

**REPORT OF THE
STATE BOARD FOR COMMUNITY COLLEGES IN
COOPERATION WITH THE BOARD OF EDUCATION**

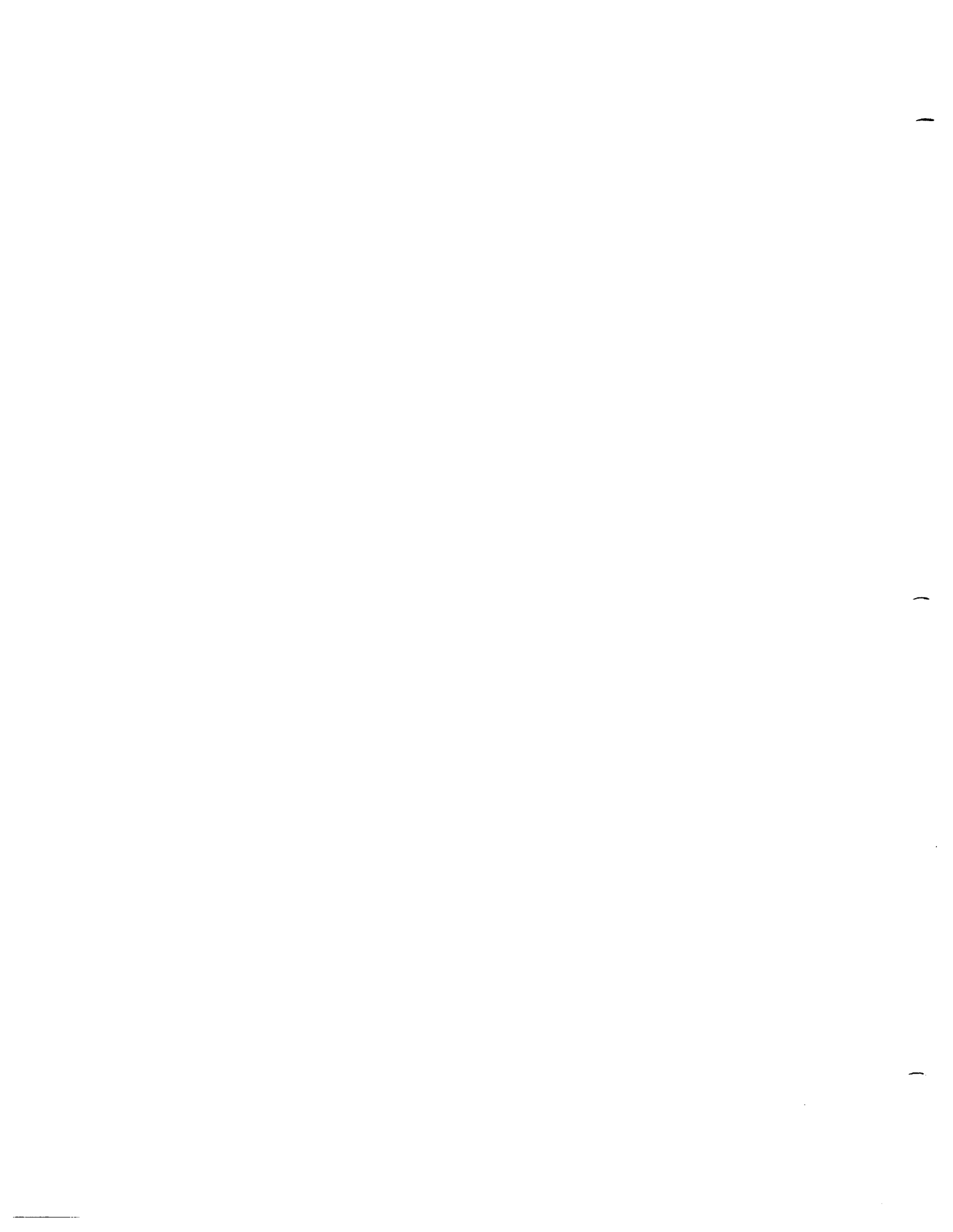
**FEASIBILITY OF ESTABLISHING
WORKFORCE TRAINING AND
EDUCATION TECHNOLOGY CENTERS**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 58

**COMMONWEALTH OF VIRGINIA
RICHMOND
1999**





VIRGINIA COMMUNITY COLLEGE SYSTEM
James Monroe Building • 101 North Fourteenth Street • Richmond, Virginia 23219

February 17, 1999

The Honorable James S. Gilmore, III
Governor of Virginia
State Capitol, 3rd Floor
Richmond, Virginia 23219

The General Assembly of Virginia
General Assembly Building
910 Capitol Street
Richmond, Virginia 23219

Dear Governor Gilmore and Members of the General Assembly:

House Joint Resolution 124, sponsored by Delegate John J. Davies, III, and passed in the 1998 session of the Virginia General Assembly, requested the Virginia Community College System, in cooperation with the Virginia Department of Education, to study the feasibility of establishing joint technology centers to focus on workforce training and education. Specifically, we were asked to look at potential placement and governance of such centers and the coordination between community colleges and public schools in addressing workforce training and other related issues.

I am pleased to transmit the requested report on this important topic to you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Arnold R. Oliver'.

Arnold R. Oliver
Chancellor
Virginia Community College System

ARO/JSG/sbh
Enclosure
cc: The Honorable John J. Davies, III

PREFACE

This study, "The Feasibility of Establishing Workforce Training and Education Technology Centers," was authorized by House Joint Resolution (HJR) 124, directing the State Board for Community Colleges in cooperation with the State Board of Education to examine the "feasibility of establishing technology centers to focus on workforce training and education." Specifically, the Board was instructed to consider the appropriate placement and governance of such centers and the coordination between community colleges and the public schools in addressing workforce training among other issues.

Principal authors of this study were Dr. Joy Graham, Assistant Chancellor of Public Affairs, Virginia Community College System, and Dr. Kay Brown, Specialist, Career Connections, Virginia Department of Education. The authors are grateful for the assistance of the American Association of Community Colleges, the National Center for Research in Vocational Education, the Office of Vocational and Adult Education of the U.S. Department of Education, and the National Occupational Information Coordinating Committee.

The authors would like to thank Dr. Allen Arnold, President, Charles Stewart Mott Community College in Flint, Michigan; Dr. Norm Will, Executive Vice President, Daytona Beach Community College, Daytona Beach, Florida; Mr. Jack Lunsford, Director of Government Affairs, Maricopa Community College, Phoenix, Arizona; Mr. Larry Brooks, Superintendent, Culpeper County Public Schools, Culpeper, Virginia; Dr. Timothy Jenney, Superintendent, Virginia Beach Public Schools, Virginia Beach, Virginia; Dr. Deborah DiCroce, President, Tidewater Community College, Norfolk, Virginia; and Mr. Gene Callahan, Tulsa Technical Center, Tulsa, Oklahoma for their valuable assistance.

Sharing joint facilities and collaborating on programs and services is an area that is growing rapidly as public schools and community colleges work to provide a seamless education and high-skill workforce training in a cost-effective and efficient manner. With constantly changing technology and critical shortage of well-educated and trained workers, it is apparent that partnerships provide an excellent solution to many of these issues. This report addresses some of these issues and describes how several states have addressed them as well as makes recommendations for the Commonwealth of Virginia to consider as a "next-step" in its educational and training efforts.

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EXECUTIVE SUMMARY

House Joint Resolution (HJR) 124 directs the State Board for Community Colleges and the Board of Education to “study the feasibility of establishing technology centers to focus on workforce training and education.” Factors to consider in determining feasibility include placement and governance of such centers, the role of the community college, community partnerships to be established, dual enrollment opportunities, coordination between the community colleges and the public schools in statewide workforce development, and business-education linkages to promote workforce preparation. An advantage to the Commonwealth of establishing regional, joint technology centers is expected improvement in workforce development, including cost-and-time effectiveness and the state’s ability to respond to business and industry demand for highly skilled workers.

Although Virginia has demonstrated considerable progress in workforce development, economic growth, and technological achievement, there is a critical shortage of highly trained and technologically skilled workers. For example, the Center for Innovative Technology (CIT) has identified thousands of available positions that are unfilled as a result of this shortage. Efforts are under way, however, to alleviate this problem. Virginia Community College System (VCCS) has been given responsibility for workforce training at the postsecondary level, and the Statewide Workforce Training Council has been established. In addition, the importance of collaboration among education and training entities, both public and private and at the secondary and postsecondary levels, has been emphasized, including the development of a technological network as a joint project of several Virginia institutions of higher education. The new cabinet-level position of Secretary of Technology has been created to ensure that technology needs are identified and addressed. Also, the Regional Competitiveness Act, passed by the Virginia General Assembly, has provided funding to cities and counties who have joined together cooperatively to address regional workforce development needs. Further evidence of state progress in workforce development is the establishment by the VCCS of three Centers of Workforce Training Excellence.

Five examples of community college/public school partnership selected for study from other states include those located in Oklahoma, Arizona, Michigan, Maine, and Florida. The most advanced public community college/public school partnership in Virginia, the Tidewater Community College/Virginia Beach City Public Schools Technical Center (TCC/VBCPS), has been examined to determine its applicability to other regions of the Commonwealth. Features of all the models are described in detail in this report. A primary conclusion is that Virginia has many of the components needed to develop a model national workforce. It seems that a pilot project is needed to determine whether joint community college/public school centers can significantly improve the quality and skill level of graduates. Recommendations may be summarized as follows: continue to support implementation of the Virginia Beach model; select a rural region of the state to initiate a pilot joint facility adaptable to other rural areas of the Commonwealth; provide appropriate funding to both the urban and rural models of collaboration; expand the membership of the Statewide Workforce Training Council to include the Superintendent of Public Instruction; conduct a study of the regional vocational centers to evaluate their potential for upgrading to regional technical centers; encourage the Council to examine other collaborative initiatives and determine business/industry support for these linkages, including expanded Board of Education/State Board of Community Colleges collaboration; and evaluate the progress of collaborative initiatives.

PART I. INTRODUCTION

House Joint Resolution 124 (HJR 124) directs the State Board for Community Colleges and the Board of Education to “study the feasibility of establishing technology centers to focus on workforce training and education.” (See Appendix A.)

HJR 124 Primary Purposes

This study is designed to determine the feasibility of establishing regional, joint public school and community college technology centers to expand workforce development. One such center has been designed as a regional, joint effort of Tidewater Community College and Virginia Beach City Public Schools (TCC/VBCPS)--a secondary/postsecondary partnership that may possibly serve as a model for the development of other regional centers.

Factors to Consider

According to HJR 124, the following factors are to be considered in determining the feasibility of establishing such centers:

1. The appropriate placement and governance of these centers;
2. The role of the community college in supporting the centers;
3. Ways in which the centers may facilitate the establishment of community incentive partnerships;
4. Ways in which the center concept may expand dual enrollment opportunities;
5. Potential coordination between the community colleges and the public schools in addressing workforce training and education;
6. Linkages between education and business that promote educational preparation for the workplace; and
7. Identification of any additional factors or issues that may affect determination of the feasibility of establishing technology centers in regions throughout the Commonwealth.

Advantages to the Commonwealth of Establishing Regional, Joint Technology Centers

Potential advantages to Virginia’s continuing economic development resulting from establishing regional, joint technology centers are specified in HJR 124:

1. Improvement in workforce preparation and in continuing education opportunities for the state’s present and future workers;
2. A mechanism to address increasing domestic and foreign competition, ever-changing technologies, demands for a quality physical infrastructure, and the resulting need for highly skilled workers who can and will keep pace with the fast-moving economy;

3. A major response to the accelerated demand by business and industry on community colleges and public schools to develop a high-quality workforce through education and advanced training;
4. The effectiveness of partnerships between secondary schools and community colleges in bridging the gap between graduates of their institutions and the workplace; and
5. The probable cost-and-time effectiveness of using a model technology center created in one part of the state to develop a statewide network of regional, joint secondary/post-secondary technology centers.

Workforce Development and Economic Growth in Virginia

It has been apparent for several years that a critical necessity for the economic well being of the Commonwealth of Virginia is a highly skilled workforce. The educational structure had been doing an adequate job at both the high school and community college levels for the jobs that had been the mainstay of Virginia's economy: manufacturing, service providers, low-tech jobs, and the like. However, the technological advances made in recent years put significant demands on current structures, and it was clear that new methods must be adopted to meet the workplace needs of the 21st century. Several studies were conducted at the request of the General Assembly, including HJR 622, a year-long examination of non-credit workforce training at the postsecondary level. Business leaders from around the state came before the study committee to discuss their needs in this important area. Conclusions from this study resulted in new legislation giving responsibility for workforce training at the postsecondary level to the Virginia Community College System and establishing the Statewide Workforce Training Council. The study report and the legislation also stressed the importance of collaboration among education and training entities, both public and private, and at the secondary and postsecondary levels.

Technological Progress in Virginia: The Progress and the Promise

Enormous growth in technology companies locating in Northern Virginia, and in lesser numbers throughout the Commonwealth, has created a severe shortage of highly skilled workers to meet the demand. The Center for Innovative Technology (CIT) has identified thousands of available positions that are unfilled due to the lack of skilled workers. Virginia has taken significant steps to address this issue. Governor James Gilmore created a cabinet position and named the Commonwealth's first Secretary of Technology to ensure that technology needs are identified and addressed.

In addition, several of Virginia's institutions of higher education have developed a technological network (Net.Work.Virginia) connecting institutions, agencies, and public schools and providing high-speed, excellent-quality, distance-education, and training capabilities throughout the Commonwealth. Net.Work.Virginia has enabled hundreds of courses, seminars, meetings, and training opportunities to be accessed by individuals, businesses, and industries since its initiation.

The Regional Competitiveness Act, passed by the Virginia General Assembly, has provided funding to cities and counties who joined together in a cooperative arrangement to address regional needs. Almost all of the grants provided during the Act's several years of operation have had a significant workforce training component.

The Virginia Community College System established through legislative mandate three Centers of Workforce Training Excellence: advanced manufacturing, semi-conductor training, and information technology. These Centers are charged with providing leadership to all regions of the state regarding worker training in these occupational areas.

Challenges to Community Colleges and Public Schools

It is incumbent upon community colleges and public schools to forge partnerships that provide Virginia students with the best opportunities for high-skill/high-pay jobs to allow the students to remain in the state to work and raise their families. This cooperative arrangement will also attract new businesses to come to Virginia and encourage existing ones to remain and expand. Several initiatives are already under way. Tech Prep and School-to-Work programs, established through federal legislation, have been successful in many areas of Virginia. New federal legislation, such as the Workforce Investment Act of 1998, will require even greater cooperative ventures to meet critical workforce training needs. Although the legislation and funding allows considerable flexibility for states in this area, significant evaluative measures must also be met. This is a time of great opportunity for the state, but also a time that will require new partnerships to ensure that Virginia citizens have the tools to enter a technologically changing workplace environment.

To address the requirements set by the passage of House Joint Resolution 124, it was essential to look both at the progress that has already been made in Virginia and the successful initiatives from other states. Part II identifies several initiatives of other states and examines the most advanced public school/community college partnership in Virginia: the TCC/VBCPS Technical Center. Research has shown that many states are in similar stages of development as Virginia. They are beginning to evaluate their training efforts and develop new approaches to strengthen programs that work and redesign those that do not. Part III summarizes HJR 124, addresses the conclusions reached, and provides recommendations for implementation.

PART II. PARTNERSHIPS IN VIRGINIA AND OTHER STATES

After a review of the available literature through a variety of Internet search engines and periodical bibliographies, several national organizations and associations were contacted. The American Association of Community Colleges provided several names of community colleges that had entered into collaborative partnerships by sharing facilities with public schools. The National Occupational Information Coordinating Committee and the National Center for Research in Vocational Education provided the names of public school systems that had also entered into such arrangements.

Joint facility partnerships have been established in Oklahoma, Arizona, Michigan, and Florida, and these models were examined for their relevance. A state model partnership in Maine without joint facilities also was studied. The model program in Virginia Beach was explored to determine its applicability to other regions of the Commonwealth.

Five Out-of-State Models

Oklahoma. In Tulsa, it was determined that articulation was the best means to provide an uninterrupted sequence of learning experiences for students progressing from secondary to postsecondary education. Articulation is a process for communicating and sharing cooperatively to enhance the effective delivery systems in programs and services for the benefit of students enrolled in public schools and community colleges.

As in other states, Oklahomans questioned the abilities of their public school graduates and demanded that schools be more accountable for student performance. To address these concerns and to provide the best possible technological background for its students, the Tulsa County area public schools joined forces with the Tulsa Community College to create the Tulsa Technology Center. In this cooperative venture, students are enrolled in both the public school and the community college for funding purposes. The two entities determined what programs of study should be offered and called on the business community to assist in this determination. One such program, called the Systems Support Technician Program, is a sixteen-week program created in response to direct requests for additional qualified workers from many of Tulsa's largest employers. Participants are trained in networking, system troubleshooting, system installation, and customer support.

The Tulsa Technology Center currently has over 2,700 full-time students enrolled in programs including marketing education, welding technology, and a host of other offerings. The center's largest division is computer technology, which has expanded by two-thirds to try to keep pace with the demand for qualified workers. "We could probably have filled another three or four classes if we had the capacity, but we don't," said Gene Callahan, head of Tulsa Technology Center. "We'll always be swimming upstream when we're dealing with this phenomenon in the workplace."

Arizona. In Phoenix, the public schools and Maricopa Community College District created Gate Way Community High School on the community college campus. Students may enroll in community college courses while completing their high school program. Tuition and books for college courses are paid for by Gate Way Community High School. The goal of the program is to prepare 16-to-21-year-old students to enter careers in health or technical disciplines or to pursue postsecondary education.

Gate Way Community High School offers an accelerated, career-focused high school diploma program with available integration of community college courses. The time of attendance is flexible at the school, but students are required to attend a minimum of 20 hours each week. They can attend during the day, in the evening, and on Saturday morning, to accommodate their work schedules and personal needs.

Michigan. Mott Community College (MCC) and the 21 school districts in Genesee County joined together in 1991 to create the Mott Middle College (MMC) in Flint, Michigan. This model differs from the others in that it was created to deliver education to students who possess academic potential, but who are at risk of dropping out of high school. Although it is not the technology center concept envisioned by Virginia and the other states, this model is included because of its structure, governance, and successful longevity. (See Appendix B, Fixing America's Schools.)

MMC is designed for students in grades 9-12 with heavy emphasis on emulating and preparing students for the world of work and higher education. Modeled after successful programs in New York and Tennessee, MMC students must also include one or more work internships in their studies. At MCC, college students act as role models, and campus facilities are open to high school students. The high school schedule also is synchronized with the college calendar. This flexible scheduling allows students to meet personal and employment needs, continue their pursuit of a high school education, and start a college degree. Priority is on intensive skill building in areas necessary for success in a college-preparatory program: critical reading skills, mathematics, geography, computer skills, ways to access information, writing and oral communication skills, and decision making. Of critical importance are the career internships that allow students to acquire work skills and attitudes and help them develop portfolios, including letters of reference for future jobs and college admissions packets.

Enrollment at MMC is approximately 25 students, with 14 faculty, one counselor, two administrators and three support staff. Entering GPA (Grade Point Average) for the class of 1997 was 1.6; exiting GPA was 3.0. Approximately 65% of high school students began college upon graduation.

The MMC is governed by an Administrative Council comprised of one Genesee School District administrator, one MCC administrator, three superintendents from Genesee County, two Board of Education members, one MCC board member, and one state legislator. A Funding Task Force was set up to determine appropriate funding for the school. The school district is responsible for all payroll for instructional and support personnel, purchase of instructional materials and equipment, and other costs of the program. MCC will make available classroom

and office space; share bookstore, library, health services, and recreational facilities; provide coordination services; and allow shared use of classroom and lab equipment. An on-going Curriculum Advisory Committee, comprised of Genesee County educators and MCC faculty and deans, was established in order to develop the base for a curriculum.

Maine. The state of Maine has established a unique program called the Maine Career Advantage, a collaboration of the Maine Technical Community College System, Maine high schools, and businesses in the state. In 1992, Governor John McKernan had just returned from a study trip to Europe with the Maine Technical Community College president. While in Europe, they saw programs that coherently combined classroom experience and workplace training. As a result, Maine's community colleges soon began to offer students combined classroom experience and workplace training in their choice of one of several broad occupational areas.

The program offers placement opportunities in a number of career fields and has organized a Skill Standards Board to set the standards for a Certificate of Skill Mastery in the following areas: assembly technology, automotive management, banking and finance, biotechnology, civil engineering technology, computer technology, drafting technology, hospitality, electronics, manufacturing technology, metals, marketing and entrepreneurial management, public services, and telecommunications.

Students can begin the program the summer after their junior or senior year in high school. They apply for an internship placement with a company in the occupational area of their choice. This internship continues for two years while the students complete high school and attend one year of community college. The students complete the program with a Certificate of Skill Mastery in an occupational area and one year of credit toward an associate degree in Workplace Technology. They pay no tuition for college courses and receive a stipend for their work. Participating businesses cover the stipend, and tuition expenses may be paid by these businesses or by other funding sources. The participating businesses also provide a trained work supervisor who serves both as a coach and as a mentor to the intern.

The program is guided by a steering committee of state, business, labor, and education leaders. In 1997, 3,950 students participated in the program; a total of 300 businesses offered work placements; and all community technical college campuses and 128 secondary schools offered the program to their students.

Florida. The final model examined is a partnership of Daytona Beach Community College, Volusia County Schools, and Flagler County Schools to create Technical Career Centers. These Centers offer a continuum of career education from the junior and senior levels of high school through postsecondary education at three sites strategically placed to benefit the students and local business/industry education and training needs in the two-county service area.

A steering committee composed of staff from both institutions organized the process for identifying programs to be offered. An academic core designed to develop basic skills and job readiness is a vital part of the program. All high school programs are articulated to college programs and provide enhanced dual-enrollment options to decrease the required time to complete a degree or certificate. Programs have multiple-exit points that include direct job entry after high school, with the option of completing a certificate, an apprenticeship program, or an associate degree as appropriate. Legislation authorizing the Florida Technical Centers may be reviewed in Appendix C.

The governance of the Centers is the Partnership for Workforce Development, Inc., which includes representatives of the schools in both counties and Daytona Beach Community College. The Advisory Team will consist of one board member from each entity, an academic administrator from each entity, a representative from the Regional Workforce Development Board, the Volusia County Business Development Corporation, the Volusia Manufacturers Association, the Flagler Chamber of Commerce, and four at-large representatives from the private sector. A director appointed by the Board oversees the day-to-day operation. Students from either of the two counties successfully passing the 10th grade with a "C" average or better will be eligible to enroll. Only fees normally charged to public school or community college students will be charged. The county school boards will own the facility, but will lease it on a long-term lease to the community college. The college will be responsible for the facility's ongoing maintenance and operations. For students enrolled for a half-day in their home school and a half-day at the Technical Career Center, both the district and the Technical Career Center will accumulate the equivalent of 1.0 standard Full-Time Equivalent (FTE) enrollment. If a student is enrolled for a full day at the Career Center, the Center accumulates the equivalent of 1.5 FTE, which is necessary to support the operation of high-cost technical programs, continual drop-out prevention, and other services such as child care, tutorial assistance, and counseling.

The technical center concept in Florida was established by the 1998 Florida legislature to allow such entities to be established in a charter school fashion. The legislation is included as Appendix C at the conclusion of this report.

The Virginia Model: Development of the TCC/VBCPS Technical Center

During the late 1980s, both Tidewater Community College and the Virginia Beach City Public Schools first realized the acute need for a new facility to meet projected enrollment figures and the demand for technical and career course offerings (TCC/VBCPS Technical Center Proposal, 1997). TCC eventually proposed a facility that was described in the 1998-2000 Biennium Capital Budget Request. VBCPS had conducted a feasibility study during the late 1980s concerning the need for a new technical and career structure. The report of this study was presented to the superintendent, but implementation of the plan was delayed due to budget constraints at that time.

In 1997, the concept of the technical center project was revived, and the VBCPS School Board approved a new feasibility study. An architectural firm was selected to conduct this study and included schematic design work in its report to the Board. About the same time, staff from

TCC and the VBCPS met and began discussions about the possibility of collaborating in the construction of a technical facility that would benefit every entity involved--the city schools, local businesses, the community college system, and the community itself. The concept discussed includes use of the building during the day by the VBCPS and at night by TCC, flexible weekend use, and industry shell space for the training needs of local businesses. Still in 1997, a group met to conduct formal, specific planning procedures, leading to a full-funding request from the state based on the project's potential contributions to education and economic development. Location of the proposed facility was designated as the Virginia Beach Campus of TCC. The advanced technical center that was described in the TCC/VBCPS Technical Center Proposal (1997) was presented as a facility that could enable the community to accomplish the following:

- Promote economic development in the city
- Meet and exceed student needs
- Offer training/adult retraining and adaptability
- Provide shell space capacity for training
- Meet local labor demands

The project features a center with industry-certified programs, advanced technological instruction, a distance learning lab capable of exporting and importing instruction, and a quality management component as part of a Ford Academy of Manufacturing Sciences (FAMS) that reflects a logical answer to the challenges of tomorrow's workforce.

The Center will be constructed on the Virginia Beach campus of Tidewater Community College contiguous to the proposed Old Dominion University/Norfolk State University complex. It is designed to facilitate interdisciplinary learning and will be flexible enough to accommodate current technologies and adapt to future changes. According to the TCC/VBCPS Technical Center plan, "the Center will offer high school students the opportunity to combine academic and technical and career preparation to achieve personal fulfillment, responsible citizenship, and economic self-sufficiency." While offering occupational programs, the Center will prepare students for entry-level jobs, but provide them with the ability to advance beyond entry-level positions. Students who complete programs at the Center will have the option to enter the job market directly or to continue their studies at a community college or four-year institution, apprenticeship program, and/or professional/technical institution.

Programs offered at the Technical Center will include computer operations, computer network administration/engineering, production printing and imaging technology, television communications and production, drafting and design, materials science technology, manufacturing technology, and statistical process control. The facility will also house economic development shell space, a Quality Academy, multi-purpose space, and VBTv (Channel 48).

Funding for the construction of the facility is shared: Virginia Beach public schools have provided \$13 million and the Commonwealth of Virginia has provided \$10 million. Operating costs will also be shared through an appropriate formula agreed to by all parties. A complete description of the TCC/VBCPS Technical Center is included as Appendix D of this report.

All of the models described have some similarities and some differences. What is clearly defined, however, is the need to establish some type of center/facility/program that will provide a seamless, cohesive, coordinated, and collaborative educational and training system to ensure that Virginia citizens will have the best opportunities for success in the new millennium. To continue the growth of Virginia's economy, there are two charges: educate and train a highly skilled workforce and provide highly skilled workers for Virginia's businesses and industries. Fortunately, these two objectives have similar solutions and Virginia has made significant progress in its efforts to achieve these goals. It is now time to take the next steps in the training efforts. By incorporating some of the best ideas of other states and creating initiatives relevant to the particular needs of Virginia, the Commonwealth can take a leadership role in workforce training.

PART III. CONCLUSIONS AND RECOMMENDATIONS

Virginia has many of the components necessary to develop one of the best-trained state academic workforces in the nation. The Commonwealth has excellent public schools that have adopted significant objectives and criteria through their Standards of Learning (SOL), Standards of Quality (SOQ), and Standards of Accreditation (SOA). Virginia has an outstanding community college system that has 23 institutions on 38 campuses convenient to every area of the state. The state has nationally recognized public colleges and universities as well as quality private institutions and proprietary schools.

A variety of agencies of state government are charged with providing education and training to get people off welfare roles, to help develop new and expanding business/industry, to make job training available in correctional institutions, to update adults needing retraining, and to meet a myriad of other workforce development needs.

One method that is achieving real success is the partnership between public schools and community colleges through collaborative programs, joint facilities, and cooperative initiatives. Collaboration, however, bridges two different worlds. When individuals are brought together as resources, they often come representing a specific institution or a particular constituency, including an affiliate sense of loyalty or protection to their home institution. It is very important that the leaders of such partnerships realize that issue and deal with it.

In Fixing America's Schools, published by the National Governor's Conference on Quality in Education (November 1997), the authors said, "It is important to communicate the win/win aspects of collaboration because many people may not, at first, be able to see it for themselves. This requires significant leadership that isn't top down and doesn't put a rigid box around a group of people, but keeps people from wasting their time or going into a dead end at the same time that it lets them feel like they can explore alternatives."

A review of the data gathered from other states and national organizations and associations reveals that the collaborative public high school/community college initiative seems to be a successful way to improve workforce preparation for the state's present and future workers. This initiative also serves as a mechanism to address increasing domestic and foreign competition, ever-changing technologies, demands for a quality physical infrastructure, and the expanding need for highly skilled workers.

Although the five states examined have adopted slightly different approaches to their collaborative ventures, all of the models show that joint programs and facilities between public schools and community colleges are effective ways of bridging the gap between graduates of their institutions and the workplace. Such partnerships seem to be both cost-and-time-effective for the counties and cities that have established them.

It is, therefore, both feasible and desirable for Virginia to proceed with establishing workforce training and education technology centers. However, the recommendations that follow are necessary to implement as a basis for further development.

It would be incumbent for the Commonwealth of Virginia to develop a pilot project to determine whether such joint centers would significantly improve the quality and skill levels of graduates so they can immediately enter the workplace or continue on in higher education institutions before entering the workforce.

The following recommendations are offered to establish both urban and rural technology centers to focus on workforce training and education and to serve various regions of the Commonwealth:

1. Continue to support implementation of the TCC/VBCPS Technical Center and examine the results to determine the applicability of this model for other urban community college/public school partnerships;
2. Select a rural region of the state to initiate a pilot joint facility to provide a model center for other rural areas of the Commonwealth. The region that is recommended for this pilot is the Culpeper area. The educational, government, and business leaders of this area have already established a Citizens Task Force to plan a joint technical center between the public schools and Germanna Community College;
3. Provide appropriate funding to both the urban model and the rural model of collaboration between the public school and community college;
4. Expand the membership of the Statewide Workforce Training Council (to be changed to the Virginia Workforce Council if pending legislation is enacted) to include the Superintendent of Public Instruction to allow closer collaboration with public schools and higher education in workforce training and development;
5. Conduct a study of the jointly owned and operated secondary regional vocational centers to evaluate their applicability for expansion to regional technical centers of the future;
6. Encourage the Statewide Workforce Training Council (to be changed to the Virginia Workforce Council if pending legislation is enacted) to examine other collaborative initiatives and determine business and industry support for these ventures;
7. Encourage the Board of Education and the State Board for Community Colleges to work together to determine how their respective institutions could collaborate more effectively; and
8. Evaluate the progress of collaborative initiatives through joint presentations of the community colleges and public schools to the House and Senate Education Committees once a biennium.

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APPENDICES

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APPENDIX A.

House Joint Resolution No. 124

summary

HOUSE JOINT RESOLUTION NO. 124

Requesting the State Board for Community Colleges and the Board of Education to study the feasibility of establishing technology centers to focus on workforce training and education.

Agreed to by the House of Delegates, February 17, 1998

Agreed to by the Senate, March 10, 1998

WHEREAS, creating a stronger, better prepared workforce and providing for the continuing education of the current and future workforce are clearly of great importance to Virginia's continued economic growth and prosperity; and

WHEREAS, an increasingly global marketplace, characterized by sophisticated communications, ever-changing computer technology, and intense foreign competition, has prompted the implementation of state economic development policies emphasizing not only quality physical infrastructure and technology transfer but also the preparation of an educated and highly skilled workforce; and

WHEREAS, because students must keep pace with ongoing changes in technology and business, education and training must be available to provide such opportunities; and

WHEREAS, the demand by business and industry on community colleges and public schools to educate and highly train a quality workforce is steadily increasing; and

WHEREAS, partnerships between community colleges and public schools are attempting to bridge the gap between graduates of their respective institutions and the workplace; and

WHEREAS, the creation in one area of the state of a joint technology center that has been designed to address workforce training and education might serve as a model for other regions to develop a blueprint for future technical training in the Commonwealth; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the State Board for Community Colleges and the Board of Education be requested to study the feasibility of establishing technology centers to focus on workforce training and education. The Boards shall consider, among other things, (i) the appropriate placement and governance of such centers and the role of community colleges in supporting these centers; (ii) ways in which these centers might facilitate the establishment of community incentive partnerships and expand dual enrollment opportunities; (iii) coordination between the community colleges and the public schools in addressing workforce training and education; (iv) linkages between education and business that may promote educational preparation for the workplace; and (v) such other issues as the Boards may deem appropriate.

All agencies of the Commonwealth shall provide assistance to the Boards, upon request.

The Boards shall complete their work in time to report their findings and recommendations to the Governor and the 1999 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

APPENDIX B.

Fixing America's Schools

FIXING AMERICA'S SCHOOLS:

*some surprising insights
from research and practice...*

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Allen D. Arnold and Cheryl D. Wagonlander

**FIXING AMERICA'S
SCHOOLS:
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research and practice...**

**Allen D. Arnold and
Chery D. Wagonlander**

INTRODUCTION

The Move to Reform America's Schools: An Overview of the Last Two Decades

U.S. Department of Education research points out "that in our rapidly changing society few areas are as essential to a successful future as education, both as a means of learning basic and advanced skills and as a process for helping to develop responsible, compassionate citizens who are ready to make valuable contributions to their family, community, state, and nation."

Public education is not, however, fully serving this function. The reality is that the "middle" of our society is declining, while the numbers of rich as well as of poor are increasing. We are creating two work forces: one in minimum-wage jobs, the other in well-paying jobs. For example, for every new job created for a computer programmer, eight new jobs are created for food service workers culminating in an "information rich" and "information poor" split in our society.

(SOURCE: U.S. Department of Education, *Strong Families, Strong Schools*, 1994.)

If the future of a nation depends on the successful education of its youth, then in this last decade of the 20th century, our country's leaders, policymakers and educators must come to terms with these problems as well as where the research leads in suggesting solutions. We know with certainty that young people who fail to develop the basic skills and knowledge necessary to live as effective adults threaten themselves and their future families. Without basic tools and credentials, now virtually mandatory for meaningful employment, these youth find themselves unable to take care of themselves or their loved ones and thus unable to make substantial contributions to society.

Yet we also know that data, relating to why and how this is so, screams for us to intervene and to use the knowledge we have of programs that have been successful in reversing this tragic situation as models for change. Certainly, there are factors over which educators have little or no control. However, there are other factors embedded within the school itself, and related to its purpose, beliefs, design and practices over which educators do, in fact, have great control.

This means there are actions which educators can take which relate to the organization, operation and culture of schools which can foster positive reengagement for youth. To provide a description of these elements as well as to present a model--of a high school/college collaborative where it has been successfully applied--is the focus of this pamphlet. The following chapter deals with the background of educational reform that spans the last two decades.

CHAPTER ONE

The Waves of Educational Reform

The threat to democracy that exists in America's schools has prompted what some describe as the "three waves" of educational reform.

(SOURCE: Jacobson and Conway, 1990.)

WAVE ONE

A "Nation At Risk", published in 1983 has been viewed as the major impetus for the first wave of educational reform. That report warned that the "sorry state of American education endangered our standing in the highly competitive global economy as well as our domestic peace and civic culture." Other subsequent reports also drew connections between the failure of the educational system and growing economic impotence in the U.S.

Linking the failure of the school system to a declining economic position in the world marketplace enlarged the spectrum of critics to include American business, who began to inspect the educational system in search of solutions. Some common conclusions drawn from a variety of research studies were that schools:

1. were intellectually "soft";
2. lacked expectations and standards;
3. exhibited inadequate leadership;
4. had dysfunctional organizational structures;
5. offered conditions of employment that were inconsistent with other professional work; and,
6. lacked appropriate accountability standards.

Reform efforts focused upon "fixing" the existing system one piece at a time, most often with initiatives mandated by state and local boards of education. In the first wave of reform, state governments attempted to improve schools by increasing standardized test scores, raising academic standards, lengthening the school year, and/or providing new salary arrangements for teachers, etc.

Many critics, however, began to argue that the existing system was beyond repair. That position maintained that the nation needed to look at the organization and governance of educational systems, the roles adults play in schools, and the processes used to educate American students. These concepts began to take shape in Wave Two.

WAVE TWO

A second wave of school reformers prescribed improvement of education through the empowerment of teachers and students in concert with empowered parents.

That belief was predicated on the basic premise that problems in education are related to the structure of schools. A complete overhaul of the system was called for with a new attention to:

- site-based management,
- shared decisions making, and
- different teaching models.

During this second wave, mandates for reform called for the implementation and assessment of change within a very structured time frame. The Philadelphia Schools Collaborative, a partnership between teachers and the school district, was a prime example. Teachers were positioned as primary change agents who actively led instruction and organizational change. As a result, substantive decisions were made at the school site rather than the central office.

WAVE THREE

In 1993, Secretary of Education Terrell Bell reflected that the top-down mandates of the 1980s were ineffective. Even though a few outstanding pilot projects and “lighthouse” schools existed, the elements of those successes had not been duplicated in large numbers of other schools.

Schools in general continued to resist change even though educational reform had become a major national concern. Stronger presidential interest in

educational issues from Presidents Reagan, Bush and Clinton culminated in the adoption of national goals.

In 1994, President Clinton signed into law, *Goals 2000: Educate America Act* and the *School to Work Opportunity Act*, which were designed to support local school reform efforts by funding the development of comprehensive school reform plans that reflect community consensus on important educational outcomes, thus driving the focus of reform to the local school. Federal Title I was also modified to encourage the integration of services into regular school programs.

The third wave is marked by its emphasis upon total school restructuring. In fact, the very paradigm of “school reform” shifted from “reform/reshape” to “re-invent, restructure, rebuild, recreate, rethink, transform”.

This emphasis has created two parallel streams of proposals. One focuses on recent data, which indicates a strong link between school restructuring and improved student learning. As an example, the CORS study (1995), found that in schools that make significant departures from conventional organization and practices:

- students post dramatic gains in academic areas;
- students narrow the achievement gap between socioeconomic status groups; and,
- learning is more equitably distributed in smaller high schools.

The study also found that the effectiveness of any restructuring depended upon how well the values, beliefs, and technical skills of educators were organized and developed to improve student learning.

Based on these findings, a growing number of researchers and educational leaders have called for continued reform that is focused on community building and is collaborative in design.

A second parallel stream of the third wave of reform focuses on the basic lack of progress in American education in attempting to solve its problems. The resulting increase of interest in creating new kinds of schools has led to a major move in some states to give parents the power to “choose” which schools their

children will attend. In fact, 25 states now have charter school laws, with 226 charter schools serving 28,000 students around the nation.

To a great extent, this lack of progress can be seen as a result of much finger-pointing, sweeping generalizations and misconceptions—some of which are described in the following chapter.

CHAPTER TWO

Education's Misleading Myths

MYTH: Today's youth are not as smart as those of recent generations.

FACT: Today's students actually average about 7 IQ points higher than their parents and about 15 IQ points higher than their grandparents did.

MYTH: Today's youth cannot think as well as those of recent generations.

FACT: Large gains in measured intelligence throughout the industrialized world have been primarily in the areas of general problem-solving skills and the ability to handle abstract information of a decontextualized nature—in the areas generally labeled “thinking skills”, not in the areas of the tests that call for general knowledge, or for verbal or quantitative ability.

(SOURCE: Berliner, D.C., 1993.)

MYTH: Drop-outs are all minorities, live in the inner city, and/or come from families where English is a second language.

FACT: Drop-outs are found in virtually all racial, ethnic, and socioeconomic groups in all residential areas, and in all sections of the nation. In fact, statistics obtained in 1994 revealed that dropouts shared some surprising traits:

- 66% were white
- 87% had an English language home background
- 68% came from two-parent families
- 42% attended a suburban high school
- 80% had neither children nor spouses
- 60% had “C” averages or better
- 71% had never repeated a grade

(SOURCE: U.S. Department of Education, 1994)

The term “drop-out” began to dominate educational literature during the later 1950s when high school graduation came to be regarded as essential. The dropout problem became a social issue in the early 1980s when national critics began a rigorous campaign to awaken the public to the alarming number of students involved.

(SOURCE: Allenbaugh, 1995, p. 139)

MYTH: Students drop out because the curriculum is too demanding—they simply want to memorize easy answers.

FACT: Not true. Some of the characteristics of our current K-12 system that dropouts describe as reinforcing their desire to leave are that:

- **the learning concepts are too narrow...**real world applications are not used or the student’s real world abilities recognized in the classroom.
- **the methods used constricted learning and interest...**conventional classroom teaching techniques do not allow for free thinking and creativity.
- **the curriculum is constructed in a way that emphasizes coverage of a wide variety of topics superficially, rather than being concerned with content knowledge...**students are not afforded the opportunity to explore topics in greater depth when they have an interest, due to the teacher’s need to “cover the material” outlined by the curriculum.

(SOURCE: Wehlage, 1991)

MYTH: Dropouts can’t learn; they have an aversion to learning and to school in general.

FACT: Students who dropped out indicated that they do not have an aversion to learning, but rather to the organization, the people, and the delivery of learning.

If we are to change their school experiences so they do not reject school, we will have to change their feelings of:

1. being ignored or hassled by their peers,
2. being uncared for by their teachers, and;
3. being rejected, as an individual, by the school.

In fact, research shows that the cycle of alienation begins at an early age with non-participation at the elementary school level.

(SOURCE: Wehlage, Kleese & D'Onofrio, 1994)

MYTH: At-risk students infringe upon total classroom instruction time and receive more attention in the classroom than general population students.

FACT: At-risk students often drop out because they feel they are systematically discriminated against in terms of quality of instruction and use of learning time. A study of teacher behaviors and interactions with general population students when compared with at-risk students corroborates these feelings and indicates the following differences:

At-risk students:

- are farther away from the teacher.
- receive less direct instruction.
- are given less wait time.
- are questioned primarily at low cognitive levels.
- are given less praise.
- are criticized more frequently.
- are given less feedback.
- are interrupted more often.
- receive less eye contact and other non-verbal communication.

(SOURCE: Leher and Harris, cited in Stanley, 1992.)

MYTH: Bigger schools (those with a large student population) are better because they provide students with more opportunities for learning, athletics, extra-curricular activities, etc.

FACT: Small schools are better. Student satisfaction is higher, crime levels are lower, and student misconduct is less serious in small schools.

Furthermore, a 1959 study indicated that schools with as few as 100 students can offer the programs needed in contemporary society, and that student participation was greater in smaller schools. A similar study in 1964 supported the importance of school size in relationship to achievement, showing that the

smaller the community-size, the greater the community pressure to achieve in school.

The specific benefits of small schools (schools limited to 300-400 students) are:

- **Governance:** both teachers and students can have direct involvement in the decision-making process that governs the school.
- **Respect:** there was a shared knowledge of all members of the school—teachers and students—that led to increased mutual respect.
- **Simplicity:** everyone is known to each other and this familiarity creates a bonding.
- **Parental Involvement:** school to parent communication was more apparent, and this intimacy led to parental involvement.
- **Accountability:** principal knows each teacher and student's ability and establishes performance expectations.
- **Belonging:** every child is known as an individual and relationships are cross-age, cross-discipline, cross-grade.

(SOURCES: Achilles, 1996; Conant, 1959; Barker and Gump, 1964; Hamilton, 1986; Linsay, 1982, 1984.)

MYTH: There is significant push from parents and the community for educational reform but the bureaucracies are resistant to change.

FACT: While there is truth to the idea that bureaucracies are resistant to change, they are not the only forces of resistance. As tentative guidelines for school reform are translated into action, there will also be other resistance, even from the students themselves. For example:

- Building administrators *are* resistant to change. Their position has become particularly stressful as they attempt to negotiate between the faculty and central administration—a land in which many school administrators will find no safe haven or affiliate group.
- Secretaries, custodians, and other support staff who operate key components of the school's infrastructure will resist changes that move them to become more visible and, thereby, accountable partners with the professional staff.

Perhaps, though, the greatest resistance will come from students (and their parents). Students know classes; they know schedules; and they know about grades—especially getting A's. Instituting reform would mean having students take responsibility for their own learning, navigating their own pathways, and putting off assurance of the current ease of grades.

(SOURCE: O'Banion, T., 1995.)

MYTH: Obviously, dropouts can't read—or else they would not have dropped out.

FACT: A new survey of technical adeptness among young adults finds high school dropouts more competent in technical reading than college graduates. The analysis examined ease of understanding directions and manuals in manipulating 14 different common consumer technology products such as VCRs, microwave ovens, and personal computers. Dropouts outscored college graduates on every product tested.

(SOURCE: Vocational Education Journal, May, 1995.)

One explanation for the surprising results of this last fact may be the growing evidence that technical reading is a vastly different cognitive skill from traditional literary reading as taught in most U.S. schools. This rather clearly points out to us that different students need different things from school—the topic of the next chapter.

CHAPTER THREE

A Time for Change

Each student wants more attention to his/her particular needs and also wants the opportunity to make choices. Only by offering these young people the opportunity to excel in different ways will we maximize their growth potential both as individuals and as contributing members of the workforce and society. If, as we are learning, some students are simply different learners and not simply less capable academicians than traditional students, then educators should believe that education for these students must also be different in order to work.

Unfortunately, the reality of the situation is that not all educational institutions are predisposed to change the way they operate; nor, more importantly, are they even prepared to have a sustained conversation about how their institution does what it does.

Yet, as Steven Covey has described, we need to create learning organizations where the concept of "team" is a learned one. Over time, such an organization can learn how to enhance its capacity to create what people really care about. What's important is that today in education, we are entering an era where we can no longer leave this goal to chance. It's really quite important that faculty (and schools) develop this capacity to learn together on a regular, reliable and predictable basis. We must develop a body of theory and methodology—a set of ways of doing--that more reliably and predictably leads to the capability to create a team even within larger organizations.

Based on reform efforts where "for the first time in American history the business of schooling is being redefined in relation to the customer," recommendations are calling for those factors that impact the sustainability of change in improving student performance:

- a) children learn more and better in environments where they feel liked and respected;
- b) parents support organizations with greater loyalty and effort in which they feel accepted, important, and serviced; and,

- c) support systems with multiple sponsors are stronger and live longer than single arm operations.

Other factors for improving student performance—and keeping them engaged—that can be found in current research includes the following.

STUDENT ENGAGEMENT

If engaging students in the classroom is more dependent on teacher attitudes, behaviors, and perceptions (combined with school climate) than with what is more commonly thought, then these elements, which are under our control, become more important than social risk factors such as pregnancy, poverty, etc.

CHARACTERISTICS OF A SUCCESSFUL ENGAGEMENT PROGRAM

Research shows that many successful engagement programs share four basic characteristics as follows.

ONE: The findings of a 1993 national study of eighth grade public school students provides clear implications for us in creating a positive classroom and school-wide environment such as:

- Behaviors that seek to engage students are easier to influence than students' family status and these behaviors should increasingly become the focus of educators and research.
- Behaviors that put students at risk should be identified at the earliest possible age in order to intervene as easily as possible.
- Accomplishments of all students should be recognized in order to promote and sustain the students affiliation or engagement with the school.

(SOURCE: Finn, 1993; Newman, 1981; Wehlage et al, 1989.)

TWO: Teachers, in order to engage students in the classroom, will need to build motivation and generate energy. One method proven effective in achieving these important goals is to utilize a *collaborative, consensus-building, no-fault approach to problem solving*.

(SOURCE: Comer Model, 1960)

THREE: A 1995 study indicates that engaging students should take into account human needs in the students:

- the need for understanding.
- the need for self-expression.
- the need for involvement with others.

(SOURCE: Strong, 1995, p. 9)

FOUR: Many studies have been conducted to identify characteristics of successful student reengagement programs. Chart "A" on the following page compares the key elements as described by school administrators, the National School Board Association, and the National Center for At-Risk Students.

Each of their recommendations centered around four program characteristics for promoting student engagement:

- **faculty dedicated** to students and to creating successful academic experiences.
- academic programs which promote higher order **problem-solving skills**.
- **linking** the relevance of **education to employment**.
- **limited size** of the school.

In addition to these shared characteristics, schools which were successful with at-risk students reported a strong focus on teachers who had accepted a proactive responsibility for educating students—a sort of moral obligation to serve youth other teachers may have rejected as unworthy. This kind of professional accountability fosters attitudes and practices which contribute to a positive school culture.

<i>School Administrators</i>	<i>NSB Association</i>	<i>National Center for At-Risk Students</i>
committed, caring staff	specialty trained and empowered staff	expanded teacher role
flexible programs, individualized instruction	flexible schedules, instructional styles appropriate to students	individualized learning using a variety of instructional techniques
part-time employment, job skills training, strong social service	employment skills training	emphasis on tools to create knowledge in problem solving
low pupil/student class size (18:1)	small class size	small total student body—less than 500 total

Chart "A"

SUMMARY

One of the few examples of a high school where many of the characteristics described above have been applied is the high school/college collaborative which provides both institutions the ability to develop a seamless educational continuum that benefits the student as he/she moves from one level to the next. This collaborative is described more fully in the following chapter.

CHAPTER FOUR

High School/College Collaboratives: An Overview

High school/college collaboratives (HS/CC) combine the resources of a high school and a post-secondary institution in creating a collaborative structure that promotes school membership and academic reengagement. HS/CCs have been established as national models in accordance with key findings in the literature and have demonstrated that at-risk high school students can be successfully reengaged and recommitted to their own further learning.

HS/CCs might be described as “organic models” where teachers are encouraged to work together to examine the challenges they face, to decide as a team on how best to proceed. The aim of these organically structured schools is to engender a more professional orientation among teachers toward their work by motivating teachers through commitment to and identification with the school’s mission.

Studies show that students who attended schools operated under a more organic organizational model learned more, and these schools posted greater and more equitable gains in student achievement. “Communal” schools also reported that teachers and other staff members experienced greater satisfaction and higher morale. Teachers reported feeling that they could make a real difference in the academic performance of their students instead of blaming low performance on student attitude, background or other factors.

(SOURCE: Newman, 1995.)

HS/CCs across the nation have maintained:

- improved school attendance
- improved grade point averages
- significantly higher graduation rates
- lower annual dropout averages
- higher numbers of graduates going on to higher education
- increased job placement rates

(SOURCES: Gitman, 1995; Swerling, 1995)

HS/CCs have been praised for their success with minorities, poor students, and adjudicated youth. Of the 7000 students currently being served by HS/CCs, 70% are minority as well as poor.

(SOURCE: Wagonlander, 1996.)

In the model most familiar in high school/college collaboratives, one important element is that faculty self-select to be a part of this program.

The second key element consists of joining faculty with the principal in communal introspection and reflection on:

- the teaching/learning process,
- their interaction with the students,
- their role as educators, teachers, and researchers,

for the purpose of clarifying and affirming a common set of values and then establishing common goals.

Another element, arguably the most critical, in these model programs is the open review or "collaboration through the critical friends review" process where teachers critique one another in a non-threatening way, resulting in continuously improved teaching techniques. In this way, faculty practice their craft in a public way and assume multiple roles as advisor, mentor, etc., whereby they are teachers and learners at the same time. The overall intent is for faculty efforts to focus simultaneously on two different goals: 1.) person-centered learning and 2.) the need for evidence of demonstrated outcomes. *In this way, faculty assume the leadership role with responsibility and accountability for what goes on in the classroom and meeting students needs and expectations.*

This level of faculty leadership, responsibility, and accountability, in the HS/CC promotes the building of a "learning community" resulting in increased academic performance, better school attendance and growth in personal survival skills. For example, educators at a school in Wisconsin have achieved success with at-risk students by shaping a sense of community throughout the school. After only two years, this high school/college collaborative has experienced overall improved academic performance with a 200% decrease in school suspensions, and a 57% decrease in discipline referrals.

These students are connected primarily through their shared loyalties, shared purpose and sentiments.

1. They experience the sense of belonging in a supportive community, rather than being lost in a depersonalized bureaucracy.
2. Their needs as individuals are met rather than enduring inflexible systems designed for the convenience of adults.
3. They are involved in determining their own futures while recognizing society's need to control harmful behavior.
4. They are expected to be caregivers, not helpless recipients, dependent upon the care of adults.

(SOURCE: Brendtro et al, 1990)

Reflecting such a climate, HS/CC students identified the following as reasons they chose to attend the college:

- it offers a safe environment where you have the freedom to act as an independent, responsible adult;
- students have a role in resolving discipline complaints;
- students are encouraged to make their own decisions;
- classes are smaller than in traditional classrooms
- teachers guide students;
- teachers and students know each other on a personal basis;
- students are challenged to continuously improve, intellectually and personally.

SUMMARY

Essentially, the HS/CC describes a model where educators are continually enhancing their capacity to create what they truly want to create and where students accept their responsibility as members in the school community. A sense of belonging is fostered, not just with peers, but with adults as well. When this social bonding takes place, educational engagement occurs. Students with attachments to teachers and counselors, have a personal stake in meeting the expectations of those adults and develop a commitment to remain in school and obtain a diploma. When they develop a bond with other students, they have a support network to assist them in meeting that goal.

What makes this learning model exceptional is a different set of characteristics: one with vision, spirit, and people trusting and listening to one another. The differences among people, rather than becoming an obstacle, actually became a source of strength, but do require time for building trust. Because this effort is a collaborative one, inclusive of different viewpoints and various turf issues, the following chapter deals with some preliminary considerations for approaching a high school/college collaborative. This perspective is not a step-by-step operational "how to", but a broad stroke/political considerations backdrop to the collaborative.

CHAPTER FIVE

Leadership and Political Realities

LEADERSHIP IS VITAL

This collaboration bridges two different worlds; and, the most effective way of actualizing a sense of cooperation is by focusing on the collaboration as more important and greater than any individual's agenda. When you bring people together as resources, they come representing an institution and/or a constituency. So, while they may not necessarily bring their personal needs, they do bring an affiliate sense of loyalty or a sense of protection to their home institution which they may feel needs to be represented. Collaboratives can fall apart in the first lap around the track over this issue. Leaders need to be aware of it and deal with it. And the easiest way to do this is to say, "This is good for kids and it's good for our community because they will turn into tomorrow's adults."

It is important for us to communicate the win/win aspect of this collaboration because many people may not, at first, be able to see it for themselves. This requires significant leadership and real political savvy. Other observations about potential pitfalls follow.

The leadership needed is of a particular type; of leadership that isn't top-down, and doesn't put a rigid box around a group of people. It needs to be a facilitative type of leadership that continuously, "like a sheep dog", keeps people from wasting their time or going into a dead end, at the same time that it lets them feel like they can explore alternatives.

In hoping to find a unique solution to a commonly shared community program we need to keep the vision concrete enough to convince people from the community, who are rich in the knowledge and experience but not necessarily familiar with this model, that there is a road map--that there are explorers who have gone before.

- **Road maps are essential.** In order to bring people on board and to lead them to see the same dream, as the “visionaries” who can see the finished product, we need a road map. This is particularly true in this type of venture where you bring community/neighborhood, or business people in to gain their support. While those of us in the educational arena may have some sense of different models, it really is new for those individuals who know only the educational model they went through. So, it is important to provide a clear road map that shows:
 1. what it is conceptually;
 2. what its parentage is;
 3. what the specific clientele is; and,
 4. what it might look like.

- **Communication of accomplishments is critical to success.** Communicating progress about the project along discernible steps motivates and fuels community partners and volunteers. People, particularly those from the community who come into a discussion on a monthly or quarterly basis, require fifteen to twenty minutes to get back up to speed, even about what the issues and sub-issues are; so, it is particularly important that the road map be brought out at every meeting so they can see the progress that has been made.

- **The obvious can sometimes be subtle.** In a collaborative, no one institution or person or entity owns the whole. In a successful collaborative you attempt to bring two or more very different worlds together; in this case, the K-12 and the higher education system. So it is particularly important that no real difficulties are exacerbated by personalities that need to dominate, or control.

- **Politics and money are the same issue...control and money are the same issue, too.** Be prepared from the get-go to address where the money might come from. That will be an issue brought to every meeting, whether it is expressed or not. A sub-set of the question relates to: “Is any of it coming out of my pocket?” There can be no equivocation, and while community members may be joined with educators very early on to think through this project, the money issue will have to have been previously considered with tentative suggestions.

HIGH SCHOOLS ARE COMPLEX

Creating a high school/college collaborative on a college campus is not simply adding another department to the college. So, it is important to take into consideration the specific K-12 legal issues, the curriculum issues, and the supervision issues early on. There are legal, fiscal, public relations, legislative, safety, staffing as well as communication, facilities and equipment issues that continue to affect every high school/college collaborative throughout its existence.

Many times higher education personnel, even senior administrators, are not aware of the significantly more rigorous state and federal regulations about facilities, etc. and how quickly these change. There are frequently no parallels in term of requirements when dealing with college or older adult individuals. Similarly, there are legal issues regarding how behavior with a high school student would have to be handled differently from the way you would deal with a college student.

- **Collaboration--not a lease arrangement.** It's important not to have the tenant/landlord or the old "red-headed step-sister" type of relationship because that establishes an uneven playing field. Cooperation and collaboration, with partners looking eye-to-eye, is essential--a symmetrical or equal relationship.

MODELS ARE IMPORTANT or REINVENTING THE WHEEL, SHOULD YOU OR SHOULDN'T YOU?

Actually it's a combination. It is important to use what works well and what other people have learned and not reinvent the wheel. But it is also important not to copy slavishly because each collaborative needs to serve its unique community. Each community is a little different because it has different partnership potentials, different pools of potential dropouts, and different specific socio-economic/ ethnic-cultural needs.

It is very important to learn from both data as well as from others' experiences. Look at something that is a model, that has been successful, then take it and mold your own solution. When you mold your own model from other existing

collaboratives, you create a bond for the group that helps hold the collaborative together.

"OVERLOOKING LITTLE THINGS" and THE "WRONG PLAYERS" CAN SINK YOU

It is worth the time invested to decide who to invite to serve on the planning group. It seems like a little thing, but it is very important because if you bring the wrong minds together, you will not end up with a product that represents a unique solution to your community's shared problems.

- **Giving and getting credit.** Many people who are going to give personal time and energy will be concerned about whose name is going to be on what, and who's going to get credit for this and that. Be aware of that up front. Structure meetings and take into account who you know is going to be there. Time spent at the front end in shaping a meeting will have significant pay backs at the tail end in terms of outcome. Similarly, time and effort in anticipating how people might respond to issues as to credit as well as opportunities for input/impact (control if you will) are very important. Rather than being shied away from, you do best to put such issues on the table.

TURF ISSUES ARE VERY IMPORTANT

Some higher education folks may be concerned that the high school students, because of their significant needs, will take over and gobble up rooms, materials, supplies and resources at the college.

On the flip side, high school teachers have been used to their space, even though it has been totally shared with students. They have been used to having their own rooms, their own desks, their own cabinets with their own supplies. They have been not used to a concept like college instructors where your space is your office and the college is something you share. In other words, each group has a wholly different perspective of how one goes about being a professional educator delivering instruction to a group of learners.

If it is going to be a successful collaborative, it is beneficial from the very beginning, to be up-front with these issues and to allow them to surface and be discussed.

SELECT YOUR "SCOUTING PARTIES" CAREFULLY

Watch who you send out to investigate and bring back the information. If you have "spark plug leadership" in your area, and you also think you have a model that you might like to follow, you need to be careful who you send as ambassadors to visit the model and then report back to your local constituency about it.

Never send only those people who have a vested interest either in starting or in preventing the collaborative. Always include all the stakeholders who need to solve the problem (i.e., the union leadership, or anyone else who fears their "ox will be gored"). This is particularly important, because at some point in time, those individuals will have to be included. You don't want to be sending them on their own without the cross-fertilization of community leaders and innovative thinkers to help them see how some of these problems can be solved. Delaying dealing with them makes for a worse, rather than a better situation.

THE COMMUNITY PLANNING GROUP AND VOLUNTEERS

Never ask a volunteer to do anything that isn't "real work" Never use meetings for staff work (i.e., working out the technical aspects of details). People are interested in solving problems and they are interested in results but, they are only interested in doing "real work"--meaning they need to be challenged intellectually.

- **Don't bring them your problems.** If, in fact, you need to have community members help create bridges with other entities make sure those requests come later in the meeting after you have already shown what has been accomplished. Otherwise, they may get mired down easily in the meeting on problems.

Planning groups can become very fragile if they feel they are being patronized by the meetings being turned into a social outing or rubber stamping. They

won't want to "endorse" a complex or controversial recommendation which they have had no part in thinking through.

So, from the very beginning the real decisions work must rest on data. Find the research to show there is a real problem and what that problem is...even if that means lining up a group of individuals to "testify" because there is no "quantified" data.

- *Be data driven.* Many times "over the coffee" anecdotes get repeated so often that in fact they create, "an organizational myth", or even a "community myth", and then become the basis for decisions. Use real data to be so that in the end sound decisions can be made. Data is always available even if it is not quantified or aggregated. Its' just a great deal more trouble to represent.

IDEAS NEED TO BE CONCRETE and SO DOES LANGUAGE

When you bring people in from the community and when you bring people in from different institutions, words can have different meanings. The term "developmental" in a college situation frequently has to do with pre-college level classes. The word "developmental" in the K-12 arena frequently has to do with EDP--educational development plans--which means an individual program established for a student. So there is literally the opportunity for gross miscommunication. It is very important that time be spent insuring, through a back and forth kind of conversation, that in fact there is a mutual understanding.

This topic is important because language can exclude people. In such a situation there can be major misinterpretation because someone working in your group may not understand the word that is being used. In working with the community for a solution to a shared problem, educators can easily get caught up in "educationize" and not realize it, but they may be, through their language, excluding valuable insights from community, business and neighborhood leaders.

People from the community, people from the high school, and people from the college all come with their own insights which are equally valid. Some type of paper credentials or degree shouldn't get in the way of whose experience is of greater value or whose observation is more astute.

CLARITY OF VISION

It's very important to understand that although this has been described as collaborative, it has nothing to do with "a consensus where the lowest common denominator" or "one size fits all" wins out. The community must come together; then it can create a new vision from the several successful models that exist around the country or it can invent its own. But, what emerges can not just be patchwork where you simply pull this, pull that together and hope it works. The collaborative needs to be integrated and, in fact, have a significant clarity and integrity. All of the successful models have that.

- ***Grow in stages.*** An important issue to keep in mind is the need for success. Don't bite off more than you can chew. It is better to create it one segment at a time. Evolve into a second, or even a third phase. Establish the total plan but implement it part by part. Don't try to go onto a college campus and open a full four-year high school program instantly.
- ***Avoid being overwhelmed.*** The start up time of a project in reality takes three years. It is simplistic to think that you will only need help in technical assistance, consulting, foundation support etc. for the planning or for only the first year. These collaboratives need three to five years to stabilize. This allows the collaborative an opportunity to develop it's own safety net so that it is strong enough within the community to support itself.

THERE IS A DIFFERENCE BETWEEN MACRO-PLANNING AND MICRO-PLANNING

Don't be too long in the overall planning stage. Move into the stage that is focused around task force groups. When those groups are populated with the right people--those whose experience or expertise allows them to make significant contributions to the task at hand—then real progress can be made. Every so often you need to call back the overall larger group and report progress and accomplishments, because they will all participate in each other's progress.

SUMMARY

Throughout the research it is immediately obvious that large numbers of students need a lot more attention than they are getting in the traditional classrooms, especially when making transitions from one level to another or from one school to another. We also find that teachers, in their multiple roles, can play a very important role in building and maintaining resiliency in students:

- through their relationships with them, and
- through the use of instructional strategies that promote a sense of internal control, self-efficacy, optimism, high academic expectations, and personal responsibility.

Research also indicates that the risk behaviors that we find in students have their roots in early school experiences and can become self-perpetuating and difficult to alter in later years. Relative to student re-engagement, it is whether or not the student:

- perceives that he/she is cared about,
- is capable of doing the work,
- is perceived as capable of doing the work,
- is encouraged and supported by an adult in the school, and
- is supported by an adult in the home.

(SOURCE: Voelkl, 1995.)

What is clear is that all of this research/data emphasizes the fact that over the past decade or so, more has been learned about the human brain, acquiring and applying basic skills, higher order thinking skills, writing, reading, leadership, learning as a process, etc., but we have not generally or successfully applied these insights to the science and art of teaching and learning. What we have learned about teaching and learning in the last fifteen years is among the most exciting discoveries of our 200 year history of American education.

(SOURCE: Finn, 1993; Schmoker, 1996)

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BUILDING BRIDGES
Between Teaching and Learning
a higher education/high school coalition



APPENDIX C.

Florida Legislation

1
2 An act relating to education; authorizing the
3 creation of charter technical career centers;
4 prescribing powers and duties of the
5 Commissioner of Education, the Department of
6 Education, participating district school
7 boards, and community college district boards
8 of trustees, with respect to charter technical
9 career centers; prescribing powers and duties
10 of charter technical career centers and their
11 boards of directors; providing for funding;
12 prescribing rights and duties of employees of
13 centers and of district school board employees
14 and community college employees working at
15 charter technical career centers; providing for
16 revocation of a charter; providing for rules;
17 amending s. 121.021, F.S.; redefining the terms
18 "covered group" and "employer" with respect to
19 the Florida Retirement System to include
20 charter technical career centers; amending s.
21 121.051, F.S.; providing for optional
22 participation in the Florida Retirement System
23 by employees of charter technical career
24 centers; amending s. 121.1122, F.S.; including
25 charter technical career centers with a group
26 for the purchase of certain retirement credit;
27 amending s. 236.081, F.S.; providing for
28 calculating changes in school district funding
29 resulting from a drop in enrollment based on
30 student transfers to a charter technical career
31

1 center; providing an appropriation; providing
2 an effective date.

3
4 WHEREAS, the Legislature supports a strong, prosperous
5 economy, with a well-trained, highly qualified workforce, and

6 WHEREAS, the Legislature continues to foster transition
7 of WAGES participants from dependency on public funds to
8 self-sufficiency, and

9 WHEREAS, local economies are dependent upon maximizing
10 local workforce training and education resources, and

11 WHEREAS, the Legislature promotes more choices for
12 parents and students, but has not authorized public chartering
13 entities to encourage public or public and private
14 partnerships for workforce education and training, and

15 WHEREAS, technical career centers that operate under a
16 charter rather than under the direct supervision of a school
17 board or a community college may be able to respond more
18 rapidly to economic development and economic expansion
19 opportunities, and

20 WHEREAS, traditional education and career training
21 environments may be restricted in their flexibility to serve
22 the individual education and career training needs of
23 students, and

24 WHEREAS, charter technical career centers may be able
25 to provide more innovative approaches to workforce
26 preparation, and

27 WHEREAS, business and industry should have primary
28 input in the design and structure of all career programs and
29 services, and

30
31

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

1 WHEREAS, the Legislature desires to maintain and
2 strengthen the mission of individual education and training
3 delivery systems, NOW, THEREFORE,

4

5 Be It Enacted by the Legislature of the State of Florida:

6

7 Section 1. (1) AUTHORIZATION.--The Legislature finds
8 that the establishment of charter technical career centers can
9 assist in promoting advances and innovations in workforce
10 preparation and economic development. A charter technical
11 career center may provide a learning environment that better
12 serves the needs of a specific population group or a group of
13 occupations, thus promoting diversity and choices within the
14 public education and public postsecondary technical education
15 community in this state. Therefore, the creation of such
16 centers is authorized as part of the state's program of public
17 education. A charter technical career center may be formed by
18 creating a new school or converting an existing school
19 district or community college program to charter technical
20 status.

21 (2) PURPOSE.--The purpose of a charter technical
22 career center is to:

23 (a) Develop a competitive workforce to support local
24 business and industry and economic development.

25 (b) Create a training and education model that is
26 reflective of marketplace realities.

27 (c) Offer a continuum of career educational
28 opportunities using a school-to-work, tech-prep, technical,
29 academy, and magnet school model.

30 (d) Provide career pathways for lifelong learning and
31 career mobility.

- 1 (e) Enhance career and technical training.
- 2 (3) DEFINITIONS.--As used in this act, the term:
- 3 (a) "Charter technical career center" or "center"
- 4 means a public school or a public technical center operated
- 5 under a charter granted by the local school board or community
- 6 college district board of trustees or a consortium, including
- 7 one or more school boards and community college district
- 8 boards of trustees that includes the district in which the
- 9 facility is located, which is nonsectarian in its programs,
- 10 admission policies, employment practices, and operations and
- 11 is managed by a board of directors.
- 12 (b) "Sponsor" means a district school board, a
- 13 community college district board of trustees, or a consortium
- 14 of one or more of each.
- 15 (4) CHARTER.--A sponsor may designate centers as
- 16 provided in this section. An application to establish a
- 17 center may be submitted by a sponsor or another organization
- 18 that is determined, by rule of the State Board of Education,
- 19 to be appropriate. However, an independent school is not
- 20 eligible for status as a center. The charter must be signed
- 21 by the governing body of the center and the sponsor, and must
- 22 be approved by the district school board and community college
- 23 board of trustees in whose geographic region the facility is
- 24 located. An applicant who wishes to establish a center must
- 25 submit to the local school board or community college district
- 26 board of trustees, or a consortium of one or more of each, an
- 27 application that includes:
- 28 (a) The name of the proposed center.
- 29 (b) The proposed structure of the center, including a
- 30 list of proposed members of the board of directors or a
- 31

1 description of the qualifications for and method of their
2 appointment or election.

3 (c) The workforce development goals of the center, the
4 curriculum to be offered, and the outcomes and the methods of
5 assessing the extent to which the outcomes are met.

6 (d) The admissions policy and criteria for evaluating
7 the admission of students.

8 (e) A description of the staff responsibilities and
9 the proposed qualifications of the teaching staff.

10 (f) A description of the procedures to be implemented
11 to ensure significant involvement of representatives of
12 business and industry in the operation of the center.

13 (g) A method for determining whether a student has
14 satisfied the requirements for graduation specified in s.
15 232.246, Florida Statutes, and for completion of a
16 postsecondary certificate or degree.

17 (h) A method for granting secondary and postsecondary
18 diplomas, certificates, and degrees.

19 (i) A description of and address for the physical
20 facility in which the center will be located.

21 (j) A method of resolving conflicts between the
22 governing body of the center and the sponsor and between
23 consortium members, if applicable.

24 (k) A method for reporting student data as required by
25 law and rule.

26 (l) Other information required by the local school
27 board or community college district board of trustees.

28
29 Students at a center must meet the same testing and academic
30 performance standards as those established by law and rule for
31 students at public schools and public technical centers. The

1 students must also meet any additional assessment indicators
2 that are included within the charter approved by the district
3 school board or community college district board of trustees.

4 (5) APPLICATION.--An application to establish a center
5 must be submitted by February 1 of the year preceding the
6 school year in which the center will begin operation. The
7 sponsor must review the application and make a final decision
8 on whether to approve the application and grant the charter by
9 March 1, and may condition the granting of a charter on the
10 center's taking certain actions or maintaining certain
11 conditions. Such actions and conditions must be provided to
12 the applicant in writing. The local school board or community
13 college district board of trustees is not required to issue a
14 charter to any person.

15 (6) SPONSOR.--A district school board or community
16 college district board of trustees or a consortium of one or
17 more of each may sponsor a center in the county in which the
18 board has jurisdiction.

19 (a) A sponsor must review all applications for centers
20 received through at least February 1 of each calendar year for
21 centers to be opened at the beginning of the sponsor's next
22 school year. A sponsor may receive applications later than
23 this date if it so chooses. To facilitate an accurate budget
24 projection process, a sponsor shall be held harmless for FTE
25 students that are not included in the FTE projection due to
26 approval of applications after the FTE projection deadline. A
27 sponsor must, by a majority vote, approve or deny an
28 application no later than 60 days after the application is
29 received. If an application is denied, the sponsor must,
30 within 10 days, notify the applicant in writing of the
31 specific reasons for denial, which must be based upon good

1 cause. Upon approval of a charter application, the initial
2 startup must be consistent with the beginning of the public
3 school or community college calendar for the district in which
4 the charter is granted, unless the sponsor allows a waiver of
5 this provision for good cause.

6 (b) An applicant may appeal any denial of its
7 application to the State Board of Education within 30 days
8 after the sponsor's denial and shall notify the sponsor of its
9 appeal. Any response of the sponsor must be submitted to the
10 state board within 30 days after notification of the appeal.
11 The state board must, by majority vote, accept or reject the
12 decision of the sponsor no later than 60 days after an appeal
13 is filed, pursuant to state board rule. The state board may
14 reject an appeal for failure to comply with procedural rules
15 governing the appeals process, and the rejection must describe
16 the submission errors. The appellant may have up to 15 days
17 after notice of rejection to resubmit an appeal. An
18 application for appeal submitted after a rejection is timely
19 if the original appeal was filed within 30 days after the
20 sponsor's denial. The state board shall remand the application
21 to the sponsor with a written recommendation that the sponsor
22 approve or deny the application, consistent with the state
23 board's decision. The decision of the state board is not
24 subject to the provisions of chapter 120, Florida Statutes.

25 (c) The sponsor must act upon the recommendation of
26 the State Board of Education within 30 days after it is
27 received, unless the sponsor determines by competent
28 substantial evidence that approving the state board's
29 recommendation would be contrary to law or the best interests
30 of the students or the community. The sponsor must notify the
31 applicant in writing concerning the specific reasons for its

1 failure to follow the state board's recommendation. The
2 sponsor's action on the state board's recommendation is a
3 final action, subject to judicial review.

4 (d) The Department of Education may provide technical
5 assistance to an applicant upon written request.

6 (e) The terms and conditions for the operation of a
7 center must be agreed to by the sponsor and the applicant in a
8 written contract. The sponsor may not impose unreasonable
9 requirements that violate the intent of giving centers greater
10 flexibility to meet educational goals. The applicant and
11 sponsor must reach an agreement on the provisions of the
12 contract or the application is deemed denied.

13 (f) The sponsor shall monitor and review the center's
14 progress towards charter goals and shall monitor the center's
15 revenues and expenditures.

16 (7) LEGAL ENTITY.--A center must organize as a
17 nonprofit organization and adopt a name and corporate seal. A
18 center is a body corporate and politic, with all powers to
19 implement its charter program. The center may:

20 (a) Be a private or a public employer.

21 (b) Sue and be sued, but only to the same extent and
22 upon the same conditions that a public entity can be sued.

23 (c) Acquire real property by purchase, lease, lease
24 with an option to purchase, or gift, to use as a center
25 facility.

26 (d) Receive and disburse funds.

27 (e) Enter into contracts or leases for services,
28 equipment, or supplies.

29 (f) Incur temporary debts in anticipation of the
30 receipt of funds.

31

1 (g) Solicit and accept gifts or grants for career
2 center purposes.

3 (h) Take any other action that is not inconsistent
4 with this section and rules adopted under this section.

5 (8) ELIGIBLE STUDENTS.--A center must be open to all
6 students as space is available and may not discriminate in
7 admissions policies or practices on the basis of an
8 individual's physical disability or proficiency in English or
9 on any other basis that would be unlawful if practiced by a
10 public school or a community college. A center may establish
11 reasonable criteria by which to evaluate prospective students,
12 which criteria must be outlined in the charter.

13 (9) FACILITIES.--A center may be located in any
14 suitable location, including part of an existing public school
15 or community college building, space provided on a public
16 worksite, or a public building. A center's facilities must
17 comply with the State Uniform Building Code for Public
18 Educational Facilities Construction adopted pursuant to s.
19 235.26, Florida Statutes, or with applicable state minimum
20 building codes pursuant to chapter 553, Florida Statutes, and
21 state minimum fire protection codes pursuant to s. 633.025,
22 Florida Statutes, adopted by the authority in whose
23 jurisdiction the facility is located. If K-12 public school
24 funds are used for construction, the facility must remain on
25 the local school district's Florida Inventory of School Houses
26 (FISH) school building inventory of the local school board and
27 must revert to the local school board if the consortium
28 dissolves and the program is discontinued. If community
29 college public school funds are used for construction, the
30 facility must remain on the local community college's
31 facilities inventory and must revert to the local community

1 college district board if the consortium dissolves and the
2 program is discontinued. The additional student capacity
3 created by the addition of the center to the local school
4 district's FISH may not be calculated in the permanent student
5 capacity for the purpose of determining need or eligibility
6 for state capital outlay funds while the facility is used as a
7 center. If the construction of the center is funded jointly by
8 K-12 public school funds and community college funds, the
9 sponsoring entities must agree, before granting the charter,
10 on the appropriate owner and terms of transfer of the facility
11 if the charter is dissolved.

12 (10) EXEMPTION FROM STATUTES.--

13 (a) A center must operate pursuant to its charter and
14 is exempt from all statutes of the Florida School Code except
15 provisions pertaining to civil rights and to student health,
16 safety, and welfare, or as otherwise required by law.

17 (b) A center must comply with the Florida School Code
18 with respect to providing services to students with
19 disabilities.

20 (c) A center must comply with the antidiscrimination
21 provisions of s. 228.2001, Florida Statutes.

22 (11) FUNDING.--

23 (a) Each school board and community college that
24 sponsors a charter technical career center shall pay directly
25 to the center an amount stated in the charter. State funding
26 shall be generated for the center for its student enrollment
27 and program outcomes as provided in law. A center is eligible
28 for funding from the Florida Workforce Development Education
29 Fund, the Florida Education Finance Program, and the Community
30 College Program Fund, depending upon the programs conducted by
31 the center.

1 (b) A center may receive other state and federal aid,
2 grants, and revenue through the local school board or
3 community college district board of trustees.

4 (c) A center may receive gifts and grants from private
5 sources.

6 (d) A center may not levy taxes or issue bonds, but it
7 may charge a student tuition fee consistent with authority
8 granted in its charter and permitted by law.

9 (e) A center is subject to an annual financial audit
10 in a manner similar to that of a school district or community
11 college.

12 (f) A center must provide instruction for at least the
13 number of days required by law for other public schools or
14 community colleges, as appropriate, and may provide
15 instruction for additional days.

16 (g) The sponsor, at the center's request, may apply to
17 the Commissioner of Education for a waiver of any requirements
18 that inhibit maximizing the use of public education funds.

19 (12) EMPLOYEES OF A CENTER.--

20 (a) A center may select its own employees.

21 (b) A center may contract for services with an
22 individual, partnership, or a cooperative. Such persons
23 contracted with are not public employees.

24 (c) If a center contracts with a public educational
25 agency for services, the terms of employment must follow
26 existing state law and rule and local policies and procedures.

27 (d) The employees of a center may bargain
28 collectively, as a separate unit or as part of the existing
29 district collective bargaining unit, as determined by the
30 structure of the center.

31 (e) As a public employer, a center may participate in:

1 1. The Florida Retirement System upon application and
2 approval as a "covered group" under s. 121.021(34), Florida
3 Statutes. If a center participates in the Florida Retirement
4 System, its employees are compulsory members of the Florida
5 Retirement System.

6 2. The State Community College System Optional
7 Retirement Program pursuant to s. 240.3195(2), Florida
8 Statutes, if the charter is granted by a community college
9 that participates in the optional retirement program and meets
10 the eligibility criteria of s. 121.051(2)(c), Florida
11 Statutes.

12 (f) Teachers who are considered qualified by the
13 career center are exempt from state certification
14 requirements.

15 (g) A public school or community college teacher or
16 administrator may take a leave of absence to accept employment
17 in a charter technical career center upon the approval of the
18 school district or community college.

19 (h) An employee who is on a leave of absence under
20 this section may retain seniority accrued in that school
21 district or community college and may continue to be covered
22 by the benefit programs of that district or community college
23 if the center and the district school board or community
24 college board of trustees agree to this arrangement and its
25 financing.

26 (13) BOARD OF DIRECTORS AUTHORITY.--The board of
27 directors of a center may decide matters relating to the
28 operation of the school, including budgeting, curriculum, and
29 operating procedures, subject to the center's charter.

30 (14) ACCOUNTABILITY.--Each center must submit a report
31 to the participating school board or district community

1 college board of trustees by August 1 of each year. The
2 report must be in such form as the sponsor prescribes and must
3 include:

4 (a) A discussion of progress made toward the
5 achievement of the goals outlined in the center's charter; and

6 (b) A financial statement setting forth by appropriate
7 categories the revenue and expenditures for the previous
8 school year.

9 (15) TERMS OF THE CHARTER.--The term of an initial
10 charter may not exceed 5 years. Thereafter, the sponsor may
11 renew a charter for a period up to 5 years. The sponsor may
12 refuse to renew a charter or may revoke a charter if the
13 center has not fulfilled a condition imposed under the charter
14 or if the center has violated any provision of the charter.
15 The sponsor may place the center on probationary status to
16 allow the implementation of a remedial plan, after which, if
17 the plan is unsuccessful, the charter may be summarily
18 revoked. The sponsor shall develop procedures and guidelines
19 for the revocation and renewal of a center's charter. The
20 sponsor must give written notice of its intent not to renew
21 the charter at least 12 months before the charter expires. If
22 the sponsor revokes a charter before the scheduled expiration
23 date, the sponsor must provide written notice to the governing
24 board of the center at least 60 days before the date of
25 termination, stating the grounds for the proposed revocation.
26 The governing board of the center may request in writing an
27 informal hearing before the sponsor within 14 days after
28 receiving the notice of revocation. A revocation takes effect
29 at the conclusion of a school year, unless the sponsor
30 determines that earlier revocation is necessary to protect the
31 health, safety, and welfare of students. The sponsor shall

1 monitor and review the center in its progress towards the
2 goals established in the charter and shall monitor the
3 revenues and expenditures of the center.

4 (16) TRANSPORTATION.--The center may provide
5 transportation, pursuant to chapter 234, Florida Statutes,
6 through a contract with the district school board or the
7 community college district board of trustees, a private
8 provider, or parents of students. The center must ensure that
9 transportation is not a barrier to equal access for all
10 students in grades K-12 residing within a reasonable distance
11 of the facility.

12 (17) IMMUNITY.--For the purposes of tort liability,
13 the governing body and employees of a center are governed by
14 s. 768.28, Florida Statutes.

15 (18) RULES.--The State Board of Education shall adopt
16 rules, pursuant to chapter 120, Florida Statutes, relating to
17 the implementation of charter technical career centers.

18 (19) EVALUATION; REPORT.--The Commissioner of
19 Education shall provide for an annual comparative evaluation
20 of charter technical career centers and public technical
21 centers. The evaluation may be conducted in cooperation with
22 the sponsor, through private contracts, or by department
23 staff. At a minimum, the comparative evaluation must address
24 the demographic and socioeconomic characteristics of the
25 students served, the types and costs of services provided, and
26 the outcomes achieved. By December 30 of each year, the
27 Commissioner of Education shall submit to the Governor, the
28 President of the Senate, the Speaker of the House of
29 Representatives, and the Senate and House committees that have
30 responsibility for secondary and postsecondary career
31

1 education a report of the comparative evaluation completed for
2 the previous school year.

3 Section 2. Subsections (10) and (34) of section
4 121.021, Florida Statutes, are amended to read:

5 121.021 Definitions.--The following words and phrases
6 as used in this chapter have the respective meanings set forth
7 unless a different meaning is plainly required by the context:

8 (10) "Employer" means any agency, branch, department,
9 institution, university, institution of higher education, or
10 board of the state, or any county agency, branch, department
11 board, district school board, or special district of the
12 state, or any city of the state which participates in the
13 system for the benefit of certain of its employees, or a
14 charter school or charter technical career center that
15 participates as provided in s. 121.051(2) (d).

16 (34) "Covered group" means the officers and employees
17 of an employer who become members under this chapter. "Covered
18 group" applies also when the employer is a charter technical
19 career center, charter school, special district, or city for
20 which coverage under this chapter is applied for by the
21 employer and approved for social security coverage by the
22 United States Secretary of Health and Human Services and
23 approved by the administrator for membership under this
24 chapter. Members of a firefighters' pension trust fund or a
25 municipal police officers' retirement trust fund, established
26 in accordance with chapter 175 or chapter 185, respectively,
27 shall be considered eligible for membership under this chapter
28 only after holding a referendum and by affirmative majority
29 vote electing coverage under this chapter.

30 Section 3. Paragraphs (c) and (d) of subsection (2) of
31 section 121.051, Florida Statutes, are amended to read:

1 121.051 Participation in the system.--
2 (2) OPTIONAL PARTICIPATION.--
3 (c) Employees of members of the State Community
4 College System or charter technical career centers sponsored
5 by members of the State Community College System, as
6 designated in s. 240.3031, who are members of the Regular
7 Class of the Florida Retirement System and who comply with the
8 criteria set forth in this paragraph and in s. 240.3195 may
9 elect, in lieu of participating in the Florida Retirement
10 System, to withdraw from the Florida Retirement System
11 altogether and participate in a lifetime monthly annuity
12 program, to be known as the State Community College System
13 Optional Retirement Program, which may be provided by the
14 employing agency under s. 240.3195. Pursuant thereto:
15 1. The cost to the employer for such annuity shall
16 equal the normal cost portion of the employer retirement
17 contribution which would be required if the employee were a
18 member of the Regular Class, plus the portion of the
19 contribution rate required by s. 112.363(8) that would
20 otherwise be assigned to the Retiree Health Insurance Subsidy
21 Trust Fund, and less an amount approved by the employer to
22 provide for the administration of the optional retirement
23 program. The employer providing such annuity shall contribute
24 an additional amount to the Florida Retirement System Trust
25 Fund equal to the unfunded actuarial accrued liability portion
26 of the Regular Class contribution rate.
27 2. The decision to participate in such an optional
28 retirement program shall be irrevocable for as long as the
29 employee holds a position eligible for participation. Any
30 service creditable under the Florida Retirement System shall
31 be retained after the member withdraws from the Florida

1 Retirement System; however, additional service credit in the
2 Florida Retirement System shall not be earned while a member
3 of the optional retirement program.

4 3. Participation in an optional annuity program shall
5 be limited to those employees who satisfy the following
6 eligibility criteria:

7 a. The employee must be otherwise eligible for
8 membership in the Regular Class of the Florida Retirement
9 System, as provided in s. 121.021(11) and (12).

10 b. The employee must be employed in a full-time
11 position classified in the Accounting Manual for Florida's
12 Public Community Colleges as:

13 (I) Instructional; or

14 (II) Executive Management, Instructional Management,
15 or Institutional Management, if a community college determines
16 that recruiting to fill a vacancy in the position is to be
17 conducted in the national or regional market, and:

18 (A) The duties and responsibilities of the position
19 include either the formulation, interpretation, or
20 implementation of policies; or

21 (B) The duties and responsibilities of the position
22 include the performance of functions that are unique or
23 specialized within higher education and that frequently
24 involve the support of the mission of the community college.

25 c. The employee must be employed in a position not
26 included in the Senior Management Service Class of the Florida
27 Retirement System, as described in s. 121.055.

28 4. Participants in the program are subject to the same
29 reemployment limitations, renewed membership provisions, and
30 forfeiture provisions as are applicable to regular members of
31

1 the Florida Retirement System under ss. 121.091(9), 121.122,
2 and 121.091(5), respectively.

3 5. Eligible community college employees shall be
4 compulsory members of the Florida Retirement System until,
5 pursuant to the procedures set forth in s. 240.3195, the first
6 day of the next full calendar month following the filing of
7 both a written election to withdraw and a completed
8 application for an individual contract or certificate with the
9 program administrator and receipt of such election by the
10 division.

11 (d) The governing body of a charter school or a
12 charter technical career center may elect to participate in
13 the system upon proper application to the administrator and
14 shall cover its units as approved by the Secretary of Health
15 and Human Services and the administrator. Once this election
16 is made and approved, it may not be revoked, and all present
17 officers and employees selecting coverage under this chapter
18 and all future officers and employees shall be compulsory
19 members of the Florida Retirement System.

20 Section 4. Section 121.1122, Florida Statutes, is
21 amended to read:

22 121.1122 Purchase of retirement credit for in-state
23 public service and in-state service in accredited nonpublic,
24 nonsectarian schools and colleges, including charter schools
25 and charter technical career centers.--Effective January 1,
26 1998, a member of the Florida Retirement System may purchase
27 creditable service for periods of certain public or nonpublic
28 ~~nonsectarian~~ employment performed in this state, as provided
29 in this section.

30 (1) PURCHASE OF RETIREMENT CREDIT AUTHORIZED.--Subject
31 to the provisions of subsections (2) and (3), a member of the

1 Florida Retirement System may purchase up to 5 years of
2 retirement credit for:

3 (a) Periods of public employment in this state; or

4 (b) Periods of employment in charter schools or
5 charter technical career centers or in any nonpublic,
6 nonsectarian school or college in this state that is
7 accredited by the Southern Association of Colleges and
8 Schools.

9
10 Credit for 1 year of such service may be purchased for each
11 year of creditable service a member completes under the
12 Florida Retirement System.

13 (2) LIMITATIONS AND CONDITIONS.--

14 (a) A member is not eligible to receive credit for
15 in-state service under this section until he or she has
16 completed 10 years of creditable service under the Florida
17 Retirement System, excluding service purchased under this
18 section and out-of-state service claimed and purchased under
19 s. 121.1115.

20 (b) A member may not purchase and receive credit for
21 more than 5 years of creditable service aggregated under the
22 provisions of this section and s. 121.1115.

23 (c) Service credit claimed under this section shall be
24 credited only as service in the Regular Class of membership
25 and shall be subject to the provisions of s. 112.65.

26 (d) A member shall be eligible to receive service
27 credit for in-state service performed after leaving the
28 Florida Retirement System only upon returning to membership
29 and completing at least 1 year of creditable service in the
30 Florida Retirement System following the in-state service.

31

1 (e) The service claimed must have been service covered
2 by a retirement or pension plan provided by the employer.

3 (3) COST.--The cost to purchase retirement credit
4 under this section shall be calculated in the same manner as
5 set forth in s. 121.1115(2) for purchase of credit for
6 out-of-state service.

7 Section 5. Subsection (7) of section 236.081, Florida
8 Statutes, is amended to read:

9 236.081 Funds for operation of schools.--If the annual
10 allocation from the Florida Education Finance Program to each
11 district for operation of schools is not determined in the
12 annual appropriations act or the substantive bill implementing
13 the annual appropriations act, it shall be determined as
14 follows:

15 (7) DECLINE IN FULL-TIME EQUIVALENT STUDENTS.--In
16 those districts where there is a decline between prior year
17 and current year unweighted FTE students, 50 percent of the
18 decline in the unweighted FTE students shall be multiplied by
19 the prior year calculated FEFP per unweighted FTE student and
20 shall be added to the allocation for that district. For this
21 purpose, the calculated FEFP shall be computed by multiplying
22 the weighted FTE students by the base student allocation and
23 then by the district cost differential. If a district
24 transfers a program to another institution not under the
25 authority of the district's school board, including a charter
26 technical career center, the decline is to be multiplied by a
27 factor of 0.15.

28 Section 6. There is hereby appropriated from the
29 General Revenue Fund the sum of \$3 million, for FY 1998-99, as
30 a grant and aid to Daytona Beach Community College for
31 planning and design costs for a charter technical career

1 center which will serve Volusia and Flagler County students in
2 grades eleven through fourteen on a model basis.

3 Section 7. This act shall take effect upon becoming a
4 law.

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APPENDIX D.

**Tidewater Community College and Virginia Beach
Public Schools Technical Center Joint Project**

*Tidewater Community College /
Virginia Beach City Public Schools
Technical Center*



Technical and Career
EDUCATION
Virginia Beach Public Schools

TCC/VBCPS Technical Center Proposal

October 14, 1997

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Appendix A: TCC/VBCPS Technical Center Committee

*Appendix B: TCC/VBCPS Technical Center Course and
Occupational Information*

Appendix C: TCC/VBCPS Technical Center Proposed Site Location



Tidewater Community College and Virginia Beach City Public Schools Technical Center Executive Summary

In 1989, Tidewater Community College (TCC), Virginia Beach Campus, based on projected overflow enrollment figures for the 1990s, began planning to fund construction of a new academic facility to meet the requirement of providing functional and safe facilities for students, faculty, and staff. The proposed facility (as described in the 1998-2000 *Biennium Capital Budget Request*) would consolidate most of the Health Science activities and provide expansion for the rapidly growing enrollment in the health services division. The building would be located to the southeast of the proposed building BOG between the lake and existing parking areas.

Beginning in the later 1980s, the Virginia Beach City Public Schools (VBCPS) began discussing the need for an additional technical and career facility to meet the increasing demand by students for technical and career course offerings. A feasibility study was conducted and presented to the superintendent but set aside due to budget constraints. With the election of the current School Board, the idea of a new center resurfaced and on November 19, 1996, the School Board approved the study of a new Technical and Career Education Center. In January 1997, a feasibility study was completed the the architectural firm Ballou Justice Upton and Associates which included initial schematic design work.

During the spring of 1997, staff from TCC and the VBCPS met and began very preliminary discussions on the feasibility of TCC and the VBCPS pursuing a collaborative venture to construct an occupational/technical facility that would benefit the city schools, local businesses, the community college system, and the community itself. The facility could be used during the day by the school division and at night by TCC; weekends could meet flexible needs. The facility would include industry shell space for local business training usage as needed and desired.

In May 1997, a planning group met and began formal discussions on the collaborative project to be constructed on the TCC/VB Campus. Preliminary research suggested that full funding should be requested from the state given the project's overwhelming value-added nature to education and economic development. Initial discussions and a legal opinion resulted in several scenarios for ownership to include, but not limited to, a lease back arrangement and bonded indebtedness.

The planning group requested that Dr. Jenney and Dr. Buchanan prepare an initial time line/critical path for moving forward the cooperative project. A timeline was prepared for the period of July 16 through December 31, 1997, and approved by the planning group.

TCC/VBCPS Technical Center Proposal

Background Information

This report recommends that a new advanced technical center be created that:

- *promotes economic development in the city;*
- *meets and exceeds student needs;*
- *offers training/adult retraining and adaptability;*
- *provides shell space capacity for training; and*
- *meets local labor demands.*

This project is a bold step and a unique blueprint for future technical training in Virginia Beach. This report recommends a center that features several industry certified programs, advanced technological instruction, a distance learning lab capable of exporting instruction, and a quality management component as part of a Ford Academy of Manufacturing Sciences (FAMS) that reflects a logical answer to the challenges of tomorrow's workforce.

The curriculum reflects global perspectives as well as technological competence. The center is contiguous to the main TCC Campus and proposed ODU/NSU complex and can share common resources and infrastructure. The project is designed to facilitate interdisciplinary learning and will be flexible enough to accommodate current technologies and adapt to future changes.



TCC/VBCPS TECHNICAL CENTER

Program Offerings



The TCC/Virginia Beach City Public Schools Technical Center will offer high school students the opportunity to combine academic and technical and career preparation to achieve personal fulfillment, responsible citizenship, and economic self-sufficiency. While offering occupational programs, the Tech Center will prepare students for entry-level jobs and provides them with the ability to advance beyond entry-level positions. It prepares them not only for existing careers and occupations, but also for those which will be emerging during the coming decades. In today's extremely competitive job market, it is more important than ever to have a salable skill. Students who complete programs at the Tech Center have the option to enter the job market directly or to continue their studies at Tidewater Community College or four-year colleges, apprenticeship programs, and/or professional technical institutions. The technical center planning committee recommends the following program offerings:

** Courses aligned with Tidewater Community College*

*** Courses aligned with Tidewater Community College, Thomas Nelson Community College, and Norfolk State University*

*** COMPUTER OPERATIONS/VISUAL BASIC AND WINDOWS**

Three credits /One year/Grades 11-12

The course covers setup, installation procedures, and use of Microsoft Windows 95. Students will also learn to program computers utilizing Microsoft Visual Basic 4.0 software. Activities are designed to provide the student with real world skills that will allow them to compete for the jobs of tomorrow. This course can be taken as a one year course, or can be taken as the first year of a two-year sequence that includes taking Computer Programming or the Computer Network Administrator course in the second year. Experience with Windows 3.1, DOS, basic programming, database, spreadsheets, or word processing will give the student the needed background skill to excel in this course. However, the only prerequisite is a demonstrated proficiency in using a computer keyboard. Upon successful completion of the course, students are eligible to take the test for Certification in Microsoft Visual Basic and Windows 95. Upon graduation from high school, the students will have the option of continuing with their education by taking more Microsoft Certification Courses, or by entering a two or four year college in a computer-related field.

*** BUSINESS COMPUTER PROGRAMMING**

Three credits/One year/Grades 11-12

In Business Computer Programming students learn the basic fundamentals of analyzing specifications, designing programs to solve business problems, and writing programs. They are also introduced to computer operations using the IBM System/36 and COMPAQ

486 computers. This is a one-year, three-credit course for the junior or senior who desires to learn more programming than is taught in the regular high school. The computer languages taught include *COBOL*, *RPG II*, *FOXPRO*, and *C++*. Prerequisites for this course include a demonstrated proficiency in using a computer keyboard, a desire to learn programming, and a willingness to work. Keyboard proficiency may be demonstrated by satisfactory completion of the Business Computer Operations course at the Tech Center, any programming language or typing course at the home school, or by taking a typing exam at the Tech Center. In addition to preparing students for entry-level jobs as junior programmers and/or computer operators, this is an excellent course for the college-bound student who plans to major in a computer science field.

*** ELECTRONICS AND COMPUTER REPAIR**

Three credits per year/Grades 11-12

The Tech Center's two-year Electronics and Computer Repair program is an intensive block of instruction and practical laboratory experiences. A proficiency in algebraic skills is recommended. Students receive instruction in the proper use of hand tools, soldering techniques, use of test equipment, interpretation of schematic diagrams, basic electronic theory, solid state theory, communication theory, digital electronics, and microcomputer and microprocessor theory. Also included is Level I PC computer repair and the troubleshooting and repair of complex electronic devices.

COMPUTER NETWORK ADMINISTRATOR/ COMPUTER NETWORK ENGINEER

Three credits/One year/Grade 12

This is a one-year course for seniors in which students are instructed in the operations and management of computer networking systems. Students are taught in all aspects of the Novell Network Operating System and apply this knowledge by working with the Virginia Beach City Public Schools Office of Technology and the City of Virginia Beach Office of Information Technology.

INTERACTIVE MULTIMEDIA COMMUNICATIONS

Three credits per year/Grades 11-12

Multimedia is a complex, rapidly changing subject requiring skills in a large variety of areas. For example a student with this skill set could be employed in converting current training materials into electronic courseware. This program would include studies in the design of multimedia productions, authoring, the Internet as a business tool, and multimedia marketing.

*** ADVERTISING DESIGN**

Three credits per year/Grades 11-12

This is an advanced, two-year course designed to develop the knowledge and understanding of the skills and principles involved in advertising design. The course covers the development and function of advertising and the production processes involved. Experiences similar to those found in advertising agencies are simulated in the classroom and include design; illustration; typography; photography; computer graphics;

advertising techniques; and preparation of camera-ready copy for advertisements, books, magazines, newspapers, packaging, posters, and billboards.

*** DRAFTING AND DESIGN**

Three credits per year/Grades 11-12

Drafting and Design is a two-year course in which students develop the necessary skills to become employed in the drafting field. During the first year, working drawings will be produced primarily in the mechanical area, such as gears and cams, charts, and graphs. Second-year students concentrate on architectural drafting, designing a house, and drawing a complete set of plans for it. Second semester of that year will cover either small commercial construction or an advanced engineering problem of the student's choice. The computer assisted design (CAD) system used in this course is identical to those used in the industry.

PRODUCTION PRINTING AND IMAGING TECHNOLOGY

Three credits per year/Grades 11-12

Offset Printing is a two-year vocational laboratory course which prepares students to enter the printing trade with entry-level skills. This program includes all phases of offset printing, providing technical training and practice in photo-typesetting, layout and design, offset photography, negative stripping, plate-making, operation of offset presses, bindery work, related math, papers, inks, chemistry, and cost factors. The computerized typesetter is the same type used in the most up-to-date printing businesses.

TELEVISION COMMUNICATIONS AND PRODUCTION

Three credits per year/Two years/Grades 11-12

This two-year course prepares students for entry-level employment in television or for further study at an institution of higher learning. The format provides instruction progressing from basic equipment function to actual program production. The students operate as an actual production team in a TV studio. They serve in such career positions as director, audio operator, technical director, camera operator, and on-camera talent. This course emphasizes live in-studio production.

COPIER TECHNICIAN

Three credits per year/Grades 11-12

Certified Copier Technician is a two-year program in which students receive instruction in copier and fax maintenance, customer relationships, and business principles. A fully equipped state-of-the-art lab is used to prepare students for entry into the work force or to continue their education by entering a two- or four-year college or technical school. Second-year students receive instruction in digital copier and facsimile technology, trouble shooting, and overhaul maintenance procedures. During the school year, students apply knowledge and skills acquired in the classroom and laboratory in practical field experiences.

Ford Academy of Manufacturing Sciences (FAMS)

The Ford Academy of Manufacturing Sciences (FAMS) course is an academically rigorous program designed to introduce students to the concepts and skills needed to understand, work with, and manage the complex and rapidly evolving processes on which tomorrow's manufacturing and engineering will depend. The Virginia Beach City Public Schools, Ford Motor Company, the National Alliance of Business (NAB), and the National Science Foundation (NSF) collaborated to support the FAMS program. NAB supports partnerships between business and education that strengthen the preparedness of the American work force. The following courses will be taught:

MATERIALS SCIENCE TECHNOLOGY

Three credits per year/Grades 11-12

Students explore the science of materials and the technology of processes as they fabricate proto types and conduct experiments. Activities include analysis, testing, and processing of wood, plastic, metal, ceramic, and composite materials. This course is for students interested in careers in engineering, manufacturing, science, and design.

MANUFACTURING TECHNOLOGY

One-half credit/One semester/Grades 11-12

Students in Manufacturing Technology study, organize, and operate a manufacturing company. *Activities* involve product research, design, production, and marketing. *Skills* gained in this course will benefit students in math, science, TQM, marketing, economics, and technical drawing courses. Manufacturing Technology is for students pursuing *careers* in research and design, engineering, computerized machine operation, and corporate management.

*** PRINCIPLES OF TECHNOLOGY**

One credit/One year/Grades 11-12—Prerequisite: Algebra I

May be used to meet a science requirement in the regular diploma program

In Principles of Technology, students experiment with the math and science concepts used by technicians and engineers. *Activities* develop the ability to use various test equipment, apply physics and math to automotive, manufacturing, and communication systems. *Skills* developed in this course enhance student knowledge in Geometry, Algebra II, Physics, and advanced technology courses. Principles of Technology is for students planning *careers* as technicians, designers, managers, and engineers.

*** TOTAL QUALITY MANAGEMENT**

One-half credit/One semester/Grades 11-12

In Total Quality Management (TQM) students learn about leadership, organizational, and management skills required by today's workplace. *Activities* include team building, problem solving, decision making, and design of an improvement process. *Skills*

developed in this course will aid students in any course, activity, club office or current employment. TQM is for students seeking a *career* in any business, military, or government occupation. This course will prepare students to receive TQM certification and college credit at Tidewater Community College (TCC).

STATISTICAL PROCESS CONTROL

One-half credit/One semester/Grades 11-12

The Statistical Process Control course introduces statistical process control and other approaches to ensure quality in automated manufacturing processes. This course provides an understanding of the kinds of regularity that occur in random functions and also provides experiences in associating probabilistic mathematical models with phenomena in the real world.

CASE STUDY

One-half credit/One semester/Grade 12

The case studies course brings it all together, challenging students with analysis and problem-solving exercises based on case studies of various manufacturing situations and companies.

INFORMATION SYSTEMS

One-half credit/One semester/Grades 11-12

Information Systems introduces students to a variety of information systems used to support the world of manufacturing. Students learn that all information systems involve people, hardware, software, and data and that these systems can range from paper and pencil to sophisticated computer technology. During this course, students gain practice in using Microsoft Office, on-line services (Internet, America On-Line), and Taylor II simulation software.

The TCC/Virginia Beach City Public Schools Technical Center would also house additional space for the following concepts:

Economic Development Shell Space

Open-ended shell space capacity will allow the center to accommodate "fast track" training needs that could be a strategic priority. This space could expedite and accelerate the training capacity of the center to fulfill the needs of local business. This innovative approach could serve as a quick response program to help the community expand or create new business. The physical environment should be designed so that the space can be used for multiple activities.

Quality Academy

The Quality Academy will serve as the training, communications, and resource center for quality initiatives in the Virginia Beach City Public Schools. Training and implementation support of quality principles and strategies and the Malcolm Baldrige Performance Excellence criteria will be provided to support the Virginia Beach City Public Schools implementation efforts. It will also serve as the training center for the

Virginia Beach Quality Alliance. Participating community businesses will also receive training on various aspects of quality implementation.

Multi-Purpose Space

Multi-use space capacity will be used for large meetings and distance learning teleconference opportunities in conjunction with television/cable downlink capacity. This space can be partitioned off to accommodate smaller instructional and meeting needs. This will allow the center to present a conference capacity for 400 that will be used by the school system, community college, economic development, local businesses, and the city communities.

Emerging Technologies

(To Be Announced)

VBTV (Channel 48)

The VB48 television station will be housed at the new technical center.

ADMINISTRATION

There is 3,744 square feet allocated for administrative offices.

GENERAL SPACES

There is 1,486 square feet allocated for general/miscellaneous space.



TCC/VBCPS TECHNICAL CENTER

Program Listing



1. **COMPUTER OPERATIONS/VISUAL BASIC AND WINDOWS***
2. **BUSINESS COMPUTER PROGRAMMING**
3. **ELECTRONICS AND COMPUTER REPAIR***
4. **COMPUTER NETWORK ADMINISTRATOR/
COMPUTER NETWORK ENGINEER***
5. **INTERACTIVE MULTIMEDIA COMMUNICATIONS**
6. **ADVERTISING DESIGN**
7. **DRAFTING AND DESIGN (Computer Aided Design)***
8. **PRODUCTION PRINTING AND IMAGING TECHNOLOGY**
9. **TELEVISION COMMUNICATIONS AND PRODUCTION**
10. **COPIER TECHNICIAN***

11. **Ford Academy of Manufacturing Sciences (FAMS)**
 - *Materials Science Technology*
 - *Manufacturing Technology*
 - *Principles of Technology (Physics)*
 - *Total Quality Management**
 - *Statistical Process Control*
 - *Case Study*
 - *Information Systems*
 - *Student Summer Internship*

The TCC/Virginia Beach City Public Schools Technical Center would also house additional space for the following concepts:

- *Economic Development Shell Space*
- *Quality Academy*
- *Multi-Purpose Space*
- *Emerging Technologies*
- *VBTV (Channel 48)*
- *Administration*
- *General space*

* - Denotes industry certification available



**TIDEWATER COMMUNITY COLLEGE/VIRGINIA BEACH CITY PUBLIC SCHOOLS
TECHNICAL CENTER
ARCHITECTURAL SPACE PROGRAM**

DEPARTMENT/SPACE NAME	VBCPS PROGRAM
Computer Operations/Visual Basic & Windows	2,245
Computer Programming	2,245
CNA/CNE	2,150
Advertising Design	2,550
Drafting and Design	3,000
Production Printing and Imaging Technology	2,850
T.V. Production & Communication	2,750
Copier Technician	3,000
Subtotal	20,790
Miscellaneous	
Administration	3,805
General Spaces	1,500
Subtotal	5,305
Subtotal	26,095
Circ'l/HVAC/MIS. (30%)	11,184
TOTAL (A)	37,279

B - PROGRAMS	
Not currently offered at existing facility	
Interactive Multi-Media	1,850
F.A.M.S. (Kellam, Bayside, Salem)	9,822
Materials Science	
Manufacturing	
Technology Lab - TQM/SPC	
Information Systems	
Economic Development Shell Space (New)	4,500
Quality Academy (New)	1,840
Multi-Purpose Space (New)	5,850
VB 48	3,500
Subtotal	27,362
Circ'l/HVAC/MIS. (30%)	11,727
TOTAL (B)	39,089

TCC (C)	60,825
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GRAND TOTAL (A+B+C)	137,193
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**VIRGINIA BEACH
TECHNICAL & CAREER EDUCATION CENTER
NORTH LANDING ROAD SITE**

DEPARTMENT/SPACE NAME

A - EXISTING PROGRAMS TO REMAIN AT CURRENT FACILITY

Computer Applications

Legal/Medical Systems Administration

Automotive Technology

Auto Body and Paint Technology

Welding

Auto Service Technology

Diesel Technology

Health and Human Services

Licensed Practical Nursing

Child Care Occupations

Building Trades

Heating, Refrigeration & Air Conditioning

Carpentry

Electricity

Masonry

Plumbing

Miscellaneous

Cosmetology

Culinary Arts

Greenhouse Production/Landscape

English as a Second Language

Administration

General Spaces

**TIDEWATER COMMUNITY COLLEGE/VIRGINIA BEACH CITY PUBLIC SCHOOLS
TECHNICAL CENTER
COST ESTIMATE**

◆ **BUILDING COST**

- Assume 137,193 sq. ft. @ \$100/sq. ft. in 97/98 dollars

◆ **SITE IMPROVEMENT COST**

- Estimated at \$1,850,000 (Includes 750 additional parking spaces)

◆ **TOTAL CONSTRUCTION COST**

- Cost = 137,193 (100) + 1,850,000 = \$15,569,300 ✓
Inflate to 2000/2001 = 15,569,300 (1.06) (1.06) (1.06) = \$18,543,285
- Design @ 5.5% = 18,543,285 (.055) = \$1,019,881
- Furniture and Equipment = 1,081,000 (TCC) + 1,250,000 (VBCPS) = \$2,331,000
- Contingencies @ 5% = 18,543,285 (.05) = \$927,164
- Inspection & Support = \$135,000

◆ **PROJECT COST SUMMARY**

• Design	1,019,881
• Construction	18,543,285
• Furniture & Equipment	2,331,000
• Contingencies	927,164
• Inspection & Support	<u>135,000</u>
• Total	<u>\$22,956,330</u>

**TIDEWATER COMMUNITY COLLEGE/VIRGINIA BEACH CITY PUBLIC SCHOOLS
TECHNICAL CENTER
POTENTIAL FUNDING SOURCES**

State	10,000,000
City (Site Improvements)	1,850,000
City/VBCPS	<u>11,106,330</u>
Total	<u>\$22,956,330</u>

PROPOSED SCHEDULE

Design	7/98 - 6/99
Construction	7/99 - 3/01
Furniture & Equipment	3/01 - 7/01
Opening	9/01

Appendix A:

TCC/VBCPS Technical Center Committee Membership



TCC/VBCPS Technical Center Steering Committee

<u>Company</u>	<u>Name</u>	<u>Phone</u>
Facilities, Planning, & Construction	Mr. Anthony L. Arnold, P.E., Director	563-1204
Virginia Beach City Public Schools	Mr. Daniel J. Arris, School Board Member	340-2036
City Hall Building, Room 260	Mr. Randall M. Blow, Deputy City Attorney	427-4531
Tidewater Community College, Va. Beach Campus	Dr. E. T. Buchanan, Provost	822-7121
Tidewater Community College, District Office	Mr. Al L. Cecchini, Director of Facilities Management	822-1077
Virginia Beach City Public Schools	Mr. Tim Jackson, School Board Member	471-6031
Virginia Beach City Public Schools	Timothy R. Jenney, Superintendent	427-4326
Virginia Beach City Public Schools	Mrs. Diane N. Jones, Executive Assistant	427-4837
Department of Administrative Support Services	Mr. John S. Kalocay, Assistant Superintendent	563-1200
Capitol Strategies	Ms. Kay Kemper, President	489-0844
Tidewater Community College, District Office	Dr. Timothy Kerr, Interim President	822-1050
Virginia Beach City Public Schools, Technical & Career Education	Patrick M. Konoprnicki, Director	426-5725
Virginia Beach Department of Economic Development	Mr. Donald L. Maxwell, Director	437-6464
City of Virginia Beach	Mrs. Nancy K. Parker, City Council Member	425-1589
Tidewater Community College, Virginia Beach Campus	Mr. Jim Perkinson, Acting Department Chair, Engineering & Industrial Technology	822-7197
Virginia Beach City Public Schools	Mrs. Rosemary A. Wilson, School Board Member	459-5788

Appendix B:

TCC/VBCPS Technical Center Course and Occupational Information



TCC/VBCPS Technical Center

Course and Occupational Information

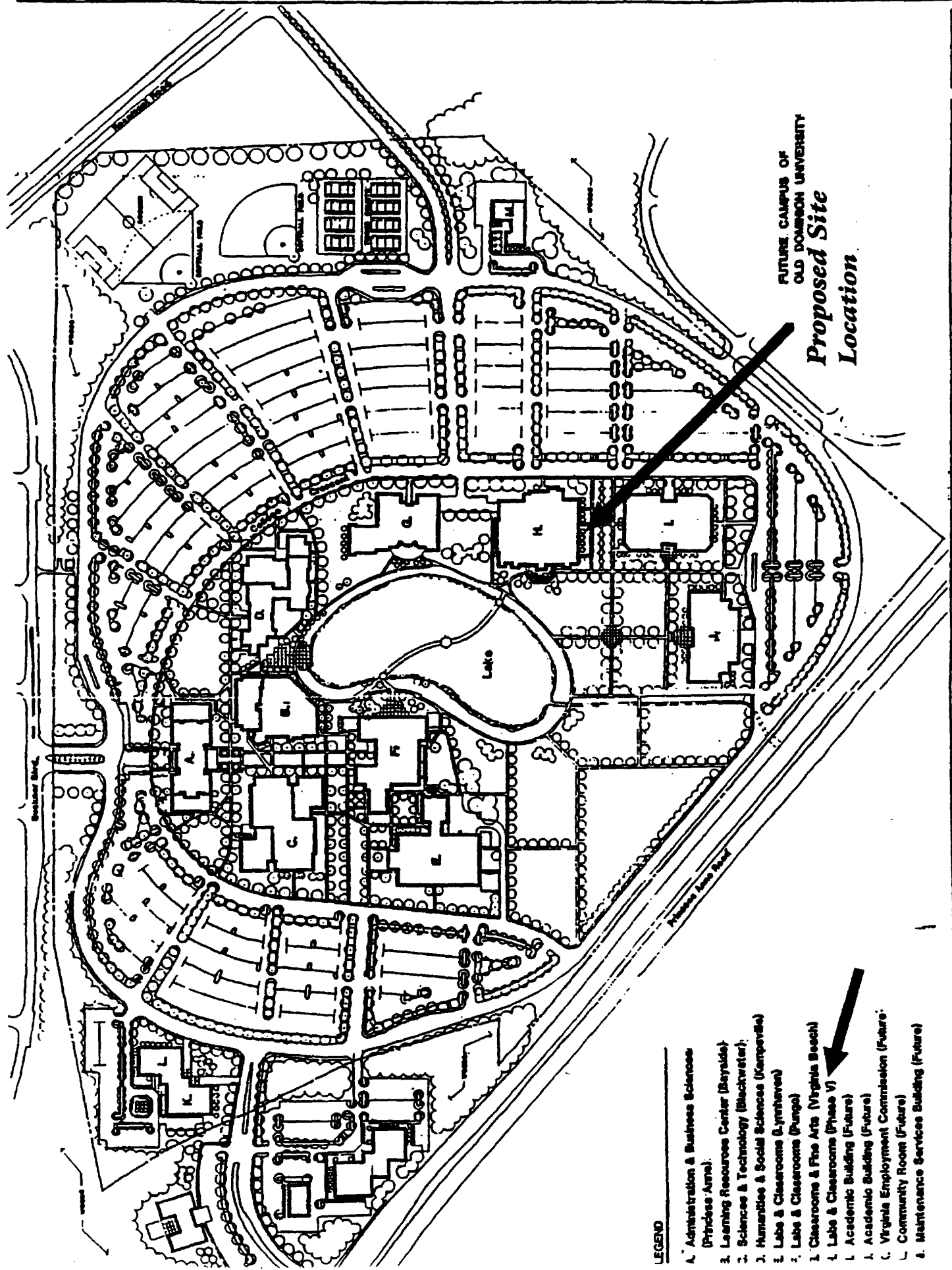
Revised: October 9, 1997

Course Name	State Registration	Industry Certification	Industry Area	Related Occupation	Employment Available Year to 2000	Occupational Demand Projection	Income-Potential
Computer Operations Visual Basic & Windows	Yes (*4)	Yes	Business	Computer Operator	Yes	State-254 Annually National- Very High	\$15,444-28,704
				Computer Programmer	Yes	State-1,171 Annually National- Very High	\$13,780-73,000+
Electronics & Computer Repair	Yes (*12)	Yes	Engineering & Technology	Electronics Technician (Computer Service Technician)	Yes	State-102 Annually National- Very High	\$21,932-40,018
Computer Network Administrator/Computer Network Engineer (CNA/CNE)	Yes (*4)	Yes	Business & Marketing	Computer Network Administrator Network Engineer Systems Analyst Information Manager	Yes	State-29,000 Annually National- High	\$20,000-\$40,000
Interactive Multimedia Communications	Yes	Yes	Business	Internet Webmaster Computer Graphic Designer	Yes	State-Medium Annually National- Medium	\$18,000-25,000
Advertising Design	Yes (*18)		Engineering & Technology	Illustrator (Commercial Artist)	Yes	State-151 Annually National-High	\$18,000-36,607+

Appendix C:

TCC/VBCPS Technical Center Proposed Site Location





FUTURE CAMPUS OF
OLD DOMINION UNIVERSITY
**Proposed Site
Location**

- LEGEND**
- A. Administration & Business Sciences (Princess Anne)
 - B. Learning Resources Center (Boyalde)
 - C. Science & Technology (Blechwater)
 - D. Humanities & Social Sciences (Kemperville)
 - E. Labs & Classrooms (Lyons)
 - F. Labs & Classrooms (Pungo)
 - G. Classrooms & Fine Arts (Virginia Beach)
 - H. Labs & Classrooms (Phase V)
 - I. Academic Building (Future)
 - J. Academic Building (Future)
 - K. Virginia Employment Commission (Future)
 - L. Community Room (Future)
 - M. Maintenance Services Building (Future)



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MASTER PLAN

