

College/Business Activities Report

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TABLE OF CONTENTS

	Page	<u>e</u>
Background	••••	1
Summary of College/Business Partnership Activities	••••	1
Description of Activties: Community Colleges	••••	5
Description of Activities: Public Four-Year Colleges and Universities	••••	13
Description of Activities: Independent Colleges and Universities	••••	17
Description of Activities: Private Career Schools	••••	22
Advanced Technology Centers in Maryland	••••	23
Summary Table		27

ii

Background

At a joint meeting between the Maryland Higher Education Commission and the executive committee of the Maryland Association of Community Colleges, a suggestion was made that the State identify and publicize campus efforts to provide specialized education and training programs for the employees of Maryland businesses. This report is intended to highlight the wide variety of ways in which Maryland colleges, universities and private career schools are serving Maryland firms and organizations in this capacity. Because all of the sectors of postsecondary education in Maryland are involved in partnerships of some kind to meet the needs of business and industry in the State, all segments were invited to provide information about the contributions that they are making in this area. All 16 community colleges, 12 public four-year campuses, 13 independent institutions and one private career school responded to the Commission's request.

The institutions were asked to provide information about their current activities in each of the following areas:

- Partnerships between business/industry and postsecondary educational institutions that are designed to provide specialized educational and training programs for employees.
- Customized job training or education programs for workers.
- Special programs, including the use of vouchers, that are specifically designed to help displaced workers or welfare recipients.
- Short term collaborative ventures between business/industry and postsecondary education institutions.

Information about non-contract continuing education courses or programs that are advertised and available to the public through enrollment were not included in the Commission's report.

Summary of College/Business Partnership Activities

The number and variety of activities established between the Maryland's postsecondary educational institutions and the business community are impressive. Partnerships exist with the private sector, local and state governments and, in some cases, the federal government. Four-year colleges and universities have joined with community colleges and/or government agencies to offer programs that have increased the pool of trained workers available to Maryland businesses.

This report offers an overview of the activities in each of the categories below, followed by a description what is happening at each campus:

- Partnerships
- Customized training
- Special programs
- Short-term collaborative ventures

An overview of Advanced Technology Centers in Maryland also is included.

Many of the institutions referred to internships, both paid and unpaid, in their reports. While not intended to be included in this report, internships offer a valuable source of labor to Maryland businesses. Many students go on to obtain full-time employment with the businesses for whom they intern as a result of experiences in the workplace.

Partnerships

The majority of the programs presented in the reports fell into this category. These are some examples:

Baltimore City Community College has partnered with Bon Secours Baltimore Health Systems to provide an innovative approach to helping entry-level employees develop appropriate workplace skills. Known as "Business Success Skills", the multi-step program teaches workplace success skills to employees and offers behavior management techniques to supervisors.

The Community Colleges of Baltimore County have multiple partnerships in place with automotive manufacturers to train automotive service technicians to update their skills and to obtain associate degree programs. Partnerships also exist with various steel companies.

Hagerstown Community College is involved with more than 50 local businesses and manufacturers. It is a training partner with the Washington County Chamber of Commerce and hosts training sessions ranging from financial literacy to new software products.

Harford Community College offers apprenticeship programs in partnership with the Maryland chapter of the Air Conditioning Contractors of America and the Harford County Electrical Contractors Association.

Prince George's Community College, through its Center for Business and Industry Training, provides specialized educational and training programs in a wide variety of areas, including management, leadership and supervision, and basic writing skills.

Bowie State University has entered a partnership with Montgomery County to assist in building and strengthening diversity in the county workforce.

University of Maryland University College, Montgomery College and Charles County Community College are collaborating to offer Oracle training and educational programs, using Oracle-certified curriculum, to employees of regional firms.

The Perdue School of Business at *Salisbury State University* serves an the "entrepreneurial arm" of the institution by assisting with the expansion of the economic base of the Fastern Shore.

The TARGET partnership of Western Maryland College provides home-like environments for the mentally retarded, while offering a special educational program for the training of residential and supervisory staff. Upon completion of a masters degree program, the TARGET staff will be ready for supervisory positions with other agencies.

Customized Training

There was a great deal of activity among institutions in this area with a multitude of customized courses being offered across the state. While the list is long and varied, the most frequently mentioned offerings in this category are office and computer skills and management skills. The institutions indicated that these training courses can range from a three hour introductory session to a long-term series of courses. Many of these courses are offered on site at times convenient for the student/worker.

Special Programs

Higher education institutions are working with local governments across the State to develop and offer programs to displaced workers and welfare recipients. A number of community colleges have programs in place to assist underemployed or unemployed workers to enhance basic job skills. Some examples:

- Howard Community College has established Jobs First, a six-week training program for welfare recipients in the areas of basic skills, customer service, basic computer applications, and transportation services.
- Wor-Wic Community College works closely with the Lower Shore Private Industry
 Council to provide space and courses for displaced workers and Welfare-to-Work
 customers. When a local electronics company moved from the area, the college
 and company representatives met to outline educational opportunities for retraining
 and re-educating their employees. Displaced workers were directed to appropriate
 credit and non-credit training activities.

- A program at Morgan State University helps AFDC recipients to obtain bachelors degrees in various occupational fields. This program provides students with the opportunity to receive instructional and support services in addition to course offerings suited to their needs and interests. The program enhances the employability of AFDC recipients leading to full-time employment and self-sufficiency.
- the Safe and Smart Center was established to meet the needs of unemployed or underemployed individuals using *Johns Hopkins University* student volunteers to teach job skills. A university-sponsored community organizer works closely with local businesses to assist them with their business problems and to help them increase their profitability.

Short-term Collaborative Ventures

Only a few institutions had training that could be categorized in this area.

Community Colleges

Allegany College of Maryland

The college offers a Directed Technologies certificate to address the needs of local businesses and computer/software training for teachers and staff through a Computer Literacy Project.

Several college programs partner with business and industry to establish practicums and clinical sites as an integral part of the educational program. The college also partners with Frostburg State University and the Board of Education in the School-to-Work initiative. Additionally, the college partners with other area two and four-year institutions, in conjunction with the Small Business Development Center, in providing counseling, consulting and training for start-up and existing small businesses.

The Center for Continuing Education provides customized job training for companies in high technology areas as well as to professionals for re-licensure and re-certification in health care and real estate areas.

Programs designed to help displaced workers and welfare recipients include training for entry level jobs in clerical, child care and sitter positions.

Anne Arundel Community College

Anne Arundel's report specifically focused on the grant provided by the county to establish a partnership with Northrop Grumman Corporation. Since it began in 1996, over 18,000 registrations have been processed. In addition to the benefits derived by the Northrop Grumman, the college's capabilities have been enhanced thereby enabling it to offer new and improved services to the business community.

Baltimore City Community College

The college's Business and Continuing Education Center (BCEC) has established numerous partnerships with business and industry to design specialized educational and training programs for employees. Some of the examples given:

- a multi-step program developed in partnership with Bon Secours Baltimore Health Systems equips entry level employees to develop appropriate workplace skills to improve retention and customer service.
- diversity awareness training provided to the employees of the Maryland State Highway Administration statewide, especially managers and those in frequent contact with the public.

BCEC specializes in educating and training Baltimore's workforce by offering a broad range of customized training for businesses and industry. The Center also partners with several organizations and agencies to help displaced workers and welfare recipients. It has joined forces with the Housing Authority of Baltimore City in a new Resident Initiatives Program with "jobs for residents" as its goal.

The college offers job specific skills as well as employability and customer service training in the areas of geriatric nursing assistant, child care certification, and office computer specialist, equipping participants with the skills needed to find and keep a job.

Carroll Community College

The college enters into short and long-term partnerships to serve workforce development needs. Examples of these partnerships include:

- annual customized employee training programs for municipal employees of Carroll County.
- nursing assistant training for health care businesses.
- a short-term collaborative project in which local manufacturers contract with the college to receive technical training in advanced manufacturing skills.

Customized job training includes:

- contracts with Carroll County Volunteer Ambulance Association to provide classes to their members that lead to emergency medical technician certification.
- a customized business/customer service credit certificate program to employees of a local company.
- customized contract courses for the business community in software applications, management and communications.

The college accepts vouchers for training displaced workers that are used in traditional open enrollment career training and credit programs.

Cecil Community College

The college's report included an overview of the types of training provided by the Business Training Resource Center plus data detailing activities during FY 1998 and FY 1999.

A specific marketing and operational approach has been developed to create new partnerships, strengthen existing relationships and identify new opportunities to offer timely programs. The college is able to meet specific requirements requested by area companies and organizations. Techniques used by the college include customized training, flexible scheduling, competitively priced programs, and continual surveys and

evaluations to measure effectiveness of training opportunities. The college has created a Business Advising Board as well as a Training Resource Center. To meet the needs for designing highly specialized programs, the college recruits faculty and consultants as necessary.

The college administration has created a supportive environment to facilitate the marketing of programs and services. Over the last five years there has been a dramatic increase in company/organization participation.

Charles County Community College

The college's report presented a summary of three areas of activity:

- 1. Partnerships between the college and Maryland business and industry groups. The college participated in a four-way partnership established to provide local access to non-credit training for Tracor employees in St. Mary's County. It allowed for smooth articulation between beginning level (credit-free) courses offered at the community college and upper-level Oracle courses available through University of Maryland University College. During FY 1998, the college co-sponsored training with the Maryland Association for Plumbing, Heating and Cooling Contractors to prepare and certify tradesmen in backflow prevention training.
- 2. Customized Job Training Partnerships. The College delivered management information systems training to two local government agencies. Over 70 classes were offered during working hours to more than 400 employees of both agencies.
- 3. Partnerships between the college and secondary education institutions. The College provided training on PC Troubleshooting, Internet Search Techniques, and Basic Network Administration for St. Mary's and Calvert high school teachers.

Chesapeake College

The college submitted a listing without description of collaborative/partnership programs in place with state agencies, local government, private career schools and a few other groups.

Community Colleges of Baltimore County

CCBC maintains several partnerships with business and industry. Partnerships exist with three automotive industries in the area to train and update automotive service skills. Partnerships also exist with various steel industries, and other manufacturers as well as health care and county government agencies. Training ranges from specific

programs such as respiratory and radiation therapy to the offering of credit courses to employees to enable them to earn degrees and certifications.

Many programs exist that are geared specifically to the unemployed and/or the underemployed. Examples of programs in existence:

- the Occupational Training Center, which provides intensive training for unemployed, underemployed, disabled, and displaced workers leading directly to employment in high demand occupations. Courses are held at all three campuses. Programs range from three weeks to six months of full-time training and include life skills, academic enhancement and skills training.
- additional programs offered by the center include training for geriatric aides, truck drivers, computer personnel, and health para-professionals.
- low cost, intensive literacy, GED prep and SAT prep classes for those underemployed, unemployed and/or receiving welfare.
- Single Step, a transitional program designed for individuals with disabilities who desire to continue their education, which uses a multi-sensory learning approach.

Frederick Community College

The college reported that "high-end" computer training programs are offered in cooperation with I/Tech Services as well as some vendor certification programs. The college has also formed a "One-Stop Employment Partnership" with five other Frederick County agencies to help displaced workers and welfare recipients.

Garrett Community College

The college reported that it develops partnerships and provides customized training programs in response to business needs and opportunities. Clients include county agencies and private industry, and programs include stress management, computer applications and food safety.

The college has developed Employment Skills Training, a Pell eligible program offering students the opportunity to upgrade their basic skills, choose a specialty and participate in a non-paid internship in their chosen field.

The college has also developed P.I.V.O.T. (Partners in Valuable Ongoing Training) which is a group of Garrett County businesses whose focus is to provide educational opportunities for employees, particularly those in the hospitality/tourism field.

Hagerstown Community College

The college reported that it is actively involved with more than 50 local businesses and manufacturers and cited some specific partnerships. Hagerstown is a training partner with the Washington County Chamber of Commerce and hosts training sessions ranging from financial literacy to new software products on a monthly basis. It also provides Citicorp Credit Services, Inc. with certified Zenger Miller facilitators and is a certified training site for complete Zenger Miller leadership and supervisory training. The College also provides customized job training for Washington County Government employees and for a large financial service organization in the county.

In cooperation with the county, a Work and Gain Economic Self-Sufficiency program has been implemented. The program assists welfare recipients in finding permanent, non subsidized employment and acquiring necessary job retention skills.

Hagerstown also included a listing of Contract Training in place for July 1997 through June 1998.

Harford Community College

Harford Community College submitted a listing of seven programs currently in place:

- apprenticeship programs are offered in partnership with the Maryland chapter of the Air Conditioning Contractors of America and with the Harford County Electrical Contractors Association (which offers the largest electrical program in the State).
 Graduates of this program make up 36 percent of the journeymen workforce in the county.
- under the leadership of the College, an Environmental Manager's Information Exchange has been created to share ideas and provide education and training for environmental and safety professionals.
- the Harford Quality Network, operated through the college's Community and Business Services Division, supports the efforts of private industry and governmental agencies in implementing their own quality processes. The Network shares knowledge and experience in the application of total quality concepts. Eighteen organizations are currently participating in the program.
- the Harford Leadership Academy, a leadership development project cosponsored by the college, offers a seminar that focuses on developing and enhancing the skills necessary for effective leadership in the community.
- the Public Safety Training Institute, a coalition of Harford County public safety agencies, provides quality professional training at an affordable cost.
- the Susquehanna Human Resource Association is made up of representation from both the public and private sector. The goal is to promote human resource services to meet the needs of member organizations and their employees, through professional development, training, resource sharing and networking.

Howard Community College

Howard included a list of the agencies and businesses to whom it has been providing communications and management training. Customized training has been given within several departments of the Howard County Department of Social Services and includes such topics as:

- Jobs First a comprehensive six week training program for welfare recipients in the areas of basic skills, customer service, basic computer applications and transportation services
- Project Bridge parent education for those families interested in adoption of minority adolescents.

The Continuing Education Career Programs and Allied Health area have partnered with 40 different businesses and organizations and enrolled nearly 4,000 employees in cosponsored and contract courses.

Howard is the only independent Microsoft Authorized Academic Training Partner and Novell Educational Authorized Partner in Maryland. As a result of being recently named a Faculty Development Center, the College will be one of four community colleges in the country, and the only one on the East Coast, providing this training.

Montgomery College

In the information technology area, the college recently launched the Information Technology Institute (ITI) to prepare new workers and retrain existing workers to fill vacant positions in the county's high-technology market.

In the business area, the college teamed with the Montgomery County Business Expansion Team to produce an educational/training services publication for county business expansion clients. Continuing Education represented the College, with several other county agencies, in establishing the Business Resource Center. The Center provides information, counseling and training to county residents seeking assistance in starting their own businesses.

In the health industry area, credit and credit-free operations partnered with two health industries to host a symposium on bioinformatics. Continuing Education is developing an ongoing partnership with National Institutes of Health to provide a training and development program.

In the technical trades, the College has several partnerships with local businesses to provide contract training and apprenticeship programs.

During FY98, the College partnered with numerous local businesses, county agencies, and hospital and health care facilities to provide specialized educational and training programs for their employees.

In partnership with the Career Transition Center and the Workforce Development Corporation, the college provides a computer laboratory for training displaced workers. Two county agencies with the college became one of forty sites in the country to provide services for academic remediation, career exploration, and resume preparation for low-income housing residents.

Prince George's Community College

The College provided examples of partnerships to provide specialized training. Both the credit and non-credit divisions worked together with a health care organization to develop a series of training that leads to a letter of recognition in medical office management. Additionally, they developed and offered an optometric assistant program for a health care organization allowing employees to upgrade to that status.

During FY98, the PGCC Center for Business and Industry Training (CBIT) partnered with a number of local businesses to provide specialized educational and training programs. These programs covered a wide spectrum of classes/programs including management training, leadership and supervision courses, a review of legal changes in surveying, basic writing skills, and English for the workplace. In recognition of the need for diverse forms of communication, CBIT worked with local hospitals and health care providers to develop sign language and Spanish for the medical community programs.

Examples of specialized programs in place to assist displaced workers and welfare recipients include:

- a program to prepare students to obtain commercial drivers' licenses and be hired as long distance and local truck drivers.
- two programs that prepare students for positions in information technology, including applications software, computer repair and help desk skills. The college works closely with the Department of Social Services and the Workforce Services Corporation to identify programs leading quickly to employment.

Wor-Wic Community College

Customized training is offered and conducted for a wide variety of types and sizes of companies. In the past 15 months, 69 customized courses were conducted for approximately 30 accounting, health care, child care, utility, governmental, education and insurance companies. Training was developed and scheduled according to the

identified needs of the company. The content was tailored or, in some cases, created to address specific processes and/or issues.

Three examples of recent partnerships entered into by the college:

- participation in an Education Day conducted by an Eastern Shore manufacturing company. Employees were provided with information and counseling and were able to register for classes on-site.
- development of a catalogue of educational courses to be conducted through the
 college in cooperation with a local industry. Customized courses as well as other
 non-credit courses were selected by management as being important for training
 company employees.
- customized training for the City of Salisbury to assist the supervisors and managers implement a new performance appraisal system. As a result of this training, the city is developing an overall plan and time-line for implementing the new system and considering additional training for the remainder of its employees.

In the area of special programs, a program was created to retrain employees of a local electronics company leaving the area. By working with the company, the college was able to direct the displaced workers to appropriate credit and non-credit training activities. The college also works closely with the Lower Shore Private Industry Council to provide space in Community and Continuing Education courses for displaced workers and Welfare-to-Work customers. These people may register through their counselor or advisor and then use a voucher for required textbooks.

In terms of short-term ventures, the college offers a local child care conference where providers can learn through classes and through networking.

The Office of Community and Continuing Education meets regularly with business and professional representatives to discuss industry needs and receive input on the college's continuing education course content.

Public Four-Year Colleges and Universities

Bowie State University

Through its Institute for Diversity and Multicultural Affairs, the university has entered into a partnership with Montgomery County to assist in building and strengthening diversity in the county workforce.

The University also hosted a seminar that featured sessions and workshops on the theme, "Preparing America's Small Disadvantaged Businesses for Tomorrow's Marketing Challenges". The seminar, attended by 20 small minority businesses, offered information in strategic planning, financial, management, global business and marketing, human resource management and information technology.

Coppin State College

The college has had a program for the last nine years with the Mass Transit Administration (MTA) offering a Transit Management Certification Program. The program consists of various non-credit seminars.

Frostburg State University

The Community Resource Guide is a web-based search engine designed to help businesses and tri-county community members easily access the expertise of Frostburg faculty and staff. The areas of expertise include academic fields and research interests.

The MBA faculty, working with an international corporation, developed a customized managerial education program.

The student internship program was expanded to permit smaller entrepreneurial companies to host Frostburg students in areas of marketing, finance, management, and human resources. The program is assisting new and emerging entrepreneurial companies in Allegany, Garrett and Washington counties.

Salisbury State University

The Franklin P. Perdue School of Business seeks to provide the region and community with a strong economic development resource. The School acts as the "entrepreneurial"

arm" of the university by providing one-stop-shop access to its technology, know-how and other outreach assets. Business support is organized in four programs:

The mission of the Business Resource Center is to assist in the creation and retention of jobs and in the expansion of the business and economic base of the Eastern Shore.

The Project Management Group (PMG) offers a variety of business, economic enterprise and community development consulting services to a variety of clients, including private firms, government agencies, and non-profit and community organizations. PMG specifically works on applied research and analysis projects with an emphasis on market research.

The Applied Business Learning Experience Program works in partnership with local, regional and national organizations to develop internship opportunities for Salisbury students.

The Center for Economic Education, a cooperative effort of the Perdue School of Business and the Seidel School of Education and Professional Studies, works with the public schools on the Eastern Shore to develop curriculum and instruction in economics.

Towson University

Towson's report focused on the current activities of the Baltimore County Chamber of Commerce, the Economic Development Office of Baltimore County and the SBDC Network, which is administered by the university. The three entities are working together to build a small Business Resource Center to be occupied by the Chamber in late 1999. This will allow perspective or existing entrepreneurs to get assistance at one location.

University of Baltimore

The Merrick School of Business reported the following partnerships:

- certificate training for credit managers from the National Association of Credit managers, Mid-Atlantic region.
- international business training for Northrop Grumman executives, a joint effort with University of Maryland, College Park.
- in-house management development programs for Environmental Elements and Ward Machinery.

University of Maryland Baltimore County

The university serves nearly 200 employees through a technical training partnership with Computer Sciences Corporation, which is now in its fifth year. Courses are offered for both academic credit and non-credit each semester.

UMBC has also established a multi-level partnership which is evolving into the Northrop Grumman/UMBC Center for Software Engineering and Development (CSED). CSED activities include continuing education and training, promotion of interdisciplinary research, a clearinghouse for the dissemination of information on software engineering, and recruitment programs.

The Professional Learning Institute, English Language Center, and the Education Department continue to provide teachers for a training program on how to teach English as a second language. In addition to on-campus courses, teachers also observe classes at local public middle and high schools on a regular basis.

The report also listed over 40 current customized courses and short-term collaborative ventures.

University of Maryland, College Park

The university offers a series of courses dealing with corporate venturing and entrepreneuring:

Corporate Venturing - a short course created for corporations uncertain of the potential that corporate venturing could have on the future of their organizations.

Entrepreneuring within a Large Corporation - offered to corporate management to help create an environment and culture where corporate venturing can flourish. Additionally, the university offers these courses to the public through the Kauffman Foundation.

FastTrac Entrepreneurial Training - college level courses offered by entrepreneurs to assist them in growing their businesses more effectively and quickly.

University of Maryland Eastern Shore

UMES reported that it is not involved in any partnerships/programs designed to provide specialized education and training for employees of corporations, customized job programs for workers, or programs designed to help welfare recipients.

University of Maryland University College

UMUC has signed an initiative with the Oracle Corporation to provide training and educational programs using Oracle-certified curriculum. The university is collaborating with Montgomery College and Charles County Community College to offer these programs to employees of regional firms.

A special program has been developed leading to a master's degree in management for the U.S. Chamber of Commerce Institutes for Organization Management students. UMUC also is collaborating with the HTR Corporation of Rockville to offer information technology certifications through instruction both at the workplace and at the program's training facility.

Morgan State University

The university discussed several joint programs with businesses that serve the needs of students and those of the community and local industry. Of particular relevance to this report are the Improved Opportunities for Parents Program and the Small Business Development Institute.

Improved Opportunities for Parents Program - A cooperative effort between several city agencies and the university, this program helps AFDC recipients to obtain bachelor's degrees in various occupational fields. Students are provided with the opportunity to receive instruction and support services suited to their needs and interests. Successful completion enables to participants to receive a baccalaureate.

The Small Business Development Institute (SBDI) - The SBDI focuses on meeting the training and management needs of minorities in metropolitan Baltimore. It offers specialized training programs in beginning entrepreneurship for public housing residents. SBDI has initiated a revitalization project that is intended to promote self-sufficiency and economic empowerment for residents of the Clay Street community in Baltimore.

St. Mary's College of Maryland

The college and a dozen local high technology businesses have instituted a co-op program that provides students with scholarship assistance and summer jobs. In the last academic year, more than 200 students participated in paid or unpaid internships.

Independent Colleges and Universities

Baltimore Hebrew University

The University has multiple internships in place with non-profit agencies that provide students with practical skills as well as services to the community. Affiliations exist with such groups as the Jewish Family Services, the Jewish Community Center and Jewish Vocational Services.

Baltimore International College

All associate degree students are required to perform "externships" with businesses or institutions, most of which are in Maryland.

Capitol College

The continuing professional development offerings of the college cover a wide range. Contract training courses have been as short as one day or as long as 18 months. For example, an 18-month month program was offered to assist a newspaper launch its facsimile transmission system that allows copies to be sent to printing plants around the world.

These are examples of recent or pending activities of the college's professional development office:

- a six month program for 25-30 Department of Defense employees in electronics
- over 300 seminars for more than 4,000 employees covering subjects such as
 introduction to personal computers, technical management, technical presentations
 for subjects such as Java Programming, telecommunications, retraining of
 dislocated workers in personal computer applications, computer programming and
 network administration.

The activities listed by the college indicated many seminars/training courses in the information technology field as well as the personnel and management field. Capitol offers these courses either on site or at the institution.

College of Notre Dame of Maryland

The college's response did not include any activities that fell within the scope of the study.

Goucher College

The College offered a service learning capstone course last year. The students worked with businesses and community organizations of Harbel (a neighborhood in Baltimore) to develop a plan for rejuvenation of part of the area. Goucher has one of the oldest internship programs in the country.

Hood College

The College reported on several types of partnerships that they have with business and industry:

The General Electric Information Services Program offers two programs: graduate work in technology and business subjects and training in technology for future corporate leaders at GE. Hood offers 12 academic credits on site per academic year. The program is set up for employees to take technical training the first year, business-specific topics the second year, and courses counting toward the master of science degree in computer and information sciences the third year.

In an "educational alliance" with Fort Detrick, the college has access to research facilities on the base and is able to promote the college as a source of training for personnel and members of their families who wish to pursue degrees or certificates.

The Center of Community Research, based in the Department of Sociology and Social Work, supports community-based research on campus.

The John Hopkins University

The University listed six workforce training programs in which they are involved:

Maryland Applied Information Technology Initiative (MAITI) - the University has joined with UMCP to lead a coalition of universities, colleges, community colleges, industry and other educational institutions to strengthen Maryland as an information technology economic force and to educate large numbers of people at all educational levels to assure a workforce necessary for the IT revolution.

Safe and Smart Center - This is a community resource center intended to meet the need of unemployed or underemployed individuals using JHU students as volunteers to teach job skills. A university-sponsored community organizer works closely with local companies to assist them in their business problems and to help them increase their profitability.

Young Entrepreneurs Program - This is a partnership between JHU, the Washington based The Entrepreneurial Development Institute, and two Baltimore-based non-profit foundations. It has empowered disadvantaged youth to develop small businesses.

Job Training - the university hires local high school students each summer in a program funded by the Baltimore Department of Employment Development. These students are placed in temporary or entry level jobs where they can develop job skills, workplace readiness and work experience. The students also receive focused job training, coaching on workplace expectations, and specialized experience.

Hopkins-Dunbar Program - The JHU medical school and hospital, in partnership with Dunbar High School, has developed a program to prepare students for higher education and a career in the health care industry.

Johns Hopkins School of Continuing Studies - The school offers a Leadership Development for Minority Managers program that has provided advanced leadership training for more than 300 minority managers. It also offers an individual career counseling program for professionals who are interested in advancing or changing their career, which includes comprehensive career counseling, vocational assessment and job search training.

Loyola College of Maryland

A sampling of specialized educational and training programs already established in the Baltimore-Washington area include:

- leadership development programs
- a series of non-credit programs on leadership, organizational behavior and issues in health care
- non-credit courses on investments for professional sales persons
- year-long program to train and assist middle managers in construction and implementing business plans related to strategic initiatives
- series of seminars on topics relating to information technology.
- series of seminars on topics related to small and family-owned businesses

Current negotiations for new programs include:

- a custom designed in-house MBA program at Suburban Hospital
- discussion of a joint program with University of Maryland Hospital System to offer a program for medical doctors to earn an MBA during residency
- designing a "techo-MBA" program for LATTANZE member firms as a response to the shortage of IT professionals.

Maryland Institute College of Art

Maryland Institute's Continuing Studies Department offers customized software training for businesses in a variety of formats and topics, such as Graphic Design, Web Design Multimedia and Pre-Press software. Training is offered either at the business' site or at one of the Institute's classrooms. Training can be tailored to meet the business' needs.

The Institute offers specialized professional seminars designed to demonstrate the latest "hot" software topic in Web graphics, pre-press and other areas. These seminars give an overview of how new software works to help professionals determine how it might be incorporated into their work routine.

Clients for contract training for private business have ranged from newspapers and publication businesses to county school systems.

Within the Continuing Studies Department is the Center of Architecture and Interior Design. One of the roles of this center is to facilitate paid, non-credit internships for continuing studies students, often people seeking a second career.

Mount St. Mary's College and Seminary

The College has direct involvement in the Frederick Association for Creative Education and the Frederick County Chamber of Commerce's subcommittee designed to identify and develop curriculum to meet the needs of the local industry.

The Graduate Program of Business has created the Partnership of Advanced Technical Training (PATT) which is designed to serve local business needs for employee advanced technical training.

St. John's College

The college has a series of invitation-only programs with Maryland community and business leaders to provide a forum for serious intellectual conversation about issues raised by great classic books. Theme seminars are held with business and industry leaders on questions concerning leadership, justice, liberty and equality, education and the individual and society. These are intended to help provide business leaders with a deeper understanding of the roots and origins of the most perplexing questions facing society today.

Villa Julie College

The College's Center for Advanced Technology and Competitiveness provides certificate programs for information technology workers. It also works with businesses in the state to prepare skilled computer personnel.

Western Maryland College

The Survey Research Center at the College produces public opinion surveys for organizations throughout the state.

The TARGET program, with Western Maryland College as its educational partner, provides a quality, home-life environment for the mentally retarded in alternative living units. The residential and supervisory staff for the Target program earn their masters degree in human services/case management as college students.

Private Career Schools

TESST Technology Institute

The Institute has provided customized job training or educational programs for Maryland businesses in the areas of computer network training, Novell and Microsoft training, and software training. This training was provided to companies such as Allied Signal Corp., Bell Atlantic, Baltimore Gas and Electric, Future Health Corp. and Zurich Corp.

Advanced Technology Centers in Maryland

Maryland has been called "America in Miniature" because within its borders lie a very diverse mix of geography, industry, and culture. The Chesapeake Bay is renowned for its fisheries, shipping, and recreational opportunities. The low, flat peninsula between the Bay and the Atlantic Ocean, known as the Eastern Shore, has traditionally been agricultural, particularly for poultry production. West of the Bay, the City of Baltimore thrives as a port, and as a center for manufacturing, financial services, and medical science. The counties that comprise the suburbs of Washington, D.C. are home to many government workers and contractors, as well as high-tech companies of all kinds. Southern Maryland, between the lower Potomac River and the Bay, where tobacco farming once reigned, is now humming with activity as two major Navy facilities expand. And in the state's mountainous western panhandle, new technology applications in agriculture and manufacturing, and new approaches to tourism are replacing some of the more traditional farming and extractive industries.

Two years ago, Maryland Governor Parris Glendening saw how other states were putting Advanced Technology Centers to work, and developed his own approach. First, the state's community colleges were recognized as a major resource for delivering customized business training. Since the intent was to develop the workforce for Maryland's diverse economy, and since only a limited budget was available, the colleges were requested to submit competitive proposals for grants to establish ATCs. The proposals were required to show leadership and support from the private sector, as well as leveraged funding from sources other than state government. To help ensure a balanced approach, the grants are administered jointly by the Maryland Higher Education Commission and the state's Department of Business and Economic Development, with the cooperation of the Maryland Association of Community Colleges.

Requiring business leadership through an oversight board or similar structure is an important part of Maryland's strategy. Having direction come from the private sector helps assure that the services delivered by the colleges are responsive to actual employer needs. A good example of this kind of leadership is the Lower Shore Manufacturing Network (LSMN) which directs the efforts of the Lower Shore ATC. The LSMN developed most of the ATC's original proposal. The group, made up primarily of CEOs of smaller and mid-sized firms, meets monthly, and closely reviews the ATC's past and planned activities, including its budget. Having a high level of business participation and leadership has also contributed to gaining financial and in-kind support from private sources, and in marketing the ATCs' services to business clients.

As part of the initiative's overall strategy for economic development, the ATCs' efforts are targeted towards sectors identified as growth industries in Maryland,

including: aerospace and defense, agriculture and aquaculture, biotechnology, environmental technology, financial services, health care, information technology, minority business, technology driven manufacturing, telecommunications, tourism, and warehousing and distribution.

A Regional Approach

The first ATC grant awards were made in October, 1996 to four ATCs comprising ten colleges. The *Southern Maryland ATC* operates out of Charles County Community College, and serves three counties with focus on the information technology sector and on federal and private sector jobs related to the expansion of the nearby Patuxent Naval Air Warfare Station and the Navy Surface Warfare Station at Indian Head, MD. The *Upper Shore ATC*, at Chesapeake College in Wye Mills, MD, serves a five-county region with emphasis on manufacturing, tourism, automotive technology, and environmental science. The *Lower Shore ATC* at Wor-Wic Community College in Salisbury, MD serves three counties nestled between the Atlantic coast and the Bay, and focuses on technology-driven manufacturing. The most ambitious of the first round of awards is a joint effort among *seven* community colleges, the *Greater Baltimore ATC*. Collaboration among the colleges has been a key element in the success of the initiative. In the Greater Baltimore example, each college has assumed primary responsibility for a different targeted industry sector.

After a recent second round of funding, also based upon competitive proposals, all eighteen of Maryland's community colleges are now involved in ATC activity. Each of the original four ATCs received an award for second-year funds, and five new ATCs involving seven colleges received first-year funding. The newest Maryland ATCs include the ATC for Agriculture and Business Development at Carroll Community College; the Suburban Maryland ATC, which is a consortium among Montgomery College, and Frederick and Prince George's Community Colleges; the Potomac Manufacturing ATC, a partnership between Hagerstown Junior College and Frederick Community College; the Mid-Maryland ATC at Howard Community College, and the Allegany-Garrett ATC between Allegany College and Garrett Community College.

Each of the ATCs has developed a specific plan to serve the needs of employers in its own region. The Agriculture ATC at Carroll Community College is working to help small agriculture businesses apply information technology, including GIS and GPS systems to improve productivity, marketing, and environmental compliance. Each of the three colleges in the suburban Maryland counties around Washington, DC is respectively addressing local businesses' needs in biotechnology, information technology, and financial services. The Potomac Manufacturing ATC is successfully partnered with a machine tool distributor, and is working with the Army's Fort Detrick to share a distance learning laboratory. The Mid-Maryland ATC is providing much-

needed information technology training for high-tech companies in the Baltimore-Washington corridor. The Allegany-Garrett ATC is addressing emerging markets in Western Maryland for alternative meat production, aquaculture, tourism, and information technology training.

More Bang for the Buck

Although all of Maryland's eighteen community colleges receive some state funding, only one is primarily state-supported. The others are primarily responsible to their local jurisdictions, and in some cases, multiple jurisdictions within a region. The ATC initiative in Maryland is helping accelerate the sharing of resources and information among the continuing education staffs at the various colleges, and is helping to avoid unnecessary duplication of effort. The ATC directors and staff meet regularly as an affinity group within the Maryland Association of Community Colleges.

Governor Glendening's initiative recognizes that each of the colleges had already been extensively involved in providing customized, contract training services for employers. The intent of the ATC initiative is to provide seed money to help expand and build the capacity to deliver this kind of highly responsive training for retaining and growing high-skill, high-wage jobs within the state. Another requirement of the ATC grant awards is that fees and other revenues from the ATCs' services must be reinvested into the ATC effort to continue to build capacity.

Since Maryland's ATC initiative is an extension of the existing contract training efforts of the community colleges, none of the ATC budget has been invested in "bricks and mortar." Much of the grant funds have gone towards expanded and updated computer equipment and software. With the help of private sector donations, the Upper Shore ATC at Chesapeake College is equipping a training kitchen for tourism/hospitality training, an automotive service and repair laboratory, and a new CNC machine tool laboratory. Most of the ATCs are putting mobile laptop computer labs to good use for training at customers' sites. The Lower Shore ATC is placing up-to-date equipment in a new career center shared with a local high school. A new telecommunications lab has opened at Anne Arundel Community College to serve clients in the Greater Baltimore region.

State funding for any of the individual ATCs is not expected to extend beyond two years, after which the centers are expected to be self-sufficient from fees, donations, and general support from other sources. Leveraging of state funds is also a criteria for the state grants, and for the first two years of the initiative, a \$5 million state budget has been leveraged with nearly \$18 million from the private sector and local and federal government sources. Administrative costs have been about 6% of the state funding, and have included costs of marketing the ATCs services to the business community, software applications for tracking and reporting performance, and training and development for directors and staff at the ATCs. An additional \$2 million in state

seed money is in the Governor's budget for fiscal year 1999, and a proportionate amount of leveraged funding is expected from other sources.

In the first full 12 months of the initiative, the initial four ATCs served over 13,000 employees from over 200 employers. Many of the employers were repeat customers, indicating a high level of satisfaction with the training provided by the ATCs.

The emphasis in Maryland's ATCs is on highly responsive, *customized* training for businesses. The operating definition of customization includes:

- 1) Training that is newly developed, at the specific request of a business customer:
- 2) Training that is modified or adapted to meet a business customer's specific needs; or,
- 3) Training that is provided at the customer's site, or at specific times, as requested by the customer.

Governor Glendening's ATC initiative is an important link in Maryland's strategy for economic development. By maintaining focus on a performance-based, business driven effort to provide highly responsive training for the workplace, the state expects to be better able to attract, keep, and grow successful businesses and a skilled and competitive workforce.

Types of College/Business Joint Activities Reported by Maryland Postsecondary Institutions

	Partnerships	Customized Training	Special Programs	Short-Term Collaborative Ventures
Community Colleges				.,
Allegany College	X	×	X	×
Anne Arundel Community College	X			
Baltimore City Community College	×	X	X	X
Carroll Community College	X	X	X	X
Community College of Baltimore County	X		X	· · · · · · · · · · · · · · · · · · ·
Cecil Community College	X			X
Charles County Community College	X	Х		
Chesapeake College	х			
Frederick Community College	X			
Garrett Community College	х	X	X	Х
Hagerstown Junior College	х	X	X	X
Harford Community College			<u> </u>	Х
Howard Community College	X			
Montgomery College	Х	×	×	
Prince George's Community College	х	x	×	
Wor-Wic Community College	X	×	х	X
Public Four-Year Institutions				
Bowie State University	x			
Coppin State University	x			
Frostburg State University		х		
Salisbury State University			x	
Towson University	x			
University of Baltimore		х		
University of Maryland Baltimore County	X	X		Х
University of Maryland, College Park	x			
University of Maryland University College	x			
Marcon State University	x			
Morgan State University	^			
Independent Institutions				
Capitol College	х			
Goucher College	x			<u> </u>
Hood College	х			
Johns Hopkins University	x			
Loyola College of Maryland	x			

	Partnerships	Customized Training	Special Programs	Short-Term Collaborative Ventures
Maryland Institute College of Art		×		
Mount St. Mary's College and Seminary	X			
St. John's College			×	
Villa Julie College	x	,		
Western Maryland College	X			
Private Career Schools				
TESST		х		

Note: St. Mary's College of Maryland, Baltimore Hebrew University, and Baltimore International College reported only on internships. University of Maryland Eastern Shore reported that it had no activities in these areas. College of Notre Dame of Maryland reported only on partnerships with schools. No response was received from other postsecondary institutions.

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