ABDCs should be established at each community college. Start-up grants from funds would permit such ABCDs to be established. The state grants would be phased out over several years as the ABCDs would be supported by training contracts from the business community. Continuing technical assistance from state-level development personnel would facilitate the ongoing efforts of an ABDC to provide the state with local feedback and ideas.

Recommendation 1.B: Establish a **BUSINESS TRAINING OFFICE** within the Kansas Department of Commerce to market, on a statewide basis, the customized training programs of the Kansas Vocational/Technical Education System and to provide public information about statewide vocational/technical education and training opportunities to Kansas industry.

The Business Training Office is intended to strengthen the linkage between the state's human capital development strategies and other state economic development programs. It is designed to improve access to, information about, and the coordination of a statewide network of customized training opportunities. These objectives can be accomplished through several functions:

- Providing information and technical assistance to Area Business Development Centers for start-up and continuing operations;
- Assisting Area Business Development Centers to maintain an up-to-date position with respect to current services and training techniques;

- Acting as a one-stop referral service to Kansas industry for information on the availability of education and training programs on a statewide basis, including opportunities offered by the Kansas Industrial Training Program, the Kansas Industrial Retraining Program, and the Job Training Partnership Act; and
- Monitoring the current and evolving labor and training needs of the state's business sector and matching those needs to appropriate programs of the Kansas Vocational/Technical Education System through the Area Business Development Centers.
- Coordinating the efforts of Area Business Development Centers to identify and operationalize the state's interests when seeking to improve training opportunities for local industry.

The state's interests--which include initiating ideas for new programs, monitoring the delivery system for unnecessary duplication of services, and acting as a marketing liaison to the state's business community for programs that are not widely known or not yet well established--are best served in the Department of Commerce by temporarily filling any gaps in a statewide system of vocational/technical education. A particular business, for example, might require the training resources of more than one educational institution. The Business Training Office would be in a position to arrange a package of training services that links the business with appropriate training institutions located anywhere in the state, not just with those in close proximity to the company.

Regional coordinators within the Business Training Office could link with Area Business Development Centers to provide valuable assistance promoting and safeguarding the state's interests in the delivery of customized training programs. Through the close and coordinated interaction of these two organizations, the state can strongly reinforce its commitment to the delivery of customized training programs that are timely and responsive to industry's needs. As a result, the state's educational institutions can better contribute to the preparation of a highly skilled and highly qualified labor force for Kansas.

2. MARKETING AND PUBLIC INFORMATION

Recommendation 2: Implement a comprehensive PUBLIC INFORMATION AND MARKETING PROGRAM for vocational/technical careers and educational opportunities in Kansas.

The trained and trainable worker needed for high-technology employment first must be attracted to the state's education system. Marketing the education system therefore becomes a critical function for both the state and its educators, especially because of industry's growing demand for workers with solid training in basic math, science, and communication skills.

The absence of these basic skills is of concern to Kansas business leaders. A member of the Topeka business community, for example, echoed the opinions of most industry representatives interviewed for this study: "What would be helpful to our company would be for employees to have more trigonometry, algebra, calculus, physics, geometry, the understanding of language and basic oral and written communications skills."

Because of a changing demographic profile that limits the number of young entrants to the labor force, it is imperative that those who do enter develop the necessary aptitude for continual adjustments to new technologies. It is equally important for vocational/technical occupations to be positioned as attractive career alternatives for the Kansas work force.

Recommendation 2.A: Deliver promotions that would:

- a. enhance the image of vocational/technical careers;
- b. encourage enrollment at the state's vocational/technical education institutions;
- c. endorse the value of basic education skills in vocational/technical careers; and
- d. encourage the support of Kansas industry for the state's Vocational/Technical Education System.

Educational administrators across the state expressed great concern that vocational/technical education in Kansas suffers from a "third class" image among students, parents, and guidance counselors. (See Interview Summaries: Image, High School Counseling.) The director of a Kansas AVTS stated: "There is a terrible image problem [for vocational education]-- someone needs to work on that image. People who could use vocational education do not [do so] partly because of the third class image of vocational education."

The image problem needs to be addressed if the education system is to attract both youth and experienced workers to its courses and programs. A state-sponsored public information campaign can associate jobs and employment security with vocational/technical education and the need for a solid background in fundamental knowledge.

Recommendation 2.B: Institute a DATABASE FOR KANSAS CAREERS to provide statewide access to information about:

- a. vocational/technical careers in Kansas;
- b. labor market and job opportunity trends in Kansas and the nation; and
- c. the program offerings of the Kansas Vocational/Technical Education System.

The Database is designed as a one-stop information resource for students and their counselors to explore vocational/technical education opportunities in Kansas. Specifically, the Database would locate desired curricula, outline their requirements, and provide wage and placement data relative to programs and institutions. The information could concrete

evidence about what vocational/technical education is doing for its graduates, instead of merely promising what it can do.

An ideal arrangement would link each guidance counselor to the Database through a computerized network. The counselor would be able to provide immediate answers to student questions. But, more importantly, a counselor might be more readily persuaded of the advantages of pursuing vocational/technical careers if the state were to provide easy access to information about careers and educational opportunities in Kansas.

3. INNOVATIVE PROGRAMS

Recommendation 3: Establish innovative programs to facilitate the development of a highly skilled labor force that better serves the skilled-worker needs of Kansas Industry.

State funding of job training programs currently is limited to the Kansas Industrial Training Program (KIT), which sponsors customized training opportunities only for new and expanding firms. Other funds are available from the U.S. government through the Job Training Partnership Act, but a set of rigorous federal stipulations constrain the amount of JTPA monies that can be used for customized training. Both of these programs provide important training opportunities for Kansas industries, and deserve continued support. Their scope, however, limits the type and number of businesses that receive assistance, and many companies that are otherwise deserving of state support cannot meet the restrictive eligibility criteria for KIT and/or JTPA.

Recommendation 3.A: Establish the KANSAS INDUSTRIAL RETRAINING PROGRAM to provide state-sponsored customized training to Kansas businesses offering new products or instituting new production processes.

A large segment of the Kansas business community that is not currently assisted by state-sponsored training opportunities includes existing companies that have introduced new products, new production technologies, or other changes in product mix and production process that are designed to maintain a company's competitive position. While many of these companies do not expand their existing labor force to accommodate new products or technologies, most do require specialized training to upgrade current worker skills. Kansas should be in a position to respond to the retraining needs of these companies, needs that will increasingly become the norm for businesses that function in highly competitive and rapidly changing markets.

As new technologies revolutionize the marketplace and as the number of young entrants to the labor force continues to decline, retraining programs will assume an increasingly greater role in business investment decisions. The Kansas Industrial Retraining Program (KIR), as introduced by House Bill 2515, would provide an important source of training support to firms that have introduced new products or production processes. Implementation of this program would be an important signal of the state's commitment to developing a highly skilled labor force and, ultimately, to the economic well-being of Kansas industry.

As primary providers of customized training, two-year post-secondary institutions would receive the majority of these funds. The KIR program will not only help with customized training at present, but will also act as a catalyst for initiating contact between industry and vocational education in the future. After first working together, companies will be more willing to return to an institution and invest more in training.

Recommendation 3.B: Establish the KANSAS TRAINING CORPORATION as an organizational link between the Kansas business community and the Kansas Vocational/Technical Training System for the delivery of innovative, high-tech training programs.

Recommendation 3.C: Establish a special fund within the Kansas Training Corporation to provide for the continuing education of instructors in high-technology fields.

An additional labor deficiency not addressed by KIT, KIR, or JTPA, but of great importance to leading-edge industries, is the short supply of specialized technical workers. The creation of a Kansas Training Corporation (KTC) is intended to counteract this shortage through a partnership arrangement between needy companies and the state's schools of post-secondary education. It is also intended to identify entrepreneurs in the educational system with new ideas for training programs that meet the market test of finding companies that are willing to fund those programs.

Modelled after the Bay State Skills Corporation (see pp. 19-20), the KTC would be partially funded by the state, and would award grants on a competitive basis for training projects that have been custom-designed by an educational institution for participating companies. Awards would be contingent upon matching contributions--in the form of material resources and/or technological expertise--from the companies that benefit from training programs.

The advantages of the KTC are significant:

- State assistance for training programs becomes available to all businesses in Kansas that develop innovative training programs, not just to new or expanding firms, or those with new products or technologies;
- The working relationship between the business and educational communities is strengthened by a joint investment of resources in the development of human capital; and
- The process of technology transfer is changed from a one-way transmission--education to work force--to an interactive exchange: from industry to education through instructor training and from education to industry through worker training.

An additional benefit to participating businesses, moreover, is minimization of the bureaucratic constraints that can hinder a timely response by educational institutions to provide needed training programs. Interviews

with Kansas business representatives indicate that these constraints do exist, and that they unnecessarily impede the competitive efforts of Kansas companies.

Industry itself provides the model for minimizing bureaucratic encumbrances with its growing number of examples of "intrapreneurship"--entrepreneurial activity that occurs within an existing company and that leads to innovative products and processes. The KTC is designed to identify and support innovators in the education system. Educators can bypass the bureaucratic constraints of other training programs and the education system if they meet the market test of locating a company that merits participation in the competition for KTC grants. In this regard, the KTC is analogous to the function and structure of K-TECH, a state-sponsored advisory panel that screens research proposals and awards state grants on a competitive basis to the best university research projects.

By encouraging innovation in the education system, the KTC can better ensure the evolution of programs and curricula that keep pace with the emergence of leading-edge technologies. Without such encouragement, it is easier, for example, for institutions to continue funding traditional programs of vocational education, such as cosmetology or auto body repair, because of steady enrollment streams. In addition, the current system offers a number of disincentives to educational administrators for the provision of timely and appropriate responses to industry training needs. For example, state funding stipulations and a complex course approval process encourage institutions to fit instruction into existing courses and curricula. These encumbrances discourage the design of customized training programs that respond more directly to a company's exact set of training needs. (See Interview Summaries: Policies, Laws, and Regulations.) The KTC is designed to overcome these unnecessary obstacles and to lead the evolution of technical training programs toward greater congruence with changing markets for skilled labor.

An additional feature of the KTC's proposed design includes provision for the training and retraining of instructors from the education system by company personnel. Industry experts are exposed earlier and more comprehensively to the leading-edge technologies that drive their respective industries; their expertise constitutes an important source of technical knowledge for the state's vocational/technical instructors. Given the rapid rate of technological change, instructors are not able to keep their skills and knowledge base current; their continued training is imperative if they have the responsibility for teaching the skills necessary for leading-edge technologies. Business representatives in Kansas expressed some concern over the adequacy of instructor skills. A special fund dedicated to instructor training is desirable and necessary to keep pace with technological change and business training needs.

4. RETRAINING FUNDS

Recommendation 4: Establish RETRAINING INVESTMENT PROGRAMS, funded through joint employer and employee contributions, in recognition of the need for continual upgrading of the Kansas labor force.

Retraining investment programs facilitate the movement of labor from declining industries to those that are new or expanding. In so doing, they address the consequences of technological change and job reorganization: obsolete and depreciated work skills and their byproduct, structural unemployment.

The underlying premise of unemployment insurance compensation is that unemployment is cyclical: industry will resurge eventually, and workers will be recalled to jobs that remain virtually unchanged. Unemployment Insurance (UI) funds are intended to support displaced labor until that recall occurs.

Cyclical unemployment, however, increasingly becomes an obsolete notion as industry technologies evolve at their increasingly rapid pace. Labor instead faces the uncertainties of structural unemployment and the corresponding need for skill upgrading. Retraining investment programs can help to fill the gap left by unemployment insurance by accomplishing two mutually beneficial objectives: 1) providing employees with the new skills that are needed to promote their employment security; and 2) providing employers with a steady supply of skilled labor.

Recommendation 4.A: Establish a KANSAS RETRAINING INSURANCE FUND to assist, on a statewide basis, the retraining efforts of the state's dislocated workers.

The retraining insurance fund is targeted to companies that anticipate a work layoff or plant closing. And grants from the fund, which are requested by affected companies, are designated for retraining workers that face dislocation and the prospect of finding new employment.

It is recommended that retraining insurance contributions be made jointly by employer and employee with small payroll assessments throughout the employee's tenure with a company. Though the retraining insurance fund is intended to supplement unemployment insurance, it is anticipated that the state's labor force will experience less need for UI compensation in the future: workers can be retrained quickly for other jobs that already exist instead of waiting for the reinstatement of jobs that have become obsolete. Labor, industry, and government can gradually refocus their efforts away from a reactive posture of worker protection and toward a proactive posture of worker preparation.

Recommendation 4.B: Establish INDIVIDUAL TRAINING ACCOUNTS to finance the continuing education of the state's work force.

Skill retooling should not be a function only of employment crisis. Kansas industry will retain its competitive position much more readily if its workforce anticipates technological change and actively manages its own continuing skill education. Individual training accounts, which are structured as a tax deduction from Kansas income, provide an incentive for employees to upgrade their skills when not in a position to lose their jobs through company layoff or closing. This account is designed as a fringe benefit that is under employee control; retraining insurance funds, on the other hand, are oriented to business events and are accessed through employer initiative.

5. LINKAGES WITH JTPA

Recommendation 5: Establish a solid linkage between JTPA objectives in Kansas and state economic development priorities by means of customized training programs.

A primary objective of the Job Training Partnership Act is to transform disadvantaged workers into productive members of the labor force. And the successful realization of that objective is highly dependent on the calibre of the jobs that enfranchise disadvantaged populations and, ultimately, on the health of the state and local economies that provide infrastructure support to the firms that produce these high-calibre jobs. Because of this linkage to and dependence on the economic well-being of Kansas, JTPA programs in Kansas can, and should, be positioned with explicit regard to the state's economic development priorities.

We advocate in this study that those priorities should include a deliberate emphasis on the development of human capital for the economic-base industries of Kansas. And we argue that the training needs of those industries will require increasing emphasis on the continual enhancement of skills that are appropriate to rapidly changing and highly sophisticated manufacturing technologies. It is, therefore, in the best long-term interests of the state and of its disadvantaged workers to prepare those workers for service to the economic base of Kansas; it is not fruitful, on the other hand, to place disadvantaged populations in the low-level, dead-end jobs of declining industries when longer-term opportunities exist in economic-base employment.

JTPA objectives can incorporate the state's economic objectives (Biggs and Bowes, 1987). In Kansas, administrators of JTPA should give high priority to establishing linkages with companies that are new, expanding, or in the process of restructuring their products or production processes to achieve competitive strength. This linkage can be implemented successfully through programs of customized training where economic-base companies are offered an incentive to hire a certain portion of their work force from disadvantaged populations. We recommend that this incentive be in the form of JTPA payment for an appropriate percentage of customized training costs.

JTPA training objectives should include participation in every customized training program conducted in Kansas, with highest priority assigned to the state's economic-base industries. Moreover, JTPA employment objectives should include a 20 percent placement rate for disadvantaged workers in economic-base companies. And it would be reasonable for local JTPA administrators to establish among their performance standards both of these objectives as one means of evaluating the vocational relationship that results from linking JTPA-sponsored customized training with economic-base employment and local economic well-being.

Recommendation 5.A: Designate a percentage of the funds allocated to each JTPA Service Delivery Area for customized training programs to encourage a better linkage between JTPA objectives, employer needs, and the Kansas Vocational/Technical Education System.

To the employer who benefits from government sponsorship of customized training programs, it is of little concern where the funds originate. The state determines appropriate sources of financial support, and, at the same time, should assume responsibility for minimizing any unnecessary bureaucratic delays for approval of training sponsorship or reimbursement of training costs. Pre-authorization of JTPA support for customized programs encourages training institutions to respond more quickly to employer needs and to better align their priorities with JTPA objectives.

In addition, reimbursement criteria should be performance-based. Newly-hired trainees, for example, should be employed continuously for three-to-six months beyond the training period in order for the company to receive reimbursement for the costs of training those employees. This will help to ensure industry commitment to the objectives of JTPA and state employment policy.

Finally, by linking JTPA funds to the KIT program, the state will be able to assemble a better funding package for business training programs. And, the state can better use federal dollars for state-defined objectives and missions, which was the original intent of the JTPA. The linkage, therefore, can achieve three important objectives: 1) leveraging state funds more effectively; 2) connecting JTPA objectives with state economic development priorities; and 3) decreasing lead time for meeting business needs for training programs. Regarding the latter objective, a policy decision in favor of funding retraining programs that meet pre-specified criteria can greatly facilitate quick approval for those programs and greater responsiveness to business and industry.

Recommendation 5.B: Target a percentage of the funds allocated to each JTPA Service Delivery Area to post-secondary vocational/technical institutions for the education and training of eligible workers to encourage better responsiveness of the Kansas Vocational/Technical Education System to employer needs, JTPA objectives, and the state's economic development priorities.

The commitment of JTPA funds to post-secondary vocational/technical institutions provides an incentive to educators to actively recruit disadvantaged workers. In particular, this incentive can motivate educators to recruit JTPA-eligible workers to programs of general technical education, which prepare an adaptable work force with a versatile set of knowledge-based skills. This focus on disadvantaged populations is designed to better ensure their long-term employability and seeks to implement the social priorities of JTPA.

6. COORDINATION WITHIN THE SYSTEM

Recommendation 6: Design a planning and review mechanism for the Kansas Vocational/Technical Education System in recognition of the need for policies that articulate the interests of Kansas from a statewide perspective, and that integrate with the state's overall economic development strategy.

A well-coordinated state system of vocational/technical education is better positioned to prudently allocate scarce financial, material, and human resources. System coordination is also a clear preference of the educational administrators in Kansas. (See Interview Summaries: The Kansas Vocational Education System.)

A planning and review ethic can endow the education system and the state's geographic regions with major benefits, particularly if planning and review objectives seek to: 1) avoid duplication of courses and programs; 2) encourage program specialization within institutions and/or regions that have the potential to develop conspicuous strengths in targeted technical areas; and 3) facilitate the transfer of courses among all post-secondary institutions of higher education in Kansas. Planning and review can broaden the education system's point of reference by incorporating a more systematic consideration of Kansas industry and the state's economic health as well as Kansas students into a comprehensive mission of service to the state.

A training and education system must respond to company needs for worker skill enhancement at the same time that it assumes a proactive posture regarding the discovery of market opportunities for educational service. An education system that is guided by planning objectives and an explicit recognition that educational service benefits several constituencies--itself, labor, business, and the state economy--can better respond to need and opportunity with speed and efficiency.

Recommendation 6.A: Define geographic SERVICE AREAS for each post-secondary institution in the System for funding purposes and also to avoid duplication of services and programs.

At the present time, Kansas community colleges operate within defined service areas. Doing so helps to focus their service and marketing efforts in accordance with the needs and opportunities of a predetermined client base. Other vocational/technical institutions that offer post-secondary education programs are encouraged to formalize the definition of their own service areas to achieve greater coordination of planning and review functions. A network of clearly defined service areas for post-secondary institutions can establish the necessary foundation for articulation of statewide interests through higher-level coordination.

Recommendation 6.B: Establish DELIVERY REGIONS for the System, and provide incentives for the periodic formulation of REGIONAL PLANS to be prepared cooperatively by all institutions offering vocational/technical education within each region.

Recommendation 6.B.1: Institute CURRICULUM REVIEWS of program offerings within each region and each institution in reference to current statewide labor needs. Assign responsibility for conducting these reviews to an appropriate board of governors.

The principal objective of regional planning is to formulate resource-based decisions regarding the delivery of vocational/technical education. And the principal functions of a regional planning process are to:

- Review existing courses and programs for duplication of effort and level of service to the business community;
- Examine the need for new courses and programs that could or should be offered in reference to statewide opportunities; and
- Determine whether the overall quality of vocational/technical offerings could be enhanced by regional consolidation of programs.

Through disciplined execution, the planning process can help to maintain flexibility in a system that must be responsive to market influences at the same time that its capacity to respond is constrained by the availability of scarce resources. The state's limited resource pool can have greater strategic value if allocated in a cohesive and systematic manner through regional planning and decision making.

The two strategic outcomes of planning and review--curriculum enhancement and curriculum consolidation--become critical functions as institutions and regions attempt to develop conspicuous strengths in targeted courses and programs. Through specialization, each institution can experience the necessary economies of scale that enable it to achieve excellence in those targeted areas. On the other hand, when considered from the perspective of regional needs and opportunities, certain established programs have only marginal utility. The deletion or consolidation of these programs free material and financial resources for the implementation of other, more highly valued, educational services. In an environment of scarce resources, then, the opportunity costs of maintaining marginal programs deserve the focussed consideration of decision makers. The reallocation of those resources is entirely appropriate and expected, and should be completed before the approval and funding of any new programs for the region. And decisions to maintain duplicative vocational/technical offerings should be based on an explicit justification of their need and/or utility.

A resource-based decision process should evaluate, for example, the opportunity cost of maintaining a secretarial program in every institution located within a geographic region while none offers coursework in CAD/CAM technology. A local company that needs, but cannot obtain, local training in that technology may be encouraged to consider relocation to a more hospitable labor market. As the pace of technological change quickens, the probability of company relocation for this reason is likely to increase. Effective coordination of the educational institutions located in a geographic region can help to minimize any potential disruptions of state and local economies that are motivated by the absence of adequate training opportunities.

To strengthen other linkages and to avoid undue confusion, the regions established for curriculum planning and review should mirror the geographic boundaries of some other regional division of the state, such as those for JTPA service areas or Department of Commerce field operations. In addition, planning and review functions should be conducted by an appropriate

state-level governing unit in conjunction with representatives of the educational institutions affected by the process.

Recommendation 6.B.2: Establish incentives and procedures for systemwide and regional COOPERATION COMPACTS for the shared use of educational resources, such as instructors, facilities and equipment.

The shared use of personnel and material assets should have high priority in an educational system constrained by a limited financial base. In Kansas, it makes sense to encourage the development of mobile resource pools that are available on a rotating basis to educational institutions located throughout the state.

Cooperation compacts, for example, that detail the shared use of one institution's resources with another might be required as one condition of approval for new course or program offerings. These compacts could be designed to: 1) establish equipment and instructor pools; 2) offer incentives, such as lower tuition fees to students that travel to more distant institutions; 3) develop mobile training programs that periodically reside at selected institutions; and 4) create shared funding arrangements to acquire state-of-the-art equipment, recruit instructors from industry, or develop new education and training programs.

Any efforts to integrate the state's limited resources will have a positive impact on both students and the industries served by the system through easier and more comprehensive access to the educational services.

B. System Design

7. STRUCTURE

Recommendation 7: Strengthen the delivery of vocational/technical education in the state of Kansas by establishing a more integrated and coordinated system that incorporates statewide interests into a local focus.

In order for Kansas to compete effectively in a global economy that increasingly values its human capital, our state's policymakers must exercise the leadership necessary to ensure the continued development of this vital economic resource. A critical component of any state's human resource development strategy must be its system of vocational education and technical training. Currently, the delivery of vocational education and technical training in Kansas is characterized by duplication, overlap, and a lack of focus at the state level. A statewide delivery system that is well-integrated and well-articulated does not currently exist in Kansas.

To establish an integrated delivery system with a statewide perspective, the system itself and each component of its educational hierarchy must have a well-defined mission and clearly articulated operational goals. In addition, the system must be positioned to respond

quickly and effectively to the emerging needs of two economic constituencies, the state's labor force and its industry.

With this in mind, we offer here a series of proposals for recommended changes in the structure, mission, and operational goals of the Kansas Vocational/Technical Education System and its constituent institutions. These recommendations were designed to be congruent with the labor and development issues discussed in earlier sections of this report and were formulated in response to perceived needs for improved operational efficiencies and standards for resource allocation.

It is our belief that these proposals effectively address the long-term interests of Kansas workers, state government, the education system, and the business community. Our recommendations, however, are not intended to be rigid or mandatory guidelines for restructuring the Kansas system of vocational/technical education. Instead, we offer them in the spirit of collaborative effort and as reasoned input for policy discussion.

We suggest, therefore, that each proposal be considered on the basis of its own merits and as one component of a phased program of functional and structural realignment. By so doing, worthy suggestions will not be jeopardized by those less able, and the process of repositioning the vocational/technical education system to better meet contemporary market challenges can proceed in a manner that is less disruptive to traditional concepts of funding, management and operations. Our joint objective, after all, is to promote economic well-being for Kansas and its citizens; these proposals are specifically directed to that purpose.

Recommendation 7.A: Separate the delivery of vocational/technical education between secondary and post-secondary students. Restructure the state's Area Vocational/Technical Schools to reflect the separation of secondary and post-secondary delivery components.

A substantive difference in educational philosophy separates secondary schools from their post-secondary counterparts. Consequently, each educational level should be engaged in different types of vocational/technical education. Secondary schools can best train their students to learn how to learn, to prepare for more in-depth vocational/technical study at higher levels of education. Another important function appropriate to the secondary level is career exploration, providing the guidance, information, and vocational exposure that is necessary for informed career decision making.

As production technologies change more rapidly and toward higher degrees of technical sophistication, industry will hire fewer entry-level workers directly from the state's secondary schools (Bernstein, et al., 1987). Instead, it will recruit its labor force with increasing frequency from groups with value-added credentials, especially from those with a more advanced foundation in basic education disciplines. A state system of vocational/technical education will best serve its potential work force and its industry if it 1) grounds the skills of those workers in high-quality programs of general technical education, and 2) offers (and encourages)

opportunities to upgrade those skills with higher and more specialized levels of educational attainment.

Secondary education, therefore, is appropriate to the preparation of students for informed career choices and for lifelong training and education. It does a great disservice to those students if it merely prepares them for the current demands of a specific job whose requirements are subject to rapid and radical change and for which those students are less likely to be hired as technologies evolve toward more advanced levels of sophistication. Post-secondary education, on the other hand, is better positioned as the preparatory link between career choice and career experience, between knowledge fundamentals and their specialized application to specific jobs and technologies.

The results of our interviews with state business representatives indicate that the Kansas labor force lacks the necessary foundation in basic educational disciplines. (See Interview Summaries: Programs and Courses.) Additionally, students are not provided current and substantive information about vocational/technical career or educational opportunities. (See Interview Summaries: Image, High School Counseling.) Given these conditions, and given the contemporary reorganization of work and the workplace, the Kansas system of vocational/technical education could utilize its resources more effectively if it were to distinguish the educational missions of secondary and post-secondary schools and separate their operations with more specialized vocational objectives.

This separation would most directly affect the structure of the state's Area Vocational Technical Schools, which currently serve students at both secondary and post-secondary levels. It can be argued, however, that the existing structure functions at less-than-optimal levels because of resource limitations and nonspecialized purpose. Were each institution to focus on a specialized educational mission, those schools and the system itself would be able to achieve economies of scale that are not currently available. In addition, the clients of those schools--both student and business--would clearly benefit by the concentration of purpose and effort. The system's functions at distinct educational levels would correspond more closely to industry's needs for workers who possess the necessary learning fundamentals and who are capable of expanding their base of knowledge with higher levels of general technical education and specialized technical training.

Recommendation 7.B: Reorganize the secondary component of current AVTS programs into AREA TECHNICAL CENTERS, to be administered by the school districts, and enlarge the scope of these programs to better serve the evolving needs of all secondary students.

Recommendation 7.B.1: Establish courses in the secondary schools that expose students to the basic principles of technology.

Secondary vocational/technical education is best assigned to the unified school districts, which can efficiently integrate vocational/technical components into a comprehensive curriculum of secondary education. An Area Technical Center, as conceived here, could be managed by a single USD or through the collaborative efforts of several neighboring school districts.

As proposed here, the primary functions of an Area Technical Center would be; 1) vocational/technical career exploration; 2) basic exposure to important principles of technology; and 3) basic vocational/technical education. These services, however, are not intended only for students who identify themselves as vocational/technical students. Rather, their design should incorporate the emerging needs of all students in secondary schools, including those anticipating nonemployment and those enrolled in college preparatory curricula.

Technology's role in the contemporary marketplace will assume greater visibility and significance as knowledge evolves. All students, therefore, should have some basic exposure to the nature and meaning of technology and should be given ample opportunity to explore the implications of technological change for their worklives and their specific career decisions. These objectives--exposure and exploration--could be accomplished through courses devoted to the basic principles of technology. Such courses should be open to, and perhaps even required of, all graduates from secondary schools, regardless of curricular choice.

Recommendation 7.B.2: Establish a TECH PREP PROGRAM in the state's secondary schools which links two years of a core preparatory program to selected technical programs at the post-secondary level.

A Tech Prep Program is intended to parallel and complement college preparatory curricula in the high schools with a specialized focus on scientific, mathematical, and technological principles. Together, these two programs would comprise a dual-track curriculum for the state's secondary schools, with the tech prep alternative benefitting those students who make an early decision in favor of a technical career path.

Whereas traditional vocational programs in secondary schools often mark the completion of a student's educational career, tech prep programs are designed to prepare that student for advanced study--at the college level or in labor or business training programs--and to promote the value of lifelong education. The intent is to train students for two purposes: 1) to be flexible workers that are able to transfer basic skill sets among different occupations, and 2) to comprise a labor force that companies can train at low expense for specific tasks. These outcomes are clearly advantageous to both workers and their employers and for both the short and the long term.

The curricular focus that differentiates tech prep and college prep programs, however, need not, and should not, impose unnecessary barriers to the movement of students between these dual tracks. The system, for example, should provide for an adequate interface between the two programs by means of common graduation requirements and transferable electives. Nor should educators tolerate a social or academic environment where tech prep students do not enjoy equal status with their college prep counterparts. In fact, correction of the negative image currently assigned to vocational/technical education in Kansas should be an important reason for and a necessary function of a tech prep program.

Recommendation 7.C: Join the post-secondary component of current AVTS programs with the vocational/technical offerings of two-year institutions that deliver only post-secondary education. Strengthen the position of vocational/technical education within these institutions, and identify them as the primary providers of basic post-secondary vocational/technical education in the state of Kansas.

An important advantage of merging the basic post-secondary offerings of the vocational/technical education system under a single administrative structure is the clear identity that consolidation bestows upon the new arrangement. Students and companies can experience easier access to education and training programs through reduced information costs, and the state leadership can simplify decision rules regarding policy formulation and resource allocation. In addition, the system realizes economies of scale with the elimination of duplicative administrative procedures and hierarchies. Other advantages include the potential for a more uniform set of articulation agreements among all institutions in the education system--including Regents institutions--and for attracting the critical mass of resources that fosters institutional excellence in targeted areas of technical specialization.

A primary reason for offering the recommendation is to make the vocational/technical education system more efficient by ending the duplication of services and administrative structure and by reducing the fragmentation of responsibility for the delivery of educational services. These new efficiencies would allow improvement of programs and course offerings at no additional cost to the state and might even encourage additional funding because of improved service delivery.

Recommendation 7.C.1: In geographic locations where Community College and AVTS campuses are located either in the same community or in adjacent counties, incorporate current AVTS post-secondary programs into existing COMMUNITY COLLEGES. This proposal would exclude Wichita because of its large population and extensive industrial base.

Recommendation 7.C.2: In Wichita, Salina, Emporia, Manhattan, and Topeka, where Community Colleges are not located in near proximity to AVTS facilities, convert current AVTS post-secondary programs into TECHNICAL COLLEGES.

Recommendation 7.C.2.a: Offer both certificate and associates degree programs at the five technical colleges. Institute cooperative compacts between Technical Colleges and local Regents institutions or regional Community Colleges for the delivery of general education courses to satisfy requirements for both types of programs.

Recommendation 7.D: Establish incentives for the cooperative use and management of current AVTS facilities between AREA TECHNICAL CENTERS, COMMUNITY COLLEGES, and TECHNICAL COLLEGES.

These proposals are intended to provide a reasonable and manageable scenario for the consolidation of post-secondary vocational/technical programs into an institutional arrangement that meets the dual objectives of operational efficiency and comprehensive service to the state's geographic regions.

In effect, the scenario presents four options for the continued use of current AVTS facilities: 1) as a technical center campus; 2) as a technical college campus; 3) as a vocational/technical satellite campus of a community college; or 4) as a joint campus for an area technical center and a technical college or a community college satellite. (See chart, next page.) While the choice among these, or other appropriate, options may be difficult to achieve, the proposals offered above represent a reasonable arrangement that is achievable and consistent with arguments and objectives discussed elsewhere in this report. Technical colleges would still be in connection with local USDs. Funding could continue to be primarily through state aid, as is the current case now for AVTSSs. In addition, local counties could be involved more, as they are now with community colleges.

It is important to note that, with the creation of technical colleges, these recommendations do not attempt to create another layer of educational bureaucracy or to retain the duplicative program offerings or administrative structure of the current AVTS/community college arrangement. Rather, technical colleges are intended to service Wichita, the state's largest city, and four of the state's other large commercial centers that are not located in close proximity to community colleges. An important distinction, however, is that technical colleges are designed to parallel only the vocational/technical offerings of the state's community colleges; it is not our intention that they duplicate community college courses in general and/or community education. (See chart for proposed institutions, following pages.)

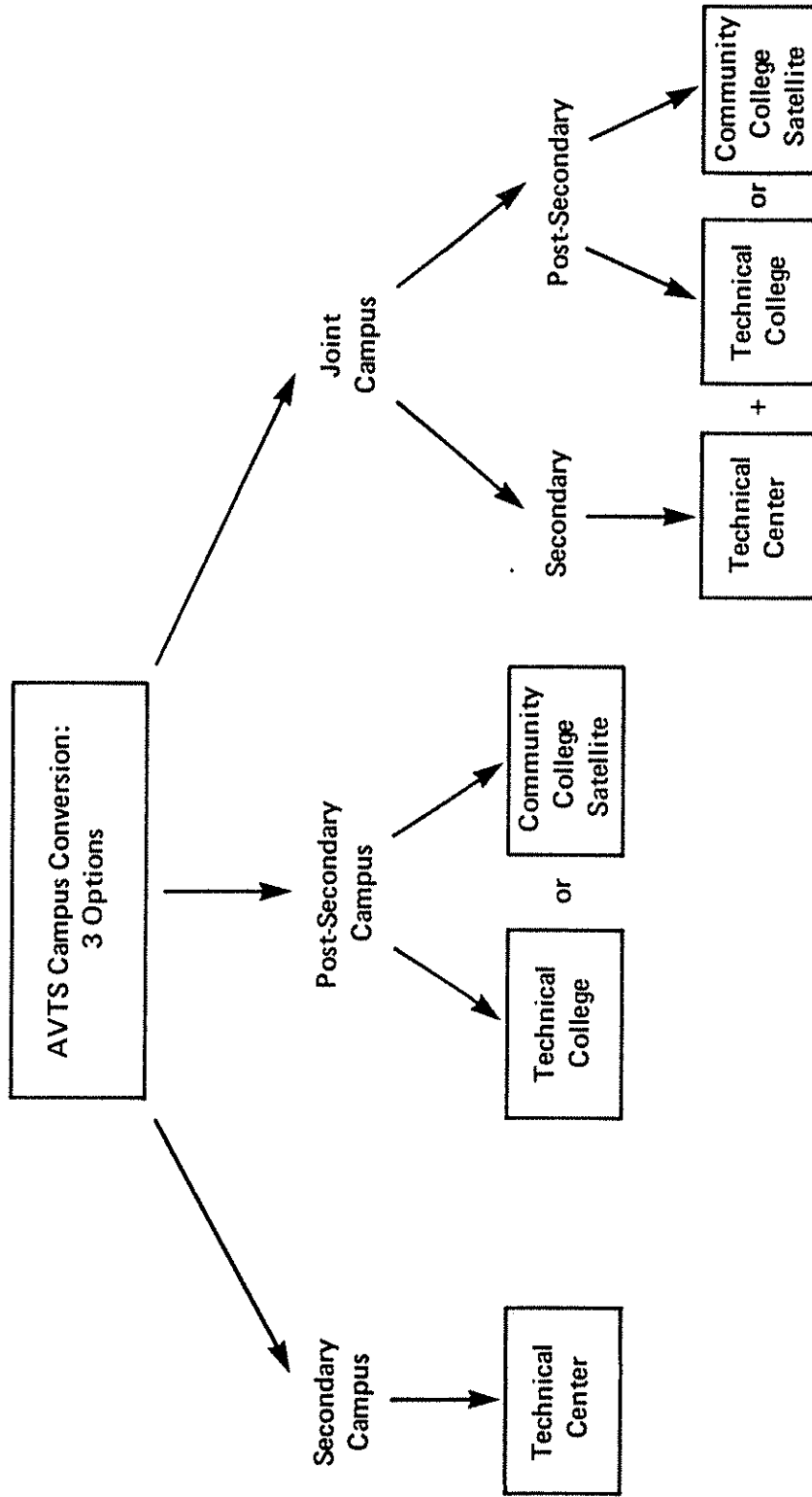
In fact, an additional virtue of the proposed arrangement is that technical colleges also create an additional market for the services of nearby Regents institutions through contracts for the provision of general education courses.

Recommendation 7.E: Clearly position Kansas Technical Institute as the state's primary provider of advanced technical education and training programs, particularly engineering technician programs.

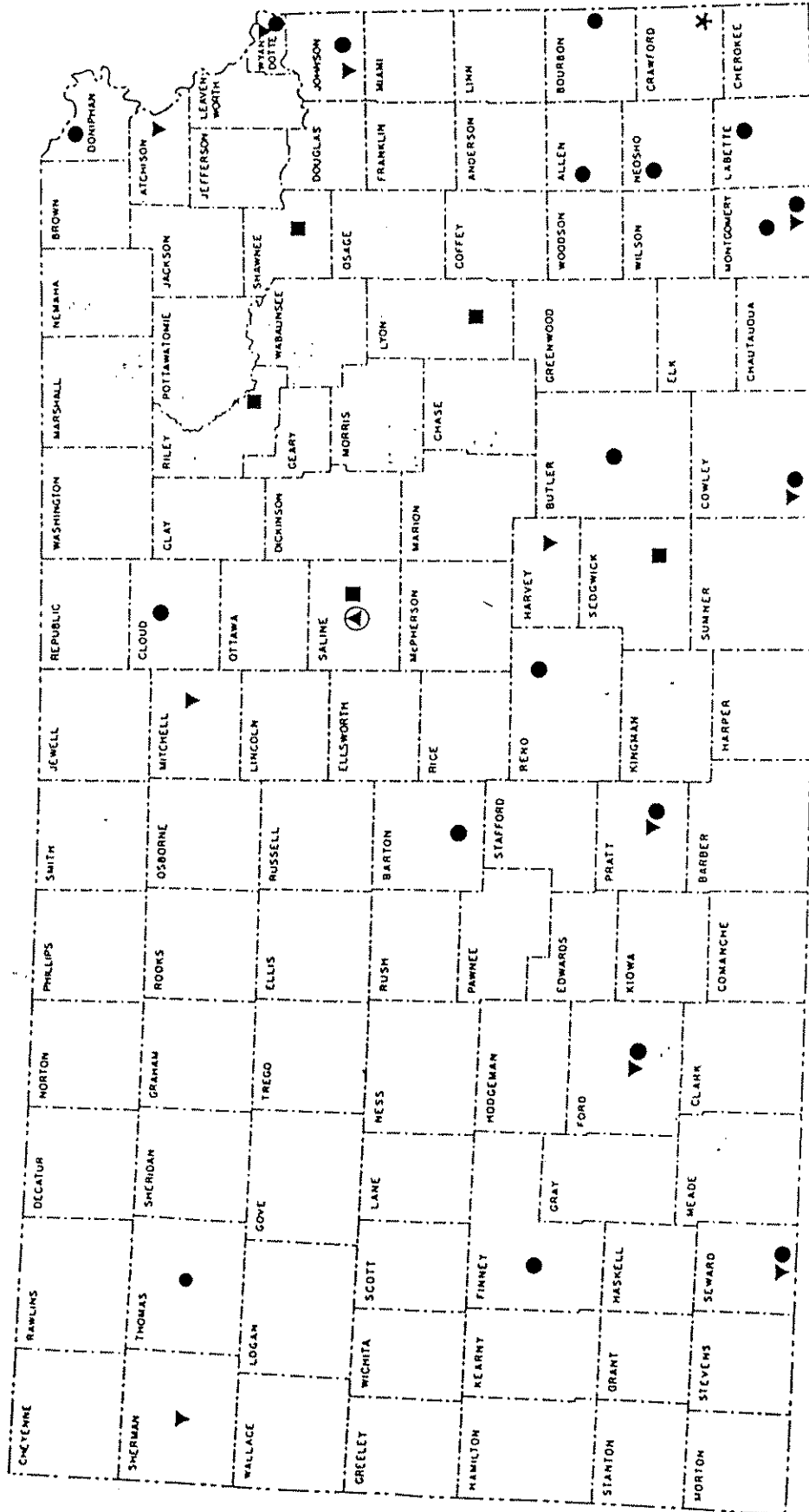
Recommendation 7.E.1: Rename the institution the Kansas College of Technology to better reflect its role within the Kansas Vocational/Technical Education System and as a key agent in the state's economic development strategy.

As indicated by projections for the distribution of jobs in Kansas, industry will experience increased needs for highly specialized programs of engineering technology (*Kansas Occupational Outlook*, 1985). Given the state's limited resource base, the best strategy for Kansas is to designate one institution to address these needs. By so doing, that institution has better potential to attract a sufficient volume and quality of resources to achieve statewide--and perhaps national--recognition for excellence.

AVTS CONVERSION OPTIONS



Proposed Institutions
for the
Kansas Vocational/Technical Education System



- ▼ Area Technical Center/Community College Satellite Campus
- Community College
- Technical College
- ⊙ Kansas State College of Technology
- ✱ Pittsburg State University

Especially in high-tech training areas where instructors and equipment are expensive, it makes sense to locate those programs at Kansas Tech.

Kansas Technical Institute is already in position to assume a larger role of leadership toward meeting the needs of industry for advanced technical training. Its statewide mission has been established, and its programs are designed to train engineering technicians for adaptation to highly skilled occupational tasks. The visibility of Kansas Tech to the student and business communities, however, and its potential to develop conspicuous technical strengths are highly dependent on the differentiation of its educational focus from that of other two-year institutions in the state: It is essential to the economic well-being of the state vocational/technical education system to avoid duplication of mission, objectives, and program offerings, and to do so in both directions. Technical and community colleges should not offer advanced training programs, nor should Kansas Tech duplicate basic vocational/technical curricula. In fact, Kansas Tech should provide an important continuing education option for graduates of community and technical colleges.

To execute its statewide mission for advanced technical training, it is appropriate for Kansas Tech to locate branch facilities in the major industrial centers of Kansas. State support and encouragement for this strategy is highly desirable, especially the cooperation of Regents and two-year institutions that are located nearby and that are in a position to offer the general education component of Kansas Tech curricula. The successful fulfillment of Kansas Tech's statewide mission is also dependent on its market visibility; the development of strong linkages with the Department of Commerce and its Business Training Office (as proposed above) is vital, as is vigorous promotion of Kansas Tech and its services through its own business development center and a state-sponsored program of marketing and public information.

The proposed name change for Kansas Tech, to The Kansas College of Technology, is intended to enhance the image of the institution and to better recognize its function within the vocational/technical education system and its role in the implementation of state economic development policy. A change in name also clearly differentiates the institution from the increasing number of proprietary technical institutes that compete for Kansas students.

8. MISSION STATEMENTS

Recommendation 8: Establish well-defined missions and clearly articulated operational goals for the Kansas Vocational/Technical Education System and for each component of its educational hierarchy.

In this report, we have discussed the merits of linking the Kansas vocational/technical education institutions into a more coherent system with statewide focus. A preliminary step for establishing that linkage is the formulation of clearly differentiated mission statements and operational goals for the constituent institutions of a statewide system.

In an attempt to clarify those missions and goals and to understand how they interrelate with one another, we offer our proposals for missions and goals that seem appropriate for the system itself and for each type of institution in the system. We recognize the limitations of our knowledge and our experience with the vocational/technical education system. Nevertheless, these recommendations are intended to illustrate the type and range of issues that need to be addressed if the system is to operate more efficiently and in a manner that is more responsive to changing demands for its services. Our proposals are consistent with foregoing discussion and, as illustrations, are intended, not as rigid directives, but as reasoned input for policy considerations.

Recommendation 8.A: PROPOSED MISSION FOR THE KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM: to provide a comprehensive system of vocational/technical education which seeks to develop human capital as a key strategic resource for the state of Kansas, and which effectively links its two economic constituencies: the state's existing and potential LABOR FORCE and the state's existing and potential BUSINESS.

PROPOSED GOALS FOR THE KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM:

RE: KANSAS LABOR

1. to facilitate career entry and/or enhancement, and
2. to prepare for more advanced educational opportunities.

RE: KANSAS INDUSTRY

1. to provide training and retraining for technical skill development, and
2. to develop the basic communication and analytical competencies necessary for effective job performance.

Recommendation 8.B: PROPOSED MISSION FOR AREA TECHNICAL CENTERS: to provide comprehensive vocational education services to students in the SECONDARY SCHOOLS of a defined service area.

PROPOSED GOALS FOR AREA TECHNICAL CENTERS:

1. to promote career awareness through comprehensive vocational guidance counseling;
2. to complement the basic educational curriculum with career exploration opportunities;
3. to assist in the delivery of courses covering basic principles of technology in preparation for more advanced technical study at institutions of higher education; and
4. to develop basic skills for entry level employment.

Recommendation 8.C: PROPOSED VOCATIONAL/TECHNICAL MISSION FOR COMMUNITY AND TECHNICAL COLLEGES: to provide basic post-secondary vocational/technical education to all communities in a defined service area.

PROPOSED GOALS FOR COMMUNITY AND TECHNICAL COLLEGES :

1. to serve as the state's primary provider of basic post-secondary vocational education and other specialized training and retraining programs that
 - a. develop skills for job entry;
 - b. prepare for more advanced technical education opportunities;
 - c. enhance the basic technical skills of the area's existing work force in order to meet the demands of industry competition; and
2. to offer curricula and courses which
 - a. satisfy terminal associate degree or certificate program requirements and/or
 - b. transfer to 2- or 4-year institutions and/or
 - c. satisfy the basic training/retraining needs of local industry.

Recommendation 8.D: PROPOSED MISSION FOR THE KANSAS COLLEGE OF TECHNOLOGY (Kansas Technical Institute): to provide advanced technical education and training on a statewide basis at the associates degree level.

PROPOSED OBJECTIVES FOR THE KANSAS COLLEGE OF TECHNOLOGY (Kansas Technical Institute):

1. to serve as the state' primary provider of advanced technical training and retraining programs at the associates degree level that
 - a. prepare for employment at the level of associate engineer;
 - b. prepare for baccalaureate education opportunities; and
 - c. enhance the advanced technical skills of the state's existing work force in order to meet the demands of industry competition; and
2. to offer curricula and courses that
 - a. satisfy terminal associate degree requirements, and/or
 - b. transfer to 4-year institutions, and/or
 - c. satisfy the advanced training/retraining needs of the state's industry.

9. FUNDING

Recommendation 9: Develop STATE AND LOCAL FUNDING FORMULAS for all types of institutions in the Kansas Vocational/Technical Education System that appropriately match institutional mission, goals, and geographic outreach.

The interviews conducted for this study revealed a strong consensus that current funding levels for the vocational/technical education is inadequate to meet its needs and that the state should assume a larger sponsorship role for the system. (See Interview Summaries: Funding.) Funding levels, however, do not impose the only constraint on educational

activities; the design of funding formulas also limit the system's ability to respond quickly and effectively to training needs and opportunities.

For example, customized training increases a firm's capacity to contribute to economic growth. Current funding formulas, however, constrain the ability of community colleges to respond to company needs. In order to receive state reimbursement for customized training, many programs must be conducted under the title and schedule limitations of academic courses that have survived a lengthy and rigorous approval process. (See Interview Summaries: Policies, Laws, and Regulations.) As a result, companies and their trainees may be subject to unnecessary training content and to a program schedule that cannot adapt to their needs for immediacy or duration.

All funding formulas should undergo rigorous scrutiny to determine their impact on the ability of educational institutions to serve their markets and to assess their potential to contribute to the economic development objectives of Kansas. Without examination and corrective action, disincentives to respond effectively and efficiently to market conditions may continue to drive educational decisions and thereby handicap the state's efforts to promote economic growth.

Recommendation 9.A Assign a larger role for state financial sponsorship of the System to be consistent with its statewide mission, structure, and governance.

A study conducted by the Bluegrass State Skills Corporation reported that Kansas's per capita allocation to industry-specific training programs was \$0.21 in fiscal year 1986-1987. Indiana, by contrast, allocated \$2.26 per capita. (See Table 7.) Community college budgets paid by the state and vocational costs paid by the state are also lower than comparable states. (See Table 8.) For Kansas to compete with other state programs of pre-employment and customized training, the state must indicate a stronger commitment to vocational/technical education. This commitment must provide sufficient funds for highly trained instructors and up-to-date programs and equipment.

TABLE 7

FINAL REPORT
OF THE BSSC SURVEY OF
"STATE SUPPORTED INDUSTRY-SPECIFIC TRAINING PROGRAM(S)"

Definition: The commitment of state funds to subsidize institutional or worksite skill training conducted on behalf of one or more employers to meet their current or anticipated production requirements.

SUMMARY

<u>State</u>	<u>Population</u> (1980 Census)	<u>State Funding</u> (FY 86-87)	<u>Per Capita Allocation</u> (FY 86-87)	<u>State Funding</u> (FY 85-86)	<u>Per Capita Allocation</u> (FY 85-86)
Indiana.....	5,490,224	\$12,400,000	\$2.26	\$12,400,000	\$2.26
Missouri.....	4,916,686	\$ 8,600,000	\$1.75	\$ 2,600,000	52.9c
Michigan.....	9,262,078	\$12,939,800	\$1.40	\$13,866,700	\$1.50
Illinois.....	11,426,518	\$14,900,000	\$1.30	\$10,900,000	95.4c
Ohio.....	10,797,630	\$11,000,000	\$1.02	\$11,000,000	\$1.02
North Carolina	5,881,766	\$ 5,300,000	\$0.90	\$ 5,300,000	\$0.90
Georgia.....	5,463,105	\$ 3,700,000	\$0.68	\$ 3,300,000	\$0.60
Alabama.....	3,893,888	\$ 2,400,000	\$0.62	\$ 1,600,000	\$0.41
Mississippi...	2,520,638	\$ 1,410,148	\$0.56	\$ 2,068,304	\$0.82
Virginia.....	5,346,818	\$ 2,358,291	\$0.44	\$ 2,194,499	\$0.41
Oklahoma.....	3,025,290	\$ 1,200,000	\$0.40	\$ 1,050,000	\$0.35
Louisiana.....	4,205,902	\$ 1,050,000	\$0.25	\$ 250,000	\$0.06
Kansas.....	2,363,679	\$ 500,000	\$0.21	\$ 300,000	\$0.13
Kentucky.....	3,660,777	\$ 687,300	\$0.19	\$ 438,200	\$0.12
Florida.....	9,746,324	\$ 1,450,000	\$0.15	\$ 1,500,000	\$0.15
West Virginia.	1,949,644	\$ 267,147	\$0.14	\$ 242,973	\$0.13
Maryland.....	4,216,975	\$ 487,000	\$0.11	\$ 324,000	\$0.08
Texas.....	14,229,191	\$ 890,000	\$0.06	\$ 890,000	\$0.06

1. The summary is of state monies only; figures do not include federal funds/grants which are committed by the state to support the state's industry-specific training program(s).
2. The summary does not include state funds which may be made available to support skills training for industry (especially vocational education upgrade activities); the survey is based on state allocations to "industry-specific training programs."

TABLE 8
 PERCENT OF COMMUNITY COLLEGE BUDGET PAID BY THE STATE AND
 PERCENT OF VOCATIONAL COST PAID BY STATE

	% Budget Paid By State	% Vocational Cost Paid by State
Kansas ¹	21%	51%
Missouri.....	42%	n/a
Iowa.....	47%	58%
North Carolina.....	70-90%	70-84%
Nebraska ¹	39%	heavily weighted in funding formula
Colorado ²	75%	n/a

1 FY 1984-1985

2 For state community colleges only. Four local district community colleges receive 45 percent of total revenues from state appropriation. Weighted average not available.

Source: Telephone survey of state community college governing agencies and information divisions. Based on FY 1985-1986 except as noted. Kansas percents based on *Statistical and Financial Information of Kansas Community Colleges*, Kansas State Department of Education, February 1986.

In addition, if Kansas vocational/technical education institutions are to operate with a statewide mission, then incentives to do so must be established by the state's policy leadership. Without these incentives, the system will continue its tradition of local autonomy and the state will be less able to allocate its scarce resources in a manner that is consistent with economic development objectives.

Recommendation 9.B Enlarge the local funding base for each Community College and Technical College to include each county assigned to the institution's service area, thereby encompassing all 105 state counties within a statewide funding base.

Recommendation 9.B.1: Provide incentives to each Community College and Technical College to enhance its delivery of educational services to outlying counties in its designated service area.

Recommendation 9.B.2: Abolish the out-district tuition program.

If local educational institutions are to improve the geographic outreach of their service delivery, it is appropriate for the areas that benefit from those services to make systematic contributions to those institutions. The local funding base for each community and technical college, therefore, should include every county assigned to that institution's service area. Under this scenario, each of the state's 105 counties will assume a share of the responsibility for strengthening vocational/technical education in Kansas.

Institutions, however, should be guided by additional incentives for improving the scope and quality of their service to outlying counties. County administrators, for example, could participate in planning and review activities that establish training and education objectives for their jurisdictions and that evaluate the quality and relevance of ongoing programs. In the event that local needs or commitments are not satisfied, that county may choose to exercise a state-sanctioned privilege to withhold financial support from the institution.

As out-district enrollments in community colleges continue their steady increase--a trend that developed from 1981 to 1985 (see Table 9)--the out-district tuition reimbursement program becomes an arrangement that is more cumbersome and less appropriate to the enhanced service mission of community colleges. The institution of areawide funding for the community and technical college system is a fitting alternative to out-district tuition reimbursement.

TABLE 9

IN-DISTRICT AND OUT-DISTRICT HEADCOUNT ENROLLMENTS
FOR COMMUNITY COLLEGES
1981-1985 (Fall Semesters)

	1981		1982		1983		1984		1985	
	In	Out	In	Out	In	Out	In	Out	In	Out
Allen.....	418	572	402	622	912	887	1,076	847	887	740
Barton.....	1,396	1,940	1,307	2,154	1,545	2,447	1,671	2,775	1,813	3,389
Butler.....	1,092	1,303	1,252	1,733	1,363	1,979	1,281	2,213	1,245	2,399
Cloud.....	451	1,625	468	1,595	2,201	*	661	1,278	267	1,213
Coffeyville..	1,231	210	1,405	287	1,310	249	1,157	441	1,494	178
Colby.....	624	1,687	482	1,558	485	1,478	453	1,287	441	1,190
Cowley.....	1,408	555	1,633	560	1,273	709	1,110	451	1,406	415
Dodge City..	671	692	646	678	688	763	1,124	265	1,169	273
Fort Scott..	574	817	440	852	387	902	858	381	391	524
Garden City..	617	830	931	873	1,001	885	1,225	861	956	728
Highland....	403	971	442	633	100	1,166	466	799	161	1,107
Hutchinson..	1,021	611	1,905	1,041	2,029	1,402	1,937	1,236	1,784	1,273
Independence	692	299	662	283	595	342	681	298	666	265
Johnson.....	6,323	801	6,866	832	7,052	1,054	6,932	1,171	7,190	1,253
Kansas City..	2,543	1,139	3,186	784	3,546	589	2,639	971	2,601	1,013
Labette.....	1,315	957	1,252	875	1,595	1,129	1,240	1,167	1,321	1,345
Neosho.....	390	428	433	459	467	562	477	524	540	444
Pratt.....	862	1,815	913	1,749	1,342	1,313	1,323	1,464	1,297	1,168
Seward.....	1,130	258	1,164	254	1,250	275	1,030	439	1,077	474
Totals.....	23,161	17,510	25,789	17,822	29,141	18,131	27,341	18,868	26,706	19,391

*Data Not Available

Source: Program Planning and Evaluation Section, Kansas State Department of Education

Recommendation 9.C: Establish a strong state commitment to maintain consistent funding levels for capital outlay within the Kansas Vocational/Technical Education System.

Recommendation 9.D: Distribute capital outlay funds to System institutions on a competitive basis. Award funds according to detailed 5-year plans for equipment needs and annual proposals for specific equipment purchases.

The quality of vocational/technical programs is highly dependent upon the quality and availability of material resources, and up-to-date equipment is an especially critical component of that resource base. (See Interview Summaries: Equipment.) During 1985-1986, capital outlay disbursements from state and local sources totalled \$4,366,004 for Area Vocational/Technical Schools and \$3,391,185 for Community Colleges. (See Table 10.) During 1986-1987, there were no disbursements for capital outlay.

TABLE 10

CAPITAL OUTLAY 1985-1986
AVTSS AND COMMUNITY COLLEGES

<u>AVTS</u>	<u>Total</u>	<u>Community College</u>	<u>Total</u>
Atchison.....	\$ 119,963	Allen County.....	\$ 49,450
Beloit.....	370,263	Barton County.....	-----
Coffeyville.....	298,769	Butler County.....	315,233
Dodge City.....	107,700	Cloud County.....	69,634
Emporia.....	100,833	Coffeyville.....	63,345
Goodland.....	181,453	Colby.....	16,045
Newton.....	226,706	Cowley County.....	-----
Kansas City.....	1,168,518	Dodge City.....	98,663
Liberal.....	68,126	Fort Scott.....	-----
Topeka.....	150,062	Garden City.....	22,315
Wichita.....	558,251	Highland.....	-----
Johnson County....	118,850	Hutchinson.....	437,151
Pratt County.....	206,552	Independence.....	-----
Cowley County.....	689,958	Johnson County....	1,136,817
		Kansas City.....	870,831
		Labette.....	-----
		Neosho County.....	-----
		Pratt County.....	174,169
		Seward County.....	137,532
Totals.....	<u>\$4,366,004</u>		<u>\$3,391,185</u>

Source: Kansas State Department of Education

As the pace of technological change quickens, it will become increasingly important for the state's vocational/technical institutions to maintain the quality of their capital resources. Annual disbursements for equipment are a critical necessity and should be considered an investment priority. To neglect capital outlay seriously jeopardizes the quality of vocational/technical education and the competitive posture of Kansas industry.

A major source of revenues for the purchase and maintenance of vocational/technical equipment is state support. The state's commitment to capital outlay should be substantial and consistent from year to year. In FY86, state appropriations for capital outlay amounted to only \$1,500,000; in FY87, no funds were allocated. The educational administrators interviewed for this study indicated the difficulties they encountered trying to develop long-range plans without the assurance of annual state support and attempting to provide quality service with minimal state contributions toward equipment purchases. (See Interview Summaries: Funding.)

As administrators are encouraged to develop an ethic of planning and coordination, an especially effective incentive to do so can be provided in the form of consistent state contributions toward capital expenditures. Given the state's limited financial resources, and given the benefits of institutional planning, it is appropriate to award capital outlay funds on a competitive basis as institutions demonstrate their commitment to regional service and statewide interests. Competition for capital resources could encourage institutions to focus their efforts on those programs that make longer-term contributions to the state through program specialization and service targeted to economic-base industries.

Recommendation 9.E: Request a study from the Department of Commerce on other innovative funding mechanisms for the Kansas Vocational/Technical System.

Kansas government need not assume full responsibility for higher levels of financial support for the state's vocational/technical education system. Other states have developed a number of funding mechanisms that distribute some of the financial burden of education and training programs to the companies and/or communities that benefit from those services. Financial arrangements such as those listed below have considerable merit and deserve the attention of Kansas policymakers.

Innovative Funding Arrangements:

1. Illinois is working on a legislative bill that will allow post-secondary institutions to raise capital for customized training through TAX INCREMENT FINANCING where bonds are issued and repayment is through increased taxes paid by the client business. (See Appendix C.)

2. Iowa sells TRAINING CERTIFICATES in the financial markets for training programs which are repaid by withholding tax credits and/or incremental property taxes. (See Appendix C.)

3. Oklahoma encourages the formation of BUSINESS COOPERATIVES so that businesses may share payment for management instruction and/or technical training programs. (See Appendix C.)

10. GOVERNANCE

Recommendation 10: Establish a GOVERNANCE STRUCTURE for the Kansas Vocational/Technical Education System that is appropriate to the mission and operational goals of each type of institution operating within the system.

Our recommendations for changes in the governance of Kansas schools and colleges are congruent with other proposals for modifications in the vocational/technical education system's goals, missions, and structure. They are intended to promote internal consistency, operational efficiency, and the improvement of educational service to the system's clients.

The recommendations proposed previously in this report stand alone on their own merits: their implementation is not contingent on a satisfactory resolution of the governance issue. We address governance because changes in the current arrangement would improve the education system. This can be accomplished by focussing responsibility for post-secondary vocational/technical programs in a board that will have the time needed to develop expertise in this specialized component of the state system and to effectively coordinate the educational services of that component.

The Board of Education, which also has responsibility for K-12, cannot give sufficient attention to the post-secondary programs of AVTSS and community colleges. A different governing arrangement could give those programs greater visibility and more effective advocacy at the state level. It could also help to clarify the missions and operational goals of the institutions under its governance.

Recommendation 10.A: Maintain governance of vocational/technical education at the secondary level, as delivered through AREA TECHNICAL CENTERS, by the State Board of Education.

Recommendation 10.B: Reassign governance of other post-secondary vocational/technical institutions to a governing board devoted to post-secondary higher education.

Recommendation 10.C: Establish formal coordination/articulation links between the governing and delivery units of secondary and post-secondary vocational/technical education.

In previous discussion, we have considered the merits of and need for separating the delivery of vocational/technical education between secondary and post-secondary students. Based on that discussion, it is reasonable to propose that the governance structure for secondary and post-secondary programs be similarly distinguished. Two additional reasons prompt our proposals: 1) the separation of governance facilitates a state-level focus on mission, goals, and objectives; and 2) the delivery of vocational/technical education at the post-secondary level is of sufficient magnitude and importance that its institutions merit their own oversight and advocacy.

Consistent with these arguments, then, the State Board of Education is best positioned to govern vocational/technical education at the secondary level and another state board that is devoted to higher education can best govern and coordinate post-secondary vocational/technical programs.

At the level of higher education, two scenarios emerge for restructuring the governance of institutions that deliver vocational/technical education. The first calls for the establishment of a third state-level governing board, one that is appointed and that limits its governance to two-year colleges. This option has two primary advantages: 1) it consolidates budget and coordination responsibilities for all post-secondary vocational/technical education at a statewide level, and 2) it enhances the image of vocational/technical education through increased visibility, expanded identity, and the focussing of public attention on the mission and goals of vocational/technical education. Disadvantages include the need for a constitutional amendment in order to implement this option, and the potential for deemphasis of the transfer and community service components of community colleges. Focussed attention on academic transfer programs would be required to ensure that important aspects of higher education are not neglected.

A second scenario for the governance of two-year colleges involves assigning these institutions to the State Board of Regents. The major advantage of this option is more comprehensive coordination of all institutions of higher education, a consolidation of function and structure that can more readily facilitate the movement of students and their credits from all secondary programs and across all post-secondary programs. It also is a more rational use of state resources. This option, however, creates the potential for deemphasis of vocational/technical programs and two-year institutions, to the benefit of academic programs and the state's universities. Again, by focussing attention on vocational/technical programs, policymakers can overcome any budgetary or programmatic biases in favor of current Regents institutions.

The governance scenario that is most consistent with our other proposals and with the premises of our discussion is the third board for two-year colleges. This option is also the strong consensus of those community college presidents interviewed for this study, as witnessed in the following table.

<u>Governance Preference</u>	<u>Area Vocational-Technical School Directors</u>	<u>Community College Presidents</u>
Board of Education	8	1
Board of Regents..	0	3
A Superboard.....	0	0
Local Board.....	0	1
Third Board.....	3	9
No Preference.....	1	0

It should be noted here that AVTS directors prefer the current governance arrangement.

We recognize the barriers that encumber our preferred governance scenario. And, in the event that these barriers are not overcome, we support the Regents option, not only as an acceptable alternative, but one that is preferable to the present governance arrangement. Ultimately, both alternatives reflect the two principles that underlie our recommendations concerning governance: 1) that all post-secondary vocational/technical institutions should be governed by a single board that is focussed on vocational education and can coordinate the system; and 2) that community and technical colleges should be under a third board or the Board of Regents to clearly differentiate their mission and goals from that of secondary programs.

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APPENDICES
VOCATIONAL/TECHNICAL EDUCATION AND
KANSAS ECONOMIC DEVELOPMENT

A Research Report

prepared for

The Kansas Council on Vocational Education

October 7, 1987

Institute for Public Policy and Business Research
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APPENDIX A
INTERVIEW SUMMARIES

VOCATIONAL EDUCATION INTERVIEW SUMMARIES

For the basis of this study, personal interviews were conducted with 13 area vocational/technical school representatives, 16 community college representatives, and 19 business representatives across the state. Also interviewed were representatives of Kansas Technical Institute, Pittsburg State University, the Kansas State Department of Education, members of the Kansas State Council of Vocational Education, the Kansas State Department of Human Resources, and the Kansas State Department of Commerce.

Standard interview forms were used for the area vocational/technical school, community college, Kansas Technical Institute, Pittsburg State, and business interviews. Area vocational/technical school directors and community college presidents were first contacted to participate; if they could not a representative from the institution who was sufficiently familiar with vocational education issues was interviewed. In all, 12 area vocational/technical school directors and 14 community college presidents were interviewed.

The following are interview summaries of key issues that were discussed. When applicable, numbers are given for how representatives responded to certain questions.

THE KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM

By far, the most common suggestion for improving the Vocational/Technical Education System was to increase funding at the state level. A typical statement was "The legislature needs to provide a stronger financial base with more reliable funding."

Overall, there was a desire for the state to get more involved in the system. Suggestions ranged from having the Governor make a policy statement about vocational education to a complete changing of the governance structure. Better coordination was emphasized throughout the interviews. There was a strong desire, especially from AVTS representatives, for someone or some agency in the state to promote vocational education and point out the opportunities that are available. An AVTS director stated: "We just need people to say good things about vocational education. There needs to be more promotion to bring the roles and missions of institutions to the average Kansas citizen and high school counselors." For the majority, the state is responsible for this.

Another desire for the improvement of the system was for clearer goals and missions from a state perspective. From these interviews, school representatives want someone from the state to make hard decisions about planning, funding, mergers, and the roles of each individual institution. After the state has made their decisions on the delivery of vocational education, they should be carried out. In this way, coordination for the entire system can be improved.

Business representatives see the Kansas Vocational/Technical Education System as being good, although three interviewees stressed that they did not think a system existed. Suggestions for improvement of the system included

an emphasis on promotion, improvement of transferability of courses, improvement of equipment used for training, and better funding.

Business representatives were concerned about two main points. A Topeka businessman said: "Institutions are not evolving as fast as they did in the past. There may be a big crisis in hiring for new and evolving occupations. The knowledge industry possesses is in many circumstances far past the knowledge contained in a training school." A Wellington businessman said: "There needs to be an improvement of funding and availability of programs. The system needs to improve knowledge [about its services]: Where are programs [located]? Are they good? People need to know."

From these interviews with businesses, there is concern that vocational institutions will remain up-to-date, and there is a desire to learn more about vocational education programs. These factors must be considered when discussing the improvement of the system and what it can offer.

COMMUNICATION WITH INDUSTRY

Of the 31 institutions interviewed, 28 reported that they contact local businesses, 29 said they asked local industry for advice on how to improve training services, and 23 stated that they schedule meetings or public forums with business representatives to determine if business needs are or are not being met. Business representatives reported that for the most part, contact with schools is frequent to infrequent but regular; contact is usually only with schools that are close to the business. Business representatives saw vocational education as something that was delivered from local areas.

Almost every person interviewed expressed a desire to improve communication between institutions and industry, and there were many suggestions on how to do this. Committees or an individual liaison whose job was solely to work with industry was recommended. Career days and open houses could possibly be a way to bring business into the institution to see what might be offered. Both institution and business representatives felt that more aggressive attempts at communication should be made, and interviewees from industry were particularly interested in seeing training services marketed more. Overall, it was apparent that institutions are aware of the need for and willing to make more contact with industry, and industry is receptive to new ideas and assistance.

ENROLLMENTS AND ENROLLMENT TRENDS

All institutions interviewed indicated that total enrollments in vocational education are increasing. Community colleges were asked what an optimal mix between academic and vocational enrollments would be: the majority stated that a 50 percent-50 percent mix would be the optimum. On average, community colleges reported about a 65 percent academic enrollment and a 35 percent vocational enrollment at the present time.

Institutions were very much aware of what enrollments and enrollment trends were. There was also a consensus that enrollments and enrollment

trends will change more as technology and the demands of the work force necessitate such changes.

Educational institution participants were asked what course and program enrollment trends were for their particular school. Below are examples that were given for increases and decreases in enrollments. An asterisk (*) indicates strong agreement across all institutions.

Trend for Increased
Enrollments In:

*Computer Related
*Clerical
Electronics
CAD-CAM
Food Services
Television Technology
Allied Health
Child Care
Police Science

Trend for Decreased
Enrollments In:

*Agriculture
*Home Economics
Carpentry
Machine Shop

Both Increases and
Decreases In:

Welding
Auto Body
Auto Mechanics
Nursing (LPNs)
Diesel Mechanics

There were several representatives who stated that even though demand and opportunities were decreasing for agricultural courses and programs, the "community" would not allow the elimination of these programs. It seems that, in a few schools at least, what may be right for local industry and local students could be in conflict with what advocates of the institution think should be offered. This is of great importance when talking about vocational education from a state perspective, and how institutions can assist the state's economic growth.

EQUIPMENT

Overall, institutions stated that the equipment they used for training was used but reasonably up-to-date. Twelve of the total 31 institutions interviewed felt that they had new, state-of-the-art equipment. The majority of business representatives interviewed (six) did not know about the quality of equipment used at institutions. However, five business representatives thought equipment presently in use was used but reasonably up-to-date. Both institution and business representatives agreed that the quality of equipment strongly influenced training and the excellence of programs.

Funding for equipment was a key issue. There was a strong consensus that the state must provide more constant and reliable funding. Funding is perceived now to be in piecemeal and erratic fashion, and was also seen as extremely important in keeping up-to-date with industry. The expense of constantly acquiring new equipment was perceived to be too much by many respondents.

To improve the quality of equipment, several interviewees suggested involving industry more than at the present time. Specifically, more training incentives must be given to industry to receive equipment. A particular suggestion in this regard was to bring local businesses together and have them use equipment jointly for training. After training, the equipment can be left as a donation. Equipment pools were also recommended for use by the entire state system, with the state establishing incentives for institutions to share and rotate equipment.

FUNDING

Funding for vocational education is seen as a major problem. There was a strong consensus that the state must provide more money to the system. Insufficient funding was seen as a lack of commitment by the state towards vocational education.

Each respondent from an educational institution had at least one particular funding mechanism that was seen as poor or restricting. Funding formulas based on credit hour generation were seen as disincentives for businesses to create customized training programs and as a disservice to students. Capital outlay, although important, was considered unreliable to plan equipment purchases with or to use for programs. Carl Perkins matching funds were thought to be extremely hard to consistently maintain. A major complaint from community college representatives was that local taxpayers now have too much of a burden in giving institutions money. Community colleges with a small tax base point out that they can never supply their students with the same type of offerings a larger school can; many interviewees from educational institutions and state agencies made the same suggestion of requiring all Kansas counties to provide some funding.

Problems given because of lack of funding included less money to pay instructors, to spend on the acquisition of equipment, and to spend on overall quality of programs. One respondent stated that the lack of funding will eventually cause training costs to rise dramatically, discouraging companies to seek assistance at institutions. There was a general feeling that to improve the technical training in the state, funding must increase to provide industry with sufficient incentives to use vocational education.

GOVERNANCE AND PREFERRED NAME

A particular question in the interview dealt with governance. The responses broke down as follows.

Would you prefer to be governed by:

AVTS Representatives	CC Representatives	
7	1	the State Board of Education
0	4	the Board of Regents
0	1	a Superboard governing all educational institutions
5	9	a separate board governing only institutions in your category
0	1	local governing boards
1	0	no preference

Pittsburg State University and Kansas Technical Institute both responded that they would prefer to be governed by the Board of Regents.

As expected, suggestions for changes or improvements in governance were split by institutional category. AVTS representatives as a whole felt that community colleges should be governed by the Board of Regents, while community college representatives felt that AVTSs should either stay in the Board of Education or combine with community colleges and move into the same board. Community college representatives also did not want secondary students to be under their control, and for the governance system to reflect this. There was general agreement that whatever governance structure was used, vocational education should be separated into its own system of control.

The main issue that came from comments about governance was a desire for improvement. Representatives feel that there needs to be governance that can recognize and solve vocational education's problems, provide more consistent and equal funding, give more thought and effort to articulation agreements, and coordinate all institutions in the system to offer better vocational education training.

Each school was asked "What is the preferred name for institutions in your category?" The breakdown was as follows.

<u>Community College Representatives</u>	<u>Area Vocational/Technical School Representatives</u>
15 Community College	2 Area Vocational/Technical School
1 No preference	2 Technical College
	7 Technical Center
	1 Career Center
	1 No Preference

KTI preferred to have the name Kansas College of Technology.

An AVTS director said: "I prefer Technical College because the current name contributes to an image problem which communicates the message: 'If you

can't cut college, go to a voc-tech school." The image problem was the main reason for the others who wanted a name change, also.

HIGH TECHNOLOGY

Specifically, the question was asked concerning one institution having the high technology focus in the state. Most everyone answered this question with their school in mind. There was strong agreement that one institution in the state should not have the sole focus on high-technology. One respondent stated that every school will need high-technology programs to survive.

A common answer was that if there was to be a focus, it should be where high-technology is located; right now that was perceived to be in Kansas City and Wichita. The point was also made that high-technology programs will do many things for an institution, such as raise enrollments and increase interest from industry. Because of this, high-technology should not be located in one area.

It was quite clear that vocational education institutions were aware of changing technologies and the increase of "high-tech." Because of this, their presumed futures and current interests are based on how well they can deliver these new and changing programs. For each school, it is considered important that at least a few new and innovative programs are available for their students and local industry.

IMAGE, HIGH SCHOOL COUNSELING

There was a strong feeling, especially among AVTS representatives, that vocational education has a severe image problem. Vocational education is seen by the general public as being third-rate and a little behind the times. Suggestions for improving this image included increased marketing efforts and to encourage state representatives, particularly the legislature and the governor, to speak out for vocational education and what it has to offer.

Also of concern was high school counseling about vocational education. The perception by those who commented was that there is a tendency for high school counselors only to encourage college preparatory curriculums. One recommendation was that counselors must receive more information about vocational education so they can adequately inform students of the possibilities and opportunities that exist for those with a technical background.

INSTRUCTORS

The majority of community college representatives felt that the supply of skilled instructors for vocational/technical training was less than sufficient. The majority of AVTS representatives, however, felt that the supply of skilled instructors was sufficient.

There were many reasons for not attracting skilled, qualified instructors to the Vocational/Technical Education System. The most common reason given was money: potential instructors cannot be paid what they would make in private industry. One AVTS representative mentioned certification requirements as another obstacle. Potential instructors are good at their chosen field, but cannot make certification. From the other point-of-view, both community college representatives and AVTS representatives stated that potential instructors may know the skills needed for training, but they really have not had the experience in relating knowledge to students. Therefore, assimilating them into a learning environment is difficult.

At present, instructors in computer related programs and electronics are hard to find, while instructors in welding and auto mechanics are fairly easy to attract. Geographic location was also seen as a factor. Large population centers such as Wichita and Kansas City were perceived to offer a larger supply of qualified instructors than other Kansas areas.

When business representatives were asked "How do you evaluate trainers at the institution you have recently worked with?," 11 rated instructors excellent, four rated them good, one rated fair, and three answered no comment. From this small sample, the general feeling about the quality of instructors is good, and this is a plus for the system. However, three business representatives made very clear that they thought instructors were not in the actual working environments of companies enough; to improve their training techniques instructors should visit and work more with businesses.

Suggestions for improving the supply and quality of instructors included offering better salaries and working environments; creating an "instructor pool", where the system can share qualified instructors for customized training; the formation of alliances with businesses to use industry personnel as instructors and to have businesses pay part of instructor salaries; and funding to send instructors back to industry for yearly updating.

MERGERS

When discussing mergers between AVTSs and community colleges, community college representatives were more favorable to mergers than AVTS representatives. An AVTS director stated: "There are absolutely no benefits to a merger. There is a logical sequence of AVTS to community college to four-year institution. A merger would break up this sequence. Programs and courses would also become 'watered down'." From another point-of-view, a community college president stated: "Yes, there are many benefits to a merger! It will get rid of duplications; you can also find what you need at one place, and it will provide more service to the student."

Below are benefits and negative aspects that were given by interviewees for a merger between an AVTS and a community college.

<u>Benefits from a Merger</u>	<u>Negative Aspects of a Merger</u>
Eliminate duplication	Loss of identity for AVTSs
A better public image for AVTSs	Because of certification requirements, there would be a loss of good AVTS educators
Increased coordination	Increased costs
Sharing of instructors	A combination of secondary and post-secondary
Reduced costs	Question of governance: such institutions would require unique structures
Better administration	AVTS would get pushed aside by the community college
Better articulation	
Funds for both can be pooled	
Combine programs to make one excellent offering	

One interesting discrepancy these interview comments brought out was that even though increased coordination and working together in the system was stressed throughout the interviews, mergers, a way to seemingly increase coordination, are sometimes attacked strongly. Obviously, there is "turf protection," and a fear by some that their institution may be shut down. But in this study, individuals in favor of mergers did not want any school shut down, only an "elimination of waste." What is very likely needed when the discussion of mergers is made again in the future is more dialogue between the institutions that might combine.

MISSIONS

AVTSs generally see their mission as giving hands-on occupational training that provides entry-level skills. They see themselves serving secondary and post-secondary students, and consider customized training as part of their mission. They see the community college mission as being concerned with academic class instruction for transfer-orientated degrees, which includes vocational education. There are some skeptics about the true intent of the community college mission, however. One AVTS representative stated: "It appears that community college efforts are finance-driven rather than needs-driven, they should be very careful about the types of vocational training they get into because the quality becomes diluted."

Community colleges view their mission as being to provide transfer orientated degrees and occupational training to their communities. They see AVTSs as providing terminal technical programs, more limited training, and training for traditional skills. A community college representative stated: "AVTSs have less of an educational component than do community colleges, and they offer more traditional skills such as auto-body repair."

KTI views its mission as providing statewide focused engineering technology programs, exposure to theory behind the courses and programs, and more lab-orientated programs than a regular engineering program. Also

included in the mission are specialized training, continuing education, and community involvement.

KTI was viewed by the other interviewees as one of two things: a "political creation" that had little reason for existing, or a highly technical institution that provided much theory and more complex training for their students. Two quotes illustrate this difference. An AVTS representative stated: "KTI is a 'political boondoggle'. It was a political creation that was convenient to create at the time. It competes with the local AVTS and should not exist." A community college representative stated: "KTI has a high-tech emphasis on training. There is more emphasis on theory and more specifics in the background of the subject being taught. They provide a more in-depth training for the student."

Pittsburg State viewed its vocational education mission as to provide opportunities for training, retraining, educational technology, to provide education to Southeastern Kansas, and to promote economic development. Other interviewees viewed Pittsburg State as having a mission of providing higher technical training.

The state's mission was seen as enhancing economic development through vocational education, to help the community prepare people for entry-level jobs, and to serve people who do not want a four-year degree. Many interviewees thought the state had no clearly defined mission when it came to vocational education, and thought that a mission may be stated, but very little was done to promote or carry it out.

POLICIES, LAWS AND REGULATIONS

From community college representatives, the state program and course approval mechanism received numerous complaints. It was described as too slow and "limiting to provide special training needs." Funding based on credit hour generation also received negative criticism. With this stipulation, the ability to serve businesses was seen to be restricted. A community college president said: "There needs to be a way to fund technological training on something other than a credit hour basis. This will allow for greater flexibility as needed for customized training." There was strong agreement that these must be changed.

Another resented stipulation is out-district tuition. This was seen as a deterrent to cooperation between counties and as a disadvantage for the student. A community college president stated: "If a community college goes into another county, then out-county tuition is assessed to that county. In some cases, county commissioners resent the community college coming into their county because of the added costs."

AVTS representatives mentioned different regulations that they felt hindered their ability to provide vocational education more efficiently. These included certification requirements, the paperwork required for JTPA funds, capital outlay stipulations, and the complexity of required placement reports. There was agreement that these, too, should be changed.

PROGRAMS AND COURSES

Both AVTSS and community colleges thought that their programs and courses were up-to-date to reasonably up-to-date, that their programs and courses were meeting to generally meeting the needs of businesses, and that the overall quality of their programs and courses were good to excellent. All schools specialized in different programs, but AVTSS specialized more in traditional industry skills. Programs and courses are determined by committees, surveys of businesses and students, and the needs of industry and students in the community. Factors that were seen to emphasize the quality of programs were the success of graduates, placement statistics, faculty commitment, and industry and student feedback.

Business representatives saw community college and AVTS programs and courses as being good to excellent in quality. Representatives thought that more courses in math, speech, physics, and English should be offered, as well as more evening classes and programs designed for high technology. One business representative stated: "We need students that have more exposure to algebra, physics I and II. Our workers need to know more about the theory behind the practice. Some of our employees can troubleshoot now, but they really do not know how the process works."

School representatives were aware of the programs and courses they excelled in, and all stated that they were in contact with businesses to determine what they needed. However, there was a general demand expressed by industry representatives for more advanced type courses; courses that provide more of a background for the processes behind the skills.

SKILLED LABOR, SHORTAGE OF SKILLED LABOR

Business representatives were asked "In your opinion, is the supply of skilled labor in your geographic area more than sufficient, sufficient, or less than sufficient?" Eleven answered that the supply was more than sufficient, three answered sufficient, four answered less than sufficient, and two did not know. When asked if a more highly skilled work force would improve their company's performance, 11 answered yes, four answered no, and four answered that they did not know.

For those business representatives that thought a more skilled work force would help performance, the main issue was the ease in which they could be trained for new tasks. A business representative from Salina said: "More skilled labor would increase our performance. These people would require less training time, and would be better able to adapt to our style, which is one of constant change." This is an important theme for vocational education to recognize and plan for in the future.

Business representatives interviewed stated that the skills required for their companies run the gamut for all types, but those frequently mentioned were electronic technicians, machinists, mechanics, computer operators, plumbers, and clerical workers. Most mentioned skills in short supply were electricians, machinists, maintenance mechanics, and CAD-CAM operators. The supply of skilled labor was seen to be more sufficient in larger cities and towns---Wichita, Kansas City, Olathe, Salina, Topeka, and Manhattan.

ISSUES OF TRAINING: EMPLOYEES, STUDENTS, AND ATTRACTING STUDENTS
TO TRAINING PROGRAMS

When asked how important vocational/technical education was to the training of skilled workers, 12 business representatives thought it was very important, four thought it was somewhat important, and three did not know. Business representatives were also generally pleased with the training they received: 14 answered that they were very satisfied with the training services provided by an institution they had worked with, four were satisfied, and only one was not satisfied at all. Pittsburg State and KTI were mentioned specifically as having excellent and timely training programs.

Most community colleges and AVTSSs rely on word-of-mouth to attract students to their training programs. Other ways to attract students included advertising (newspaper, radio, and television), job fairs and career days, high school recruiting, and, in a few cases, offering scholarships to students for vocational education. However, there seemed to be no planned, coordinated way to attract students.

The majority of community college representatives stated that they try to teach strong vocational skills along with a strong liberal arts and sciences background. The majority of AVTSSs stated that they try to teach for strong training skills only in their programs. The quality of students in all institutions ranged from poor to excellent.

APPENDIX B
ADDITIONAL INFORMATION CONCERNING THE
KANSAS VOCATIONAL/TECHNICAL EDUCATION SYSTEM AND
FUTURE OCCUPATIONAL DEMAND

AREA VOCATIONAL-TECHNICAL SCHOOL AND COMMUNITY COLLEGE VOCATIONAL
EDUCATION ENROLLMENT DATA (HEADCOUNTS)
1977-1978 to 1985-1986

HEADCOUNTS

Year	Secondary			Post-Secondary			Adult		
	AVTS	CC	Total	AVTS	CC	Total	AVTS	CC	Total
1977-78	9046	143	9189	8973	8204	17177	16426	4560	20986
1978-79	11156		11156	9461	7028	16489	21960	7559	29519
1979-80	10503		10503	7185	5707	12892	17854	5739	23593
1980-81	9898		9898	7750	8154	15904	17004	5515	22519
1981-82	10581		10581	10174	13906	24620	16354	5257	21611
1982-83	11365		11365	8184	11037	19221	16269	4850	21119
1983-84	10034	5	10039	8111	9695	17806	18712	14282	32994
1984-85	10505		10505	8292	10652	18944	16785	16821	33606
1985-86	<u>12313</u>	<u>12</u>	<u>12325</u>	<u>8618</u>	<u>9212</u>	<u>17830</u>	<u>17423</u>	<u>9479*</u>	<u>26902</u>
Totals	95401	160	95561	76748	83595	160883	158787	74062	232849

SECONDARY, POST-SECONDARY, AND ADULT ENROLLMENT PERCENTAGES FOR
AREA VOCATIONAL-TECHNICAL SCHOOLS AND COMMUNITY COLLEGES
1977-1978 TO 1985-1986 (HEADCOUNTS)

Year	Area Vocational- Technical Schools				Community Colleges			
	Totals	S	PS	A	Totals	S	PS	A
1977-78	34,445	26%	26%	48%	12,907	1%	64%	35%
1978-79	42,577	26	22	52	14,587	0	48	52
1979-80	35,542	30	20	50	11,446	0	50	50
1980-81	34,652	29	22	49	13,669	0	60	40
1981-82	37,109	29	27	44	19,163	0	73	27
1982-83	35,818	32	23	45	15,887	0	69	31
1983-84	36,857	27	22	51	23,982	0	40	60
1984-85	35,582	30	23	47	27,473	0	39	61
1985-86	<u>38,354</u>	32	23	45	<u>18,703*</u>	0	49	51
	330,936				157,817			

* Does not include adult community college vocational enrollment from Johnson County Community College

S=Secondary, PS=Post-Secondary, A=Adult

Source: Vocational Education Administrative Section, Division of Community Colleges and Vocational Education, Kansas State Department of Education.

COMPLETERS' PLACEMENT VOCATIONAL EDUCATION PROGRAMS, 1985

Service Area and <u>USOE Code</u>	<u>Level</u>	<u>Total Completers</u>	<u>Total Placed</u>	<u>Percent Placed</u>
Agriculture 01.00	AVTS-Sec	140	121	86.4%
	AVTS-PS	106	63	59.4%
	CC	<u>308</u>	<u>286</u>	92.8%
	Total	554	470	
Marketing/ Distributive Education 06.00/08.00	AVTS-Sec	416	286	68.8%
	AVTS-PS	24	18	75.0%
	CC	<u>101</u>	<u>93</u>	92.1%
	Total	541	397	
Office Education 07.00/22.00	AVTS-Sec	456	307	67.3%
	AVTS-PS	1,154	758	65.7%
	CC	<u>643</u>	<u>486</u>	75.6%
	Total	2,253	1,551	
Technical Education 10.00/15.00	AVTS-Sec	0	0	0
	AVTS-PS	78	61	78.2%
	CC	<u>54</u>	<u>44</u>	81.5%
	Total	132	105	
Health Occupations 17.00/18.00	AVTS-Sec	21	17	81.0%
	AVTS-PS	495	434	87.7%
	CC	<u>1,002</u>	<u>890</u>	88.3%
	Total	1,518	1,341	
Occupational Home Economics 20.02/20.99	AVTS-Sec	275	180	65.5%
	AVTS-PS	433	311	71.8%
	CC	<u>127</u>	<u>90</u>	70.9%
	Total	835	581	
Trade and Industry 12.00 43.00/49.00	AVTS-Sec	740	454	61.4%
	AVTS-PS	1,803	1,207	66.9%
	CC	<u>802</u>	<u>576</u>	71.8%
	Total	3,345	2,237	
Totals	AVTS-Sec	2,048	1,365	66.7%
	AVTS-PS	4,093	2,852	69.7%
	CC	3,037	2,465	81.2%

Source: Program Planning and Evaluation Section, Kansas State Department of Education

AREA VOCATIONAL-TECHNICAL SCHOOLS
ENROLLMENTS (FTE)**

Enrollment for Fall 1986

Cowley County CC & AVTS - Arkansas City.....	401.3
Northeast Kansas AVTS - Atchison.....	248.7
North Central AVTS - Beloit.....	442.4
Southeast Kansas AVTS - Coffeyville.....	347.4
Southwest Kansas AVTS - Dodge City.....	260.1
Flint Hills AVTS - Emporia.....	206.4
Northwest Kansas AVTS - Goodland.....	405.9
Central Kansas AVTS - Newton.....	554.3
Kansas City AVTS - Kansas City.....	704.6
Liberal AVTS - Liberal.....	309.7
Manhattan AVTS - Manhattan.....	377.4
Salina AVTS - Salina.....	460.0
Kaw AVTS - Topeka.....	614.5
Pratt AVTS - Pratt.....	225.6
Wichita AVTS - Wichita.....	1,876.1
Johnson County AVTS - Olathe.....	486.4
 TOTAL.....	 7,920.8

** Could change after audit.

Source: Kansas State Department of Education, Division of
Financial and Support Services.

AREA VOCATIONAL-TECHNICAL SCHOOLS
BUDGET INFORMATION

Total Expenditures	FY 1986	
Administration.....	\$ 1,810,141.....	4.37%
Instruction.....	21,881,545.....	52.84%
Student Services.....	57,138.....	.14%
Transportation.....	260,924.....	.63%
Plant Operation.....	2,686,771.....	6.49%
Plant Maintenance.....	1,308,805.....	3.16%
Fixed Charges.....	2,877,882.....	6.95%
Capital Outlay.....	4,103,445.....	9.91%
Other.....	<u>6,421,342.....</u>	<u>15.51%</u>
TOTAL	\$41,407,993	100.00%

Source: Kansas State Department of Education, Division of
Financial and Support Services.

VOCATIONAL EDUCATION ENROLLMENTS,
 AREA VOCATIONAL-TECHNICAL SCHOOLS
 1985-1986

<u>Institution</u>	<u>Secondary</u>	<u>Post- Secondary</u>	<u>Adult</u>	<u>Total</u>	<u>% S*</u>	<u>% PS*</u>	<u>% A*</u>	<u>% of Total AVTS Voc-Ed Enrollment</u>
Atchison.....	122	263	397	782	16%	34%	50%	2%
Beloit.....	61	394	3,551	4,006	1	10	89	10
Coffeyville..	503	409	807	1,719	29	24	47	5
Dodge City...	793	217	653	1,663	48	13	39	4
Emporia.....	154	234	384	772	20	30	50	2
Goodland.....	12	458	175	645	2	71	27	2
Johnson.....	2,365	1	99	2,465	96	0	4	6
Kansas City..	944	522	2,687	4,153	23	12	65	11
Liberal.....	883	230	520	1,633	54	14	32	4
Manhattan....	70	404	634	1,108	6	37	57	3
Newton.....	1,929	98	676	2,703	71	4	25	7
Salina.....	263	423	2,151	2,837	9	15	76	8
Topeka.....	418	754	1,199	2,371	18	32	50	6
Wichita.....	3,796	4,287	3,495	11,578	33	37	30	30
Totals	12,313	8,694	17,428	38,435	32%	23%	45%	

*S=Secondary, PS=Postsecondary, A=Adult

Source: Kansas State Department of Education, Vocational Education Section,
 Enrollment and Completer AVTS Exclude 13 37 2001 1985-1986.

COMMUNITY COLLEGE ENROLLMENT (FTE) AND MILL RATE

Community College	1986-1987**			
	1985-1986 Enroll (FTE)	Enroll (Summer thru Dec. 1)	1986 Gen. Fund Mill Rate	1986 Total Mill Rate
Allen County.....	773.1	689.8	6.15	12.26
Barton County.....	2,076.6	2,351.5	10.96	16.67
Butler County.....	2,156.7	2,099.6	7.94	15.47
Cloud County.....	991.5	1,038.8	13.88	24.31
Coffeyville.....	873.1	937.2	16.70	23.79
Colby.....	951.9	1,123.9	14.56	21.95
Cowley County.....	908.5	958.7	7.41	13.37
Dodge City.....	996.1	1,203.8	14.99	21.11
Fort Scott.....	899.2	1,131.1	10.93	19.35
Garden City.....	1,116.8	1,104.8	8.07	12.55
Highland.....	685.5	724.6	21.29	32.53
Hutchinson.....	1,756.1	1,893.9	13.47	18.04
Independence.....	624.5	619.5	17.91	23.87
Johnson County.....	5,026.4	5,075.0	7.15	13.66
Kansas City.....	2,416.0	2,343.5	8.62	14.47
Labette County.....	1,587.3	1,803.8	15.04	21.48
Neosho County.....	589.4	590.7	13.81	20.35
Pratt.....	897.1	911.9	11.32	16.35
Seward.....	<u>634.1</u>	<u>664.4</u>	12.81	18.10
TOTALS	25,959.9	27,266.5		

Source: Kansas State Department of Education, Division of Financial and Support Services

STATE TOTALS
19 COMMUNITY COLLEGE BUDGETS
1985-1986 ACTUAL EXPENDITURES

General Fund.....	\$71,822,444.....	57.47%
Employment Benefit.....	9,529,066.....	7.68%
Vocational Education.....	22,301,402.....	17.85%
Adult Education.....	646,219.....	.52%
Adult Supplementary Education....	1,064,931.....	.85%
Auxiliary Enterprise.....	13,803,443.....	11.05%
Capital Outlay.....	3,391,185.....	2.71%
Special Building.....	40,568.....	.03%
Special Assessment.....	98,394.....	.08%
Bond & Interest.....	<u>2,202,653.....</u>	<u>1.76%</u>
TOTAL	\$124,963,305	100.00%

Source: Kansas State Department of Education, Division of Financial and Support Services.

VOCATIONAL EDUCATION ENROLLMENTS,
COMMUNITY COLLEGES
1985-1986

<u>Institution</u>	<u>Secondary</u>	<u>Post- Secondary</u>	<u>Adult</u>	<u>Total</u>	<u>% S*</u>	<u>% PS*</u>	<u>% A*</u>	<u>% of Total AVTS Voc-Ed Enrollment</u>
Allen.....	0	40	1,493	1,533	0%	3%	97%	8%
Barton.....	0	547	2,359	2,906	0	19	81	15
Butler.....	0	592	1,202	1,794	0	33	67	9
Cloud.....	0	235	649	884	0	27	73	5
Coffeyville..	0	322	651	973	0	33	67	5
Colby.....	0	347	816	1,163	0	30	70	6
Cowley.....	0	360	32	392	0	92	8	2
Dodge City...	0	366	50	416	0	88	12	2
Fort Scott...	0	579	812	1,391	0	42	58	7
Garden City..	0	188	0	188	0	100	0	1
Highland.....	0	169	0	169	0	100	0	1
Hutchinson...	0	341	147	488	0	70	30	3
Independence.	0	131	22	153	0	86	14	1
Johnson.....	0	2,921	0	2,921	0	100	0	16
Kansas City..	0	859	0	859	0	100	0	5
Labette.....	0	657	612	1,269	0	52	48	7
Neosho.....	0	234	92	326	0	72	28	2
Pratt.....	12	183	542	737	2	25	73	4
Seward.....	0	141	0	141	0	100	0	1
Totals	12	9,212	9,479	18,703	0%	49%	51%	

*S=Secondary, PS=Postsecondary, A=Adult

Source: Kansas State Department of Education, Vocational Education Section,
Enrollment and Completer AVTS Exclude 13 37 2001 1985-1986.

COMMUNITY COLLEGE VOCATIONAL EDUCATION ENROLLMENTS
1981-1985 (Fall Semesters)

	<u>Vocational Education Enrollments (Head Counts)</u>				
	1981	1982	1983	1984	1985
Allen.....	219	292	710	1,035	704
Barton.....	785	1,271	1,134	1,604	1,963
Butler.....	673	1,049	1,483	1,547	1,493
Cloud.....	0	*	1,592	389	359
Coffeyville.....	201	318	330	341	195
Colby.....	325	227	205	228	269
Cowley.....	927	1,309	1,116	763	911
Dodge City.....	168	283	312	327	422
Fort Scott.....	316	225	283	296	269
Garden City.....	0	*	*	*	*
Highland.....	183	68	226	188	*
Hutchinson.....	486	453	500	411	428
Independence.....	245	253	182	115	176
Johnson.....	2,480	2,652	2,838	2,837	2,930
Kansas City.....	845	901	883	1,573	1,328
Labette.....	385	495	737	464	458
Neosho.....	346	429	542	483	450
Pratt.....	706	715	1,077	997	783
Seward.....	112	115	122	118	123
Totals.....	<u>3,402</u>	<u>11,055</u>	<u>14,272</u>	<u>13,504</u>	<u>13,261</u>

*Data Not Available

Source: Program Planning and Evaluation Section, Kansas State Department of Education

COMMUNITY COLLEGE ACADEMIC ENROLLMENTS 1981-1985
(Fall Semesters)

	Academic Enrollments (Head Counts)				
	1981	1982	1983	1984	1985
Allen.....	771	732	1,089	888	923
Barton.....	2,551	2,190	2,858	2,842	3,239
Butler.....	1,722	1,936	1,859	1,947	2,151
Cloud.....	2,076	2,063	609	1,550	1,121
Coffeyville.....	1,240	1,374	1,229	1,257	1,477
Colby.....	1,986	1,813	1,758	1,512	1,362
Cowley.....	1,036	884	866	798	910
Dodge City.....	1,195	1,041	1,139	1,062	1,020
Fort Scott.....	1,075	1,067	1,006	943	646
Garden City.....	1,447	1,804	1,886	2,086	1,684
Highland.....	1,191	1,007	1,040	1,077	1,268
Hutchinson.....	1,146	2,493	2,931	2,762	2,629
Independence.....	746	692	755	864	755
Johnson.....	4,644	5,046	5,268	5,266	5,513
Kansas City.....	2,837	3,069	3,252	2,037	2,286
Labette.....	1,887	1,632	1,987	1,943	2,208
Neosho.....	472	463	487	518	534
Pratt.....	1,971	1,947	1,578	1,790	1,682
Seward.....	1,276	1,303	1,403	1,351	1,428
Totals.....	31,269	32,556	33,000	32,493	32,836

Source: Program Planning and Evaluation Section, Kansas State Department of Education

IN-DISTRICT AND OUT-DISTRICT HEADCOUNT ENROLLMENTS
FOR COMMUNITY COLLEGES
1981-1985 (Fall Semesters)

	1981		1982		1983		1984		1985	
	In	Out	In	Out	In	Out	In	Out	In	Out
Allen.....	418	572	402	622	912	887	1,076	847	887	740
Barton.....	1,396	1,940	1,307	2,154	1,545	2,447	1,671	2,775	1,813	3,389
Butler.....	1,092	1,303	1,252	1,733	1,363	1,979	1,281	2,213	1,245	2,399
Cloud.....	451	1,625	468	1,595	2,201	*	661	1,278	267	1,213
Coffeyville...	1,231	210	1,405	287	1,310	249	1,157	441	1,494	178
Colby.....	624	1,687	482	1,558	485	1,478	453	1,287	441	1,190
Cowley.....	1,408	555	1,633	560	1,273	709	1,110	451	1,406	415
Dodge City....	671	692	646	678	688	763	1,124	265	1,169	273
Fort Scott....	574	817	440	852	387	902	858	381	391	524
Garden City...	617	830	931	873	1,001	885	1,225	861	956	728
Highland.....	403	971	442	633	100	1,166	466	799	161	1,107
Hutchinson....	1,021	611	1,905	1,041	2,029	1,402	1,937	1,236	1,784	1,273
Independence..	692	299	662	283	595	342	681	298	666	265
Johnson.....	6,323	801	6,866	832	7,052	1,054	6,932	1,171	7,190	1,253
Kansas City...	2,543	1,139	3,186	784	3,546	589	2,639	971	2,601	1,013
Labette.....	1,315	957	1,252	875	1,595	1,129	1,240	1,167	1,321	1,345
Neosho.....	390	428	433	459	467	562	477	524	540	444
Pratt.....	862	1,815	913	1,749	1,342	1,313	1,323	1,464	1,297	1,168
Seward.....	1,130	258	1,164	254	1,250	275	1,030	439	1,077	474
Totals.....	23,161	17,510	25,789	17,822	29,141	18,131	27,341	18,868	26,706	19,391

*Data Not Available

Source: Program Planning and Evaluation Section, Kansas State Department of Education

COMPARATIVE SPENDING FOR COMMUNITY COLLEGES

	State Per Capita Spending	Percent of State Budget
Kansas*	\$11.71	.64%
Missouri*	10.35	1.66%
Iowa	19.83	2.74%
North Carolina	44.48	5.80%
Nebraska	14.75	2.70%
Oklahoma	23.80	5.30%
Colorado	18.97	2.90%**

Sources: State per capita spending - Dr. William K. Ray, Missouri Association of Community and Jr. Colleges. Based on 1984-1985 state appropriations and 1980 Census data. Percent of state budget - Telephone survey of state fiscal agencies and community college information division. Program Planning and Evaluation Section, Kansas State Department of Education.

* Kansas area vocational schools included. Other, state's-community colleges only.

** For both state and local district schools combined.

VOCATIONAL-TECHNICAL ENROLLMENTS AS A PERCENTAGE OF POPULATION
AND
PERCENT OF HIGH SCHOOL TRAINED ADULTS

	Vo-Tech Enrollment	U.S. Rank	High School Graduates %	Rank
Kansas	2.02	42	88.41	4
Missouri	2.42	37	79.36	29
Oklahoma	2.21	40	81.47	22
Colorado	3.56	21	86.74	6
Nebraska	3.34	25	85.34	10
Iowa	4.31	15	85.66	8
North Carolina	4.97	9	73.59	41
U.S. Average	3.62		79.98	

Source: The Seventh Annual Study of General Manufacturing
Climates, Grant Thornton, June 1986.

PERCENT OF VOCATIONAL ENROLLMENT IN COMMUNITY COLLEGES
1985-1986

Kansas*	32%
Missouri	60%
Iowa	52%
North Carolina	93%
Nebraska	70%
Colorado	45%
Oklahoma	50%

Source: Telephone Survey of state community college governing
agencies and information divisions.

* Based on FTE enrollment data for Fall 1985 as provided by
the Program Planning and Evaluation Section for the Kansas
State Department of Education.

KANSAS
GROWTH IN SELECTED OCCUPATIONS
1982 to 1990

Occupation	Employment		Growth 1982-90	Percent Change 1982-90
	1982	1990		
Office Machine Servicers.....	790	1,440	650	82.3
Mechanical Engineering Techs..	300	520	220	73.3
Computer Operators.....	2,470	4,200	1,730	70.0
Electrical Engineers.....	1,230	1,980	750	61.0
Drill Press Operators.....	1,150	1,850	700	60.9
Systems Analysts.....	1,570	2,500	930	59.2
Cement Masons.....	660	1,040	380	57.6
Mechanical Engineers.....	1,400	2,200	800	57.1
Machine Tool Operators.....	1,440	2,260	820	56.9
Electric Machine Equip. Assem.	1,340	2,100	760	56.7
Machinists.....	2,160	3,370	1,210	56.0
Drafters.....	2,600	4,050	1,450	55.8
Welders.....	6,610	10,160	3,550	53.7
Brick Masons.....	760	1,160	400	52.6
Electric & Electronic Assem...	3,750	5,570	1,820	48.5
Tool and Die Makers.....	1,510	2,240	730	48.3
Computer Programmers.....	2,100	3,090	990	47.1
Electrical & Electronic Techs.	3,680	5,360	1,680	45.7
Secretaries.....	26,500	36,090	9,590	36.2
Auto Mechanics.....	7,310	9,870	2,560	35.0
Child Care Workers.....	2,220	2,960	740	33.3
Carpenters.....	6,220	8,190	1,970	31.7
Licensed Practical Nurses.....	6,450	8,080	1,630	25.3
Cosmetologists.....	2,900	3,080	180	6.2
Farm Managers.....	420	400	-20	-4.7

Source: Kansas Occupational Outlook 1990, Kansas Department of Human Resources, June 1985.

APPENDIX C

INNOVATIVE TRAINING FUND PROGRAMS FOR
ILLINOIS, IOWA, AND OKLAHOMA; TRAINING PROGRAM
EXAMPLES FROM THE BAY STATE SKILLS CORPORATION

ILLINOIS

Recently, the state legislature has passed a bill to allow employees and employers to provide for skills upgrading by contributing to individual training accounts. The legislature is working on a bill that would allow community colleges to raise capital to provide new or expanding businesses with customized training through tax increment financing, issuance of a bond to help pay for financing, with repayment through the increase in taxes made possible by the business.

IOWA

The Iowa Job Training Program provides customized job training for new or expanding businesses, but not relocations, retail, health or professional firms. Governed by the Iowa Development Commission, services are administered through the Community Colleges nearest the employer. The Community Colleges and the company make an agreement to provide training. The state does not offer direct aid, rather, they sell a "training certificate" in the financial markets to set up and implement the program. The company repays the certificates by one or a combination of both of the following:

- a. Withholding tax credits--placing 1.5 percent of new trainees' wages into a repayment fund;
- b. Incremental property tax increases--the company chooses to use an assignment of property tax increases resulting from new or expanding business.

If insufficient funds are collected by either means, a standby tax on property is authorized by the Board of Community Colleges.

OKLAHOMA

Oklahoma has a Management Training Program, a business/industry/educational partnership where 4-6 companies form cooperatives to pay \$4,000-\$5,000 for management instruction. This program is managed by the Vocational/Technical Department, and specialists are located in Vocational/Technical Schools. The program as it is designed has three primary advantages: 1) it cuts training costs for the company; 2) it provides access to a trained specialist; and 3) there is nearly zero cost to the state.



Bay State Skills Corporation

**Roxbury Community College//
Digital Equipment Corporation, Teradyne, Inc.,
Tekart, and Gould Modicon**

- Training Occupation:** Computer Aided Drafting and Design
- Trainee Population:** 15 undergraduates; 40 employed professionals
- BSSC Grant Award:** \$62,497
- Private Match:** \$62,600
- Program Duration:** January 3, 1983 - December 31, 1983
- Participating Companies:** Digital Equipment Corporation (Maynard), Teradyne, Inc. (Boston), Tekart (North Chelmsford), and Gould Modicon (Andover)

Program Description: *The field of drafting is increasingly using computers to produce drawings. Until now, only engineering school's 4-year degree programs have offered training in CAD to the general public.*

Roxbury Community College is establishing an Associate Degree program in Computer Aided Drafting and Design (CAD/D) with a specialization in Printed Circuit Design, as an expansion of its manual drafting program. Five new courses will be added to the curriculum over the first twelve months of the program. Starting in Spring 1983, the Division of Continuing Education Evening School will offer courses to drafting professionals. In the Fall 1983 semester, the full time Day Program will accept undergraduate students. The full time program will call for no less than five hours per week of individual lab time with students using mini- or micro-computers. Students will also visit the facilities of the participating companies at least 3 times per semester.

Bay State Skills Corporation has awarded the College \$62,497 to hire new faculty and a program coordinator during the development phase and to purchase initial education materials. The private donation from Digital Equipment Corporation will equip the drafting laboratory with a Caldec PDP 15 turn key based system. Digital Equipment Corporation, Tekart, Teradyne, and Gould Modicon are also providing representatives to a Program Advisory Committee who will observe the classroom and drafting lab instruction to insure the correlation between the curriculum and actual company practices of on-line personnel.



Bay State Skills Corporation

**Berkshire Community College//
Berkshire Medical Center; Fairview Hospital;
Hillcrest Hospital; North Adams Regional Hospital**

- Training Occupation:** Respiratory Therapy Technicians
- Trainee Population:** 16 individuals
- BSSC Grant Award:** \$50,920
- Private Match:** \$103,468
- Program Duration:** 12 months
- Participating Companies:** Berkshire Medical Center (Pittsfield); Fairview Hospital (Great Barrington); Hillcrest Hospital (Pittsfield); and North Adams Regional Hospital (North Adams)

Program Description: *The need for technically educated medical personnel has been apparent for many years throughout Berkshire County. In an effort to answer this need, four area hospitals are working with Berkshire Community College to train 16 individuals for entry-level respiratory therapy technicians positions.*

This 12-month program is the first phase of the college's plan to establish a two-year Associate Degree program for Respiratory Therapists. Classroom and laboratory instruction will be held at Berkshire Community College and clinical training will be provided on a rotating basis through the four participating hospitals. Trainees will attend training 40 hours a week during these 12 months.

A representative from each hospital has participated on an Advisory Committee to develop the program. This alliance will continue. In addition, trainee recruitment, curriculum development, program monitoring, clinical training and job placement will be provided by the hospital partners.

The Bay State Skills Corporation is providing salaries for instructors, a Program Coordinator, and a Clinical Director. The private sector support consists of donated personnel, equipment, materials and supplies.



Bay State Skills Corporation

Applied Image Processing Training (Advanced)

- Partners:** Tufts University//
6 Area High Technology Companies
- Training Occupation:** Applied Image Processing
- Trainee Population:** 15 Graduate Students and Industry Professionals
- BSSC Grant Award:** \$76,983
- Private Match:** \$103,320
- Program Duration:** Two Academic Semesters (Fall 1986 - Spring 1987)
- Participating Companies:** Adaptive Optics Associates, Inc. (Cambridge); Automatix, Inc. (Billerica); Data Translation, Inc. (Marlboro); Eikonix (Bedford); Eye Research Institute (Boston); and JOEL USA, Inc. (Peabody)
- Program Description:** *Digital Image Processing has become a high growth industry with over 200 companies in the U.S. that make machine vision components and systems. Advances in hardware have been matched by an effort to understand basic principles, to develop general theories and to apply knowledge from other scientific disciplines into techniques for image processing.*
- This advanced level program offers 15 graduate students and employed professionals the opportunity to complete two semesters of study in the rapidly advancing field of image processing technology. Through the development of an industry focussed lecture course, Digital Image Processing, and then a hands-on lab course, Applied Image Processing, the Tufts Electro-Optics Technology Center has built a program in Applied Image Processing (AIP). Each class meets twice per week for 14 weeks in the lecture and laboratory facilities at Tufts University. The program has multi-discipline involvement with curriculum and instructional input from the Electrical Engineering, Mechanical Engineering, Civil Engineering, Rehabilitation Engineering, Engineering Design departments and the Bio-Medical Image Analysis Lab.
- Automatix, Data Translation, Eikonix and JOEL have donated equipment, and, along with all other private sector partners, have participated on a Program Advisory Board.
- BSSC funds have been requested to support training and non-training staff costs in addition to materials and supplies expenses.

APPENDIX D

THE BLUEGRASS STATE SKILLS CORPORATION'S SURVEY
LISTINGS OF STATE SUPPORTED INDUSTRY-SPECIFIC
TRAINING PROGRAMS

STATE LISTING

Final Report of the BSSC Survey of
State Supported Industry-Specific Training Programs

INDIANA

1. Indiana's industry-specific training programs are administered by the Department of Commerce, and are:
 - a. Basic Industry Retraining Program \$10,000,000 (85-87 biennium)
 - b. Training for Profit Program \$10,000,000 (85-87 biennium)
 - c. Dislocated Workers Program \$4,800,000 (85-87 biennium)

Total \$24,800,000 = \$12,400,000 per year
2. In addition, through the State Board of Vocational Technical Education, \$4,250,000 per year in state and local funds are used to match the federal Perkins Act funded Vocational Education Programs, which are used for activities which meet the definition of an industry-specific training program, and/or support or supplement Indiana's industry-specific training programs. The federal Perkins Act funds allocated for these targeted activities total \$1,380,000 per year.
3. No information was provided concerning federal JTPA funds (if any) for industry-specific training programs.

MISSOURI

Missouri's industry-specific training programs are administered by the State Department of Education, and are:

- a. Customized Training Program \$2,600,000 per year
 - b. Economic Development Program \$6,000,000 for FY 86-87 (new program)
2. No information was provided concerning federal JTPA or Perkins Act funds (if any) for industry-specific training programs.

MICHIGAN

1. Michigan's industry-specific training programs are administered by the Governor's Office for Job Training, and are:

	<u>86-87</u>	<u>85-86</u>
a. Michigan Business & Industry Training Program (MBIT)	\$7,539,800	\$8,466,700
b. Michigan Training Fund (MTF)	3,400,000	3,400,000
c. Michigan Job Opportunity Bank (MJOB)	<u>2,000,000</u>	<u>2,000,000</u>
Total	\$12,939,800	\$13,866,700

2. In addition, Michigan's Department of Education operates a "Quik Start" program, an Industry-Specific Training Program, using federal Perkins Act Vocational Education monies: \$1,400,000 in FY 86-87 and \$1,200,000 in FY 85-86.

No information was provided concerning federal JTPA funds (if any) for industry-specific training programs.

ILLINOIS

1. Illinois' industry-specific training programs are administered by three different organizations--the Department of Commerce and Community Affairs (a, b, and c), the Department of Education (d), and Prairie State 2000 Authority (e), as follows:

	<u>86-87</u>	<u>85-86</u>
a. Basic Industrial Training Program	\$4,000,000	\$4,000,000
b. Mature Industries Industrial Training Program	4,000,000	0
c. Dislocated Farmers (& Manufacturing Workers) Industrial Training Program	2,000,000	2,000,000
d. High Impact Training Services	1,400,000	1,400,000
e. Prairie State 2000 Authority	<u>3,500,000</u>	<u>3,500,000</u>
Total	\$14,900,000	\$10,900,000

2. State funds have also been allocated to support special projects:

a. Diamond Star (Chrysler Mitsubishi)	4,000,000	4,000,000
b. Chrysler Belvidere Plant (retooling and retraining)	5,000,000	110,000

3. No information was provided concerning federal JTPA or Perkins Act funds (if any) for industry-specific training programs.

OHIO

1. The Ohio Industrial Training Program is administered by the Department of Development and was funded at \$11,000,000 per year.

Ohio with federal Perkins Act Vocational Education funds also allocates \$1,000,000 per year for industry-specific training with new industries.

3. No information was provided concerning federal JTPA funds (if any) for industry-specific training programs.

NORTH CAROLINA

1. North Carolina's industry-specific training program is administered by the Department of Community Colleges (58 community colleges, technical colleges, and technical institutes.)
2. The appropriation for training for new and expanding industries was \$5,300,000 per year.
3. In addition, \$1,800,000 per year is allocated by the State for Small Business Assistance Centers through the Department of Community Colleges which provides funds for training (upgrade and retraining) to companies with 100 or fewer employees.
4. No information was provided concerning any other industry-specific Upgrading and Retraining Program (if any); and no information was provided concerning federal funds which may be made available to support industry-specific training program(s).

GEORGIA

1. Georgia's industry-specific training program is administered by the State Board of Post-Secondary Education, Division for Economic Development.
2. The "Quick Start Program", for new and expanding industries was funded as follows: \$3,700,000 (FY 86-87); \$3,300,000 (FY 85-86).
3. No information was provided concerning state support (if any) for upgrade training for existing industries.
4. No information was provided concerning federal JTPA or Perkins Act funds (if any) for industry-specific training programs.

ALABAMA

1. Alabama's industry-specific training program is administered by the Alabama Industrial Development Training Institute which is attached to the the State Board of Education.
2. AID Training was funded as follows: \$2,400,000 (for FY 86-87); \$1,600,000 (for FY 85-86).
3. No information was provided concerning federal JTPA or Perkins Act funds (if any) for industry-specific training programs.

MISSISSIPPI

1. Mississippi's industry-specific training programs are administered by the Department of Education, and are:

	<u>86-87</u>	<u>85-86</u>
a. Industrial Training-New & Expanding Industries (through Junior Colleges)	\$1,247,169	\$1,913,654
b. Upgrade Training	<u>162,979</u>	<u>154,650</u>
Total	\$1,410,148	\$2,068,304

2. The State through Vocational/Technical Education with JTPA Title IIA and III monies funds a customized pre-employment industry-specific training program for new and expanding industries, as follows:

	\$155,000	\$275,000
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3. Federal Perkins Act Vocational Education funds are used for upgrading and retraining and apprenticeship training through vocational technical education, as follows:

	\$1,605,102	\$1,429,332
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VIRGINIA

1. Virginia's industry-specific training program is administered by the Department of Economic Development.
2. The Industrial Training Program was funded at \$2,358,291 for FY 86-87, and \$2,194,499 for FY 85-86.

No information was provided concerning federal JTPA or Perkins Act funds (if any) for the industry-specific training program.

OKLAHOMA

1. Oklahoma's industry-specific training programs are administered by the State Department of Vocational & Technical Education, and are:

	<u>86-87</u>	<u>85-86</u>
a. New and Expanding Training Program	\$700,000	\$550,000
b. Existing Industry Training Program	<u>500,000</u>	<u>500,000</u>
Total	\$1,200,000	\$1,050,000

2. No information was provided concerning federal JTPA or Perkins Act funds (if any) for the industry-specific training programs.

LOUISIANA

1. Louisiana's industry-specific training program is administered by the State Office of Commerce and Industry.

2. The Industrial Training Program is for new and expanding industry and was funded at \$1,050,000 for FY 86-87 and \$250,000 and FY 85-86.

3. No information was provided concerning state support (if any) for upgrade training for existing industries.

4. No information was provided concerning federal JTPA or Perkins Act funds (if any) for the industry-specific training program.

KANSAS

1. Kansas' industry-specific training program is administered by the State Department of Commerce.

2. The Kansas Industrial Training Program is a new and expanding industry training program and was funded at \$500,000 for FY 86-87 and \$300,00 for FY 85-86.

3. The Kansas Industrial Training Program was also funded at the same levels with federal Perkins Act Vocational Education funds so that the actual amount of funds for the program is double the state support.

4. An upgrade industry-specific training program was funded with federal Perkins Act Vocational Education funds in FY 85-86 at \$200,000. No other information concerning upgrade industry-specific training was provided.

5. A special industry-specific training program was funded for the GM Fairfax Tube Plant in FY 86-87 at \$400,000. The source of funds was not specified.

KENTUCKY

1. Kentucky's industry-specific training program is administered by the Bluegrass State Skills Corporation, which is attached for administrative purposes to the Commerce Cabinet.
2. The Bluegrass State Skills Corporation was funded at \$687,300 in FY 86-87, and at \$438,200 in FY 85-86.
3. Vocational education funds--both federal Perkins Act monies and state monies--are allocated to vocational education regions; regions may from time to time spend these funds to support industry-specific training activities. The state similarly may provide on a case by case basis, JTPA Title IIA or Title III funds to support industry-specific training efforts. These activities are not administered by the BSSC, but may be coordinated with BSSC supported training activities.
4. A training program was established for Toyota, and a special state appropriation to the State Department for Employment Services was made to support this program including an appropriation of \$9,673,500 for FY 86-87.

FLORIDA

1. Florida's industry-specific training programs are administered by the Department of Education, and the Community College System, and are respectively:

	<u>86-87</u>	<u>85-86</u>
a. Industry Services Training Program	\$750,000	\$750,000
b. Sunshine State Skills Program	<u>700,000</u>	<u>750,000</u>
Total	\$1,450,000	\$1,500,000

3. The Industry Services Training Program was also funded at \$369,000 each fiscal year with federal Perkins Act Vocational Education monies; in FY 85-86 the Industry Services Training Program was supported with \$100,000 in JTPA 8% monies.
4. No information was provided concerning state support--if any--for upgrade training for existing industries; both the Industry Services Training Program and the Sunshine State Skills Program are tied into new, expanding, or diversifying businesses or industries.

WEST VIRGINIA

1. West Virginia's industry-specific training program is administered by the Governor's Office of Community and Industrial Development.
2. The Industrial Development Training Program was funded at \$267,145 for FY 86-87, and at \$242,973 for FY 85-86.
3. The IDTP is supplemented with JTPA funds as needed and as allowable. The Employment and Training Division of the Governor's Office of Community and Industry Development administers both the JTPA and the IDT programs. Also, federal ARC funds were allocated to the Industrial Development Training Program as follows: \$27,711 for FY 86-87, and \$131,085 for FY 85-86.

No information was provided concerning federal Perkins Act Vocational Education funds (if any) used for industry-specific training programs.

MARYLAND

1. Maryland's industry-specific training program is administered by the Department of Economic and Community Development
2. The Maryland Industrial Training Program is a new and expanding industry program, and was funded at \$487,000 for FY 86-87, and at \$324,000 for FY 85-86.
3. No information was provided concerning state support (if any) for upgrade training for existing industries.
4. No information was provided concerning federal JTPA or Perkins Act funds (if any) for the industry-specific training program.

TEXAS

1. Texas' industry-specific training program is administered by the Texas Education Agency.
2. The Industrial Start Up Training Program, a new and expanding industry program, was funded at \$890,000 per year.
3. No information was provided concerning state support (if any) for upgrade training for existing industry.
4. No information was provided concerning federal JTPA or Perkins Act funds (if any) for industry-specific training programs.
5. The survey response indicated that industry-specific training programs in Texas are carried out by many different state agencies using both federal and state funds. Information was provided only for the Industrial Start-up Training Program administered by the Texas Education Agency.

APPENDIX E
SUMMARIES OF SELECTED STATE STATUTES
CONCERNING VOCATIONAL EDUCATION

KANSAS

STATEMENTS OF MISSION AND DEFINITION

VOCATIONAL SCHOOLS

Vocational education means vocational or technical training or retraining which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) under public supervision or control or under contract with the state board or a board or board of control and is conducted as part of a program designed to prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or subprofessionals in recognized occupations and in new or 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 United States commissioner of education determines, and specifies by regulation, to be generally considered professional or which requires a baccalaureate or higher degree; and such term includes vocational guidance and counseling (individually or through group instruction) in connection with such training or for the purpose of facilitating occupational choices; instruction related to the occupation or occupations for which the students are in training or instruction necessary for students to benefit from such training; job placement; the training of persons engaged as, or preparing to become, teachers in a vocational program or preparing such teachers to meet special education needs of exceptional students; teachers, supervisors, or directors of such -teachers while in such a training program; travel of students and vocational education personnell while engaged in a training program; and the acquisition, maintenance, and repair of instructional supplies, teaching aids, and equipment.

Cite: Kan. Stat. Ann. s 72-4412 (1986)

COMMUNITY COLLEGES

The term "community college" means a public community college established under the provisions of this act.

Cite: Kan. Stat. Ann. s 71-701 (1985)

GOVERNANCE

VOCATIONAL SCHOOLS

The state council on vocational education is established as a 13

member board appointed by the state board of education as mandated by the Carl Perkins Act.

Cite: Kan. Stat. Ann. s 72-4409 (1985)

The state board of education is hereby designated as the sole agency for supervision of the administration of vocational education by local educational agencies.

Cite: Kan. Stat. Ann. s 72-4408 (1986)

Every area vocational school and area vocational-technical school may have an area advisory council comprised of primarily nonprofessional persons appointed by the board of such school and having the qualifications and terms approved by the state board.

Cite: Kan. Stat. Ann. s 72-4415(c) (1986)

COMMUNITY COLLEGES

The board of trustees ... shall have custody of and be responsible for the property of the community college and shall be responsible for the management and control of the college. The board is required to hold at least one regular meeting each month and to submit an annual report as required by the state board of education.

Cite: Kan. Stat. Ann. s 71-201 (1985)

An advisory council consisting of 11 members and appointed by the governor is defined.

Cite: Kan. Stat. Ann. s 71-901 (1985)

The governing body of the community college is and shall be a board of trustees composed of six members, none of whom shall be an employee of the community college.

Cite: Kan. Stat. Ann. s 71-1403 (1985)

COURSE APPROVAL

VOCATIONAL SCHOOLS

The state board shall establish standards for all courses and

programs of vocational education offered in any school or institution under its supervision. The state board shall exercise general supervision of all vocational education courses and programs.

Cite: Kan. Stat. Ann. s 72-4415 (1986)

COMMUNITY COLLEGES

Subject to the rules and regulations of the state board, the board of trustees is given the power to determine the educational program of the college subject to prior approval thereof...

Cite: Kan. Stat. Ann. s 71-201 (1985)

FUNDING ISSUES

VOCATIONAL SCHOOLS

Every school shall be entitled to receive post-secondary aid each school year in an amount equal to (a) for the school year year ending June 30, 1982, 87.5% of the product of local cost per cost per enrollment hour and total post-secondary enrollment, and (b) for each school year thereafter, 85% of the product of local cost per enrollment hour and total post-secondary enrollment.

Cite: Kan. Stat. Ann. s 72-4431 (1985)

The amount of vocational education capital outlay aid for each school shall be determined by the state board on the basis of need and the condition of existing facilities and equipment and payments thereof shall be distributed on payment dates to be determined by the state board.

Cite: Kan. Stat. Ann. s 72-4442 (1985)

The state board shall establish, maintain and operate a state pool of instructional equipment to be used by schools.

Cite: Kan. Stat. Ann. s 72-4445 (1985)

The instructional equipment of the state instructional pool shall be available for use by schools for vocational education purposes. If the state board determines that the school has need for the instructional equipment requested, and if the

instructional equipment is available for use, the state board shall provide for the instructional equipment to be transported to the school.

Cite: Kan. Stat. Ann s 72-4446 (1985)

The state board shall be responsible for the allocation and distribution of state and federal funds for vocational education in accordance with the state plan.

Cite: Kan. Stat. Ann. s 72-4415 (1986)

COMMUNITY COLLEGES

For all community college maintenance and operation purposes, the board of trustees is authorized to levy a tax on the tangible property of the community college district.

Cite: Kan. Stat. Ann. s 71-204 (1985)

The residency determination for tuition purposes basically requires living in the district for six months prior to enrollment.

Cite: Kan. Stat. Ann. s 71-401 (1985)

There is hereby established in every community college of the state a fund which shall be called the capital outlay fund, which fund shall consist of all moneys deposited therein in accordance with law.

Cite: Kan. Stat. Ann. s 71-501a (1985)

The board of trustees of any community college district ... in lieu of making all or part of such tax levy, may issue and sell general obligation bonds as now provided by law for the issuance of general obligation bonds for buildings by such board of trustees...

Cite: Kan. Stat. Ann. s 71-502 (1985)

Credit hour state aid is provided to each community college by the state on the basis of Kansas residents enrolled in the institution. More aid is given (1.5 times) where the student is enrolled in an approved vocational program. Where the community college has an additional designation as an area vocational

school, each credit hour of each student is multiplied by the factor of two to determine credit hour aid.

Cite: Kan. Stat. Ann. s 71-602 (1985)

Whenever there are two community college districts located within one county, no out-district tuition shall be charged for any student residing in such county and attending either community college.

Cite: Kan. Stat. Ann. s 71-610 (1985)

Out-district state aid is found in Kan. Stat. Ann. s 71-607 (1986)

OTHER LEGISLATION

VOCATIONAL SCHOOLS

Students from other states can attend vocational schools as quasi-residents of Kansas if the state in which they resided has a reciprocal arrangement for students domiciled in Kansas.

Cite: Kan. Stat. Ann. s 72-4429 (1985)

In each school year, commencing with the 1987-88 school year, the board of regents shall designate as vocational education scholars and award vocational education scholarships to the 100 applicants therefor who exhibit the greatest ability and aptitude for vocational education.

Cite: Kan. Stat. Ann. s 72-4461(b) (1986)

COMMUNITY COLLEGES

A tax may be levied on all taxable tangible property within the district to maintain and operate an adult basic education program at a level approved by the state board.

Cite: Kan. Stat. Ann. s 71-617 (1987)

MISSOURI

STATEMENTS OF MISSIONS AND DEFINITIONS

VOCATIONAL SCHOOLS

"Vocational Education" is defined as education of less than college grade, the controlling purpose of which is to fit for profitable employment.

"Prevocational education" is education of less than college grade which gives children an elementary acquaintance with different vocational activities, arts or occupations and better prepares them to make an intelligent choice of a vocation.

Cite: Mo. Ann. Stat. s 178.420 (Vernon 1965)

COMMUNITY COLLEGES

A "community junior college" is an institution of higher education deriving financial resources from, local, state, and federal sources, and providing postsecondary education primarily for persons above the twelfth grade age level, including courses in (a) liberal arts and sciences, including general education; (b) occupational, vocational-technical; and (c) a variety of educational community services. Community junior college course offerings lead to the granting of certificates, diplomas, and/or associate degrees, but do not include baccalaureate or higher degrees.

Cite: Mo. Ann. Stat. s 163.191(4) (Vernon 1987)

A junior college district ... shall provide instruction, classes, school or schools for pupils resident within the junior college district who have completed an approved high school course.

Cite: Mo. Ann. Stat. s 178.850 (Vernon 1965)

GOVERNANCE

VOCATIONAL SCHOOLS

There is hereby established the "Missouri Commission on Higher Education", consisting of ten members appointed by the governor and an "Advisory Council to the Commission", composed of members appointed by the commission...

Cite: Mo. Ann. Stat. s 173.010 (Vernon 1965)

The Missouri Commission on Higher Education shall have the responsibility, within the provisions of the constitution of the state of Missouri for:

(1) Conducting studies of population and enrollment trends affecting institutions of higher education in the state;

(2) Identifying higher education needs in the state in terms of the requirements and potential of the young people and in terms of labor force requirements for the development of commerce and industry, and of professional and public services;

(3) Developing arrangements for more effective and more economical specialization among institutions in types of education programs offered and students served, and for more effective coordination and mutual support among institutions in the utilization of facilities, faculty and other resources;

(4) Designing a coordinated plan for higher education in the state and for subregions in the state, which shall be based on the studies indicated above and on such others as may be deemed relevant by the commission.

Cite: Mo. Ann. Stat. s 173.020 (Vernon 1965)

The commission is required to report to the feedback as to plans and feedback on plans previously implemented.

Cite: Mo. Ann. Stat. s 173.040 (Vernon 1965)

The commission shall appoint an advisory council and shall meet with the advisory council... at least once yearly...

Cite: Mo. Ann. Stat. 173.080 (Vernon 1965)

The state board of education is designated as the state board of education as provided in the acts of congress, is charged with the duty and responsibility of cooperating with the federal board for vocational education in the administration of acts, and is given all power necessary to such cooperation.

Cite: Mo. Ann. Stat. s 178.440 (Vernon 1965)

The state board of education shall make studies and investigations relating to prevocational and vocational training in agriculture, industrial, home economics and commercial subjects; promote and aid in the establishment by local communities of public schools, departments and classes, giving training in such subjects; cooperate with local communities in

the maintenance of such schools, departments and classes; establish standards for, test the qualifications of, and issue certificates to the teachers and supervisors of such subjects, and cooperate in the maintenance of such schools, departments and classes supported and controlled by the public for the preparation of teachers and supervisors of such subjects.

Cite: Mo. Ann. Stat. s 178.450 (Vernon 1965)

The president of the state board of education shall annually appoint a committee of five members to be known as the State Advisory Committee for Vocational Education". This committee shall consist of one person of experience in agriculture; one employer; one representative of labor; one person of experience in home economics; and one person of experience in commerce. The state commissioner of education is an ex officio member and the chairman of the advisory committee.

Cite: Mo. Ann. Stat. s 178.550 (Vernon 1965)

COMMUNITY COLLEGES

Tax supported junior colleges formed prior to October 13, 1961, and those formed under the provisions of section 178.890 shall be under the supervision of the state board of education.

Cite: Mo. Ann. Stat. s 178.780 (Vernon 1965)

COURSE APPROVAL

VOCATIONAL SCHOOLS

The commission... shall have responsibility... for:

(2) Recommending to the governing board of any institution of higher education in the state in the development, consolidation, or elimination of programs, degree offerings, physical facilities or policy changes where that action is deemed by the commission as in the best interests of the institutions themselves and/or the general requirements of the state.

Cite: Mo. Ann. Stat. s 173.030 (Vernon 1965)

The state board of education shall establish standards and annually inspect, as a basis for approval, all public prevocational and vocational schools, departments and classes

receiving state or federal moneys for giving training in agriculture, industrial, or home economics and commercial subjects and all schools, departments and classes receiving state or federal moneys for the preparation of teachers and supervisors in such subjects.

Cite: Mo. Ann. Stat. s 178.530 (Vernon 1965)

COMMUNITY COLLEGES

Nothing is mentioned in the statutory materials.

FUNDING ISSUES

VOCATIONAL SCHOOLS

Nothing is mentioned in the statutory materials.

COMMUNITY COLLEGES

Each year each community junior college is eligible to receive state funds based on Missouri resident enrollment in such community junior college district, if funds are available and appropriated, an amount up to but not more than fifty percent of the state average operating cost per credit hour as approved by the department of higher education. The department of higher education shall review all institutional budget requests and prepare appropriation recommendations annually for the public community junior colleges under its supervision. The department's budget request shall include a recommended level of funding per academic and other nonoccupational or nonvocational credit hour and an increased level of funding per occupational or vocational credit hour.

Cite: Mo. Ann. Stat. s 163.191 (Vernon 1987)

OTHER LEGISLATION

COMMUNITY COLLEGES

The boundaries of any junior college district ... shall coincide with the boundaries of the school district or of the contiguous school districts proposed to be included, and the junior college district shall be in addition to any other school districts existing in any portion of the area.

Cite: Mo. Ann. Stat. s 178.790 (Vernon 1965)

NEBRASKA

STATEMENTS OF MISSION AND DEFINITIONS

VOCATIONAL SCHOOLS

Nothing statutorily stated other than adoption of the act of Congress approved in 1917 to promote vocational education.

COMMUNITY COLLEGES

For a technical community college to be truly responsible to the people it serves, primary control of such college must be placed in the citizens within the local area so served. It is the intent and purpose ... to create locally-governed and locally supported technical community college areas with the major educational emphasis on occupational education. Each technical community college is intended to be an independent, local, unique, and vital segment of higher education, and not to be converted into four-year baccalaureate degree-granting institutions.

Cite: Neb. Rev. Stat. s 79-2636 (1981)

Definitions:

"Technical community college" shall mean an educational institution operating and offering programs pursuant to 79-2636 to 79-2662.

Cite: Neb. Rev. Stat s 79-2637(1) (1986)

"Vocational-technical program" shall mean an instructional program, at the associate degree level or below, intended to prepare individuals for immediate entry into a specific occupation or career. The primary intent of the institutions offering vocational-technical programs shall be that such program is for immediate job entry.

Cite: Neb. Rev. Stat. s 79-2637(15) (1986)

GOVERNANCE

VOCATIONAL SCHOOLS

The State Board of Education ... shall also be the State Board of Vocational Education ...

The State Board of Vocational Education shall meet in the office of the State Department of Education at the State Capitol regularly and periodically and at least four times annually.

Cite: Neb. Rev. Stat. s 79-1421 (1981)

The State board of Vocational Education is required to report data to the Legislature showing (1) the progress of vocational education in the State of Nebraska (2) a list of schools, departments, or classes receiving reimbursement, and (3) a detailed statement of expenditure of federal and state funds available for vocational education.

Cite: Neb. Rev. Stat. s 79-1435 (1981)

Community Colleges

The community colleges are broken into geographic areas and governed as below, however there seems to be no overall statewide governance prescribed by statute.

Each technical community college "area" shall be governed by a board composed of eleven members. These boards are known as the Technical Community College Board of Governors for the specific area the board serves.

Cite: Neb. Rev. Stat. s 79-2640 (1981)

The above named boards are charged with the power to have general supervision, control, and operation of each technical community college within its jurisdiction ...

Cite: Neb. Rev. Stat. s 79-2644(1) (1981)

COURSE APPROVAL

VOCATIONAL SCHOOLS

Nothing is directly mentioned by statute.

COMMUNITY COLLEGES

Nothing is directly mentioned by statute.

FUNDING ISSUES

VOCATIONAL SCHOOLS

s 79-1435.03 is the only section addressing funding. This section allows a limited tax levy for the purpose of financing a school district's participation in the interdistrict agreement to provide and share educational programs.

COMMUNITY COLLEGES

Several statutes vest the power in the area boards to initiate a tax levy for various purposes.

Cite: Neb. Rev. Stat. s 79-2650 et. seq. (1986)

The Legislature, in an effort to promote quality postsecondary education and to avoid excessive taxation upon the taxable property of each area, may appropriate each biennium from such funds as may be available an amount for the aid and assistance of the technical community colleges.

Cite: Neb. Rev. Stat. s 79-2651 (1986)

Beginning with Fiscal year 1982-83, the Legislature shall appropriate an additional two million one hundred eighty-seven thousand dollars for aid to technical community colleges.

Cite: Neb. Rev. Stat. s 79-2651.02 (1986)

OTHER LEGISLATION

VOCATIONAL SCHOOLS

The Legislature adopted a series of statutes to promote cooperative agreements between school districts. The agreement shall include, but not be limited to, the method of sharing or hiring personnel, purchasing equipment and materials, and course curriculum. Programs involving recent technological developments such as electronics, computer science, and communications are specifically mentioned as hopeful beneficiaries of this statute.

Cite: Neb. Rev. Stat. s 79-1435.01 et. seq. (1986)

Any board in control of any public school, college, or university, may establish, in cooperation with the State Board of Vocational Education and in conformity with the Nebraska State Plan for Vocational Education, a vocational school, department or class giving instruction of less than college grade in agriculture, trade, distributive, or homemaking subjects to persons of the required age, who have entered or are preparing to enter upon the work of a farm, a trade, or the home.

Cite: Neb. Rev. Stat. s 79-1428 (1981)

COMMUNITY COLLEGES

The state is statutorily divided into six regions for the purpose of serving the technical community college needs in the State of Nebraska.

Cite: Neb. Rev. Stat. s 79-2638 (1981)

OKLAHOMA

STATEMENTS OF MISSIONS AND DEFINITIONS

VOCATIONAL SCHOOLS

There is a footnote statement which declares that Area vocational and technical schools operated by an area school district are not intended to operate as "institutions of higher education supported wholly or in part by direct legislative appropriation."

Another statement goes on to say that area vocational technical schools of Oklahoma are authorized to offer education beyond the secondary level.

COMMUNITY COLLEGES

No statements of mission or definition are found in the statutory materials.

GOVERNANCE

VOCATIONAL SCHOOLS

There is hereby created the State Board of Vocational and Technical Education which shall succeed to all of the powers and duties heretofore invested in the State Board for Vocational Education. Membership consist of the State Superintendent of Public Instruction, six appointed members of the State Board of Education as ex officio voting members, and six members appointed by the Governor from each of the six congressional districts.

Cite: Okla. Stat. Ann. tit. 70, s 14-101 (West 1972)

The State Board of Vocational Education must meet once each month in a regular session.

Cite: Okla. Stat. Ann. tit. 70, s 14-102 (West 1972)

A State Department of Vocational and Technical Education exists under the control of the State Board of Vocational and Technical Education to formulate policies and adopt rules and regulations for the administration and operation of the department.

Cite: Okla. Stat. Ann. tit. 70, s 14-104 (West 1972)

The governing board for each individual institution shall consist of not less than five nor more than seven members.

Cite: Okla. Stat. Ann. tit. 70, s 14-108 (West 1972)

COMMUNITY COLLEGES

A community junior college may be established, maintained and operated in any community in accordance with criteria and standards, rules, and regulations prescribed by the Oklahoma State Regents for Higher Education.

Cite: Okla Stat. Ann. tit. 70, s 4401 (West 1972)

The governing board for each community junior college shall be known as the Board of Trustees and shall be composed of seven qualified members from the community junior college district.

Cite: Okla. Stat. Ann. tit. 70, s 4404 (West 1972)

COURSE APPROVAL

VOCATIONAL SCHOOLS

The State Board of Vocational and Technical Education has the power and duty to provide for the formulation and adoption of curricula, courses of study, and other instructional aids necessary for the adequate instruction of students in the vocational and technical schools and colleges of Oklahoma.

Cite: Okla. Stat. Ann. tit. 70, s 14-103 (West 1972)

The State Department of Vocational and Technical Education may operate and maintain, or otherwise provide for, courses of instruction and training in vocational and technical education courses and subjects, and charge students reasonable tuition fees for such instruction or training.

Cite: Okla. Stat. Ann. tit. 70, s 14-105 (West 1972)

COMMUNITY COLLEGES

Each community junior college shall comply with, and be accredited under, standards and regulations prescribed by the State Regents; and shall offer courses of study and educational

programs and shall grant certificates and degrees as authorized by the State Regents in order that the educational activities of the junior college shall be coordinated with the total public effort for higher education in the state.

Cite: Okla. Stat. Ann. tit. 70, s 4407 (West 1972)

FUNDING ISSUES

VOCATIONAL SCHOOLS

Tuition fees are deposited in a special fund known as the State Vocational-Technical Fund. The fund may be used to pay expenses incurred by the department in operating and maintaining expenses.

Cite: Okla. Stat. Ann. tit. 70, s 14-105 (West 1972)

COMMUNITY COLLEGES

Any community junior college established, operated, and accredited ... shall be eligible to receive assistance from the State of Oklahoma in funds for educational and general operation of the institution, which funds shall be allocated by the State Board of Regents from monies appropriated by the Legislature. Funds shall be used to assist in the establishment, maintenance, and operation of the community junior college.

Cite: Okla. Stat. Ann. tit. 70, s 4408 (West 1972)

The Oklahoma State Regents for Higher Education shall have authority to allocate State Aid to community junior colleges meeting the standards and criteria for accreditation by the State Regents, for capital improvements purposes from funds appropriated by the State Legislature for this purpose, provided that a long-range comprehensive plan for the campus development of the junior college has been prepared by the institution and approved by the State Regents. There is a stated limitation on the dollar amount available for appropriation.

Cite: Okla. Stat. Ann. tit. 70, s 4412 (West 1972)

Community junior colleges are statutorily authorized to issue bonds and levy taxes.

Cite: Okla. Stat. Ann. tit. 70 s 4415 (West 1972)

OTHER LEGISLATION

VOCATIONAL SCHOOLS

The State Department of Vocational and Technical Educaion may operate and maintain an equipment pool, at which there shall be kept equipment for the use of area school districts and vocational and technical schools supported by public funds, and said department and schools shall be eligible for surplus property and equipment.

Cite: Okla. Stat. Ann. tit.70, s 14-106 (West 1972)

Instructors not having a college degree shall complete eight college hours each year until graduation or participate in such training courses as may be approved by the Oklahoma State Board of Vocational and Technical Education.

Cite: Okla. Stat. Ann. tit. 70, s 14-111 (West 1972)

The Legislature finds and declares that homemakers are an unrecognized part of the work force who make an invaluable contribution to the welfare of the society as a whole. Several statutes provide the necessary counseling, training, jobs, services and support programs for displaced homemakers so that they may enjoy the independence and economic security vital to a productive life and to improve the welfare of this ever-growing group of citizens.

Cite: Okla. Stat. Ann. tit. 70, s 14-114 (West 1987)

COMMUNITY COLLEGES

The governing boards of the community junior college are authorized to enter into cooperative agreements with any area vocational-technical school for the joint use of facilities and personnel, joint courses of study and educational programs and other cooperative efforts to the mutual benefit of each school and the community.

Cite: Okla. Stat. Ann. tit.70, s 4406 (West 1972)

A statute exist which allows two-year college which is a part of the State System of Higher Education to become an area school district for the purpose of providing post-secondary vocational and/or technical education programs and services within a geographical area defined by the State Regents for Higher Education.

Cite: Okla. Stat. Ann. tit. 70, s 4411 (West 1972)

IOWA

STATEMENTS OF MISSION AND DEFINITIONS

VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

Iowa statute allows for not more than seventeen areas throughout the state which may operate either area vocational schools or area community colleges offering to the greatest extent possible, educational opportunities and services in each of the following, when applicable, but not necessarily limited to:

1. The first two years of college work including preprofessional education.
2. Vocational and technical training.
3. Programs for in-service training and retraining of workers
4. Programs for high school completion for students of post-high school age.
5. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a local high school, public or private.
6. Programs for students of high school age to provide advanced college placement courses not taught at a student's high school while the student is also enrolled in the high school.
7. Student personnel services.
8. Community services.
9. Vocational education for persons who have academic, socioeconomic, or other handicaps which prevent succeeding in regular vocational education programs.
10. Training, retraining, and all necessary preparation for productive employment of all citizens.
11. Vocational and technical training for persons who are not enrolled in high school and who have not completed high school.

Cite: Iowa Code Ann. s 280A.1 (West 1987)

Definitions:

"Vocational school" means a publically supported school which offers as its curriculum or part of its curriculum vocational or

technical education, training, or retraining available to persons who have completed or left high school and are preparing to enter the labor market; persons who are attending high school who will benefit from such education or training but who do not have the necessary facilities available in the local high schools; persons who have entered the labor market but are in need of upgrading or learning skills; and persons who due to academic, socioeconomic, or other handicaps are prevented from succeeding in regular vocational or technical education programs.

Cite: Iowa Code Ann. s 280A.2 (1) (West 1987)

"Community college" means a publicly supported school which offers two years of liberal arts, preprofessional, or other instruction partially fulfilling the requirements for a baccalaureate degree but which does not confer any baccalaureate degree and which offers in whole or in part the curriculum of a vocational school.

Cite: Iowa Code Ann. s 280A.2 (3) (West 1987)

GOVERNANCE

VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

The state board of public instruction shall constitute the board for vocational education.

Cite: Iowa Code Ann. s 258.2 (West 1972)

The state board of public instruction is vested with the duties of establishing standards for vocational programs and monitoring schools.

Cite: Iowa Code Ann. s 258.4 (West 1972)

A state advisory board for vocational education exists to support and promote vocational education in Iowa. The advisory board consists of 13 members with each member serving a three year term. The statute outlines several criteria taken into consideration in establishing the makeup of the advisory board.

Cite: Iowa Code Ann. s 258.7 (West 1972)

Local advisory committees for vocational education, consisting of persons of experience in agriculture, industry, home economics, and business are a requisite for approval by the state board.

Cite: Iowa Code Ann. s 258.9 (West 1972)

There shall be an area schools branch within the department of education. The brance shall exercise the powers and perform the duties conferred by law upon the department with respect to area vocational schools and area public community and junior colleges.

Cite: Iowa Code Ann. s 280A.27 (West 1987)

Approval standards, except as hereinafter provided, for area and public community and junior colleges shall be initiated by the area schools branch of the department and submitted to the state board of education and the state board of regents, through the director of the department of education, for joint consideration and adoption.

Cite: Iowa Code Ann. s 280A.33 (1) (West 1987)

Approval standards for area vocational schools and for vocational programs and courses offered by area community colleges shall be initiated by the area schools branch and submitted to the state board of education through the director of the department of education, for consideration and adoption.

Cite: Iowa Code Ann. s 280A.33 (2) (West 1987)

COURSE APPROVAL

VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

The board of directors of each area school or area community college shall determine the curriculum to be offered in such school or college subject to approval of the state board.

In approving the curriculum, the state board shall ascertain that all courses and programs submitted for approval are needed and that the curriculum being offered by an area school does not duplicate programs provided by existing public or private facilities in the area. In determining whether duplication would actually exist, the state board shall consider the needs of the area and consider whether the proposed programs are competitive as to size, quality, tuition, purposes, and area coverage with existing public and private educational or vocational institutions within the merged area.

Cite: Iowa Code Ann. s 280A.23 (West 1987)

With the approval of the state board, the board of directors of an area vocational school may expand the curriculum of the school

to qualify as an area community college. Upon approval the institution will be officially classified as a community college.

Cite: Iowa Code Ann. s 280A.24 (West 1987)

FUNDING ISSUES

VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

A limit is placed on the amount tax which can be collected for the operation of area schools. The statute provides that additional funds needed to meet the costs of operation of these institutions shall be the responsibility of the state and shall not be paid from property tax.

Cite: Iowa Code Ann. s 280A.17 (West 1987)

By election, a property tax may be assessed to raise revenue for the capital improvement and building expansion and maintenance. This is in addition to the tax allowed for operating costs.

Cite: Iowa Code Ann. s 280A.22 (West 1987)

Annually, the board of directors may certify for levy a tax on taxable property in the merged area at a rate not exceeding three cents per thousand dollars of assessed valuation for equipment replacement for the area school.

Cite: Iowa Code Ann. s 280A.28 (West 1987)

OTHER LEGISLATION

VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

There is created within the office of the treasurer of the state a vocational youth fund. Moneys deposited in the fund shall be used to develop leadership in the youth of Iowa who are enrolled in vocational and occupational education programs and to encourage the youth of Iowa to pursue vocational and occupational education.

Cite: Iowa Code Ann. s 258.14 (West 1972)

The administration of the college shall encourage the continued

development of faculty potential by: (1) Regularly stimulating department chairmen or heads to meet their responsibilities in this regard; (2) lightening the teaching loads of first-year instructors whose course preparation and in-service training demand it; (3) stimulating curricular evaluation; and (4) encouraging the development of an atmosphere in which the faculty brings a wide range of ideas and experiences to the students, each other, and the community.

Cite: Iowa Code Ann. s 280A.36 (West 1987)

The board of directors may, with the approval of the director of the department of education, enter into lease agreements, with or without purchase options, not to exceed twenty years in duration, for the leasing or rental of buildings for use basically as classrooms, laboratories, shops, libraries, and study halls for vocational school or community college purposes, and pay for these with funds provided from tax levies.

Cite: Iowa Code Ann. s 280A.37 (West 1987)

NORTH CAROLINA

MISSION STATEMENTS AND DEFINITION STATEMENTS

VOCATIONAL SCHOOLS

The State Board of Education is authorized and directed to administer through local boards of education a comprehensive program of vocational education which shall be available to all students who desire it in the public secondary schools of this State. The purposes of vocational educational in North Carolina public secondary schools shall be:

1. Vocational Skill Development - To prepare individuals for paid or unpaid employment in recognized occupations, new occupations, and emerging occupations.

2. Preparation for Advanced Education - To prepare individuals for participation in advanced or highly skilled vocational and technical occupations.

3. Pre-Vocational; Introductory - To assist individuals in the making of informed and meaningful occupational choices.

Cite: N.C. Gen. Stat. s 115C-151 (1983)

COMMUNITY COLLEGES

The term "community college" is defined to be an educational institution

a. Dedicated primarily to the particular needs of a community or an area,

b. Offering the freshman and sophomore courses of a college of liberal arts and sciences and/or the first- and second-year courses of a two-year technical institute of college grade, and

c. Organized and operating under the provisions of this Article.

In addition to the courses above referred to, such college may also offer a variety of occupational, vocational, avocational and recreational training programs. Such college may consist of one or more units operating within the boundaries of one county.

Cite: N.C. Gen. Stat. s 116-49 (1983)

Community colleges and technical institutes shall assist in the preemployment and in-service training of employees in industry,

business, agriculture, health occupation and governmental agencies.

Cite: N.C. Gen. Stat. s 115D-5(d) (1983)

The term "community college is defined as an educational institution operating under the provisions of this Chapter and dedicated primarily to the educational needs of the particular area for which established, and

a. Which offers the freshman and sophomore courses of a college of arts and sciences,

b. Which offers organized credit curricula for the training of technicians; curricular courses may carry transfer credit to a senior college or university where the course is comparable in content and quality and is appropriate to a chosen course of study;

c. Which offers vocational, trade, and technical specialty courses and programs, and

d. Which offers courses in general adult education.

Cite: N.C. Gen. Stat. s 115D-2(2) (1983)

The term "technical institute" is defined as an educational institution operating under the provisions of this Chapter and dedicated primarily to the educational needs of the particular area for which established, and

a. Which offers organized credit curricula for the training of technicians; curricular courses may carry transfer credit to a senior college or university where the course is comparable in content and quality and is appropriate to a chosen course of study;

b. Which offers vocational, trade, and technical specialty courses and programs,

c. Which offers courses in general adult education

Cite: N.C. Gen. Stat. s 115D-2(7) (1983)

The major purpose of each and every institution operating under the provisions of this Chapter shall be and shall continue to be the offering of vocational and technical education and training, and of basic, high school level, academic education needed in order to profit from vocational and technical education, for students who are high school graduates or who are beyond the

compulsory age limit of the public school system and whoc have left the public schools, ... etc.

Cite: N.C. Gen. Stat. s 115D-1 (1985)

GOVERNANCE

VOCATIONAL SCHOOLS

The State Board of Education is authorized and directed to provide appropriate definitions to vocational education programs, services, and activities in grades 7-12 not otherwise included in this Part.

Cite: N.C. Gen. Stat. s 115C-152 (1983)

The State Board of Education shall be the sole State agency for the State administration of vocational education at all levels, shall be the State Board of Vocational Education, and shall have all necessary authority to cooperate with any and all federal agencies in the administration of national acts assisting vocational education, to administer any legislation pursuant thereto enacted by the General Assembly of North Carolina, and to cooperate with local boards of education in providing vocational and technical education programs, services, and activities for youth and adults residing in the areas under their jurisdiction.

Cite: N.C. Gen Stat. s 115C-153 (1983)

COMMUNITY COLLEGES

The State Board of Community Colleges consists of 20 members. There are statutory prescribed critera used to select members for this board.

Cite: N.C. Gen Stat. s 115D-2.1(b) (1985)

As to local administration, each community college and technical institute shall be governed by a board of trustees consisting of 13 members, or of additional members if selected according to the special procedure prescribed by the third paragraph of the statute. The members of these boards must qualify according to the statutorily described makeup.

Cite: N.C. Gen. Stat. 115D-12(a) (1985)

The Department of Community Colleges shall be a principal administrative department of State government under the direction of the State Board of Community Colleges, and shall be separate from the free public school system of the State and the Department of Public Education.

Cite: N.C. Gen. Stat. s 115D-3 (1986)

COURSE APPROVAL

VOCATIONAL SCHOOLS

Nothing is directly mentioned by statute

COMMUNITY COLLEGES

A community college or technical institute may not offer a new program without the approval of the State Board of Community Colleges except that approval shall not be required if the tuition for the program will fully cover the cost of the program.

Cite: N.C. Gen. Stat. s 115D-5 (1985)

FUNDING ISSUES

VOCATIONAL SCHOOLS

Nothing is directly mentioned in the statutes.

COMMUNITY COLLEGES

Appropriations by the State of North Carolina as grant-in-aid to community colleges for operating expenses shall be paid on the basis of a specified sum per student quarter-hour of instruction delivered in a limited curriculum consisting of courses at the freshman and sophomore levels in liberal arts and sciences and in the first and second year offerings of technical institutes of college grade prescribed by the Board of Governors. The total annual amounts of these grants-in-aid to each college shall not,..., exceed the total of local public or private funds made available annually to each college for operating expenses.

Cite: N.C. Gen. Stat. s 116-53 (a) (1983)

Appropriations by the State of North Carolina for capital or permanent improvements for community colleges shall, except when the Appropriation Act specifically provides otherwise, be on an equal matching fund basis, the moneys raised by a particular community college from public or private sources being matched by an equal amount of State funds, up to but not in excess of appropriations therefor. There are statutory limitations defining appropriate use for these funds.

Cite: N.C. Gen. Stat. s 116-53 (b) (1983)

Taxes may be levied by the board of commissioners of a county for the purpose of financing the cost of operation, equipment and maintenance of any community college situated within the boundaries of the county.

Cite: N.C. Gen. Stat. s 116-56 (1983)

The State Board of Community Colleges may withdraw or withhold State financial and administrative support of any institution subject to the provisions of this Chapter in the event that

1. The required local financial support of an institution is not provided;
2. Sufficient State funds are not available;
3. The officials of an institution refuse or are unable to maintain prescribed standards of administration or instruction; or;
4. Local educational needs for such an institution cease to exist.

Cite: N.C. Gen. Stat. s 115D-6 (1983)

The State Board of Community Colleges shall be responsible for providing, from sources available to the State Board, funds to meet the financial needs of institutions, as determined by policies and regulations of the State Board, as to items specified by this statute. (Plant Fund, Current Operating Expenses, etc.)

Cite: N.C. Gen. Stat. s 115D-31 (1985)

The counties that agree to have satellite campuses of community colleges or technical institutes located in them accept the maintenance and utility costs of these satellite campuses.

Cite: N.C. Gen. Stat. s 115D-32 (1985)

The expenditures of any State funds for any capital improvements of existing institutions shall be subject to the prior approval of the State Board of Community Colleges and the Governor, provided that the Governor may consult with the Advisory Budget Commission before giving approval.

Cite: N.C. Gen. Stat. s 115D-4 (1986)

OTHER LEGISLATION

VOCATIONAL SCHOOLS

It is the intent of the General Assembly that practical work experiences within the school and outside the school, which are valuable to students and which are under the supervision of a teacher, should be encouraged as part of vocational education instruction in the public secondary schools when such experiences shall be organized and maintained to the best advantage of the vocational education programs.

Cite: N.C. Gen. Stat. s 115c-159 (1985)

In order to make instruction as accessible as possible to all citizens, the teaching of curricular and of noncurricular extension courses at convenient locations away from institution campuses as well as on campuses is authorized and shall be encouraged.

Cite: N.C. Gen. Stat. s 115D-5(b) (1985)