

Educational Association of University Centers

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Dedicated to the Promotion of Higher Education's Support of Economic Development Through the EDA University Center Program

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The following is a collection of EDA University Center Proposals from:

- Cornell University
- University of Michigan
- Cleveland State University
- University of Southern Maine
- Penn State University
- Towson University

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Cornell University Proposal:

EDA University Center Proposal

Overview

Cornell's EDA University Center proposal is an innovative partnership between Cornell's Community and Rural Development Institute (CaRDI), which supports community and economic development programs for the Cornell Cooperative Extension (CCE) system, and the Cornell Center for Technology, Enterprise and Commercialization (CCTEC), which directs the University's technology-based venture creation. This partnership will link technical innovation and business creation with entrepreneurs and businesses in economically distressed areas of New York State to launch new companies, help existing companies to become more competitive and create new higher paying jobs. This proposal for a re-designation of Cornell as an EDA University Center has strong leadership support from faculty and staff at Cornell, as well as, the University's external partners from across the State.

It is now widely acknowledged that research universities are economic development engines, especially with their growing emphasis on technology transfer. Through proactive tech transfer and technology-based venture creation, research universities are leveraging their resources for job creation. This job creation coupled with the Land Grant University's cooperative extension infrastructure offers a powerful new approach to economic development in distressed communities. As the land-grant institution for New York State, Cornell has extension offices in all New York counties and in New York City. It is also one of the world's top research universities with a vibrant program in technology transfer, business creation and commercialization.

The winter 2004 Economic Development America newsletter focused on university-based partnerships in Economic Development. This issue described the areas for universities to focus on in terms of economic development. According to David Sampson, three of these areas include: building strong research partnerships with industries; promoting technology transfer; and creating entrepreneurial ecosystems. This EDA University Center proposes to do that and more.

Implementing the innovative linkage that harnesses the engine of Cornell research and channels it through CCTEC out to communities through a well-established network of CaRDI & CCE offices requires the plan and resources defined in this proposal. This plan, combined with Cornell's commitment to economic development and EDA resources, will drive implementation of this new approach. The proposed EDA-funded University Center at Cornell will directly link CCTEC's technology transfer resources and expertise to communities under economic stress using a set of methods administered by CaRDI and CCE to create new companies and enhance profitability of existing firms. If funded, this plan will create novel means of producing economic renewal and community capacity building, and will set the stage for increased economic development activity. Also, this innovative partnership will establish a new model for technology transfer that could be replicated at other land-grant institutions.

Section 1. Program Focus

Cornell's Commitment

Cornell is committed to being a leader in technology-led economic development. The proposed EDA Center will leverage Cornell's large research enterprise, the land-grant model of community outreach and development, and its vibrant intellectual/ technology transfer and commercialization operation to effect economic development in New York State. Cornell will focus its economic development objectives based on the concept of universities as a catalysts and accelerators for economic growth. Through a combination of research, outreach and application, technological innovation and venture creation, Cornell will catalyze community economic development. The desire to positively affect the economic vitality of local, regional and communities across the State is central to the University's mission.

Technical Assistance, Applied Research and Capacity Building

Cornell's proposed EDA University Center will provide a critical focal point of technical assistance and applied research aimed at building community entrepreneurial capacity and transplanting technology-based product innovations and creating new ventures. The programmatic breakdown of the Center will be approximately 75 percent technical assistance and 25 percent applied research with community capacity-building woven into both areas. Capacity building will utilize a framework that encourages investments in the following: natural, cultural, human, social, political, financial and built community capitals. Social scientists have developed the community capitals framework as an approach to analyze how communities function. Based on their research to uncover characteristics of entrepreneurial communities, they find the communities that are most successful in supporting healthy sustainable community and economic development are focused on all seven types of capital.

Cornell Partners

Cornell is committed to growing, training, attracting and retaining the best and brightest people to study, live and work in New York State. As New York's land-grant university, Cornell's mission is carried out at the main campus in Ithaca and throughout the state. Cornell has a rich history of community and economic development and the initiatives described in this proposal will be supported by a coordinated effort of CaRDI, which will leverage the Cornell Cooperation Extension system, and the Office of Economic Development (OED) within CCTEC. The proposed University Center will build on partnerships with key entities at Cornell that provide economic development services, including the Department of City and Regional Planning, Cornell Institute for Social and Economic Research, the College of Industrial and Labor Relations and the Geneva Agricultural Experiment Station. Through a concurrent effort to establish an economic development clearinghouse at Cornell, additional campus resources will be tapped for relevant expertise and resources. For example, the Cornell Center for Materials Research and the Center for Advanced Technology in Biotechnology have active outreach programs for New York companies. Further, the Center will collaborate with the Quality Communities State University of New York Network to make connections to SUNY resources and expertise as our Center supports economic development activities with communities around the state.

Leveraging Past Success and Current Innovation for Future Economic Development

Cornell's proposed Center builds on CaRDI's past two years as an EDA University Center providing a strong foundation to launch this collaborative initiative. The vital outreach platforms that are already in existence within CCE and technology transfer/venture creation at CCTEC will be merged to develop a powerful new model for economic growth. The current EDA Center is already positioned as a portal to Cornell University resources and as a conduit for economic development technical assistance and applied research. The new Center will formalize the resources available in a web-based clearinghouse and will conduct further outreach across the State. The proposal is in keeping with the following statement by the EDA:

The focus of economic development should be on supporting innovation, increasing prosperity for American businesses and ensuring American workers have the skills to remain the most productive workforce in the world. Innovation will drive the growth of American industry by fostering new ideas, technologies and processes that lead to better jobs and higher wages—and, as a result, a higher standard of living. America's capacity to innovate will serve as its most critical element in sustaining economic growth.

Additionally, the plans for this new EDA Center will draw on the Council on Competitiveness's perspective that innovation is the only sustainable source of regional prosperity, and that a connection between community and economic development must be realized.

EDA University Center Administration

Cornell University's EDA University Center highlights an enhanced collaboration between the Community and Rural Development Institute (CaRDI), Cornell Cooperative Extension (CCE), and the Office of Economic Development (OED) within Cornell Center for Technology, Enterprise and Commercialization (CCTEC).

Cornell Cooperative Extension (CCE)

CCE "puts knowledge to work" by providing timely, research-based information and expertise from Cornell University. CCE has a local presence in all of New York State's 57 counties as well as New York City. The CCE system includes Cornell specialists and researchers and 500 extension educators. Cornell Cooperative Extension Associations are vital partners in fulfilling the land-grant and extension missions of Cornell University. Associations' educational programs are supported by the research conducted by faculty on the Cornell campus as well as other land-grant universities throughout the country. By extending the work of faculty, Cornell Cooperative Extension Associations provide "portals" to Cornell University and serve as the only direct contact many New Yorkers will have with their land-grant institution. Central to the system's design is the idea of strong partnerships with local governments and that communities should be a part of decisions about educational programming. Local programs are tailored to local needs, while maintaining system-wide integrity and connection to Cornell.

Cornell's Community and Rural Development Institute (CaRDI)

CaRDI supports CCE Associations that meet local needs through community and economic development programming. CaRDI is a multidisciplinary center committed to building strong, vital and healthy communities through strengthening community economic development; facilitating community and government capacity building; and developing effective and collaborative land use management approaches and policies. Working in concert with others, CaRDI mobilizes and makes accessible Cornell University programs and resources to strengthen and support New York's communities and citizens. The approach is interdisciplinary, incorporating economic opportunity, environmental health, and community participation.

Cornell Center for Technology, Enterprise and Commercialization (CCTEC)

CCTEC was created in 2004 to serve the intellectual property (IP), technology transfer, licensing, company creation and economic development mission of Cornell University. CCTEC includes the Offices of Intellectual Property Management and Licensing in Ithaca and Weill Medical College in New York City, Cornell Research Foundation and the Office of Economic Development (OED). CCTEC fosters university-industry research collaborations, promotes innovation and inventiveness on campus and encourages entrepreneurship. CCTEC is solely responsible for commercializing the University's inventions and is a campus focal point for coordinating resources to increase research collaboration and foster economic

development. CCTEC has strategic intellectual property/tech transfer relationships with colleges, centers and departments that establish it as the nexus for a broad range of technology-based economic development activities. Over the past several years, university intellectual property management and technology transfer has intensified. The rise in small-business development in this country is due, in part, to university spin-off companies, particularly those based on high technology. CCTEC is the embodiment of this trend at Cornell. Over the past 5 years, CCTEC received 990 invention submissions from Cornell researchers, was awarded 912 U.S. patents, completed 373 license agreements, and launched 36 start-up companies. By coupling the power of intellectual property/tech transfer with the Office of Economic Development (OED) and integrating it into the overall process of technology commercialization, Cornell has embarked on an effort to foster even more local, regional and state-wide economic development. In addition to assisting the process of technology-led economic development, OED will provide a clearinghouse of all the economic development initiatives and activities at Cornell.

Section 2. Service Area, Needs of Service Area and Target Audience of the Proposed University Center

Service Area

Given Cornell University's land-grant mission and the Cornell Cooperative Extension system, the service area will include all counties within New York State and New York City with an emphasis on economically distressed communities and regions. To develop greater economic impact, the University Center will target initiatives for specific projects but will also be available to consult with other communities as needed. The EDA University Center will utilize data from the Cornell Institute for Social and Economic Research (CISER) to ensure that it is responding to communities in economic distress. A variety of measures will be used in making the determination for project funding including, but not limited to, factors of per capita income and unemployment rates. The Center will also work closely with CCE Associations as they undertake county-based scanning processes to identify the key social and economic issues in their communities. This information will get funneled back to the Center to help shape program responses, guide program resource allocation, and inform departments of emerging research needs.

New York is a diverse state--economically, geographically and socially. While some of the nation's wealthier communities and successful corporations are located within the state, there are also areas of poverty, unemployment and distress. In 2002, 26 of the state's 62 counties had per capita income that was less than 80 percent of the national level (U.S. Bureau of Economic Analysis, 2005). Unemployment rates that same year were more than 1 percent greater than the national rate in 20 counties (U.S. Bureau of Labor Statistics, 2005). Two counties, Bronx and Lewis, exemplify the geographic and demographic range of economic distress in New York State (U.S. Census Bureau, 2002). Bronx County is one of the five boroughs of New York City and a population in excess of 1.3 million persons, 29 percent of whom are foreign born, and a density of 31,709 persons per square mile. At the other extreme is Lewis County in the Tug Hill Region to the west of the Adirondacks with a population of less than 27,000 persons, 1 percent of whom are foreign born, and a density of 21 persons per square mile. The extremes of urban and rural poverty and economic distress are present in New York State. Cornell's ability to deliver economic development programs targeted at both extremes, as well as, deliver services to immigrant groups or remote rural residents engaged in extractive industries is unmatched by any other college or university in the State.*

Target Audiences

Local Elected Officials and Economic Developers: CCE Associations will work with elected officials, as well as business and community leaders, to develop means of linking CCTEC's technology-based entrepreneurial engine with local business creation and enhancement opportunities. In parallel, the CCTEC and CCE partnership will work with target communities to develop their capacity to foster technology-based

entrepreneurial ventures and encourage them to invest in all seven community capitals. Communities are ready for an infusion of this type of technical assistance as evidenced by proposal submissions last year to the Kellogg Foundation's call for Regional Entrepreneurial Development Systems, as well as, the recent rise in the number of technical assistance and applied research requests from communities, local governments and economic developers to Cornell.

Entrepreneurs and Established Companies: By partnering with the business community, Cornell builds on its tradition of bringing new technologies to market and launching new companies. Cornell has several programs focused on entrepreneurial activities, as well as, significant resources available to help existing companies including access to new technologies, equipment, lab space and SBIR funding assistance. The EDA University Center will tap into these resources for purposes of economic and community development in select communities throughout the state.

Section 3. Scope of Work and Anticipated Impacts and Benefits

Providing Technical Assistance & Applied Research

This proposal is the embodiment of Cornell's commitment to leadership in both community-oriented and technology-led economic development. This will be accomplished by leveraging Cornell's strong research base, building on its successful technology transfer and commercialization program and connecting them with the existing structures within the Community and Rural Development Institute (CaRDI) and Cornell Cooperative Extension. Using CCTEC and OED as the administrative hub and working closely with CaRDI, OED will provide an essential clearinghouse for economic development related resources at Cornell and direct the coordination and communication between targeted projects and programs.

Based on the proposed work plan, CCTEC's expertise in tech transfer and venture creation will be disseminated to economically distressed areas through the infrastructure of CCE. This is a cutting edge approach and a unique harnessing of the power of university technology transfer and venture creation with the network of county-based extension offices. It should be noted that not all CCTEC inventions are high tech; some are more easily implemented by those without high level technical education and will be an important part of the invention offerings of Cornell. Additionally, CCTEC has specific expertise in creating partnerships between local/regional industry, Cornell researchers, and communities, to bring new technologies to market and launch new companies.

The EDA University Center will facilitate:

- faculty and staff linkages across disciplines to support community based economic development;
- stronger campus-community connections by serving as an information conduit between university departments and communities;
- creation and mobilization for new partnerships;
- community and campus resource linkages;
- development efforts for technical assistance and access to resource providers;
- targeted pilot programs for community technology-led economic development projects;
- community capacity-building for strong entrepreneurial climates.

Cornell Technology-led Economic Development Initiatives:

Cornell strongly supports university and industry collaborations, technology transfer, business outreach and venture creation activities that advance productivity, innovation and entrepreneurship. As an EDA University Center, Cornell is committed to using technology innovations produced by university research to catalyze

the creation of higher-skill and higher-wage jobs. In the past three years, CCTEC has launched 29 start-up companies. With the EDA University Center in place, CCTEC will enhance this process to significantly increase the number of Cornell spawned companies over the next 3 to 5 years.

Program Outline:

CCTEC will utilize its existing system of technology-led venture creation and disseminate it through the CCE network through the following objectives:

- *Educate CCE staff to understand the process of technology-led venture creation and existing business enhancement as well as how to recognize opportunities*
 - Example: Technology-led Training Events – CCTEC Technology Transfer specialist will visit CCE offices and coordinate community and company training days to educate CCE educators and the community on how to use technology as an engine for new business creation and enhanced growth.
- *Recruiting entrepreneurs in distressed areas and matching them with technology-based business platforms created by CCTEC*
 - Example: Venture Creation – The venture creation process is initiated by CCTEC Technology Managers and based on a platform of Cornell intellectual property. Early business development is catalyzed by CCTEC's Technology Managers and supported by university and outside resources. Technology Managers identify venture opportunities based on Cornell's technology and develop a Venture Vision Summary for the technology/opportunity, including information about the business model, market characteristics, initial products, development strategy, and funding needs. Based on the Venture Vision, the Technology Managers then identify qualified mentors, investors and entrepreneurs interested in collaborating to develop the platform into a company. Additional resources include Cornell's Office of Economic Development, the Johnson School of Management, Centers and Facilities, Big Red Venture Fund as well as external service providers including accounting, legal, business development and real estate. These ventures vary from very complex high tech to lower technology endeavors.
- *Using the OED clearinghouse, establish connections between entrepreneurs/CCTEC platforms and resources on campus and within the region*
 - Example: Entrepreneur in Residence Program – Communities will embrace and assist select entrepreneurs as they launch new ventures. Additionally, CCTEC and other participating Cornell partners will provide technical assistance to the process of linking the technology, mentors, investors and entrepreneurs to develop companies through one-on-one assistance and within programs. This state-wide approach will draw on the Cornell Alumni Network to assist with mentoring and investment in new enterprises.
- *Creating fertile ground for entrepreneurs/CCTEC platforms to incubate in targeted communities*
 - Example: Pre-seed Workshops - Currently, there exists a "pre-seed" gap in the ability to take the raw inventions from universities to the point that they can become an actual start-up. This gap involves both funding and resources if the invention is to be a "start-up hope" or to begin the commercialization plan. Pre-seed workshops will offer an efficient way to give a large number of high-tech ideas a solid entrée into the pre-seed stage. In previous pilot workshops, a few promising ideas that have bloomed into start-ups are now receiving funding to develop a business and commercialization plan.
- *Recruiting small and medium sized companies that could profitably develop a Cornell invention*
 - Example: Technology Grafting – CCTEC technology managers and Cornell partners identify existing small and medium-sized companies that need to use or commercialize one of Cornell's technologies. The managers approach the company to build a relationship where Cornell technology is "grafted" into that company. The company will then commercialize the technology alongside its other product offerings to increase to

create viability for the company's future. CCTEC staff will work with staff from Centers involved in biotechnology, materials research and engineering to identify opportunities within companies.

Communication and Outreach

Cornell has a history of connecting and matching entrepreneurs and companies with technological inventions. Through the University Center, CCTEC will develop a suite of interactions including roundtables forums, signature events for companies, mentors, investors and entrepreneurs, as well as, launch an email communication outreach tool for keeping the participants linked, announcing events and new technologies. Additionally, a comprehensive web clearinghouse will be created to provide linkages to various university economic development resources.

Collaboration Model in Practice: City of Auburn

The City of Auburn in Cayuga County has emerged as a target project for the proposed Center. The project will begin with meetings between key participants in the community, including the City Director of Economic Development, Mayor, City Manager, key members of the County legislature, and the Director of the Cayuga County CCE. These participants will meet with CCTEC and CaRDI staff for an orientation and scoping meeting. They will identify resources dovetailing with a follow-up meeting in which a strategy and implementation plan will be developed. This plan will include:

- recruiting entrepreneurs in the community (Auburn assignment);
- finding existing businesses with potential for Technology Grafting (Auburn & OED assignment);
- establishing a set of enclaves for matching entrepreneurs with CCTEC platforms (CCTEC & Auburn assignment);
- creating protocol for follow-on information gathering by entrepreneurs and businesses (CCTEC and OED assignment);
- establishing a monitoring process to ensure Cornell and regional resources are made available through OED clearinghouse in a timely manner (OED assignment);
- tracking new enterprises launched, technology grafted into companies and new jobs created through this system (OED and Auburn assignment).

Supporting Clusters in "Learning Regions" with Applied Research

To aid with its technical assistance projects, Cornell will continue to support applied research on industry clusters and learning regions. This applied research centering on clusters will contribute to the overall economic development of communities in economic distress through an understanding of existing capacity and convergence for CCE and CCTEC technology and community economic development initiatives. Clusters of firms in innovative industries are a central component of regional economic development strategies. These flexibly-specialized networks of small and medium-size firms (SMEs) can respond to changing markets more effectively than "mass production" firms and are more likely to innovate. These firm networks achieve economies by taking advantage of geographic proximity to reduce transaction costs with buyers and suppliers. It is this need for proximity and interaction that creates the regional advantage.

The expanding knowledge of how and why innovative firm networks lead to broader economic development outcomes indicates that the regional context is critical to the innovative capacity of firm networks. Three contextual conditions are particularly important: 1) the presence of a skilled and semi-skilled labor force that is engaged in continuous learning and exposed to new technologies and process innovations; 2) an institutional infrastructure of research-oriented universities that actively engage SMEs in technology transfer and industrial development; 3) a policy environment at the state and regional level that directs economic

development resources to those firms and clusters which show potential for growing good jobs. These contextual capacities have been encompassed in what is referred to as a “learning region.”

This research will examine the workforce, policy, and institutional context within which industrial clusters are growing to determine how to enhance the development of new innovative industries. Research will build on an existing base of work with the firms and cluster organizations. The outcome will be a plan for strengthening institutional and policy capacity to support the innovative capacity and growth of new industries with significant potential to affect the growth of employment. With this specific research, Cornell will help identify community strengths to be built on for future economic development growth to generate new companies creating higher paying jobs for those communities.

Implementation of Projects

The selection of EDA University Center projects will be based on the following premise:

Research + Technology Transfer + Relationships + Resources = Regional Economic Development

This perspective includes the following elements:

- technical innovations arise from faculty and research staff;
- technology assessment and preparation into venture platforms by CCTEC;
- community collaboration building will be supported by CaRDI;
- outreach and coordination will be provided by OED;
- community and regional relationships development and local capacity building will be coordinated by CCE;
- resources will support community and regional investments in the capitals.

The University EDA Center will solicit Requests for Assistance, via CCE Associations, from economically distressed communities and regions. Data provided by CISER will help determine the target communities. The submissions will be reviewed by a group of stakeholders, associated with Cornell Cooperative Extension’s Community and Economic Vitality Council, and campus partners. Through this mechanism, it is the expectation that four projects in different communities/regions focusing on technology-led initiatives will be chosen for funding.

Additionally, the Center will support projects in the following areas:

- A regional agriculture economic development initiative in collaboration with the Geneva Agricultural Experiment Station and with Cornell Cooperative Extension of Ontario County that is based on research on agricultural industry clusters.
- A New York City based initiative focused on entrepreneurial development in economically distressed neighborhoods in partnership with the NYC Industrial and Labor Relations Office and NYC’s Cornell Cooperative Extension office.
- Projects focused on Main Street revitalization. A current research project is focusing on competitive strategies used by Main Street shopping districts in small and middle sized cities. This coming year the research will classify all such districts in terms of consumer demand, proximity of competing centers (malls, big boxes and other main streets), their level of sales and the strategies they employ. Support from the EDA Center will enable faculty led student teams to extend this research to two or three distressed communities in developing an appropriate competitive strategy.

Project Filters

As overall project filters, the Center will assist with creating a set of expectations regarding the type of project and how it serves the EDA University Center mission. Here are several example criteria that would be used in selecting projects:

- Is the project in an area of economic distress?
- What are the wealth creation and potential job impacts of the project?
- Are the project leaders receptive to technology-led initiatives?
- Is the proposed project a community-driven request for assistance?
- Is there strong interest and leadership from a CCE Association?
- Does the project fit with the focus of OED with emphasis on technology-led economic development?
- Will this project build on regional industry clusters research (specific to NYS)?
- Does the project focus on sustainable economic development?

Disseminating results of the University Center activities

Cornell's Office of Economic Development clearinghouse will disseminate results of the activities of the EDA University Center. OED will use meetings, web and email communications to keep participants and interested parties apprised of Center activities. Additionally, OED will host events focused on economic development both internally and externally to further the impact of its EDA University Center initiatives.

Impact and Benefits

The EDA University Center anticipates high impact and benefit from the technical and applied research assistance to be provided to communities and companies. Over a 3-5 year period, it could be estimated that the pilot programs involving CCTEC and CCE would add significantly to the wealth creation in the distressed areas, as well as, create new high paying jobs. Based on its selection process for projects, Cornell expects 100% of its University Center clients to initiate action and anticipates a high degree of those clients will achieve anticipated results. In 2004, 86 Cornell affiliated companies in New York State employed a total of 1,724 within the State. It could be estimated that in the next 3-5 years, Cornell will assist hundreds of companies per year to create or retain thousands of jobs within the State. CCTEC, with assistance from the University Center, could potentially launch 15-20 new start-up companies per year.

Section 4. Supporting Information

Capacity and Experience in Technical Assistance and Applied Research

As New York's land-grant institution, Cornell has a long history of technical outreach and applied research in economic and community development. Below are only a few select examples of the success Cornell has had in assisting communities and companies, as well as, launching successful economic development programs:

- With \$505 million (FY 2003) in research expenditures and with start-up companies translating the results of Cornell's research and technology into products and services, Cornell is achieving great successes in small business and economic development. In 2004, 86 companies, employing 1,724 NYS residents were either founded by Cornell faculty, staff, students or alumni; based on specific Cornell technologies; or whose proximity to Cornell's intellectual resources was crucial to their formation or relocation to or retention in the region.
- CCTEC has launched 36 start-up companies over the past five years. An example of one of the recent start-ups is Tetragenetics, Inc. CCTEC licensed a proprietary technology developed in the College of Veterinary Medicine and spawned a start-up company. Professor Theodore G. Clark, in the Department of Microbiology and Immunology, has investigated biotechnological applications of

Tetrahymena thermophila to over-express therapeutic proteins of value to human and animal health. Dr. Clark's invention of the "TetraExpress" system won him recognition as a finalist in the Cornell Business Idea Competition. With the help of a team of a CCTEC technology transfer specialists, Clark founded Tetragenetics. The company's first product ("IchVax") is a vaccine to treat a well-known fish disease.

- Cornell Center for Materials Research, College of Engineering and Center for Advanced Technology in Biotechnology have provided significant outreach and access for companies within the State interested in connecting with Cornell. Services provided by the Centers include access to Cornell researchers, equipment and lab space, as well as, SBIR assistance and funding. Additionally, the Centers and CCTEC recently sponsored a Pre-Seed workshop featuring three invention ideas from Cornell.
- Cornell's Big Red Legal Services, Incubator and Ventures provide services to emerging technology companies and established businesses. The programs are run by Cornell Johnson Graduate School of Management and Cornell Law School students who receive guidance and advisement by Cornell faculty. The Business Idea Pitch Practice for potential start-ups is a new program that the BR Ventures Group recently launched. The programs are supported by Cornell's University-wide Entrepreneurship & Personal Enterprise Program.
- Cornell supports two technology parks including the Cornell Business and Technology Park in Ithaca with more than 90 tenant companies, of which more than 62% are technology-based, and the new Cornell Agriculture & Food Technology Park located in Geneva, NY located near to the Cornell Agricultural Experiment Station.
- CaRDI's history includes numerous successful initiatives related to community economic renewal, main street revitalization, meeting the educational development needs of local government officials and land use planning. CaRDI supports multidisciplinary research and is adept at tailoring trainings and workshops for a host of community and economic development professionals. Their main street program includes community assistance teams, visioning, concept mapping, community economic renewal and marketing and promotion programs. CaRDI also developed a Community and Economic Development Toolbox with Penn State that provides accessible tools to local community leaders.
- Cornell Cooperative Extension's informal education programs touch more than 6,450,000 individuals each year. Its priorities include agriculture and food systems sustainability, children, youth and families; community and economic vitality; environment and natural resources and nutrition, health and safety. CCE has always been involved in technology transfer and their key involvement with the EDA University Center will build on that history while forging new territory to carry out their mission. The Cornell Cooperative Extension educational system enables people to improve their lives and communities through partnerships that put experience and research to work.
- The New York Creative Economy Project at Cornell explores the potential for creative economy initiatives in upstate New York and looks at how they can be translated into strategies for community and regional development, linking the arts and the creative process to a wider range of economic activities. In May 2005, Cornell will host a Campus-Community-Art Connections and the Creative Economy in Upstate New York conference in Ithaca.
- Extensive cluster research has been conducted by Cornell's City and Regional Planning Department. The regional industry cluster analysis is focused on Upstate New York cities and regions. The approach focuses on both innovation and job creation and on the linkages between the two. It is different from the typical industry clusters studies because it includes an analysis of the labor market and the regional economy as well as the industry. Several projects have been completed in this area and more are currently underway.
- Cornell's Apparel Industry Outreach is an educational program within the framework of Cornell Cooperative Extension. The program strives to facilitate technical assistance and applied research

projects between faculty in the Department of Textiles and Apparel at Cornell University in Ithaca and apparel firms. The mission is to advance the competitive position of New York State's apparel and sewn products industry by developing and delivering educational programs and facilitating access to industry education and cooperation.

- Cornell Institute for Social and Economic Research was commissioned by the Downtown Auburn Business Improvement District (BID) to develop a consumer demographics and market analysis. The purpose of the research was for the BID to better understand the marketplace in which it exists and ultimately enhance the economic viability and quality of life of the community. The Downtown Auburn BID's Consumer Market Analysis provided useful information about the existing market and future trends. With the information provided by the analysis, the BID developed a three-phase economic growth plan. The addition of successful businesses will further enhance the business climate by bringing more consumers to the area and strengthening the existing businesses in the area.

EDA University Center Coordination

Cornell will charge the Office of Economic Development with the responsibility to maximize coordination with relevant entities to accomplish EDA University Center goals and minimize duplication of services. Cornell will seek to uncover and collaborate with organizations throughout the proposed territory that might provide potentially complementary or duplicative services. Using a web-based clearinghouse, OED will provide information on Cornell's economic development resources including both technical assistance and applied research, as well as, list other entities providing economic development services. Additionally, Cornell will utilize internal university resources to support additional economic development efforts. OED will partner with CaRDI to provide in-reach and outreach to distressed clients for economic development technical assistance and applied research projects within the EDA University Center.

Evidence of Strong Support

As you can see from the enclosed letter of support from Cornell University's President, Jeffery Lehman, the EDA University Center has the full support and enthusiasm of Cornell's administration. In addition to the President, the following key Cornell leaders also support the EDA University Center: Carolyn Martin, Vice Provost; Robert Richardson, Vice Provost for Research; Charles R. Fay, Vice Provost for Research Administration; Francille Firebaugh, Vice Provost for Land Grant Affairs; Vanda B. McMurtry, Vice President of Government and Community Relations; Steve Hamilton, Associate Vice Provost for Outreach; Helene Dillard, Director, Cornell Cooperative Extension; Susan Henry, Dean of College of Agriculture and Life Sciences; Robert Swieringa, Dean, Johnson Graduate School; and Kent Fuchs, Dean of Engineering.

Further, the EDA University Center is supported by colleagues with whom the Center will collaborate on specific projects including Esta Bigler, Director, Industrial and Labor Relations Office, New York City; Don Tobias, Director, New York City Cornell Cooperative Extension; Thomas Burr, Associate Dean of Cornell's College of Agriculture and Life Sciences and Director of the New York State Agricultural Experiment Station (NYSAES) in Geneva.

The innovative model outlined in this proposal has been shared with the Cornell Cooperative Extension Executive Directors at their March 2005 meeting and received an overwhelmingly positive and excited response. Many executive directors and/or members of their staff have already been in contact with OED to begin to establish a relationship and outline plans for potential projects. In particular, innovative linkages for economic development assistance have already begun to take shape between Chemung County CCE and the City of Auburn and Cayuga County CCE offices with OED.

Cornell has strong support from external partners and communities, which are too numerous to list individually, who Cornell faculty and staff work with on a regular basis. They include state-wide agencies and organizations such as Empire State Development, Department of Agriculture and Markets, Department of State, State University of New York (SUNY), Association of Counties, Association of Towns, Conference of Mayors, Governors Office of Small Cities, NYS Economic Development Council. At the regional level they include the Regional Economic Development Planning Districts and at the county/community level include Chambers of Commerce, Industrial Development Agencies, Business Improvement Districts, Community-based Organizations and Economic Development Agencies. Additionally, Cornell receives strong support from local, state and federal elected officials throughout New York State.

EDA University Center Project Budget

<u>Description</u>	<u>EDA/ Federal 07/01/05-06/30/06</u>	<u>Cornell cost share per EDA guidelines</u>	<u>Project Total 7/1/05-6/30/06</u>	<u>EDA/ Federal 7/1/06-6/30/07</u>	<u>EDA/ Federal 1/1/07-6/30/08</u>
PERSONNEL COSTS					
<u>Salaries and Wages</u>	20,400	82,900	103,300	20,400	20,400
<u>Fringe @ 47.0%</u>	9,588	38,963	48,551	9,588	9,588
Total Salary and Fringe	29,988	121,863	151,851	29,988	29,988
<u>Equipment, data, software</u>	\$ 2,500	\$ -	\$ 2,500	1,875	2,500
<u>Travel</u>	\$ 5,000		\$ 5,000	5,000	5,000
Other Direct Costs					
Communications/Publications	\$ 3,000	\$ -	\$ 3,000	850	3,000
Technology led projects CCE and OED	\$ 67,000		\$ 67,000	50,250	67,000
Student assistance for projects	\$ 14,375		\$ 14,375	10,781	14,375
Total Other Direct Cost	84,375	-	84,375	61,881	84,375
Subtotal of Direct Costs	\$ 121,863	\$ 121,863	\$ 243,726	98,744	121,863
Indirect Cost 25%	\$ 30,466	\$ 30,466	\$ 60,932	24,686	30,466
Total	\$ 152,329	\$ 152,329	\$ 304,658	123,430	152,329

Budget Narrative

The budget revolves around the four projects that will be identified through a Request for Assistance process; the three projects that will focus on agricultural economic development (region around the Geneva Agricultural Experiment Station), entrepreneurial development (New York City), and main street development in an upstate mid-size city; and responding to general requests for technology-led economic development. The funding will be used to implement the multi-faceted scope of work outlined above in Section 3. Matching sources of funding relate primarily to the key roles provided by faculty and staff. The budget includes monies to incorporate students into the projects, for case study development, evaluation, and research. What is not captured in the matching resources are the contributions of the Cornell Cooperative Extension Association Executive Directors that will be directly involved in managing initiatives in their counties as well as a variety of matching contributions related to supporting the projects. The EDA investment will leverage a high level of Cornell resources and expertise. In year two we would ask for 20% less EDA funding due to the fact that we will take on a smaller number of new initiatives to ensure the appropriate level of follow-up for the projects initiated in year one. Year three's amount of request would be at the same level as year one as we would initiate numerous new projects.

* Sources:

U.S. Bureau of Economic Analysis; Table CA1-3; Regional Economic Information System. 2005.

U.S. Bureau of Labor Statistics; Local Area Unemployment Statistics Information and Analysis; January 2005.

PURPOSE OF PROJECT

The University of Michigan:

The mission of the proposed EDA University Center Program at the University of Michigan Business and Industrial Assistance Division (BIAD), is to utilize the resources, expertise, knowledge and experience of the institution to foster economic development in distressed areas of the State of Michigan resulting in new high-skill, high-wage job creation, the retention of existing jobs and the generation of wealth in local and regional economies. To that end, the focus of the program includes the provision of direct technical assistance to private sector enterprise as well as to local and regional economic development organizations, and the conduct of applied research in support of economic development programs and projects.

The technical assistance focus will involve faculty, researchers, students and staff from a number of disciplines and departments within the university including the Business School, the College of Architecture and Urban Planning, the School of Public Policy, the College of Engineering, the Department of Economics, the School of Natural Resources and Environment, and others as necessary and appropriate. Technical assistance takes many forms but generally involves addressing a specific problem or opportunity faced by a private sector company or a public sector organization, local unit of government or a non-profit organization. Technical assistance projects are conducted with the intent to preserve existing jobs and to create new employment in high-skill, high-wage positions. The abundance and range of technology, research, intellectual property and technical expertise held within the university are extremely valuable assets that translate into opportunities for private sector enterprise to improve current production and for new business venture opportunities that generate labor force demand. The technical assistance scope of work for the current University of Michigan University EDA Center Program over the past 3-year funding cycle had resulted in the creation of hundreds of jobs and the investment of tens of millions of dollars of private sector and public investment in economic development projects.

The applied research focus of the Center also utilizes resources and expertise from a range of disciplines throughout the university. The majority of the applied research undertaken by the Center will focus on research activities that serve to perform the due diligence necessary to leverage major investments in economic development projects and programs. Market and feasibility analyses for implementation projects such as business incubators, technology parks, job and skills training facilities, and new venture creation typically lead to significant investments that create new jobs, generate wealth in local and regional economies and strengthen existing enterprises and employers. During the current 3-year funding cycle of the University of Michigan EDA University Center Program activity has resulted in implementation projects that have generated new job creation as well as private and public sector investments in economic development projects.

The percentage of effort for the technical assistance scope of work is planned at a level of 80% and the applied research effort is planned at 20%.

ECONOMIC DEVELOPMENT NEED AND ECONOMIC DISTRESS OF AREA

Geographic Service Area

The service area for the proposed University of Michigan Center is the entire State of Michigan including the Upper Peninsula. The current University of Michigan EDA University Center Program has successfully operated for the past 26 years and has delivered assistance to distressed communities and regions throughout the state and has generated thousands of new jobs and hundreds of millions of dollars in private and public sector investments. Strong longstanding relationships with economic and community development organizations, local and regional units of government, and state and federal legislators ensure that requests for assistance receive immediate attention with an effective response.

Economic Development Needs, Issues, Opportunities of Area

The State of Michigan currently has the highest unemployment rate in the U.S. (as of April 1 the national unemployment rate was 5.4%, the State of Michigan was 7.5%) and has lost more than 50,000 manufacturing jobs in the past year. The job growth forecast for the State of Michigan has also been reduced by 50% because of the recent severe decline in the automotive sector affecting manufacturers and the entire supply chain. The state is currently ranked last in the U.S. in terms of economic growth. Throughout the state there are regions of severe economic distress. Notable is the Upper Peninsula, the tri city area of Saginaw, Bay City, and Midland, the Flint/Genesee County region, the City of Detroit, the Thumb region of the Lower Peninsula, and many rural areas of the state. A significant number of the State's communities have experienced plant closures, loss of population, low income levels, lack of employment opportunities, and high unemployment rates. Additional problems in local economies include high rates of business failures, reduced tax bases, and large concentrations of low income families. The traditional manufacturing base of the State's economy continues to erode and the automotive sector is undergoing severe constriction especially in the supplier chain.

An important issue is the challenge of replacing the low skill, high wage manufacturing jobs in 'old economy' companies that are failing, with high skill, high wage jobs in companies that participate in the 'new economy' characterized by technology based products and services and more complex value added production that cannot be accomplished in countries with *low wage* labor rates but *low skill* labor forces. The private sector business environment is driven by three forces: business attraction (luring companies from neighboring counties, regions or states), business retention (keeping existing firms stable or helping them to grow and add jobs), and

business creation (stimulating the formation of new ventures that create new jobs and generate wealth).

Business attraction is increasingly difficult given fierce competition and the high business taxes levied by the state of Michigan and the fact that shifting locations from another part of the state or another state does not necessarily result in added value or competitive advantage. *Business retention* however, is important and the ability of the university to assist firms to become more competitive by adapting new technologies and advanced processes will play an important role in the proposed scope of work of the Center. *New business* creation is an extremely effective economic development strategy that creates new jobs. The university's wealth of commercializable technologies and track record of successful experience in spinning off new ventures based on university intellectual property is an important aspect of the proposed activities of the Center.

The University Center Program at the University of Michigan has a long and successful history of working to create new private sector for-profit companies by directly working with entrepreneurs and individuals starting new ventures, as well as by helping to launch and support dozens of small business incubators throughout the state. Examples of incubators that have been established with the assistance of the University of Michigan EDA University Center include the Harrisville Arts Incubator, The Mexicantown Mercado Incubator, the Ann Arbor Innovation Center and 'kitchen' incubators in Huron and Oceana counties. The Michigan Business Incubation Association is currently hosted by the University Center Program. The University Center also serves as a 'gateway' into the University of Michigan for established and new companies that wish to access the technology commercialization and intellectual property offices to assess technologies, inventions, and disclosures that may be suitable as a basis for new business formation, growth and that will create high-wage, high-skill jobs. The activities of the current University of Michigan EDA University Center Program have helped dozens of new firms to be launched resulting in significant job creation and generation of wealth in local economies.

Opportunities for economic development in the distressed regions and municipalities throughout the state fall primarily within the business retention and business creation realms of economic development. To that end the resources of the University including the thousands of laboratories, hundreds of millions of dollars of research, the compendium of intellectual property resident in the University and the knowledge and expertise of faculty, students, and researchers is an extremely valuable asset that the proposed Center will rigorously and effectively leverage to benefit private sector, wealth-generating enterprise in the state. An example of technical assistance provided to firms is the assistance provided to the REcellular Company, the largest re-manufacturer of cellular phones. The University of Michigan University Center provided a faculty member from Industrial and Operations Engineering who helped improve production efficiency and a Ph.D. engineering student subsequently spent several months providing additional production assistance.

Target Audience, Economically Distressed Areas

The target audience for the proposed scope of work of the Center is twofold, consisting of private sector, for profit companies, and public sector and non profit organizations. The private sector target consists of new and existing companies in areas experiencing economic distress that require assistance to maintain stability in revenue and employment or that have opportunities for growth and to increase employment levels. The public sector and non profit target consists of local units of government, economic development organizations, community development organizations that contribute to economic development goals, and non profit organizations that foster or support economic development. EDA- supported planning regions will be communicated with on a regular schedule to obtain referrals to companies and organizations that may benefit from technical assistance or applied research provided by the University of Michigan Center.

Economically distressed areas, both urban and rural will also be targeted by the Center program. As previously noted the Upper Peninsula region of Michigan is chronically distressed with unemployment levels constantly above the state average and the national average. Rural regions of the state including the northeast quadrant of the Lower Peninsula, the Thumb Region, and rural areas in the Center of the state are experiencing economic distress. The Cities of Saginaw, Flint, Detroit, Benton Harbor, Jackson and Muskegon are urban areas of distress. The University Center program has a history of assistance projects in all of these locations which is planned to continue under the scope of the proposed Center.

In addition to the communication with the EDA planning regions, regular communication will be maintained with the district and Washington DC offices of the Michigan delegation of Members of the U.S. Congress and of our U.S. Senators. This will enable the legislative offices to refer companies or organizations that have needs that assistance from the University of Michigan Center may meet. In addition, regular visits and communication is and will be maintained with Federal State agencies that provide funding support for economic development. These agencies include USDA, USHUD (CDBG), USDOL, USDOEd, USDOE, EPA, and USDOC/EDA. Likewise, close contact will be maintained with the legislative offices of State of Michigan legislators in both the state House and Senate to accept assistance referrals from those offices. Regular communication and site visits will be made to economic development organizations in the major cities where economic distress is being experienced to receive assistance requests and discuss areas in which the Center can be of help.

SCOPE OF WORK AND ACTIVITIES

Scope of Work

The scope of work of the proposed Center consists of the three areas of technical assistance, applied research, and dissemination of results, which are described in the following sections.

Technical Assistance

The technical assistance scope of work for the proposed Center will consist of activities that foster economic development by creating new jobs, retaining existing jobs and creating new wealth in local and regional economics. Specific forms of technical assistance will be delivered in accordance with requests from local organizations including local units of government, non-profit economic development organizations, private sector firms and other entities as appropriate. Types of assistance that will be delivered will include the due diligence activities that must be performed before significant investments are committed to economic development projects. These due diligence activities include market and feasibility analyses and the development of business and operating plans for the implementation of specific projects requiring investment.

The market and feasibility analyses address the questions of ‘Is there sufficient demand in the market for the product, service or activity that is being proposed?’, and ‘Given the demand of the market is it feasible to satisfy the demand given reasonably available resources, expertise and experience?’ If there is sufficient demand and it is feasible to meet the demand the next requirement is the development of a business plan that brings the project or program to the beginning of operations and an operating plan that details how the activity will continue into the future without, or with a minimum, of subsidy with the goal of achieving self sufficiency.

An example of this type of technical assistance is a study to determine if a business incubator is an effective economic development tool for a local region. The analysis would address the questions ‘Are there sufficient entrepreneurs, home based businesses, spin off ventures from existing firms, and members of the community who wish to start new ventures to warrant investment in an incubator?’ Then, ‘Given the needs of the market is it feasible to meet the need?’ (i.e.: a biotech incubator with requirements for wet-labs and clean rooms for each tenant each costing nearly \$1million each for each company may be far beyond the fiscal capacity of the local region). If the market and feasibility issues are addressed satisfactorily a *business plan* to acquire an existing facility and revitalize it or if necessary to construct a new facility, to equip it and to establish a staffing, managing, governance and ownership structure and an *operating plan* to take the incubator into the future would be developed and provided.

Technical assistance that is provided to *private sector firms* takes a more specific form. Disciplines from the university such as Chemical Engineering, Materials Engineering, Automotive Engineering, Finance, Economics, and other units of the university have expertise, knowledge, equipment, laboratories, and faculty and student research that can be brought to bear on challenges and opportunities for companies throughout the state. Specific requests for assistance that are received by the university are referred to the University

Center Program which through its extensive network of contacts and relationships throughout the university enables facilitation to connect university resources with the needs of the company. A portion of the budget is dedicated to providing an initial consulting activity between the university expert and the company which may then lead to a longer term engagement if and when necessary.

Applied Research

The applied research that will be conducted by the University of Michigan Center will focus on the production of data, information and knowledge that will help to foster economic development, economic growth, new job creation and existing job retention and wealth creation in local and regional economies. In addition to applied research conducted directly by the Center, research that is conducted and produced by other units and departments in the university will be disseminated to public sector organizations and private sector firms that will benefit from the knowledge. An example of research that will be developed by the University Center program is an inventory and analysis of value added processing and production in different economic sectors. The Center is currently conducting research in the food system industry sector of the State of Michigan economy to identify opportunities for new ventures to be launched that will create new jobs associated with the value added processing of food products. The agriculture industry is the second largest economic sector of the state economy, however it is estimated that less than 5% of agriculture production in the state undergoes value added processing and consumption in the state. There is tremendous opportunity to correlate local supply and local demand by establishing ventures that will perform value added production within the state instead of exporting commodity products out of state to value added processors and then importing them back to the state for consumption as consumer products thereby forfeiting the value added function and the jobs, revenue, profits and attendant economic benefits to the state.

A similar research project is proposed for other sectors of the economy including technology-based ventures, advanced manufacturing, and the commercialization of university based intellectual property and technologies. In addition the University Center Program is in constant communication with organizations and information sources throughout the state in order to identify growth sector trends and to identify opportunities for local communities to benefit from economic growth opportunities. A current example is the plan by Toyota Motor Corporation to build an engineering research and development campus in the Southeast Michigan region that will employ 2000 engineers. Each engineering position generates 1.5 additional support personnel positions and there are tremendous opportunities for clustering of support service firms and supply chain ventures in the region. To that end the University Center is working with regional and county organizations to develop technology and commercial parks to accommodate the anticipated opportunities to attract and

create ventures associated with the engineering complex as well as to provide assistance for the research and engineering center.

A similar example is the cluster analysis effort of the University Center program of the automotive emissions research and testing industry in the Southeast Michigan region. The Environmental Protection Agency national headquarters for the testing of automotive engines and power sources is located in Washtenaw County, and all national and global automotive manufacturers that sell product in the United States have research and testing facilities located in close proximity to the EPA laboratories because they are required to provide vehicles for exhaustive exhaust emissions testing by EPA before they can enter their products in the market. As a result there are dozens of growing automotive manufacturing firms with facilities employing thousands of persons with extensive first and second tier supplier and support firms also with thousands of employees in the region. This industry sector, that is not well known outside of the industry, is a strong source of opportunity for the future in terms of new job creation, economic growth and successful competition by the region in the global economy.

An example of university based research conducted in other departments is the bi-annual Research Seminar in Quantitative Economics (RSQE) that is conducted and reported twice a year to the University of Michigan Community. The report details sectors where economic growth is forecast and where new jobs will be created. The report addresses national level and state level economic sectors and provides valuable knowledge for communities, economic development organizations, and companies as they develop strategies and tactics to advance private sector job creation and expansion of production. The University Center program attends the presentation sessions and distributes the research material to economic development organizations, local units of government, private-sector firms and to non-profit organizations involved with labor force development and training throughout the state.

Disseminating Results

The dissemination of results of projects, programs, and research by the proposed University Center Program is a small but vital component of the scope of work. There are three components of the dissemination process for the University Center Program and the project, program and research results, information, and knowledge that are generated. The first component is the regular distribution of reports, studies, research findings and project and program activities of the Center. This activity includes transmission of documents via an email list, a mailing list, and special outreach activities that includes EDA planning regions, local and regional economic development organizations, local units of government, and private sector companies. The process also includes communication on a regular basis with the Michigan U.S. Congressional Delegation including all members of the U.S. House as well as our U.S. Senators, Carl Levin, and Debbie Stabenow. The website for the EDA

University Center and for the University are also important for providing access to resources and expertise.

Likewise, regular communication with State of Michigan legislators in both the Michigan House and Senate is maintained. The communication involves providing information about project, program and research activities in the respective districts as well as a discussion of potential challenges or opportunities that could be addressed through the University Center Program. An additional aspect of this proposed component is communication with the print and broadcast media. This takes the form of providing media outlets with summary versions of project, program and research results and products as well as responding to requests for interviews. Press releases are also generated and distributed at milestone points of projects, programs, and research studies, and invitations to attend meetings in communities and on campus where presentations are made regarding scope of work activities are also extended.

A second component of dissemination for the proposed Center involves the presentation of reports, papers and studies at professional conferences and seminars to audiences of economic development, community development, and professional organizations throughout the state as well as to national and international conferences. Reports and studies are also produced as published papers in professional and peer reviewed journals and publications, as well as being published in book form through professional publication organizations. In addition classes are taught to graduate and undergraduate students addressing the theory and practice of economic development. Graduate and undergraduate students are constantly engaged in research and economic development projects during the year (45 students this current school year were working on a for-credit basis, as work-study students, or as temporary employees of the University as research assistants or graduate student managers).

A third component of dissemination is an active presentation and meeting schedule for the proposed Center. By speaking at rotary club meetings, chamber of commerce meetings, attending Michigan Association of Regions meetings on an annual basis, as well as meetings and presentations to other economic development and civic service groups will enable the proposed Center to keep local communities informed of current activities and to receive requests for assistance in the future.

Impacts and Benefits

The impacts and benefits from the scope of work of the proposed Center are derived from the technical assistance, applied research, and information dissemination activities that serve to foster economic development in economically distressed areas of the State by creating new jobs, retaining and strengthening existing jobs and creating wealth in local and regional economies.

An important element of the mission of the proposed University Center is to bring the knowledge, expertise, resources, experience and human capital to bear on the challenges and opportunities faced by clients and communities in distressed areas of the state. The proposed scope of work for the Center very specifically accomplishes this in a highly structured and effective manner. The *direct* impacts and benefits will reside at the local level in the form of higher skill, higher wage jobs, a strengthened local economy. The *indirect* benefits are the jobs that are created and revenue that is re-circulated locally as a result of the *direct* impacts of the activities of the proposed Center.

Private Sector Jobs/Funds

The private sector job creation outcome of the scope of work for the first year grant period of the scope of work is anticipate to total between 1,000 and 1,500 jobs in the high-skill, high-wage sector of the labor force within the State of Michigan. The anticipated private sector investment is estimated at \$50 to \$75 million.

Percentage Initiating Action

The primary purpose of the scope of work undertaken by the University of Michigan University Center Program with a focus on distressed areas is to generate implementation projects by clients that will be undertaken by in local communities by economic development organizations, local units of government, non profit and community based organizations and private sector firms. The work of the Center is to perform the due diligence and business and operating planning function that engages the local community in the project as early stage stakeholders with a strong ownership share in the work process and with a smooth transition to the implementation phase that is accomplished within the community. As an example, the University Center is currently conducting market and feasibility analyses and developing business and operating plans for 8 business incubator programs in different distressed parts of the State of Michigan. The work product resulting from the Center scope of work will serve as the basis for funding proposals by the local communities to acquire and adapt facilities to accommodate and nurture new ventures that will create new jobs and generate wealth in the local economy.

Based on past performance and reasonable expectations given the anticipated project portfolio and scope of work for the proposed grant period the percentage of University Center Clients and Partners that initiate action will remain at 90% or more.

Percentage Achieving Anticipated Results

A key element of the University Center Program work scope is that the project does not end with the deliverable. The ultimate objective of the economic development activities of the Center is the implementation phase where the economic benefits are realized in the form of new job creation and wealth generation in the private sector. In that regard the Center maintains close and

constant contact with the project during the period when revenue is obtained for the implementation phase (performed as described in the business plan portion of the scope of work of the Center project, Section 3, a, ii.) as well as in the early and ongoing stages of operation of the initiative (in accordance with the operating plan developed as part of the Center's scope of work). This results in a continuing role of technical assistance and support by the University of Michigan to ensure that planned and anticipated results are achieved at an extremely high level of frequency. The anticipated percentage achieving results, based on past performance is at 90% or more.

EXHIBIT III.2

INSTITUTIONAL CAPACITY, EXPERIENCE, AND COMMITMENT

The University of Michigan is the largest public research institution in the United States and has 28 graduate degree programs many of which are ranked in the top five nationally. The Wall Street Journal ranked the Business School as #1 in the country, in 2005. The University of Michigan EDA University Center for Economic Diversification has operated for 26 years and has a proven successful track record of economic development projects that have helped local communities strengthen their local economies by helping companies retain existing jobs, to create new jobs, and by facilitating the establishment of new ventures creating new jobs in new companies. Because of the multidisciplinary nature of the University Center program strong and longstanding relationships exist between the Center and units and departments throughout the university.

The proposed University Center under the scope of work will continue to draw on the resources and expertise of schools such as Engineering, Architecture and Urban Planning, Natural Resources and Environment, the Institute of Labor and Industrial Relations, the School of Public Policy, the School of Information and other resources such as laboratories, the library system (the 7th largest library in the U.S.) and offices such as the technology commercialization office, and the intellectual property department.

The University Center also collaborates with the Trade Adjustment Assistance Center for manufacturers which is co-located in the Business and Industrial Assistance Division of the University with the University Center program. The capacity of the TAA Program staff to provide assistance to manufacturing firms extends beyond the TAA Program, enabling manufacturing companies not eligible for TAA assistance to be referred to the University Center Program that can then assist firms.

In addition also located in the division is the Domestic Corps program that places graduate students in economic development and non profit development organizations in Michigan locations where there is economic distress for 12 to 14 week summer placements to accomplish specific economic development projects with defined deliverables and outcomes. The University Center program is active in identifying needs in local communities for economic development projects that are referred to the Domestic Corps and result in delivery of assistance to local communities.

The University Center program proposed scope of work is based on a multidisciplinary approach to economic development challenges and opportunities in distressed areas of the State of Michigan. The Center will draw on faculty, staff,

graduate and undergraduate students and on the resources such as laboratories, research, and expertise from throughout the university.

An additional, extremely valuable University asset is the technology commercialization office and staff that maintains a catalog of university based technologies, patents, disclosures, and areas of research with the potential to form the foundation for new venture creation and opportunities for existing firms to launch new products or services. The proposed Center will take an active role to introduce Michigan entrepreneurs and existing companies with the contents of the catalog and will facilitate communication and negotiation between interested firms and individuals and the technology commercialization office. As evidence of the high potential benefit to the Michigan economy in terms of new ventures and job creation is the recent performance of University of Michigan commercialization. In Fiscal Year 2004 the University recorded 285 new invention disclosures, 13 new business startups based on University technology were launched and the University entered into 73 new license agreements containing 129 invention files. Over the past five years 47 new startups have been launched from University technology and more than 60% of the companies are headquartered in Michigan. It is anticipated that the pace and volume of commercialization activity will increase in the coming year(s) because of a strong commitment of the President of the University to economic development initiatives by the University in collaboration with economic development organization and private sector firms.

In addition the Director of the proposed University Center is the President of the Michigan Business Incubation Association and is in regular contact with the entrepreneur community in the state as well as being active in helping communities establish and sustain incubation programs as an effective economic development tool that creates jobs and generates wealth in local economies.

Another important aspect of the capabilities of the institution is a well regarded, strong government relations effort that includes a University of Michigan office on Capitol Hill in Washington DC, as well as one in the State Capitol in Lansing. This enables representatives of the university to be in close contact with the legislative process by attending committee hearings, visiting legislative offices and meeting with Members of the House and Members of the Senate regarding issues of importance to the University including economic development legislation and programs. The current University Center director plays an active role in communicating with legislators in local district offices as well as in Washington DC as does the Director of the Business and Industrial Assistance Division, and the Director of the TAA Program. This activity will continue under the scope of work of the proposed Center - *always* with regard to the prohibition *against* using federal funds for lobbying activities.

Organizations in Service Area Providing Services

There are many organizations in the proposed *statewide* service area, providing various forms of economic development, business and technical assistance and other

forms of support for local initiatives. The proposed Center will continue to monitor the services provided to ensure that the University based resources serve to complement and enhance the existing service providers. The University of Michigan with its wealth of world-class resources and expertise serves as a unique and valuable resource that can be enlisted by local, regional and state initiatives to strengthen their ability to fulfill their respective missions.

Coordination to Minimize Service Duplication

By constantly communicating with organizations and programs to fully understand their scope of work, range of activities, service areas and active projects the proposed Center will ensure that service duplication and redundancy between service providers is minimized and in the case of the University does not occur. Programs such as the statewide network of SBA Small Business Development Centers, the State of Michigan Economic Development Corporation, the U.S. Department of Agriculture, U.S. Department of Housing and Urban Development and the activities of other higher educational institutions are well understood and special care is taken to communicate with them to inform other programs of the scope of work undertaken by the Center, and to understand their respective priorities and program activities.

Accessing and Coordination -Key Institutional Resources

The proposed Center will continue a long history of interdisciplinary collaboration and cooperation among different units and departments of the University relying on relationships and ties that have been formed over many years. The existing programs of the Business and Industrial Assistance Division are considered to be the premier economic development activities of the University of Michigan that deliver services to communities in all parts of the State with a particular emphasis on areas undergoing economic distress. To this end quarterly reports summarizing activities of the Center will be distributed to keep partnering and potential partner units engaged and informed. In addition the website for the Division and the Center will contain current information about projects and status reports updated regularly.

Institutional Leadership Support

Concurrent with the submission of this proposal a *reorganization* of the Business and Industrial Assistance Division and its programs (EDA University Center Program, Great Lakes Trade Adjustment Program, Domestic Corps Program, Office for Research on Industrial Facilities, Michigan Business Incubation Association) is being effected. The programs are being transferred from a direct reporting relationship to the Dean of the Business School to a Central University reporting relationship directly to the *Office of the President* through the Offices of the Vice President for Research and the Vice President of Government Relations. (See Organization Chart, Page 12) This reorganization maintains an affiliation with the Business School in terms of faculty/student projects and technical and research resources. The new organization places the Division and its programs in an extremely high profile position within the University of Michigan and makes it *much* more visible externally, as the leading economic development initiative of the University. The

reorganization (which will take effect at the beginning of the University fiscal year, on July 1, 2005).

This new organizational position is intended to better enable the proposed University Center program to access resources and expertise across the University without any constraints that might occur because of administrative ties to the mission and interests a specific academic unit. The new organizational position means that the programs of the division will form the foundation for an expanded role that the University plans, that will bring the institution into local communities to foster and assist economic development particularly in areas of economic distress. The new organizational position also results in a funding commitment that increases the university contribution to the general fund budget for the programs and cements the economic development activities of the division into the *Senior Executive* leadership of the University of Michigan. (See Organizational Chart Below).

Cleveland State University Proposal:

SECTION 1: PROGRAM FOCUS

Northeast Ohio is in the unique position of combating a complex set of severe economic problems while at the same time experiencing several economic development successes. This state of flux presents the opportunity for major structural changes in how the region's economy functions. The economic state of several of the region's counties, city of Cleveland, other central cities, and several first tier suburban areas is still severely strained. Further, recent surveys have found that citizens and business leaders remain very concerned with the overall state of the local and regional economy. As a response, two major changes have occurred in the structure of Northeast Ohio's economic development organizations. First, decision-makers have realized that greater levels of regional coordination with regard to economic development are required in order to advance the economic transformation of the ailing Northeast Ohio area without de-emphasizing what happens locally. Second, the region's philanthropic sector has pooled its resources for economic development to create the Fund for Our Economic Future. This multi-year commitment to collaboration among Northeast Ohio's community, corporate, and private foundations to improve the economic climate in Northeast Ohio further underscores a commitment to regional approaches to economic development.

These two changes are linked since the Fund is allocating its resources to key **regional** economic development initiatives, convening regional stakeholders, and tracking overall regional progress.

Cleveland State University's EDA Center is well-integrated into these major changes. The Center is evolving its direction and introducing new initiatives to create a greater additional impact on the region's economy. The EDA Center brings together many critical resources and talents from the University while building partnerships with several private sector-led economic development organizations, the philanthropic community (through the Fund for Our Economic Future), and the public sector to transform the economy of Northeast Ohio. Since regional economic development occurs primarily due to investments and decisions made by the private sector, the Center's work with private sector-led organizations is of critical importance. The Center's work with the public sector helps local governments understand the role they play in economic development and guides them in facilitating the development process, reducing barriers, and creating the conditions for economic growth. The intermediary organizations with which the EDA Center works focus on advancing technology-based economic development, increasing manufacturing competitiveness, and promoting and facilitating innovations and entrepreneurship. They are directly involved with fostering higher-skill, higher-wage jobs and attracting capital investment to the region. Work with individual organizations and their goals and objectives will be described in Section 3.

For the purposes of this proposal and using the EDA definition, technical assistance is defined as providing services in response to a client's request. These are demand-pull activities. **Using this definition, the CSU EDA University Center proposes to focus primarily on technical assistance.** The Center will also be involved in applied research, which is defined as self-initiated research on specific economic development issues. These are supply-push activities. Although we initiate our own research, most often it is conducted in partnership with a specific economic development organization to provide it with an objective base of information and analysis upon which the organization can develop policies and strategies to transform the economic base of Northeast Ohio.

¹ At the time of this writing, the Fund for Our Economic Future includes 62 foundations. It has raised over \$26 million for a three-year period, fast approaching its target of \$30 million.

All of the work conducted by the Center is disseminated widely through its website, announcements to the Center's main partners, mailing of the latest reports, and presentations. When appropriate, research may lead to articles in publications that serve both academic and practitioner audiences.

We estimate that the Center's work is about 60% technical assistance, 30% applied research, and 10% dissemination. However, the three functions of the Center are on a continuum from the demand-pull technical assistance to the supply-push applied research, and dissemination of both. Sometimes our research leads to technical assistance, and other times technical assistance to an organization raises cutting edge issues that lead to applied research.

SECTION 2: SERVICE AREA, NEEDS OF SERVICE AREA, AND TARGET AUDIENCE

A. Proposed Geographic Service Area of the University Center

Ohio is a large state with sixteen metropolitan areas and numerous rural counties. CSU's EDA Center proposes to primarily serve the large 15-county area of Northeast Ohio. Northeast Ohio accounts for 36% of the state's population, 34% of the state's output, 32% of the state's labor force, and 36% of the state's employment base. The area encompasses four metropolitan statistical areas (MSAs) and three non-metro counties. The four metro areas include the Cleveland-Elyria-Mentor MSA, the Akron MSA, the Canton-Massillon MSA, and the Youngstown-Warren-Boardman MSA. Within this area are several struggling central cities including the cities of Cleveland and Youngstown, with Cleveland now having the highest concentration of families living in poverty among all major U.S. cities.

This area is essentially the same as that served by the major regional economic development organizations in Northeast Ohio. With the new alignment of major economic development organizations and the philanthropic community, a heated debate occurred on how Northeast Ohio should be defined. The EDA University Center supplied the analytical analysis in support of this broad geographic definition, and our recommendation was adopted. However, in some cases these organizations work throughout the state of Ohio; on specific occasions, the EDA University Center will expand its service area to meet the needs of these economic development organizations beyond Northeast Ohio.

B. Economic Development Needs, Issues, and Opportunities of the Proposed Service Area

Northeast Ohio (NEO) is losing population, employment, and income share relative to Ohio and the United States. Moreover, the central cities are doing poorly compared to the area as a whole.

Looking at population trends since 2000, Northeast Ohio lost population, while Ohio and the U.S. gained. Northeast Ohio lost 0.2 percent of its population over the three-year period, while Ohio gained 0.7 percent and the U.S. population grew by 3.3 percent. Moreover, during the expansionary years 1993-2000, NEO's population grew by only 0.8 percent, a significantly smaller rate than Ohio (2.3%) and the U.S. (8.3%).

Analysis of employment change, shown in Figure 1, reveals that Northeast Ohio again lagged behind state and national trends during both the expansionary period of the mid-1990s and the recession.

As of January 2005, unemployment rates in Northeast Ohio's counties ranged from a low of 5.8 percent in Geauga and Medina Counties to a high of 8.7 percent in Ashtabula County. Eight of the region's 15 counties have an unemployment rate higher than the state's average of 6.8 percent and six counties have an unemployment rate higher than eight percent. The region's central cities have higher unemployment rates than the counties within which they are located: Akron, 7.4%; Lorain, 7.8%; Canton, 8.4%; Cleveland, 8.4%; and Youngstown, 9.9%.

Figure 2: Personal Per-capita Income

Figure 2 shows that per-capita personal income also performed poorly in Northeast Ohio compared to Ohio and the U.S. Even during the economic expansion of the 1990s, income grew 13.8 percent in Northeast Ohio compared to 17.3 percent in the country. Moreover, Northeast Ohio's per-capita income declined significantly more than in Ohio and the U.S. during the recession. Analyzing levels of per-capita personal income shows

that although the state has consistently fallen below the national income level, Northeast Ohio, through the year 1998, maintained per-capita personal income at a level above that of the U.S. Beginning in 1999, however, Northeast Ohio's income level fell below the national average. Moreover, as an upward movement in income began in 2001, both Northeast Ohio and Ohio remained at a considerable distance behind the U.S.

Cleveland has most recently been in the national spotlight for its ranking as the most poverty-stricken big city in the country. According to U.S. Census Bureau statistics, 31.3 percent of the city's population lives below the poverty level. This figure can be compared to 17.6 percent in Minneapolis, 16.5 percent in Columbus, and 16.1 percent in Pittsburgh. Moreover, and of critical concern for its long-term implications, 46.9 percent or nearly half of Cleveland's children are living in households with incomes below the poverty level.

The Northeast Ohio region was innovative and experienced dramatic economic growth in the first half of the 20th century. However, with structural changes in the economy, the continued shift to a service-based economy with some advanced manufacturing, and a global emphasis on innovation and entrepreneurship, Northeast Ohio began a long period of stagnation and a relative decline. The historical trends, educational attainment, and the local culture all explain the lack of economic growth. The economic growth experienced by some regions of the country is not being shared in Northeast Ohio, and especially not in its central, urban communities that have low educational attainment, low household income, and high unemployment and poverty rates.

Northeast Ohio needs to make the transition to a vibrant and strong economy with robust job opportunities and livable communities. The recent changes described in Section 1 provide Northeast Ohio with the opportunity to begin the rebuilding of its economy. The EDA University Center is positioned to be an important element in this transition, serving as the think tank and the technical assistance arm of the organizations that work directly with companies, entrepreneurs, innovators, and venture capitalists. CSU's EDA University Center stands in a unique position to help reshape Northeast Ohio. The Center and the College within which it is located have strong expertise in economic development; we have nationally known faculty members, strong researchers, local and regional databases unique to Northeast Ohio, and significant local knowledge.

C. Target Audience of the Proposed University Center, Especially the Economically Distressed Parts of the Service Area

Northeast Ohio as a whole with its businesses, communities, and residents will benefit from the activities of the EDA University Center through assistance given to local and regional decision-makers and the intermediary organizations that are working on business attraction and retention and on transforming Northeast Ohio into a more innovative, entrepreneurial, and wealth-creating region. One important sub-set of beneficiaries is the more economically distressed parts of Northeast Ohio. Through technical assistance for the city of Cleveland, Cuyahoga County, first-ring suburbs, and other local governments, these areas will benefit as well. Involvement in issues of inclusion and economic competitiveness, which are part of the objectives of the Fund for Our Economic Future and the Greater Cleveland Partnership, will benefit the more distressed areas of Northeast Ohio and indirectly the region as a whole. Especially beneficial is the Center's technical assistance to organizations that support entrepreneurship among minority-owned businesses.

SECTION 3: SCOPE OF WORK AND ANTICIPATED IMPACTS AND BENEFITS

The new grant will enable CSU's EDA University Center to utilize its expertise to help leverage and drive private sector-led and other economic development initiatives. Previous evaluations and client satisfaction letters suggest a strong need for the Center's services and a high level of satisfaction with the Center's work. The Center has developed a reputation for proactive and innovative economic development. CSU's EDA Center, through its work with the region's major economic development organizations, is engaged in activities that encourage wealth creation in Northeast Ohio. The Center's activities in the areas of technical assistance, applied research, and information dissemination help to improve the regional economic base and promote economic self-sufficiency and regional prosperity. The grant will allow the Center to continue to bring the knowledge, resources, and expertise of a leading urban university to bear on the Northeast Ohio's economic challenges and opportunities. It also allows the center to build partnerships with both the private and public sectors to enhance the region's standard of living and wealth creation.

CSU's EDA University Center provides technical assistance to small and large organizations, serving the private, nonprofit, and public sectors. More specifically, the Center plans to focus its activities over the next three years on five main priorities. These activities will have some impact on the region as soon as the first year. Obviously these impacts will be amplified in the following years, since economic development has both short-term and long-term results. The scope of work (proposal section 3a) and anticipated impacts (proposal section 3b) are described in sections 1-5 below.

1. Advance entrepreneurship and innovation in Northeast Ohio
 - a. Examine what it takes to be a successful entrepreneur in Northeast Ohio (with JumpStart).
 - b. Examine factors affecting technology-based economic development, with a focus on patents and innovations (with NorTech).
2. Enhance the competitiveness and growth of the manufacturing and healthcare industries
 - a. Enhance the competitiveness of the manufacturing sector (with CAMP).
 - b. Explore the challenges and opportunities of the growing healthcare sector in Northeast Ohio (with TeamNEO).
3. Improve the environment for successful, fast-growing companies in Northeast Ohio (with TeamNEO and JumpStart).
4. Develop and disseminate a series of Economic Briefs on subjects of immediate interest to major decision-makers in a quick, informative, and easy to read format (with The Partnership for Greater Cleveland).
5. Provide general technical assistance to smaller organizations and public sector entities

1. Advance Entrepreneurship and Innovation in Northeast Ohio

The Center will focus on assisting Northeast Ohio in advancing entrepreneurship and innovation. These activities are planned in partnership with two major private sector-led economic development organizations and thus are market-based and result-driven. Activities conducted to enhance the region's entrepreneurship and innovation will lead to

an estimated increase of hundreds of higher-skilled, higher-wage jobs in Northeast Ohio as well as an increase of millions of dollars in private investment in the region. The two activities described under this priority link the CSU EDA University Center directly to advancing innovation and entrepreneurship. These activities share characteristics of technical assistance and applied research; they also engage in dissemination of information.

1a. Examine, in partnership with JumpStart, what it takes to be a successful entrepreneur in Northeast Ohio

JumpStart is a new regional business development organization that identifies and invests in early-stage companies that have strong potential in the marketplace, solid prospects for rapid growth, and are likely to qualify for later-stage funding from venture capital firms. Beyond investing, the JumpStart team provides business development services to its client companies to help ensure their success. JumpStart was mentioned by the Council on Competitiveness as one of the new organizations aiming to stimulate start-up activities and its Chief Executive Officer, Ray Leach, was recently nominated to the Council's board of directors. Last January, JumpStart and CSU jointly sponsored an EDA telecast at the Levin College on entrepreneurship and innovations that featured four panelists, including Mr. Leach. The audience included JumpStart clients, other economic development organizations, and faculty and students from CSU. JumpStart's three-year goals include \$9 million investments in 36 companies, providing business assistance to 135 start-up companies, and leveraging an additional \$27 million in venture capital.

JumpStart is our external partner to this initiative. The goal of this activity is to improve the entrepreneurial environment in Northeast Ohio and to nurture high-tech start-ups. The outcomes of this activity include the identification of the barriers to entry new start-ups face and the hurdles their CEOs must clear, as well as the factors that determine successful high-tech start-ups. The initiative will provide a set of policy recommendations on how to improve the entrepreneurial environment in Northeast Ohio, particularly for high-tech start-ups. Working with Jumpstart, we will recruit high-tech start-ups in Northeast Ohio to participate in this activity. We will interview company founders quarterly regarding the entrepreneurial environment in Northeast Ohio, strategic decisions founders need to make, and other needs. We will also examine successes and failures to identify common factors that define successful high-tech start-ups.

The findings and insights will be shared with JumpStart on an ongoing basis. When appropriate, findings and recommendations will be shared with other decision-makers and the media. A public forum will be held in the future to discuss entrepreneurship in Northeast Ohio and how the region is changing in its attitudes and support of entrepreneurs.

In addition, JumpStart recently asked the CSU EDA University Center to partner on developing, tracking over time, and publishing the "Entrepreneurship Confidence Index." The index is a component of JumpStart's business plan, and its objective is to track entrepreneurial activity in Northeast Ohio over time. The index will be based on several indicators in which Northeast Ohio's metropolitan areas will be benchmarked against comparable areas across the U.S. In addition, one component of the index will be based on a survey of local entrepreneurs. JumpStart and the EDA Center will conduct the survey jointly; survey participants will be selected from subscribers to JumpStart's electronic magazine JumpStart Connect.

The impact of this initiative takes several forms. While JumpStart works directly with start-up companies who apply for seed funding and business development services, this initiative will complement JumpStart's work by developing policy recommendations on how to improve the entrepreneurial environment in Northeast Ohio and identify additional services JumpStart can provide. Based on the experience of JumpStart companies and additional start-ups in the region, our discussion of common factors that identify and assist successful high-tech startups will lead to even more clients for JumpStart and encourage more entrepreneurial activity in the region, which has been relatively inactive in the past decade. The Entrepreneurship Confidence Index will show changes in the regional environment over time. In addition, the success of JumpStart, which this initiative directly supports, will lead to the availability of additional early-stage financing by private companies that match their funds to JumpStart's in order to fund local start-ups and will create new jobs in Northeast Ohio.

1b. Examine, in partnership with NorTech, the factors affecting technology-based economic development with a focus on innovation

NorTech is another regional, private sector-led economic development organization in Northeast Ohio. NorTech's goal is to enhance the prosperity of Northeast Ohio by defining the strategies, policies, and targeted actions that will promote new technology-based businesses and quality job growth in Northeast Ohio. The NorTech agenda establishes a framework for the region's technology strategy by focusing on a set of key initiatives designed to accelerate the creation of high-wage jobs in high-growth, knowledge-based industries in Northeast Ohio.

Nortech is our external partner to this initiative. The Center's set of activities pertaining to technology-based development and innovations will first revolve around NorTech's regional strategic plan on technology-based economic development. The strategic plan is being done by Nortech through a scenario-planning approach. CSU's University Center will be directly involved in developing the strategy and scenario planning through participation in the working group established to lead this activity. It is expected that innovation will be a major part of the new strategic plan. At the completion of the scenario plan, the Center will investigate what drives Northeast Ohio companies to innovate and how local innovations can be enhanced.

One important factor affecting innovations is patents deployed by regional companies. Using patent data, the Center will examine where new knowledge is created and where it is deployed. To assist NorTech with its objectives to stimulate innovations in Northeast Ohio, we will examine the sources of knowledge upon which Northeast Ohio's firms rely. In cases where local companies create new knowledge and issue patents, we will analyze whether this new knowledge is utilized locally or in other parts of the U.S. (or the world). This research will be conducted through patent citation data. This work will be supplemented by interviews with local companies to collect data on local innovation factors besides patents.

These activities involve a combination of technical assistance and research. The work on the regional technology-based plan is technical assistance and is done at the request of NorTech. The study of local innovation and knowledge creation is research combined with technical assistance since it will be done by the EDA Center with NorTech as "the

client” and the implementer of the recommendations. The results will be disseminated widely.

The impact of our work with NorTech also has the potential to be quite significant. The EDA University Center will be a contributing partner to the overall technology-based scenario planning, which for the first time will align many organizations and decision-makers to form a truly regional plan to stimulate technology-based activities. It is expected that this activity will have a long-term effect on the transformation of Northeast Ohio and increase its reputation as an area that is friendly to innovators and entrepreneurs (as it was decades ago) and accommodates technology-based businesses. The success of this strategy will lead to the creation of high-skill, high-wage jobs in wealth-creating companies and industries.

The work on innovations and knowledge creation will identify the role of patents in Northeast Ohio and the environmental factors that local businesses see as gaps and challenges to succeed in Northeast Ohio. The impact of sharing these challenges with NorTech and other local decision-makers will lead to an improved environment in which innovations are revered, understood, and supported. Moreover, linking it with entrepreneurial activity, which is often based on innovations, will create a new and immensely needed environment where business failure is understood and accepted as a normal part of developing new businesses based on innovative ideas and products. Northeast Ohio is in need of a large shift away from an environment where an entrepreneurial and innovative spirit is many times misunderstood, discouraged, and is met with no tolerance for failure. The work of the EDA University Center on these two initiatives will contribute to improving the environment in which the local companies served by JumpStart and NorTech compete. An improved environment will contribute to the development of product and process innovations by existing companies, the creation of additional start-ups, and new jobs.

2. Enhance Growth and Competitiveness of the Manufacturing and Medical-Related Industrial Sectors

This priority area will focus on working with two critical industrial clusters in Northeast Ohio: manufacturing and healthcare. The activities surrounding this priority will be conducted in partnership with two other regional economic development organizations, CAMP and TeamNEO. Through these organizations, which work directly with individual companies, CSU’s EDA University Center will increase the number of jobs, local tax revenues, and regional wealth creation. The work, as described below, will strengthen two regional clusters and bolster regional economic competitiveness and job creation. Again, these activities straddle the continuum between technical assistance (most of the work on manufacturing with CAMP) to research (some of the work on the healthcare industry with TeamNEO).

2a. Enhance, in partnership with CAMP, the competitiveness of the manufacturing sector
Although the region lost more than 73,000 manufacturing jobs in the past four years, manufacturing is still the largest employer in Northeast Ohio. More than 300,000 people are employed in manufacturing companies and the average wage is in excess of \$46,000. Moreover, manufacturing accounts for 17 percent of all jobs in Northeast Ohio, a much larger share than in the U.S. as a whole (11.6 percent).

The goal of this activity is to increase the competitiveness of manufacturing companies, many of which provide good-paying jobs to residents of the city of Cleveland. Cuyahoga County, the largest county in the region and within which the city of Cleveland is located, accounts for one-third of all regional manufacturing jobs. Within the manufacturing sector, there are industries that are performing better than others and some that are performing better in Northeast Ohio than in the U.S. Within industries, there are companies that are performing well, while others are withering. At the request of CAMP and building on our work in Northeast Ohio, we will expand our analysis to Northwest Ohio and identify strategies to support and enhance the viable parts of the manufacturing base in both the northeast and northwest parts of Ohio. Our technical assistance to CAMP will improve the region's potential to retain hundreds of higher-skilled, higher-wage manufacturing jobs.

The external partner in this initiative is CAMP. CAMP is a professional services organization helping manufacturing and technology-based companies achieve top-line growth, bottom-line savings, and improved profitability. Through a hands-on approach, CAMP's industry experts deliver manufacturing solutions, product innovation services, and entrepreneurial support to help companies meet today's business challenges. CAMP's engineers, trainers, and experts consult with regional manufacturers to provide practical solutions for virtually every area of manufacturing. Over the past 15 years, CAMP has assisted more than 1,500 regional companies, resulting in an economic impact of more than \$410 million.

The impact of this initiative will come through the Center's work with CAMP. The initiative will have two types of impact. First, it will elevate the importance of successful manufacturers in the regional economy and provide ammunition to decision-makers and leaders who fight for the survival of manufacturing in regional economic development strategies and plans. Second, it will provide detailed tools for CAMP to continue to work with individual manufacturing businesses to improve their production efficiencies, productivity, innovation, and export activities, resulting in the retention of hundreds of jobs. It should be noted that CAMP is

currently receiving EDA funding for the development and delivery of growth strategies for small and medium-sized manufacturers in economically distressed areas of Northeast Ohio.

2b. Explore, in partnership with TeamNEO, the challenges and opportunities of the growing healthcare sector in Northeast Ohio

The healthcare sector continues to grow in Northeast Ohio and is strongly linked to clinical research and the medical devices industry. As the second-largest sector in the region, it employs more than 250,000 persons and its occupational structure includes both lower- and higher-skilled jobs. This sector is composed of significantly different industries. The goal of this initiative is to conduct a cluster analysis to better understand the composition of the healthcare industry in Northeast Ohio, its linkages throughout the regional economy, and the components that feed regional wealth creation through innovations and technology transfer. A secondary goal is to improve the region's ability to balance supply and demand for healthcare workers. The healthcare sector employs both high-wage and low-wage jobs, and job openings occur due to turnover in large employers as well as due to additional job openings at growing companies. For example, the Cleveland Clinic is the largest private sector employer in the city of Cleveland. It offers many job opportunities, from very high-skill, high-wage jobs, to low-skill, low-wage jobs. The Clinic is an important employer for city residents and has created a cluster of minority-owned companies in its vicinity that supply maintenance, laundry, and other services.

TeamNEO is the external partner for this initiative. Team NEO is a private sector-led, regional economic development organization formed in 2003. Many of our region's leading business organizations united to create Team NEO in order to strengthen the region's economy. Team NEO's organizers recognized that Northeast Ohio needed a coordinated, private sector resource to energize regional economic development efforts. TeamNEO's mission is to be a regional catalyst, supporting and stimulating higher levels of targeted business attraction, retention, and development within Northeast Ohio. It provides a unique account management approach to servicing critical existing industries in the region so that they continue to grow and invest in Northeast Ohio.

TeamNEO has selected the healthcare industry as one of five industries it focuses on in its retention and expansion efforts. The impact of this initiative is through helping TeamNEO be more productive by improving its understanding of the local healthcare cluster and the components of the healthcare industry. This will help TeamNEO focus its activities on a select group of companies to ensure they remain and/or expand in Northeast Ohio. The analyses proposed by the CSU EDA Center will provide TeamNEO with the information to promote, retain, and grow thousands of healthcare-related jobs.

3. Improve the Environment for Fast-Growing Companies in Northeast Ohio

This initiative will examine what happened to Northeast Ohio companies that were among the fastest-growing businesses in each of the past 10 years. Each year, 100 companies are selected as the fastest-growing companies in Northeast Ohio. Some appear on the list for several years, while others drop off. This analysis will be done in partnership with both TeamNEO and JumpStart. It is important to both organizations to understand what happens to local fast-growth companies. JumpStart, described above, will provide the Center with the database on the fastest-growing companies. JumpStart will use this information in their work with start-ups, some of which are expected to

make the list in the future. TeamNEO, also described above, is working with 150 companies in Northeast Ohio, offering them assistance to become more competitive and to ensure their operations continue in Northeast Ohio. This initiative will include some of the same companies TeamNEO is currently serving and companies that TeamNEO could potentially work with to ensure that their challenges are being addressed and that they remain in the region.

Two unique databases will make this inquiry relevant to TeamNEO and JumpStart: ES202, maintained by the Center for Economic Development and its EDA University Center, and JumpStart's annual data on the 100 fastest growing companies in Northeast Ohio. The first database has information on employment, wages, and industry classification for all companies in Ohio. The second database has detailed information on the fastest-growing companies in each year of the past 10 years. Analysis of these databases along with interviews of executives of some of the growing companies will lead to information that will help the economic development organizations conduct their business in a way that will attract and retain highly performing companies and their associated jobs.

This initiative falls along the continuum between applied research and technical assistance. The research will be conducted for two major organizations that deal directly with individual companies. By learning from the experience of successful companies, this initiative will result in retention, expansion, and recruitment of such companies. This research will also reveal some barriers to continued high performance by these companies. Dissemination to decision-makers, including those in the public sector, can lead to solving some problems and contributing to continued high performance and job creation by other companies.

As discussed, its impact will be seen through TeamNEO and Jumpstart's utilization of the information on the status and performance barriers for the region's fastest growing companies. The study's findings will help TeamNEO retain these companies in the region and reverse a trend in which successful, growing companies that started in Northeast Ohio move to other regions of the U.S. It will also help JumpStart in its selection of companies in which to invest—some of which may appear on this distinguished list in the future. This activity will contribute to the retention and creation of hundreds of jobs.

4. Develop and Disseminate a Series of Economic Briefs on Subjects of Immediate Interest to Major Decision-Makers in a Quick, Informative, and Easy-to-Read Format
This initiative is based on an Economic Brief on employment and wages released recently by the CSU EDA University Center to numerous businesses, organizations, and elected officials throughout Northeast Ohio. The Brief was mailed to thousands of people throughout Northeast Ohio and was put on the Center's web page. The Brief is the first of a quarterly publication that will provide a broad overview of employment and wage trends in Northeast Ohio. The main objective is to share valuable information at the regional level with multiple stakeholders. It presents common, basic information to many stakeholders, providing a means for thinking regionally. In this era of information overload, this brief provides a concise message with underlying statistics in an easy-to-read format.

The Brief has been a tremendous success. Comments from different readers offered through email and phone messages reveal that the information and its presentation were

well-received and reached a wide audience. There were numerous requests for more copies. With this overwhelming success, the EDA Center proposes to update these briefs when data become available and expand the scope to include other economic information beyond employment and wages.

Even though this activity is not initiated at the request of any one entity, such a product is lacking in Northeast Ohio's economic development information market. The Brief will help track regional economic performance and evaluate the success of the new initiatives. It is a supply-push activity, which requires some research but is more focused on design and dissemination. For the second issue, we plan to send a postcard to the mailing list, notifying the reader that the Brief is available on our website; the reader will be given the opportunity to register on the web site to be notified of future releases. This will reduce production and mailing costs and will give a valid measure of how many people are interested in the Brief's information and publication.

This activity's impact is not as direct as the other proposed initiatives. However, it serves as an important tool to make the EDA and its University Center more visible. It is expected that many entities from the private, public, and the nonprofit sectors will recognize the Center's capacity and approach it for technical assistance in the future to further their own interests and that of the region as a whole.

5. Provide Technical Assistance to Other Economic Development Organizations and Governmental Agencies

The Center provides short-term technical assistance to economic development organizations, the media, and other entities that request assistance. State and federal legislators and their staff also request assistance from the EDA Center. Examples include city of Cleveland's departments of Economic Development and Planning, Cuyahoga County's Commissioners and Department of Economic Development, WIRE-Net (a membership-based manufacturing organization), Ohio's two U.S. senators, several U.S. congressmen, a number of state senators and House representatives, reporters, chambers of commerce, and private companies. Technical assistance helps these entities achieve their objectives, which includes retention and expansion of high-skilled, high-wage jobs.

SECTION 4: SUPPORTING INFORMATION

A. Discuss the Institution's Capacity and Experience in Operating Technical Assistance Programs with a Focus on Economic Development

Cleveland State University has an extensive capacity and lengthy experience in operating economic development technical assistance programs. The University's Center for Economic Development and the EDA University Center, both directed by Dr. Ziona Austrian, have a long history of providing technical assistance and conducting applied research in support of job retention and expansion, generation of private and public sector investment, and wealth creation in Northeast Ohio and the state. The Center for Economic Development, in existence since 1986, is in-grained in several networks within Northeast Ohio and is working closely with all the major organizations focused on economic development. The Center has key staff members with significant experience in technical assistance and applied research in economic development. The Levin College of Urban Affairs, within which the Center is located, enjoys a strong national reputation in economic development. The College offers master's and Ph.D. degrees with specializations in economic development as well as a certificate in economic

development to practitioners looking to improve their skills. The Center's director and faculty associated with the Center teach economic development courses.

In addition to directing the Center for Economic Development and the EDA University Center, Dr. Austrian is also the Program Chair of the Research and Public Service component of the College of Urban Affairs, which includes 12 centers and the Forum Program. In that capacity, Dr. Austrian oversees the technical assistance provided by all centers to local, regional, and state stakeholders in several urban-related topics. Before coming to CSU, Dr. Austrian helped run a university center at Case (as Associate Director). Dr. Austrian has extensive experience building and running technical assistance and outreach programs, developing relationships with external funders, leveraging funding, and working with the media.

It is evident from the type of relationships the Center has developed over the years that it has significant experience in delivering technical assistance. Many of the region's intermediaries look to the Center's expertise to help the region's economic development.

B. Identify Other Organizations in the Proposed Service Area that Provide Potentially Complementary and Duplicative Services

Other universities in Northeast Ohio have centers that work in the area of economic development. In previous years, the strongest competition came from the Center for Regional Economic Issues at Case. However, in the past two years, the new director of that center recognized the strengths of the CSU Center and is developing complementary services. As a result, the Case and CSU centers do NOT provide duplicative services and are, in fact, collaborating on several projects.

Another center is the Public Services Institute at Lorain Community College. Lorain is a county to the west of Cleveland and is part of the Cleveland metropolitan area. The Institute provides technical assistance primarily in Lorain County. When a larger geography is called for, the two centers collaborate. A third center is at Youngstown State University, which focuses solely on the Youngstown area. It, too, collaborates with CSU on regional issues. CSU's Center is considered by other local centers as the Center with the most capacity and experience. Where possible, the centers collaborate. Collaboration is described in more detail in the next section.

C. Outline the Process or Strategy the Proposed University Center Will Follow to Maximize Coordination with Relevant Entities to Minimize Duplication of Services

CSU's EDA University Center works in partnership with other university centers and with local and regional economic development organizations. The Center receives input and requests from these organizations and then provides them with technical assistance. It also takes a proactive position in identifying needs for applied research on economic development issues. One of our philosophies is to work collaboratively with local governments, nonprofits, or researchers at other universities and avoid duplication of services. We believe that collaborations, alliances, and partnerships enhance the overall quality of the work and will contribute to a better future for Northeast Ohio. Four examples illustrate this point.

One, the Center developed a network of 10 public universities across Ohio, all working on economic development issues, to share a unique firm-level employment and payroll (ES202) database. That database is used to understand the changing industry structure in Ohio's cities and metropolitan areas. It allows for the identification of competitive industries, those with growing employment, and those offering higher than average

payroll. The CSU Center heads the consortium. In the Cleveland area, the EDA Center uses the database to provide technical assistance to the city of Cleveland, Cuyahoga County, and other municipalities.

Two, the Center is collaborating with the Center for Regional Economic Issues at Case, mentioned above, to provide the best possible research and technical assistance to decision-makers in the region and state. Over the past year, the two centers have moved from a mere discussion about collaboration to working together and responding jointly to some requests for proposals. The first joint technical assistance project was for WIRE-Net, a nonprofit membership organization operating on the west side of the city of Cleveland, where 600 manufacturing companies are located. CSU's EDA Center used its unique employment and payroll database to understand the strengths and weaknesses of local businesses, while Case conducted a survey of these companies. Another example of joint technical assistance was to Ohio's Department of Development on characterizing the aerospace and defense industry and providing recommendations on how to help the industry become more competitive.

Three, under the leadership of CSU, the Northeast Ohio Universities Collaborative was created (a group of five universities and a community college). Dr. Austrian led the Universities Collaborative in a proposal on Dashboard Indicators for the Fund for Our Economic Future. We were selected to work with the UpJohn Institute (lead consultant) on this initiative.

Four, Dr. Austrian serves as the Chair of the Ohio Urban University Program's Northeast Ohio Research Consortium. The Consortium is led by four directors, one for each of the four Northeast Ohio public universities. The consortium, under the leadership of Dr. Austrian, allocates annual funding to faculty and staff to conduct joint technical assistance and research on issues of strategic importance to Northeast Ohio.

In addition, the EDA Center is collaborating with the major economic development organizations in Northeast Ohio, as is evident from our list of proposed priorities. Most of the organizations need the technical assistance provided by the Center and contact the Center for assistance.

D. Outline the Process or Strategy for Coordinating and Accessing Key Resources of the Sponsoring Institution to Support Economic Development Efforts.

The EDA University Center is a part of the Center for Economic Development of the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. The EDA Center is fully integrated into the college, accessing the college's technology and website capabilities, data and GIS facilities, its faculty, and administrative functions, such as budget and human resource services.

As mentioned earlier, Dr. Austrian coordinates and facilitates the work of the college's 12 centers and Forum Program. In that capacity, she has developed strong relationships with many faculty and professional staff at the college, including the Dean. As a result, the EDA University Center is taking advantage of all of the college's available resources and the Center's work is highly supported by others at the college.

Besides the director and professional staff of the Center, other faculty members with strong expertise and reputation are involved in the work of the Center. These include Dr. Mark Rosentraub, dean of the Levin College, Dr. Ned Hill, distinguished professor of economic development, Dr. Larry Ledebur, professor of economic development, Dr. Shari Garmise, a faculty member and a national expert on issues of workforce

development and economic development, and Dr. Jun Koo, a faculty member with expertise in entrepreneurship-driven and knowledge-intensive economic development. The College's Dean, Dr. Mark Rosentraub, has 25 years of experience working with cities and sports teams on finance and economic development issues. He is heavily involved in economic development in the city of Cleveland, working with several large developers (such as Forest City and Ohio Savings Bank) to attract more development into the city, both downtown and in the neighborhoods. Dr. Rosentraub is also involved in discussions regarding a new convention center in the city. Professor Larry Ledebur, a faculty member in the Levin College of Urban Affairs with over 30 years of experience in urban economic development, specializes in economic development and labor force development policies and practices. Dr. Ned Hill, a distinguished professor of Economic Development at the Levin College, is also a non-resident Senior Fellow at the Brookings Institution's Metropolitan Policy Program and past editor of *Economic Development Quarterly*, the primary journal of economic development, which bridges the work of academics and practitioners.

In addition, during the past year, the Center developed a strong relationship with CSU's College of Business Administration, in particular with its Dean, two Associate Deans, and the Director of Outreach and Business Centers.

CSU's president sees the Center and the Urban College as being the university's experts in economic development. For example, he nominated Dr. Austrian to serve on the Cuyahoga County's Blue Ribbon Task Force for Economic Development, representing him and the university.

E. Provide Evidence of Strong Support (Both Financial and Non-Financial) from the Leadership of the Sponsoring Institution for the University Center and Its Activities

The university's financial support of the EDA University Center is strongly demonstrated by awards provided in the past two years through the CSU President's Initiative Fund (PIF). The goal of CSU's PIF is to identify, develop, and enhance signature areas at CSU. The first-year award provided \$50,000 in funding to support a program to advance economic development in Northeast Ohio. For that award, the EDA University Center competed against more than 100 faculty and research staff and received one of 15 awards. The EDA University Center partnered with the Greater Cleveland Partnership in the first year of the initiative. In the second year, the 15 programs that received awards were asked to compete for additional university funding to strengthen their signature area. The Center and its partners were one of only five winners to receive second-year funding (\$145,000) from the CSU's PIF. For that phase, the Center partnered with TeamNEO and CAMP. Last February, the Center and its partners submitted a proposal for a third year (and final) award under the presidential initiative. CSU's president notified us on April 4, 2005 that the signature area in economic development was ranked first. The president's email stated "this was the unanimous view of the judging panel, and I agree...I believe that you are well on the way to producing the signature program for CSU for which we have been looking." A formal announcement by the university will be made in the next several weeks. The award is for \$350,000 over two years. It is clear that with the help of EDA investments over the years, economic development has become a strong focus and a signature area for the university. The latest award by the President's Initiative Fund shows the university's continued commitment to invest in economic development as a signature area and promote regional economic development. CSU sees

itself as a major player in economic development, and the EDA University Center is at the center of these activities.

Moreover, the college and university's support of the EDA University Center is evident by the matching funds provided through the Ohio Urban University Program (UUP). These funds are generally dedicated to technical assistance and outreach activities related to urban policy, including economic development and the revitalization of Ohio and its regions and urban areas. Some of the PIF and UUP funds are used as a cash match for the EDA University Center.

CBER/EDA Proposal

Part III Exhibit III.1

A. PROGRAM NARRATIVE

This section describes the focus of the University Center's program; the UC service area, its needs, and the target audience; and the scope of work and anticipated impacts/benefits.

1. Program Focus of the University Center

A former Chancellor of the University of Maine System has said that a university is a place where we learn new things and share what we learn. This is a fair synopsis of the mission of the University of Southern Maine's Center for Business and Economic Research (CBER) and its work as an EDA University Center (UC) over more than thirty years. CBER brings to the task of economic development the most advanced forms of analysis and the highest quality information upon which to base decisions and actions that greatly increase the effectiveness of economic development throughout Maine, particularly in those areas that are most distressed.

The focus of CBER's continued work as an EDA University Center will be to:

Provide information and analytic capacity on the cutting edge of economic development, which is the precursor to effective economic development action in both the public and private sectors

The majority (~75%) of CBER's programmatic effort will be in the form of technical assistance to public- and private-sector clients throughout Maine who request the Center's help in addressing their economic development needs. Of the balance of effort, ~20% will be directed toward applied research activities that are highly relevant to the economic development challenges facing Maine and its regions. The remainder (~5%) will be focused on dissemination of results to the broad economic development community.

Five characteristics define the type and scope of information and decision support services that CBER will bring to the overall task of economic development:

a. Market-based and results-driven

To be effective, economic development organizations and initiatives must be market-driven. CBER is a leading source of information and expertise about the Maine, national, and global economies whose products are used by the public, private, and non-profit sectors. “Market-driven” means acting with an understanding of how market forces are shaping the creation of new opportunities within the regional economy, as well as how the same forces create new challenges to the competitiveness of firms and regions. CBER’s proposed projects and partnerships to increase the competitiveness of tourism in Maine; to identify the conditions of success for evolving high technology firms; and to help communities plan for their economic future in the face of changes in the role of the military within Maine’s economy illustrate the many types of Center projects where a deep and broad understanding of the economy is essential to success.

b. Advance productivity, innovation, and entrepreneurship

Maine, like many rural areas, is struggling to catch up in a world where economic success is increasingly dominated by rapid technological and business innovation. The UC will continue and expand projects that help Maine develop programs that effectively support new product innovation through technological research and development. CBER is also, in partnership with the University of Maine, developing a substantial new program of research and technical assistance to support the tourism industry, which has been a defining industry in Maine for more than a century, but which must now aggressively innovate new products and services in the face of global competition.

c. Look beyond the immediate economic horizon, anticipate changes, and diversify the local/regional economies

The Center is the only source, outside of Maine state government, for both short- and long-term economic and demographic forecasting for all regions of Maine. CBER’s outlook products on the Maine regional economies are in continuous demand throughout the state. In addition, the UC has conducted some of the most important applied research helping to define key areas of the Maine economy, including the changing role of the natural resource industries, the creation of new “technology clusters”, the emerging creative economy, and the increasing importance of Maine’s urban regions. Indeed, discussion of the Maine economy today takes place around issues that CBER helped define through its forward-looking applied research and technical assistance initiatives.

d. Focus on economically-distressed areas

EDA’s programs have always been focused on the particular needs of economically-distressed communities. CBER has also focused most of its work on distressed areas

of the state. Though located in southern Maine in the state's largest city, most of CBER's work in the past few years has been in rural areas such as Aroostook County, the northern-most county in Maine. This will continue in the next three years, with projects specifically targeted to such distressed regions as Aroostook County (designated a Rural Empowerment Zone) and other rural areas facing the twin challenges of threatened natural resource industries and youth out-migration such as the northern Kennebec Valley region. CBER will also assist in addressing the needs of areas in southern Maine that may become severely distressed in the wake of changing federal defense policies.

e. Leverage university resources to provide unique, highly-valued services that complement those services available elsewhere

To fulfill its outreach mission, CBER brings an organization with significant resources both within the University of Southern Maine and beyond. Unlike many EDA University Centers, CBER is an organization whose work is done entirely by faculty and by graduate students, rather than professional staff, thereby drawing upon the resources that are unique to institutions of higher education to address the key issues of economic development. Further, CBER is a joint center of two complementary professional schools, the University of Southern Maine School of Business and the Edmund S. Muskie School of Public Service. As such, it has an unmatched capacity in understanding the economic development needs of both the private and public sectors.

The University Center works with a wide array of resources at the University of Southern Maine, including other professional schools such as the College of Education and Human Development, the School of Applied Science, Engineering and Technology, and the College of Arts and Sciences. In addition, CBER has been assigned by the University of Maine System Board of Trustees to work in partnership with the University of Maine in a new Center for Tourism Research and Outreach (CenTRO). Through this new university system center, CBER will be working with resources of the University of Maine, the state's Land and Sea Grant university.

Moreover, working in partnership with other university organizations within Maine is only one part of the organizational resources that CBER brings to bear on economic development problems. CBER has developed and will maintain its effective partnership with the six EDA Development Districts in Maine. As the only non-governmental member of the Maine Economic Development District Association (MEDDA), CBER will continue to provide essential technical assistance, applied research products, and information to the organizations who are the front-line deliverers of economic development services in Maine. The Center will also continue to work with local and regional chambers of commerce, other regional development organizations, and private-sector firms throughout Maine.

2. Service Area, Needs of the Service Area, and Target Audience

The service area for CBER is the entire state of Maine. CBER has undertaken technical assistance projects in all 16 counties, with particular emphasis on the needs of northern Maine, and this will continue.

Maine is large in area, almost the size of the other five New England states combined. But with only 1.3 million people, it is smaller than many U.S. metropolitan areas. The state ranks 40th in population and 41st in personal income. While its per capita personal income ranks 35th, its median household income ranks 43rd. Although the state's largest metro area ranks 40th in per capita personal income, the smallest metro area, Bangor, ranks 204th.

Maine's overall unemployment rate is below the national average, but this masks some profound changes. From 2000 to 2003, Maine led the nation in the proportion of manufacturing job losses, exceeding on a proportional basis the far better known losses in places such as the Midwest. Moreover, the most recent wave of manufacturing job losses was not concentrated in the low-wage sectors such as shoes and apparel, but in the high-wage industries such as ship building and pulp/paper. The state's largest private employer, Bath Iron Works, has lost nearly a quarter of its employees in the past five years, while the pulp/paper industry has lost more than 4,000 employees (nearly 30%). During this period, the only sector to add substantial jobs in Maine has been healthcare.

Maine is characterized by distinct regional economic differences. Fourteen of Maine's 16 counties are located within areas served by EDA Development Districts as a result of their meeting EDA's distress criteria and the two remaining counties are under consideration by EDA for designation as Development Districts. In 2004, 10 counties had higher unemployment rates than the statewide average.

Economic distress is particularly acute in the region defined as inland and northern Maine and in the most easterly section of the coast. This is the region where manufacturing job loss in the natural resource industries, particularly forest products, has been particularly dramatic. This region's population is declining or growing at negligible rates, and suffers from a chronic decrease in its younger-aged population. It is in this area where CBER has, and will continue to have, a particular emphasis in its technical assistance activities. As discussed in Section 3, the UC will focus efforts on improving the economy of this region by examining labor force issues, assisting the development of a more vibrant tourism/recreation-based economy, and helping programs that facilitate the growth of research and development.

In addition to paying attention to the regions that have endured economic distress for some time, CBER will also devote a portion of its program resources to address the potential rise in economic distress in southern Maine that may be brought about by changes in federal defense policy. Two Navy facilities, the Kittery-Portsmouth Naval Shipyard and the Brunswick Naval Air Station, are potential candidates for closure in the next few years. Located 70 miles apart, these two facilities together employ nearly 10,000 people. In addition, the Administration has announced that it will reduce the number of shipyards building the next generation of destroyers for the Navy from two to one. Bath Iron Works and a shipyard in Mississippi will compete for the work, and if BIW is not chosen, it could result in the loss of another 6,000 jobs. Together with the

indirect effects, the net result of Department of Defense policy changes could be the loss of 20,000 to 25,000 jobs in southern Maine when all multiplier effects are considered.

The target clients for the Center's services are drawn from all parts of Maine and from all sectors. CBER functions as part of the Maine Economic Development District Association to provide analytic expertise and information on critical issues to these front-line deliverers of economic development services in the state. CBER also works closely with state agencies, including the Maine Department of Economic and Community Development, the State Planning Office, and the Maine Technology Institute.

The private sector is also a key target audience. Private-sector organizations that are major employers in their region, such as UnumProvident Corporation, will receive technical assistance to enhance their competitiveness. Hundreds of private-sector organizations regularly use the products of CBER's economic outlook research disseminated through an extensive program of presentations and through the media. To these will be added hundreds of other private-sector organizations in the tourism industry through CBER's work in partnership with the University of Maine in the Center for Tourism Research and Outreach.

CBER's economic analysis work is also regularly used by a variety of trade associations and local development organizations. Recent clients have included trade associations such as the Maine Metal Products Association, the Maine Association of Broadcasters, and the Rangeley Region Heritage Commission. Work with these types of client organizations will continue over the next three years.

3. Scope of Work and Anticipated Impacts and Benefits

Specific projects and activities that will be conducted by the UC are described below under the headings of a. Technical Assistance; b. Applied Research; and c. Dissemination of Results:

a. Technical Assistance

CBER's technical assistance programs and activities for the next three years will be focused on providing information and analytic expertise in support of: 1) economic development planning and policy making; 2) program evaluation, performance assessment, and improved management of economic development programs; and 3) private-sector organization efforts to enhance competitiveness.

1) Economic development planning and policy-making

Under the theme of facilitating planning and policy making, the Center plans to provide technical assistance relating to seven different areas: a) labor force and demographics; b) responses to federal defense policy changes; c) economic

impact analyses; d) tourism analyses; e) technology clusters; f) transportation; and g) other technical assistance.

a) Labor force and demographics

At the time of this writing, four technical assistance projects relating to the labor force and demographics have been identified: (1) the labor force in Aroostook County; (2) factors affecting youth out-migration in regions outside of Aroostook; (3) training in labor force analysis for economic developers; and (4) the tourism/recreation labor force.

(1) The labor force in Aroostook County

In 1999-2001, CBER conducted a ground-breaking analysis of the characteristics of Maine's labor force using extensive surveys of both employees and employers. The information and analysis results developed have been used by economic development organizations to assist in the recruiting of firms to relocate to Maine and to shape labor force development and training programs. This project was nationally recognized in 2002 as an Outstanding Economic Development Project by the University Economic Development Association (formerly the National Association of Management Technical Assistance Centers).

In 2005-2006, CBER will update the survey-based database and labor force analysis for Aroostook County, a project that carries a high priority for the Northern Maine Development Commission and is expected to receive partial support from RBOG funding from the USDA. In addition to examining the key characteristics of the workforce of interest to businesses seeking to relocate and expand in Aroostook, the UC will conduct a supplemental analysis of the issues affecting the aging workforce in the region, including factors influencing youth out-migration and retirement plans for older workers. CBER also expects to update the labor force analysis in Maine regions outside of Aroostook County during the second and third years of the EDA University Center grant.

(2) Factors affecting youth out-migration in regions outside of Aroostook

In 2003-2004, in partnership with the Northern Maine Development Commission, CBER completed a detailed analysis of factors affecting the location decisions of high school and college students in Aroostook County. The UC expects to expand this work to other regions in northern and southern Maine in 2006-2007 and 2007-2008. CBER is planning a project with the Kennebec Valley Council of Governments to assess the factors affecting youth out-migration in that region during 2006.

(3) Training in labor force analysis for economic developers

CBER will continue its program of training economic development professionals in the analysis of regional economies in cooperation with the Economic Development Council of Maine. This program consists of 2-3 seminars in economic analysis each year, plus ongoing consulting support to economic development organizations seeking guidance on the availability and use of economic data for formulating and assessing economic development programs. This program will continue in each of the three grant years.

(4) Tourism/recreation labor force

As part of its work on tourism with CenTRO and the University of Maine, CBER will conduct a detailed analysis of issues affecting the tourism labor force. Using CBER's own labor force database plus other data, CenTRO will prepare an assessment of employment and wage trends in tourism/recreation industries to assist businesses facing acute labor shortages, particularly during the peak summer season.

b) Responses to federal defense policy changes

During 2005, CBER will work with the Southern Maine Development District and the Town of Brunswick to prepare assessments of the likely effects on the regional economies if the Kittery-Portsmouth Naval Shipyard and/or Brunswick Naval Air Station are closed or significantly altered in scope. Both analyses will include assessments of strengths and weaknesses in the regional economies that will shape the economic development responses to changes in the shipyard and/or air station.

In 2006, the Center will work with state and local agencies to examine the effects on Bath Iron Works resulting from possible changes in DOD procurement policies.

c) Economic impact analyses

CBER maintains the only complete set of economic impact models for Maine and its regions. These include the Regional Employment Impact System of the Bureau of Economic Analysis and two models developed by the private sector, IMPLAN and REMI (Regional Economic Models, Inc.). This analytic capacity is extensively used by clients in both the public and private sectors. Each year, CBER is contacted by 5-8 clients seeking assistance with economic impact analyses. Examples in the public sector include the projects assessing the impact of the DOD procurement policy changes mentioned in the previous section.

In 2005, CBER will continue its economic impact analysis of the largest development proposal ever made for Maine's Unorganized Territory, a 10-year development plan for housing, forest products, and tourism/recreation being

proposed by Plum Creek Timber Company. Other clients for this form of technical assistance will be identified as proposals occur.

d) Tourism analyses

In 2005-2006 as part of CenTRO's activities, CBER will work with the University of Maine to examine the characteristics of the overnight visitor market in Maine in order to assist the tourism industry develop more effective marketing strategies. The UC will also work the University of Maine to assist one community to develop a complete inventory and assessment of its tourism assets. This will form the prototype for community resource assessment that will be extended to additional communities in years 2 and 3. This project will also assist in addressing a high priority for the Maine Creative Economy Council, a group appointed by the Governor following the Blaine House Conference on the Creative Economy in 2004, to which CBER contributed a major portion of the research. CBER's work on the creative economy has been undertaken jointly with the New England Environmental Finance Center, which is a part of the Muskie School and is funded by the Environmental Protection Agency.

Also in years 2 and 3, CBER will lead an assessment of the economic value of Maine's beaches. While the 23 miles of Maine's 3000-mile coastline that comprises sandy beaches is one of Maine's premier tourism attractions, almost nothing is known about the level of beach use or the economic impacts and values of these resources in the Maine economy. This project will be conducted with the University of Maine, the Maine Coastal Program, and a coalition of communities, businesses, and homeowners from Maine's beach communities.

e) Technology clusters

In 2001, CBER completed a detailed assessment of the seven technology clusters that were designated by the Legislature as the focus for state research and development assistance. This study has been widely used by state and local agencies in Maine to shape programs assisting Maine's technology industries and to assess Maine's progress in developing competitive clusters in these seven areas. In year 2, CBER will work with the Maine Department of Economic and Community Development Office of Innovation to update and expand this study and to inform policy makers about progress in cluster development and the role of state programs.

f) Transportation

For many years, CBER has played an important role in the economic analysis of major transportation issues in Maine. Examples include the analysis of proposed major highway projects in Aroostook County and spanning the northern part of the state (i.e., the "east-west" highway). The Center will

continue to assist the Maine Department of Transportation and others concerned with transportation issues affecting economic development. In 2005, CBER will work with the Maine Turnpike Authority to examine issues regarding the use of toll revenues for transportation improvements.

g) Other technical assistance

CBER has long been recognized by the public and private sectors in Maine as a source of expertise for all forms of economic-development technical assistance. As a consequence, throughout the grant period, the UC will undertake technical assistance projects for a variety of yet-unidentified clients as demands arise. Dozens of examples from the past are detailed in reports submitted to EDA on an annual and semi-annual basis. CBER, which has also become well known as a user-friendly gateway for accessing university expertise in areas far afield from economic development, will continue its broader role as an outreach facilitator for the University.

2) Program evaluation, performance assessment, and improved management of economic development programs

In this area of technical assistance, the University Center has three projects planned: a) evaluation of Maine Technology Institute programs; b) evaluation of technology commercialization projects; and c) evaluation of other economic development programs.

a) Evaluation of Maine Technology Institute programs

The Maine Technology Institute (MTI) was established in 1999 by the Maine Legislature to fund research and development activities with a high potential for accelerating innovation and economic development. The Legislature required that the effectiveness of MTI grant programs be evaluated by an external organization on an ongoing basis.

CBER was chosen in a competitive procurement process to serve as the evaluator for MTI in 2002, and is committed to serve in this role through 2006. In cooperation with MTI, the Maine Department of Economic and Community Development (DECD), and a private consulting firm that assists DECD with the evaluation of other state R&D support programs, CBER will survey all MTI grant recipients in both 2005 and 2006 and prepare a report to the Legislature in 2006.

In response to their invitation, CBER will also expand its technical assistance services to MTI. The extensive data relating to MTI clients, which were collected by CBER, will be used to assist MTI in improving its program-administration and grant-selection processes and procedures.

b) Evaluation of technology commercialization project

The Maine Small Business Development Centers (MSBDC) and the Center for Entrepreneurship and Small Business (CESB), both housed in the School of Business, have asked CBER to serve as the program evaluator for two technology commercialization projects, should funding be awarded. MSBDC and CESB have jointly proposed both projects, one to begin in late 2005 and the other in 2006, which means that the UC's work would fall in year 2 and 3 of the EDA grant.

c) Evaluation of other economic development programs

Many economic development programs are seeking ways to assess their effectiveness. The Maine Economic Development District Association (MEDDA) has asked CBER to assist in the development of ways to use available data and economic analysis tools to assess economic development programs in Maine. In partnership with MEDDA, CBER will explore different program assessment methods during all three of the grant years.

3) Private-sector organization efforts to enhance competitiveness

For many years, the private sector has come to CBER seeking assistance on a wide range of challenges/opportunities that either directly or indirectly enhanced their competitiveness. Projects have ranged from survey-based research from numerous marketing/public-relations firms to forecasting call volumes at L.L. Bean or financial/operational performance measures at Anthem Blue Cross/Blue Shield, to improving warehousing efficiency at Hannaford Brothers (Fortune 100), to optimizing outpatient scheduling at Maine Medical Center, to providing statistical analysis for a legal battle waged by Verizon, to assisting in actuarial efforts at UnumProvident.

UnumProvident has recently invited the Center to work with them on a new project focused on analyzing the effectiveness of their processes for preparing quotes for long-term disability insurance plans. This project is in its infancy, but is expected to complete before the end of 2005. However, senior management at UnumProvident has also stated their intention to maintain an ongoing relationship with the UC, so technical assistance work with this large, high-wage, high-skill-level employer is expected to continue through all three grant years.

b. Applied Research

The principal applied research task that CBER expects to undertake is forecasting the Maine economy. There will be three major forecasting projects, each of which will be conducted in all three grant years.

1) Semi-annual forecasts of the Maine economy

Twice a year, CBER will prepare a five-year quarterly outlook for the Maine economy. This forecast is prepared in cooperation with the New England Economic Partnership, a non-profit cooperative of public and private

organizations across the six New England states. These forecasts are also used by Maine State Government, through the Consensus Economic Forecasting Commission, to prepare forecasts twice a year upon which the revenue estimates for the state budget are based.

2) Long-term forecasts of the economies of Maine and its regions.

The REMI models that the UC has maintained and updated each year permit long-term forecasts of population and the economy to be prepared for each of nine regions within Maine. CBER will continue to prepare and distribute long-range forecasts of employment and population for use by public- and private-sector organizations.

3) Tourism

As part of its participation in CenTRO, the UC will develop and present annual forecasts of tourist activity for use by the tourist industry and the economic development community. CBER is already working with the Maine Turnpike Authority to use traffic data to prepare forecasts of Turnpike traffic (a major indicator of tourist activity) for use by the tourism industry.

c. Dissemination of Results

For all three grant years, the Center will continue disseminating results relating to its applied research and technical assistance activities using four primary media:

1) *Maine Business Indicators*

For nearly 40 years, *Maine Business Indicators (MBI)*, a semi-annual publication of CBER, has provided a regular outlet for discussion of issues facing the Maine economy and for publicizing the work of CBER and its partners. The Center will continue publishing *MBI* and distributing it to an audience of over 1,000 leaders in Maine's public and private sectors.

2) Websites

The UC maintains a website for distribution of its information products. This will be maintained and regularly updated. CenTRO will also maintain a website specifically devoted to the results of tourism-related research and technical assistance that will be linked to CBER's website and be the major distribution point for the UC's tourism-related activities.

3) News media

Center research associates are regularly consulted by news media throughout Maine for information and commentary on the Maine economy. This is expected to continue with increasing volume over the foreseeable future.

4) Scholarly publications

As a university-based organization whose work is conducted by faculty and graduate students, the Center's output is expected to result in scholarly publications whenever appropriate. CBER's public-sector technical assistance projects have regularly resulted in presentations at scholarly conferences such as the Association of Collegiate Schools of Planning, as well as publication in top-tier, peer-reviewed journals such as *Economic Development Quarterly*. CBER expects to continue contributing to the scholarly knowledge of economic development, particularly related to its work on the labor force, technology, and tourism projects. As documented in numerous annual and semi-annual reports, the Center's scholarly publications relating to private-sector technical assistance work are also well received. All of these publications, in both the public and private sectors, help publicize the contributions made by the Center, the University, the Economic Development Administration, and other partners.

For many years, CBER has been sponsoring EDA's telecasts at multiple locations throughout Maine. These events provide ideal opportunities for economic development professionals to meet with colleagues in their region to discuss the telecast content and other topics of common interest. The Center will continue to offer all of the telecasts at convenient locations throughout the state during all three years of the grant.

Exhibit III.2**B. SUPPORTING INFORMATION**

Supporting information is presented in five sections: 1. capacity and experience; 2. complementary services; 3. coordination with other organizations; 4. accessing key university resources; and 5. financial and non-financial support.

1. Capacity and experience

The USM Center for Business and Economic Research has provided technical assistance and applied research in support of economic development in Maine since 1974. Today, CBER's combination of experience with Maine economic and economic development issues, its strong ongoing relationships with the economic development community, and its analytic and information capacity is unmatched in Maine. (A two-day site visit conducted by EDA this past August led to a highly complimentary appraisal report.) The Center brings the resources of the USM School of Business and the Edmund S. Muskie School of Public Service to executing its mission, providing a unique combination of perspectives of private- and public-sector-oriented university resources. CBER draws on the resources of the School of Business and its MBA program as well as faculty and students from the Muskie School's graduate program in community planning and development and its Ph.D. program in public policy.

In addition, CBER has drawn upon faculty and students from the College of Education and Human Development in projects involving the labor force and youth, as well as from the School of Applied Science, Engineering and Technology and the College of Arts and Sciences for other projects requiring specialized forms of expertise. Occasionally, the Center calls upon experts at other colleges and universities in Maine.

Dr. Bruce Andrews is Director of CBER. He is a professor of management science in the School of Business and has been at USM since 1974. As a faculty leader in the School of Business, Professor Andrews serves on the Dean's Leadership Council (an internal governing body) and as the only faculty member on the Dean's Business Advisory Council (an external governing body). For over 30 years, he has consulted with businesses throughout Maine to improve their competitiveness. His clients have included many of Maine's largest and most influential private-sector employers.

Dr. Charles Colgan is Associate Director of CBER. He is a professor of public policy and management in the Muskie School and has been at USM since 1989. Prior to joining USM, he served as a senior policy advisor to three Maine governors, including appointment as Maine State Economist. He is a leading authority on the Maine economy and has worked on economic development policy for Maine in both government and university positions since 1976.

CBER also engages outreach-oriented faculty members and talented graduate students who have the expertise and enthusiasm to oversee/conduct the activities and projects that

comprise the Center's program. At a minimum, this year, the following faculty members will be heavily involved in CBER's work:

Fred Aiello, MBA, Associate Professor of Management, School of Business
 Richard Barringer, Ph.D., Research Professor, Muskie School of Public Service
 Kevin P. Boyle, Ph. D., Distinguished University of Maine Professor
 Jack Jensen, Ph.D., Associate Professor of Management Science, School of Business
 John Sanders, MBA, CPA, Associate Professor of Accounting, School of Business
 Bert Smoluk, Ph.D., Associate Professor of Finance, School of Business
 James Suleiman, Ph.D., Assistant Professor of Management Information Systems,
 School of Business

Other faculty members from within the University of Maine System will likely be called upon to work on Center projects.

2. Complementary services

Given its long history as a University Center with a strategic emphasis of providing information and analytic expertise not available elsewhere, CBER does not offer services that duplicate those offered by other organizations in Maine. Strategic partnerships are established with public- and private-sector clients based on the Center's ability to add the type of complementary capacity found only in universities that emphasize delivery of technical assistance and applied-research services and rely upon external partnerships and the leveraging of their institutional resources to do so.

3. Coordination with other organizations

CBER works with a wide array of organizations in furthering economic development in Maine. The Center is a member of the Maine Economic Development District Association, the organization of EDA Development Districts. As a member of MEDDA, the Center coordinates the development of its work program (including this grant application) with the organizations that use its technical assistance and applied research services to improve the overall delivery of Maine's economic development programs and services.

A number of private-sector organizations also provide information and complementary analytic services in support of economic development. CBER works closely with, and sometimes partners with, many of these organizations on projects, (e.g., the MTI program evaluation and recent projects on the economic role of arenas in Portland).

CBER is also sometimes contacted for technical assistance for which it has neither the capacity nor the resources. In these situations, the Center carefully orchestrates the client referral process to those organizations best able to assist them.

4. Accessing key university resources

In addition to the type of genuine support from top administrators and the public-service-oriented institutional mission found at USM, there are several other key ingredients needed to build a successful strategy for engaging university resources in productive economic-development outreach activities. One important element involves attracting the type of projects for which faculty members have relevant expertise. Another critical ingredient is faculty leadership and an overall faculty culture that values external service and incorporates this activity into the performance review process. A third component involves being able to offer faculty compensation in the form of access to travel funds, graduate student support, and/or increased pay. At the University of Southern Maine, the School of Business, the Muskie School of Public Service, and most of the other schools and colleges have succeeded in providing all three of these key ingredients.

At USM, CBER works with other research and service organizations such as the Small Business Development Center and the Center for Entrepreneurship in the School of Business and the New England Environmental Finance Center in the Muskie School. Center projects have also involved faculty and students from the College of Arts and Sciences, College of Education and Human Development, College of Nursing and Health Professions, and the School of Applied Science, Engineering, and Technology.

Proposal for EDA University Center Program

Submitted by
Penn State University
Pennsylvania Technical Assistance Program
April 18, 2005

1. Program Focus

The mission of the Penn State University Center is to enhance the economic well being of Pennsylvania by utilizing the university's expertise and intellectual capacity to help create higher-skill, higher-wage jobs and improve the competitiveness of key industry clusters. The work of the University Center will be integrated and carried out through the university's Pennsylvania Technical Assistance Program (PENNTAP).

The program focus of the University Center will be primarily providing technical assistance (90%) to entities in key industry clusters. The Center will provide technology assistance to companies, focusing on increasing the technology capabilities of companies in specific industry clusters, local and critical to distressed areas of Pennsylvania. These companies are vital for the survival of that region's economy. These efforts will outcome in companies that are more competitive with higher-skilled staff thereby yielding higher paying jobs for knowledge workers for targeted clusters. One applied research (2%) activity will be provided which is the publication of *Pennsylvania County Industry Trends* which will be distributed to key economic and workforce development organizations throughout the state. A small amount of effort (8%) will be devoted to disseminating results by: 1) informing economic development partners and potential clients about the resources of the Penn State University Center; and 2) preparing reports and disseminating the results of the activities of the University Center.

2. Service Area, Needs and Target Audience

A. Service Area

The Penn State University Center will serve all 67 counties across the Commonwealth, with a primary focus on the 38 distressed counties identified in section 1-C.

B. Needs

The following recent reports provided the basis for the needs that will be addressed by the University Center:

1. *Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania, Brookings Institution (2003)*

- Pennsylvania ranks 44 in new business starts and growth 2001
- Pennsylvania ranks 47 in percentage employment growth 1992-2002
- Pennsylvania's wages, or average annual pay, trail both the nation's and other Mid-Atlantic states'
- Recommends that Pennsylvania promote development in key select industries and focus on industries that promote the revitalization of older communities

2. *Pennsylvania's Targeted Industry Clusters, Pennsylvania Department of Labor and Industry (2004)*

- Recommends targeting economic and workforce development efforts on the following nine key industries with critical sub-clusters identified in three of the industries.

Life Sciences

Bio-Medical

Health Care

Business and Financial Services

Education

Advanced Materials and Diversified Manufacturing

Chemicals, Rubber and Plastics

Electronics

Metals and Metal Fabrication

Printing

Vehicle and Vehicle Equipment

Building and Construction

Agriculture and Food Production

Food Processing

Information and Communication Services

Logistics and Transportation

Lumber Wood and Paper

3. *Pennsylvania TechFormation: A Status Report and Growth Strategies for Technology-Based Economic Development, Pennsylvania Department of Community and Economic Development (2005)*

- Identifies how universities can support business growth during a company's life cycle: concept – formation – growth – maturity - reinvention

- University resource connections-providing access to existing university-based resources and expertise
- Technology transfer expertise and assistance – knowledge of how to extract university and industry-based ideas and ultimately bring them to market
- Efforts to secure Small Business Innovation Research and Small Business Technology Transfer (STTR) grants
- University-based Centers of Excellence – research-focused university programs capable of providing technical assistance in broad-based industry applications
- Support Keystone Innovation Zones – state-designated campus-based business enterprise zones.
- Access to university and industry-based R&D to enhance industry product lines
- University Partnerships – affiliations with university-based R&D

C. Target Audience

The Penn State University Center will concentrate on serving entities in distressed areas across the state which include the following 38 counties:

Armstrong	Monroe
Bedford	Northumberland
Bradford	Philadelphia
Cambria	Potter
Cameron	Schuylkill
Carbon	Somerset
Clarion	Sullivan
Clearfield	Susquehanna
Clinton	Tioga
Crawford	Union
Elk	Venango
Erie	Warren
Fayette	Wayne
Forest	Wyoming
Fulton	
Greene	
Huntingdon	
Indiana	
Jefferson	
Juniata	
Lawrence	
McKean	
Mercer	
Mifflin	

It will focus on companies that are committed to becoming more competitive through technology. Assisting companies with the initial planning and educating them on the advantages of technology solutions will give companies the confidence and assurance they need to implement solutions and educate and upgrade their workforce. This focus will insure that the companies will move forward and make investments in implementing technologies.

The University Center will also support companies in the Commonwealth's approved Keystone Innovation Zones throughout the state. These zones are designated to foster innovation and create entrepreneurial opportunities.

The Center will also identify and work with technology companies to pursue SBIR and STTR grants especially if the university's research and expertise can support a company's technology development.

3. Scope of Work and Anticipated Impacts and Benefits

A. Scope of Work

(1) Technical Assistance (90%) – the Penn State University Center will provide technology assistance to entities through technical advice provided by the staff of the University Center. All University Center staff have both industry experience and technical expertise which is essential in establishing credibility with the private sector entities to be served. University Center staff will also identify and engage other Penn State expertise and resources at any of the university's 24 locations to respond to clients' in-depth or complex technology needs. Many of these engagements by university faculty are often done pro-bono. Faculty-supervised student projects will also be used to assist companies. Clients perceive the advice and assistance from university resources to be objective and unbiased, and it helps increase client's confidence to take actions, including making investments that will enhance products, improve competitiveness, expand markets and create higher-skill, higher-wage jobs.

The University Center will emphasize particular activities, including:

- Technology assistance to regional cluster industries. The University Center will provide targeted technology assistance to each region's critical industry clusters focusing on job creation and retention. This will be done through one-on-one technical assistance to educate, develop and assist companies in various aspects of technology, as well as engage University faculty and students to assist and potentially deliver solutions to these companies. Assistance will be provided to companies that are committed

- to implementing technology with the sole purpose of making company investment to yield high-paying jobs.
- Technology transfer and commercialization. The University Center will look for opportunities for companies to capitalize on university research and to develop it and commercialize it. The university already has in place over 200 license agreements with companies. University Center staff will also identify potential funding sources, such as Pennsylvania's Ben Franklin Technology Partners or federal SBIR and STTR grants to support such developments and commercialization.
 - SBIR and STTR support. PENNTAP is a partner of Pennsylvania's Innovation Partnership, a consortium of economic development and business assistance organizations to help early-stage companies secure SBIR and STTR funding opportunities. University Center staff will identify technology companies and work with them to develop winning proposals for SBIR and STTR funding. Micro grants of up to \$3,000 are also available to companies from the Pennsylvania Innovation Partnership to support proposal development.
 - Support companies in Keystone Innovation Zones. KIZs allow Pennsylvania to make effective use of university research. The Penn State University Center will support technology innovations through the facilitation of technology transfer to leverage the university's R&D to commercialize technologies and develop or improve products and processes for companies in the KIZs.
 - Advanced materials. Penn State is by far the top ranked institution nationally in materials related R&D. The university has experts in a range of materials including plastics, ceramics, powdered metals, nanotechnology, electro-optics, smart materials, green materials and more. To date, 72 Penn State nanotechnologies have been patented and 50 of these have been licensed to Pennsylvania companies. The University Center will capitalize on the university's strength in advanced materials and identify companies that can benefit from faculty expertise and application of these technologies. Connections will be made between companies, university resources and other partner organizations to support the utilization of these technologies by Pennsylvania companies.

(2) Applied Research (2%) The university center will publish *Pennsylvania County Industry Trends* each year in partnership with the University's Pennsylvania State Data Center. This document will show trends in the number of establishments and employees for all industries based on the North American Industry Classification System (NAICS). Data will be presented for the entire state and each county. Summary tables and analyses will also be included. This document will be provided in electronic format to key economic and workforce

development organizations throughout the state to be utilized for their planning and decision making.

- (3) **Disseminating Results (8%)** This work element includes two activities. The first is to prepare and develop reports to EDA and other annual reports of activities that will be provided to key stakeholders such as economic development partners, elected officials, trade associations, and key government agency officials.

The second activity is providing information to partners and potential clients about the University Center and the resources of the university. This will be accomplished through presentations, updating the web site and development of targeted materials.

B. Anticipated Impacts and Benefits

PENNTAP has in place a Team Information Management System (TIMS) for tracking interactions with clients and partners and client reported benefits from those activities. The system triggers an electronic satisfaction survey to clients at the conclusion of the assistance provided by PENNTAP.

An electronic economic benefits survey is also emailed to clients at some lag period (agreed to with the client) when it is expected that economic benefits will be realized. The data reported by clients include:

- Did you take action as a result of the assistance provided?
- If yes, did those actions achieve the expected results?
- Annual cost savings (\$) as a result of the assistance.
- Investments (\$) as a result of the assistance.
- Jobs created & jobs retained as a result of the assistance.
- Sales increases and sales retained as a result of the assistance.

Qualitative comments are also solicited on non-quantifiable benefits as well as any suggestions.

It is anticipated that as a result of PENNTAP assistance during the three year period clients will report approximately:

- 200-300 jobs created plus 600-900 jobs retained
- \$6,000,000 in investments
- 80-85% of clients will take action
- 85-90% of clients that take action will achieve expected results
- \$50 million of total economic benefits from cost savings and sales expansion

4. Supporting Information

A. Institution's Capacity and Experience

PENNTAP was established in 1965 as a partnership between Penn State University and the Commonwealth of Pennsylvania. PENNTAP is one of the first university-based technical assistance programs in the nation. Since 1980 PENNTAP has been supported as EDA's University Center in Pennsylvania, establishing PENNTAP as a statewide federal-state-university partnership for economic development. PENNTAP remains a credible and valuable resource for helping Pennsylvania business compete and grow. Over the years, individuals or organizations from 47 other states and 40 countries have contacted PENNTAP to learn about how it operates.

Penn State University has significant and long-term experience in operating economic development assistance programs. As Pennsylvania's land grant institution, Penn State has the agricultural/cooperative extension program for nearly 100 years helping Pennsylvania's significant agricultural industry. Since 1982 the University has operated one of four Ben Franklin Technology programs covering 34 counties from Erie to Lancaster including the majority of the state's distressed counties. The university also has a small Business Development Center that covers Berks and Mifflin counties. The SBDC was established within PENNTAP in 1997 and spun out as its own entity within the university in 2000. PENNTAP works closely with all these organizations as discussed in section 4-D. PENNTAP's existing network of geographically positioned technical specialists offers an extremely fast rapid response team to address technology issues facing companies in the clusters critical to Pennsylvania's regional economies serving ALL distressed counties. The University Center will provide technology assistance to all companies in critical industry clusters. The network provides both geographical and technical advantages. PENNTAP's technical specialists are placed in all regions of the Commonwealth. This geographical placement means that the technical specialists spend less time on the road and more time with the companies providing technical support. It also means the technical specialists are familiar with the areas, culture and business climate. PENNTAP's technical specialists are familiar with the areas, culture and business climate. PENNTAP's technical specialists are technically diverse and collaborate with each other. This technical diversity means that the technical specialists can quickly get the answers they need and deliver those answers more expeditiously to companies. It also means PENNTAP is on the forefront of technology yielding state-of-the-art solutions and strategies to the companies that need it most.

Penn State's 24 locations throughout the state also provide the opportunity for University Center staff to engage faculty and students from companies in proximity to companies.

In recognition of PENNTAP's outstanding record of accomplishment over the years and its dedication to the advancement of the professional practice of technology transfer, the Technology Transfer Society awarded its Justin Morrill

award to PENNTAP in 1991. The award is given to organizations that have gone beyond their own success and set standards of excellence for others. In this regard, PENNTAP has served as a model for a number of similar organizations being set up in other states and countries to provide technical assistance to assist businesses.

PENNTAP was the recipient of the Pennsylvania Economic Development Association's (PEDA) inaugural Partner of the Year award in 2000.

In 1998 PENNTAP won a Pennsylvania Governor's Award for Environmental Excellence.

Over the past twenty years, PENNTAP has won twenty-two Outstanding Projects awards in national competition sponsored by the University Economic Development Association (previously the National Association of Management and Technical Assistance Centers).

PENNTAP assistance has resulted in excellent impact as a direct result of the assistance as shown below for the last one and three calendar years:

	2004		2002-2004	
	Total	Distressed Counties	Total	Distressed Counties
Cases of Assistance	820	340	2,375	1,020
Jobs Created	190	37	337	96
Jobs Retained	385	112	1,804	579
Econ Benefits (\$ millions)	\$38	\$9	\$80	\$29
Investments (\$ millions)	\$3.4	\$0.4	\$7.2	\$2.8
Satisfaction (out of 5)	4.7	4.7	4.6	4.6

Also during 2004, PENNTAP staff made 180 presentations to inform partners and potential clients about its assistance and the resources of the university. Its staff also presented technology related topics at 45 seminars that attracted 1,400 participants.

B. Complementary Organizations

PENNTAP views itself as one tool available in the full tool kit of programs available to help clients. Other organizations which provide complementary services and which PENNTAP works with include:

PENNTAP provides a limited amount of free technology assistance to entities in all industry sectors and makes linkages with university expertise and resources to address in-depth or complex technology needs.

Industrial Resource Centers provide technical and financial assistance to only manufacturers for projects to implement best technologies and management practices.

Ben Franklin Technology Partners provide entrepreneurial support to, and make capital investments in, technology firms and early stage companies for product and process development and technology commercialization.

Small Business Development Centers provide free business management consulting and information and low-cost educational programs to small business owners and individuals interested in starting a business.

Regional Economic Development Organizations provide some specific services such as export assistance, financing and government procurement assistance.

Pennsylvania Business Retention and Expansion Program has a Business Calling Program whose representatives visit various types of businesses to identify any needs for assistance and make referrals to appropriate service providers to follow up with clients to address specific needs.

C. Maximizing Coordination with Other Organizations

PENNTAP is a proven example of a true federal-state-university-regional partnership. PENNTAP regionally placed technical specialists collaborate with key economic development partners. See the support letter from Richard Overmoyer, Deputy Secretary for Technology Investment, Pennsylvania Department of Community and Economic Development included at the end of the proposal. PENNTAP has partnership arrangements with approximately 30 organizations that provide support such as funding or space. Additionally, there is a multitude of other organizations that provide access to target companies.

PENNTAP services the entire state of Pennsylvania through a network of technical specialists who have specific areas of technical expertise and are located throughout the state. Many of these individuals are co-located with other economic development organizations. The colocation helps with coordination and fosters collaboration at the regional level.

Several PENNTAP positions are cost-shared with other partners to increase efficiency, provide complementary services to clients in a particular region, or to support specific regional initiatives.

PENNTAP specialists often participate in regional service provider networks to inform and be kept informed of what each service provider does and any new programs or opportunities for collaboration.

Evidence of the success of these activities is the fact that in 2004 52% of PENNTAP clients came by the way of referrals from other organizations. This has increased from 32% just five years ago. Similarly in 2004 after providing value-added technology assistance by PENNTAP technical specialists, in 51% of the cases referrals were then made to other resources for additional follow-on assistance, including 290 referrals to private sector resources.

As mentioned earlier, PENNTAP was the recipient of the Pennsylvania Economic Development Association's (PEDA) inaugural Partner of the Year award in 2000.

D. Accessing and Coordinating Resources within the University

Accessing and coordination of university resources to support the work of the university center is accomplished at the management level and regionally.

PENNTAP is part of the university's recently established Office of Economic and Workforce Development. As such the PENNTAP director participates in ongoing collaborative activities with other related university outreach entities including dissemination of information across all 24 university locations through their continuing education units who also work closely with companies statewide. This provides opportunities for synergy to provide both economic and workforce development assistance to companies. The director also participates in regular meetings with the directors of the university's technology transfer units including its Industrial Research Office, Ben Franklin Technology Partners, Intellectual Property Office and Research Commercialization Office. This also provides an opportunity for coordination of resources and responses to client needs and to collaborate on specific initiatives, seminars, presentations, etc.

PENNTAP staff work closely with the university's Industrial Research Office (IRO) to help identify specific faculty expertise at the university's 24 locations or within the 100+ centers and institutes. The IRO also maintains a database of faculty expertise.

Regional-based PENNTAP staff utilize the expertise of Penn State faculty, students and facilities at various Penn State locations throughout the Commonwealth to either help clients directly or to help formulate responses to client needs. They also work with other regional university units including continuing education staff at the various campuses and with cooperative extension staff in each county. PENNTAP staff also participates in the university's regional outreach councils with these organizations to inform each other of new resources, programs, and opportunities for collaboration. Client referrals take place to and from PENNTAP and these other university organizations within a region.

E. Evidence of Institutional Support

In October 2004, Penn State University established an Office of Economic and Workforce Development. PENNTAP and its University Center are a part of this new organization which reports directly to the university's Vice President for Outreach, who reports to the President of the university. This elevates the reporting level of PENNTAP up one level from its previous organizational alignment.

Graham Spanier, university President has stated "As President of Pennsylvania's land grant institution, I feel a strong responsibility to engage the university's resources to provide public service to the Commonwealth. In particular we are committed to use our resources to support economic development." See his letter of commitment included at the end of this proposal.

The mission of the Office of Economic and Workforce Development is to advance the economic well being of Pennsylvania through brokering the university's expertise and intellectual capacity to help create and retain jobs and enhance the skills of the workforce. The Office will support Pennsylvania's employers and workforce through matching their needs with Penn State resources and engaging other partners. It will identify and facilitate opportunities for partnerships between university units statewide and other economic and workforce development organizations.

Being part of the new office will provide PENNTAP and its University Center with greater opportunity for collaborations, improved access to university resources, and greater visibility both within the university as well as externally.

Jack Gido, current PENNTAP Director is the first Director of the new office. He has been Director of PENNTAP since 1991. He is on the Board and had been President of the University Economic Development Association (previously NAMTAC). He previously held dual positions as Manager of the Industrial Technology Extension Service for the New York Science and Technology Foundation and as Deputy Director of the Industrial Effectiveness Program at the New York State Department of Economic Development. He has 20 years of industrial management experience, including the management of productivity improvement and manufacturing technology programs for General Electric and Mechanical Technology Inc. He also is the author of the textbook *Successful Project Management*.

In this role, Jack Gido will have responsibility for the success of Penn State's University Center.

Towson University EDA Proposal

Section 1: Program Focus of the Proposed University Center

The proposed University Center (Center) will be affiliated with Towson University's Division of Economic and Community Outreach (DECO) as well as the Maryland Technology Development Corporation (TEDCO), an institution that seeks to enable private sector firms to leverage technologies developed within the State's Federal Labs and Universities. The objectives of the Center are threefold. The first objective is to provide economically distressed areas with access to the Center's extensive research capabilities, especially those pertaining to the production of feasibility and economic impact analyses. The second objective is to assist distressed areas in terms of planning and implementing projects that will foster the attraction and/or creation of technology oriented, well paying jobs to these areas. The third and final objective is to provide eligible companies within distressed areas with access to the technology transfer programs operated by TEDCO. The Center would allocate resources across the three objectives as follows: 25% will be devoted to providing distressed areas with access to the Center's resources (first objective), 45% will be devoted to the second objective and 30% will be channeled toward achieving the third objective (technology transfer).

Section 2: Service Area, Needs of Service Area and Target Audience of the Proposed University Center

2.1 Service Areas

The proposed service areas for the Center will include Baltimore City and Western Maryland (comprised of Allegany, Garrett and Washington Counties). Both Baltimore City and portions of Western Maryland suffer from chronically high unemployment rates. Both regions are also characterized by a disproportionate share of low wage jobs relative to the balance of Maryland and the nation, as evidenced by the following table.

<u>Region</u>	<u>2002 Per Capita Personal Income</u>	<u>Unemployment Rate (Jan-05)</u>
United States	\$30,906	5.7%
Maryland	\$36,303	4.7%
Baltimore City	\$26,629	8.1%
Western Maryland	\$25,281	5.8%
Allegany	\$22,703	7.5%
Garrett	\$23,686	7.5%
Washington	\$27,052	4.6%

2.2 Service Area Needs

Western Maryland

Comprised of Allegany, Garrett, and Washington counties, the region is transitioning from an economy dependent on old-line manufacturing and distribution, towards a more

diversified economy that includes business services, tourism, retail and back-office operations. Much of the recent job creation in Western Maryland, however, is not concentrated within high wage industrial sectors, a factor reflected in the region's personal income level, which at \$25,281 in 2002 is well below that of the State and nation (see table above). Moreover, although unemployment rates in Garrett County and Allegany County have declined over the past several years, jobless rates remained above 16 (Garrett County) and 10 percent (Allegany County) as recently as the first quarter of 1998. Current unemployment rates of 7.5 percent remain quite high compared to the balance of the State.

Although the transition from a manufacturing to a service based economy has long been in effect for the region, Western Maryland has seen several manufacturing facilities either close or relocate in *recent* years. Firms such as Kelly-Springfield Co, Bausch & Lomb Inc., GST AutoLeather Inc., and Phoenix Color Corp. are among the companies that have left the region. This trend has contributed to a depletion of job opportunities (especially relatively high paying opportunities) for the region's labor force. Wage levels for the region have been adversely impacted as a result. A key objective of the Center would be to assist Western Maryland in attracting and growing firms that will provide quality or high wage labor force opportunities.

One area the University Center may be particularly helpful in is the development of Homeland Defense initiatives suitable for the Western Maryland region. The Center would be associated with Towson University's Homeland Security Center and would certainly capitalize on any opportunities the Homeland Security Center could offer. The University Center's affiliation with TEDCO would also allow for synergies and opportunities in terms of access to and the transfer of technology from federal labs and universities to businesses in Western Maryland.

Baltimore City

Baltimore City faces a number of obstacles that stymie local economic development efforts including transportation, educational and labor force challenges (the City is home to a substantial population of disadvantaged workers). Here again, the University Center could leverage its relationship with Towson's Extended Education and Distance Learning division in order to develop and deliver curriculum to pre-existing Baltimore City Community centers or other locations. The ultimate goal is to further enable City residence to acquire marketable skills and thus indirectly attract or grow technology job opportunities.

2.3 Target Audience

The target audience will be primarily comprised of local businesses and labor forces as well as local economic development professionals and planners situated within distressed areas.

Section 3: Scope of Work and Anticipated Impacts and Benefits

This section details the full offerings associated with the proposed University Center. Though each is described as a separate project, the skills and resources that will be afforded to the University Center through its affiliation with Towson University would be leveraged to complete and integrate all of the following projects.

3.1 Technical Assistance

The University Center, in collaboration with TEDCO, would assist local firms in further developing and implementing technology solutions aimed at increasing efficiency, productivity and ultimately job growth.

3.2 Conducting Applied Research

We envision the Center providing a variety of research services ranging from conducting business surveys and feasibility studies to developing workforce training initiatives. This section describes a sample of services the Center could provide.

3.2.1 Labor Market Analyses

The University Center could provide an analysis of local labor market trends, paying particular attention to the supply and demand of labor for relevant business segments. It is important for any region to understand the profile of its labor force. In addition, an understanding of current business needs with respect to labor is essential. Using survey research and other published data, the University Center will assist local economic development agencies in assessing labor market needs. The Center would certainly draw upon Towson University's resources to perform this task.

3.2.2 Cluster Analyses

The University Center could analyze existing industrial clusters present in the region. Specifically, the analysis would identify emerging industrial segments as well as any associated potential shortfalls and opportunities with respect to future job creation within specific sectors. This type of analysis requires a solid understanding of industry linkages as well as familiarity and access to available detailed, industrial data. The University Center could utilize Towson's College of Business and Economics' faculty for this type of project.

3.2.3 Business Surveys

The University Center could survey local businesses to identify any unmet needs. For example, these needs could be related to infrastructure, labor market or the provision of local government services. The University Center would have access to Towson University's psychometricians, which would foster survey development according to the highest standards of objectivity.

Survey development and dissemination would enable economic development officials to target their efforts more efficiently and to meet the needs of existing and prospective businesses. Moreover, access to survey results would allow local economic development offices to emphasize and market those areas in which their county/locality excels.

3.2.4 Asset Inventory Studies

The University Center could assess the region's assets; especially those related to infrastructure, labor force and the existing industrial distribution of local economies. By identifying such factors, local economic development officials could better target those types of businesses and industry which would capitalize on existing assets. More importantly, this type of analysis would enable leaders to identify those areas in which they are lacking as well as areas that, with a fairly low level of investment, could yield a significant return.

3.2.5 Commercial/Residential Ratio Evaluations

The University Center could examine the existing distribution of residential and commercial space. Using industry accepted techniques; the Center would identify an ideal range of ratios and would prepare a set of high level recommendations which would enable regions to move towards a healthy, targeted ratio.

3.2.6 Feasibility Studies

The University Center could provide a feasibility analysis of a proposed business or development desiring to locate in the county/region. This analysis would assess the potential for success of such endeavors based upon an analysis of the mix of businesses and households situated in the region. The University Center has performed several of these types of studies in the past for private sector clients.

3.2.7 Economic Impact Studies

The University Center could provide an economic impact study for a proposed business or development desiring to locate into the County. The economic impact analysis would estimate the jobs, incomes and associated economic activity to be directly generated by a proposed business. Moreover, the analysis would provide an estimation of the spillover jobs, incomes and economic activities associated with the project. The University Center has performed this type of analysis for numerous clients, both public and private. The University Center will use an input-output model, IMPLAN, which will be customized to reflect the specific nature of regional economies under consideration.

3.2.8 Fiscal Impact Studies

The University Center could provide an evaluation of the local (at the regional and/or County level) net fiscal contribution to be generated by a proposed business or development. The fiscal impact would not only examine tax revenues likely to be generated, but would also assess additional costs a proposed business or development would likely incur local governments. The University Center's fiscal analyses would extend beyond a simple assessment of the direct tax revenue and fiscal costs associated with a new business or development but would also examine the spillover impacts that such projects would generate. The result is a much richer and broader analysis. The University Center has conducted numerous studies of this type in the past for both local governments as well as on behalf of private sector clients.

3.2.9 Work Force Development Assistance

The University Center would provide assistance in terms of developing and implementing programs to train local workforces to meet the needs of existing industry in the region. The University Center's affiliation with Towson University will play a key role in enabling the Center's staff to develop and deliver a curriculum. The training

would be designed to allow for a range of dissemination including but not limited to e-learning as well as onsite instruction in a classroom setting. Towson University is home to one of the Mid-Atlantic region's premiere Colleges of Education and is well suited to this type of endeavor.

3.3 Disseminating the Results of the Activities of the University Center

The University Center will post its accomplishments as well as summary case studies of projects on its website. While information will be disseminated via the Internet and World Wide Web, we will ensure that client confidentiality is maintained. The Center would of course provide EDA with semi-annual and annual reports as well.

3.4 Identify the anticipated impacts and benefits of the proposed University Center

We are confident that a University Center at Towson University would result in the creation of private sector jobs as well as private investment over the three-year horizon of this project. At this time, however, we are unable to provide an estimate as to the nature and extent of job creation and investment to be generated by the Center. In the first year of operation, we would strive to attract and/or generate three major projects for Western Maryland and at least one major project for Baltimore City both of which would yield in permanent, high technology job creation and investment.

We anticipate that a majority of clients will initiate action as a result of the assistance provided by the University Center. The staff of the University Center will have access to Maryland Small Business Development Center's counselors in addition to Towson's faculty. Moreover, the director of the Economic and Workforce Development group is very experienced in the area of economic development. The analysis and guidance that will be provided will be grounded in reality and a full understanding of the obstacles that businesses need to surmount.

Ideally, we would like to achieve a 100% client success rate; however we fully acknowledge that, in some cases, the Center will confront circumstances beyond our control. That being said, we hope that our business oriented staff and supporting institutions will lay the ground work for the success of prospective clients.

Section 4: Supporting Information

This section briefly outlines the institutional capacity of the sponsoring institution of the Center. Also included is a list of potential competitors to the University Center as well as a discussion of the means through which the Center would coordinate activities with the sponsoring organization as well as across other types of entities. This section concludes with a summary overview of the proposed budget.

4.1 Institution Capacity and Experience

In order to better coordinate its outreach initiatives, Towson University established the Division of Economic and Community Outreach (DECO) in 2004. This division of is charged with building linkages and synergies between the University's academic initiatives and current public and private sector challenges and needs. The Division houses numerous centers including RESI, the Center for Applied Information Technology, the Center for Geographic Information Sciences, the Distance Learning Center and the Center for Homeland Defense.

Though DECO is a new entity, many of the above-named centers have existed for some time and have accumulated practical experience in terms of providing public and private sector firms with technology solutions. For example, RESI developed and implemented numerous technology solutions that enabled the citizens of Maryland to register their automobiles on-line as well as to review tax records and apply for tax extensions online. Additionally, RESI has enabled the Maryland Department of Human Resources to integrate and update a host of legacy based systems in order to provide information in an efficient manner that is useful for management. The Center for Geographic Information Sciences, in conjunction with the Maryland Emergency Management Agency, has developed a GIS based tool that enables first responders to identify a range of information about sites such as prevailing winds, the location of proximate hospitals, HAZMAT, key intersections and other relevant information via web-enabled laptops and personal digital assistants (PDAs).

In addition, DECO's partner in this endeavor is the Maryland Technology Development Corporation (TEDCO). TEDCO, which was created by the State legislature in 1998, is governed by a board of leaders within the State's technology community and contains representatives from private, university, non-profit, and public sectors.

One of TEDCO's roles is to provide funding for technology transfers between eligible federal labs or universities and the private sector. To this end, it established the Maryland Technology Transfer Fund (MTTF) in SFY 2001. Its initial funding was \$460,000 and for SFY 2005 it has been increased to \$1.75 million due to its popularity. By funding nascent high technology companies, TEDCO is assisting the technology climate in the state of Maryland.

4.2 Competition

There are numerous organizations in Maryland that provide complementary or similar services to those described in this document. Potential competition could include the following institutions:

- Morgan State University
- University of Maryland, Baltimore County
- Frostburg University
- University of Baltimore

4.3 Inter-Agency Coordination Strategy

The University Center would seek to develop a consortium of the above named entities to better coordinate the activities of the University Center so that they complement and capitalize on existing services provided by these institutions.

4.4 Intra-Agency Coordination

Towson University houses numerous colleges and divisions that could be leveraged on a multitude of projects described in this document. The Division of Economic and Community Outreach will establish an Economic Development Committee to be populated by key faculty and staff members from the University. This committee will be tasked with working with the University Center's staff in marshalling the necessary University resources for a particular initiative.

4.5 Support

To further its mission as **Maryland's Metropolitan University**, Towson University established a new division, the Division of Economic and Community Outreach or DECO. DECO's aim is to forge stronger links between the university and the community it serves. In establishing DECO, **President Robert L. Caret** is acting on his belief that the Towson University has a unique and important role to play in the region. To fulfill this role, Towson must be deeply committed to addressing education, economic development and broad social issues that impact the region.

Several highly successful centers within the University already actively involved in community and economic outreach efforts serve as the cornerstones of this new initiative. **Dr. James P. Clements**, as Vice President for Economic and Community Outreach, reports directly to the President and works closely with the University's academic units to expand opportunities for collaboration between the University and the community.

Future planned initiatives include expanded internship and service learning opportunities for students, a Metropolitan Leadership Studies Institute, expanded Corporate Education and Training Programs, new Extended Education programs (including certificate programs that target specific business needs) and a program in Land Use and Real Estate Development. Two new business incubators are also in planning stages; one focusing on International Business and the other targeting Software/Information Security. The Division will also help to foster stronger links between additional existing initiatives on campus such as Towson's efforts with the public school system and in the area of community wellness.

A proposed University Center at Towson corresponds directly with the goals of the University President and DECO and would enjoy tremendous institutional support as a result.