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Higher Education: Supporting Maine Industries and Economic Development

A Report from the University of Maine System
and the Maine Community College System



Submitted February 2, 2005 to the:

**Future for Youth in Maine State Work Action Tactics Team (S.W.A.T.);
Joint Standing Committee on Education and Cultural Affairs; Joint
Standing Committee on Business, Research and Economic Development**



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Preface

Public Law, chapter 704, “An Act to Coordinate Education, Job Training and Employers in Maine,” which went into effect on May 11, 2004, established the Future for Youth in Maine State Work Action Tactics (S.W.A.T.) Team, and charged it with planning and coordinating strategies that create opportunities for Maine youth in economic development, education and employment. Included in the legislation is a comprehensive higher education plan and report to be developed by the University of Maine System and Maine Community College System. The law states that the two Systems shall “collaboratively develop a comprehensive plan and implement a formal process to work with industry and economic development and determine the extent, if any, to which higher education planning and resource allocation can be coordinated with the private sector to better meet the needs of the State’s economy and business sector.” The law further states that the plan must address the needs of the business sector with respect to research and development, the commercialization of new products and services, business development and workforce training.

The University of Maine System and Maine Community College System have concluded that developing a meaningful study that meets the full intent of the legislation would require a significant investment of resources (please note that a State appropriation for this study was stripped from the legislation prior to enactment). While such a comprehensive study could yield valuable insight, the Systems caution that it would serve as a snapshot in time, given the ever-changing nature of the economy and workforce needs.

Maine’s two public higher education Systems are addressing the intent of the legislation, consistent with their statutory missions, on a day-to-day basis and through ongoing and constantly evolving programs and initiatives. Therefore, in an effort to meet the spirit of this legislation, the Systems have attempted to capture how both through daily operations and through current initiatives Maine’s universities and community colleges are working to plan for and address the needs of business and industry and economic development. The report also includes an overview of one critical Maine industry: health care, as it is specifically referenced in the S.W.A.T. Team’s charge (see Appendix I, State-wide Strategic Plan on Nursing). The report also includes a section on how the two Systems are working *collaboratively* to plan for and address the State’s economic development needs.

This report should not be seen as a complete and comprehensive description of economic development-related activities in Maine’s two public higher education Systems. Each University and Community College is involved in numerous local projects and partnerships with public and private organizations that may not be cited in the report.

Introduction

Inherent in the statutory missions of the University of Maine System (UMS) and Maine Community College System (MCCS) is the far-reaching purpose to support economic and business growth in the State of Maine. For the UMS, this purpose is realized by linking economic growth, the education of Maine people, and the application of research and scholarship. For the MCCS, it drives educational programming, workforce training, and business development.

Presently, Maine's two public higher education systems are undergoing an unprecedented realignment which will ultimately better serve the State's economic and educational needs, through a clearer delineation of roles, and refining of their respective missions. With the establishment of the Maine Community College System, the State now has a system focused on low-cost, accessible options for diverse populations to access college and prepare for the workforce or for transfer to four-year institutions. With the University of Maine System's Strategic Plan, Maine will have a University system that has a focus on high-quality baccalaureate and graduate degrees, research and development, teaching, and public service. These directions will define Maine's higher education system for generations to come – by reducing overlap and enhancing quality, effectiveness, and accessibility of public higher education in Maine.

While the two distinct missions of UMS and MCCS often suggest different decisions in terms of prioritization of resources, policy issues, and academic focus, there are several areas in which collaboration and coordination are beneficial. These include: 2+2 transfer agreements, to assure a smooth transition from one level of higher education to the next; remote geographic access to public higher education programs and services; cost efficiencies where common needs overlap; and joint planning to address Statewide issues and industry needs.

With the establishment, in 2003, of the UMS/MCCS Higher Education Joint Advisory Committee, comprised of Presidents from both Systems, Maine's public higher education Systems now have a formal structure in which to seek and address areas of collaboration and coordination. In addition, the two Systems are working collaboratively at the State and local levels to address major industry needs, including, but not limited to, health care and tourism.

This report highlights the activities of UMS and MCCS that meet the research, economic and, business development needs of Maine, through collaboration, intra-System activities, and industry-specific initiatives.

Part 1:
**University of Maine System / Maine Community College System
Collaborative Activities**

A. Higher Education Joint Advisory Committee (HEJAC): A Joint Venture

HEJAC was established in the spring of 2003 by Chancellor Westphal of the University of Maine System and by President John Fitzsimmons of the Maine Community College System to assure that Maine's public higher education systems complement and collaborate with one another through a formal communication structure in order to enhance service to Maine and Maine students. The Chancellor and the President appointed three presidents from each System to serve on HEJAC and to meet regularly to discuss and take action on opportunities. The group has been meeting since June 4, 2003.

Membership:

Members of HEJAC currently include presidents Joyce Hedlund (EMCC), Charles Lyons (UMA), Richard Pattenau (USM), and Barbara Woodlee (KVCC). Charles Lyons and Barbara Woodlee are Co-Chairs.

Results:

HEJAC's mission of collaboration between the State's universities and community colleges is reflective of the cooperative relationship modeled by Chancellor Westphal and President Fitzsimmons. Although it can be challenging to find solutions to complex concerns, the work of both Systems has benefited by the initiatives generated by the work of HEJAC. It has served as a catalyst for improved understanding of and communication between the two Systems. Initiatives undertaken since the formation of HEJAC include the following:

1. Guaranteed Admission Agreement (AA Advantage Program)

An admissions agreement (see Appendix IV) has been fashioned by HEJAC and approved by the Chancellor and the President. This agreement exists between all of Maine's fourteen public community colleges and universities and is an unprecedented effort to improve the ease and rate of transfer between public two year and four year institutions of higher education. An Ad-hoc Committee of eight staff members from both Systems from student service areas such as, registration, advising, transfer affairs and financial aid have been working hard and meeting regularly since August, 2004 to implement the agreement in order to make the AA Advantage Program available to students beginning in the fall semester of 2005.

2. Realignment of AA Programs

Two major events took place in higher education in Maine during 2004. The first was legislative approval to pave the way for Maine's Technical College System to become Maine's Community College System. The second was the

new strategic plan unveiled by the University of Maine System which calls for the gradual transition of appropriate associate degree programs from UMS to MCCS. As that work begins to take place in the spring of 2005, HEJAC will be working closely with the Chancellor and the President to form a planning group comprised of the appropriate representatives from both Systems to assess the needs, identify the issues, design criteria for decision making, recommend changes and to draft implementation plans. All this work would be submitted, reviewed and approved by the Chancellor and the President. It is expected that the work of HEJAC on this initiative will benefit the students and the citizens of Maine by reducing duplication, streamlining both Systems and ensuring that the transition from MCCS to UMS is as seamless as possible. The ultimate goal is to raise the aspirations of Maine citizens and to increase the numbers of individuals aspiring to and graduating from one of Maine's institutions of higher education.

3. Faculty Development and Training

At the request of the Chancellor and the President, HEJAC is looking into the opportunity to share resources in this area critical to student success and learning. HEJAC is in the assessment phase of this initiative learning about what faculty development opportunities exist at all 14 institutions. The next step will be to encourage cross-System access to what already exists and then to develop additional opportunities based upon need.

4. Joint Purchasing of IT Software

This initiative represents the first step in leveraging both the buying power and personnel expertise of both Systems in the area of IT.

5. Collaboration Between Libraries

Initial discussions have taken place between Library Directors of both Systems in an attempt to broaden access and share expertise. It is hoped that further work in this area could save money, increase efficiency, improve student service and library quality. Library Directors in both Systems have been encouraged to work together to pursue opportunities for joint purchasing and use of library databases.

6. Joint Purchasing

Chief Financial Officers of both Systems have been asked to explore all opportunities for joint purchasing for items such as vehicles, fuel and energy. In addition IT Directors have begun a discussion about leveraging buying power and sharing resources.

In summary, HEJAC has been very effective in identifying and then taking action on items which further the mission of HEJAC as envisioned by the Chancellor and the President and which support the collective and common goals to improve access to and quality of public institutions of higher education in the State of Maine.

B. Transfer Agreements: Aligning Two Systems

The benefits of transfer agreements between higher education institutions – to individuals, to industries, and to the economy – are clear. For individuals, they help students achieve their educational and career goals by allowing them to move more easily from one level of higher education to the next.

With college students far more mobile today than in past generations, transfer agreements help students better plan their curriculum and achieve a degree with credits from two (and sometimes more) institutions. In fact, it is not uncommon for students to enroll in more than one institution at the same time – piecing together a curriculum that matches their needs and interests.

Articulation agreements between community colleges and universities are crucial to expanding access to college, making a university degree accessible to those who otherwise may not have access. Such agreements open doors to students from diverse backgrounds, including those with financial challenges who need a low-cost solution for the first two years of college; those who need academic support to prepare for a university setting; or those who live far from a university campus. In addition, many students desire, and benefit from the career focus and applied learning features of a community college education, and use it as a stepping stone to a baccalaureate program.

The importance of articulation agreements to industries, and to the economy as a whole, is also significant. Thanks to technological change and global competition, employers need employees with higher levels of education than ever before. Transfer agreements have become a necessary component to assuring a highly educated workforce by providing a smooth educational continuum for college students. With the creation of Maine's Community College System, the State has the opportunity to engage even more students in higher education and raise the education level of its citizenry. Transfer agreements will help ensure that those Community College students who have the desire and ability can continue on to earn a baccalaureate degree – benefiting themselves and Maine in the long run.

A new era of collaboration

One of the most significant milestones of heightened collaboration between the University of Maine System and Maine Community College System is the development of new and unprecedented transfer agreements.

Since the official establishment of the Maine Community College System in 2003 (and thus, the broadening of the mission to include *transfer preparation*), the MCCS and UMS have made the expansion of articulation agreements between the two Systems – building off the work of past years – a top priority. In fact, Chancellor Westphal and President Fitzsimmons made improving transfer one of the top agenda items of the UMS/MCCS Higher Education Joint Advisory Committee, comprised of presidents from each System.

As a result of the work of this group, and the leadership of the individual colleges and universities, major strides have been made over the past two years in building a strong bridge from Maine's Community Colleges to Maine's Universities.

Career Programs

The foundation for strong transferability in Maine was begun in earnest in the 1980's, as the MCCS began its push to broaden its associate degree offerings and develop articulation agreements with UMS campuses and other four-year colleges in Maine. The purpose was to assure that associate degree graduates had the option of entering the workforce or continuing their education at a four-year institution. Likewise, it was becoming increasingly important for business and industry to have a clear career progression for employees, and an educational path to support it. As a result of these efforts, agreements are in place in virtually all (career) program areas.

One of the best examples of this progress is in the nursing field. All Associate Degree Nursing programs at Maine's Community Colleges transfer to University Bachelor of Science in Nursing degree programs. These agreements provide an essential career ladder for nurses – to their benefit and the benefit of hospitals and other health care providers. There are also broad transfer agreements in business fields, environmental fields, manufacturing (pulp and paper and precision machining, for example), engineering, hospitality, education, and many other fields.

An exciting new agreement has recently been signed between the University of Maine at Augusta and the MCCS for all former and future graduates of Maine's Community Colleges (including Technical College and Vocational Technical Institute graduates). Any graduate who holds an Associate in Science or Associate in Applied Science degree from the MCCS may transfer into the UMA Bachelor of Applied Science program, which is offered in Augusta, Bangor, Lewiston and University College centers. This broad agreement is designed to encourage and support the pursuit of higher degrees by two-year technical graduates. With thousands of graduates now working in virtually every Maine industry, this agreement could have a far-reaching impact, providing a new stepping stone for a higher degree and career advancement.

Liberal Studies Transfer Agreements

The addition of the Associate in Arts program at each of Maine's (then) Technical Colleges in 1999 represents a milestone for Maine. The program – and subsequent agreements with Maine's Universities – opened up a new door for students to gain their academic foundation at a low-cost two-year college before transferring on to a four-year University. Since the AA's creation, numerous agreements have been signed between Maine's Community Colleges and Universities. Among the most comprehensive of these agreements were those forged between the University of Southern Maine and Southern Maine, Central Maine, and York County Community Colleges. These agreements, called *AA Advantage*, set the stage for a broad, State-wide agreement encompassing all 14 institutions.

Summary of Progress

Today, the two Systems have in place a matrix of well over 500 articulation agreements that specify the programs and degrees from the Community Colleges that are accepted by the University of Maine System institutions. In addition, the broad *AA Advantage* guaranteed admission program, soon to be in place for Associate in Arts graduates, will make 2/4 transfer a far easier proposition for students.

Early research shows that more students are now entering the Community Colleges with the intent to transfer to a four-year institution. This bears out in UMS transfer data. The number of Maine Community College System (or former Technical College) graduates enrolled at University of Maine System campuses has risen about 20 percent in just the past two years, to over 1,700. Research also shows that M CCS transfer students do well academically, carrying grade point averages that equal (and often exceed) their counterparts who started at the university.

It should be noted that in addition to agreements between UMS and M CCS institutions, numerous agreements with other higher education institutions, in Maine and beyond, exist as well – including agreements with Maine Maritime Academy, the University of New England, Husson College, St. Joseph’s College, and others. These agreements have opened the door of advanced degrees to thousands of Maine students.

C. University and Community College Outreach Centers: An Update on Collaborative Efforts

University and community college centers today are co-located in Bath-Brunswick, East Millinocket, Ellsworth, Houlton, Dover-Foxcroft, and South Paris. This experiment in shared locations—and in some cases, administration—has worked surprisingly well for the institutions involved and, more importantly, for Maine students. The following discussion outlines some of the advantages realized in this collaborative relationship.

Co-Location of Centers Expands Educational Opportunities for Students

Students have a broader selection of courses. University students have the opportunity to enroll in a number of community college courses on an “away” basis, increasing the variety of courses students need to complete their programs in a timely manner.

Students receive more support. Because the institutions aren’t duplicating each other’s workshops (new student orientation, how to write a term paper, transfer workshops, career planning, financial aid, etc.) they can offer a wider variety and are more likely to have enough students to make a workshop viable.

Students enjoy increased access to tutors. Volunteer tutors are available to both university and community college students in need of help.

Students have access to high-quality instructors. Pooled faculty resources help ensure that the best qualified area teachers are available to both institutions.

Students find it easier to transfer courses between institutions. MCCS/UMS articulation agreements that are relevant to the local area are supported through the careful selection and scheduling of required courses and appropriate individual and group advising.

Students have a stronger voice. Local student associations that include and represent the interests of both groups of students are strengthened and become more representative of the student population. With greater student involvement, they are able to offer a wider variety of learning, leadership and recreational opportunities for all.

Students have access to specially equipped science labs. These shared labs create both cost savings and enhanced learning opportunities for students.

Co-Location of Centers Encourages Higher Aspirations in Students

Students respond to a consistent message. Potential students are more likely to listen and respond to a message about the value of higher education when it is consistent and shared. In addition, having one location that meets all students' higher education needs promotes more efficient services.

Students are exposed to a greater number of programs. Exposing students to more opportunities makes it more likely that they will find a program that meets their goals.

Students get consistent, readily available advising services. UMS advising assistance is available on a daily basis for community college students who are considering transferring into baccalaureate level degree programs.

Students become role models. University students taking upper level and graduate level courses serve as role models for associate degree students, encouraging them to continue with their education.

Students enjoy an easier transition between institutions and programs. Co-location makes the transition from the associate to the baccalaureate level easier and more natural.

Co-Location Promotes the Efficient Use of Resources

Institutions realize cost savings. Shared personnel, joint complementary marketing, postage, office equipment (one photocopier, phone system, computer lab, and consistent up-to-date technology) create an efficient, cost effective operation.

Staff can advise students in the programs of both institutions. Better services result because employees understand the details of all aspects of enrollment in both Systems.

Course and staff scheduling are complementary, not competitive. Co-location discourages course duplication. Likewise, staff can be scheduled to maximize the number of hours the location is open, reducing total staff hours.

Institutions use space more efficiently. Co-location reduces the need for office space and opens more space for classrooms, resulting in a higher ratio of learning space to administrative space.

Institutions discover new ways to collaborate. Co-location promotes greater awareness of opportunities for collaboration (e.g., combining UMS liberal arts courses with MCCS technical courses). Core courses can be used for both System programs.

Institutions present a single presence for public higher education in their communities. One center director working on economic development in their community can bring the best resources of both institutions to bear and can evaluate which institution's resources are the best match. This saves time and energy because the community doesn't have to work with two organizations that may have competing interests. In addition, a single advisory board or committee has more resources and can speak with one voice for all students and the center.

University of Maine System: System-based Initiatives

A. Nursing: Responding to the Nursing Shortage in Maine

The nursing shortage in Maine is current and quantifiable. For example, Maine hospitals report an overall vacancy rate of 9.4% for nursing positions and 18.6% of nursing positions in long-term care are unfilled. The United States Department of Health and Human Services recently projected that in 2000 Maine experienced a 12% shortage of full-time-equivalent RNs in contrast to a national average of 6%. Nationally, the United States Department of Health and Human Services has projected that the nursing shortage will grow to 12% by 2010, 20% by 2015, and 29% by 2020. It is clear that the nursing shortage will deepen in Maine as the “baby boom” nurses retire and the demand for health care increases with the graying of Maine’s population.

The University of Maine and the University of Southern Maine are a primary resource for entry level baccalaureate nursing education in Maine. In addition, the University of Maine at Fort Kent provides the only entry-level baccalaureate nursing program in Northern Maine and the University of Maine at Augusta offers an Associate Degree nursing program, an option that many Maine citizens elect to pursue. Consequently, the University of Maine System nursing programs respective responses to Maine’s current and growing nursing shortage is critical to assure an adequate supply of nurses. All of the UMS programs require additional full-time faculty positions in order to respond to the growing student demand for entry-level nursing education. In addition, both baccalaureate prepared nurses and master’s prepared nurses need financial support in order to pursue master’s or doctoral nursing education, respectively, in order to assure a future cadre of master’s and doctorally prepared nursing faculty.

In its strategic plan for Nursing, the University of Maine System and the Maine Community College System request \$1,282,800 for 56 associate degree candidate slots in nursing and 80 bachelor’s degree candidate slots in nursing at the University of Maine System.

B. Tourism: Responding to the Governor’s Vision of Developing and Supporting the Industry

Tourism¹ has become one of Maine’s most important industries, generating over \$344 million in tax revenues and \$2.5 billion in wages in 2001.² Maine’s natural and cultural resources are the State’s primary tourist attractions. However, in order to make a growing contribution to the wellbeing of Maine people, the tourism industry desperately needs to make connections to higher education similar to those enjoyed for decades by Maine’s other natural resource industries. This need is all the greater because tourism, as documented recently by the Blaine House Conference on the Creative Economy, is greatly diversifying to include an ever-growing component of the arts and culture.

The University of Maine System will significantly expand services provided to the tourism industries in the areas of education, research, and outreach. This will be done by building on the strengths of existing programs to provide additional services, developing new services, and working to assure State-wide access to services. The UMS System has initiated a process to develop a substantial and sustained partnership with Maine’s tourism industry. Through a process of in-depth interviews with industry leaders, the UMS has developed a center to provide specific deliverables that will enhance tourism’s role in Maine. This will be accomplished through coordination and enhancement of academic programs, and formation of the Center for Tourism Research and Outreach (CentTRO). CentTRO will provide a single point of service for tourism research and outreach within Maine.

A key component of the partnership is the formation of an advisory committee, MaineTAC (Maine Tourism Advisory Committee), to advise and inform the UMS on the needs of the tourism industry. The UMS will work in partnership with MaineTAC to insure that the tourism industry will have high quality information to support improved decision making and that it is provided in a manner that is useful and accessible to the industry.

The key goals that will guide the UMS, State of Maine, and tourism industry partnership include:

1. Increase the competitiveness of Maine’s tourism industry through research on new and existing products, services and markets.
2. Conduct outreach to facilitate integrating arts and cultural amenities with natural amenities as high quality tourist attractions in Maine.

¹ “Tourism” is usually thought of as the activities of those who come to Maine from other states and countries for a number of purposes, including business travel, visiting friends and relatives, and recreation. “Recreation” includes the activities of both those who come to Maine from other locations and Maine citizens who purchase recreation-related goods and services in the state. In this proposal “tourism” refers to economic activity of both types.

² Longwoods International. 2002. “Summary of Key Findings.” Final report prepared for the Maine Office of Tourism (<http://www.econdevmaine.com/pdf/TR2001.pdf>).

3. Enhance academic programs to improve the management and service skills of tourism employers and employees, and enhance the wages and job opportunities for those employed in the tourism industry.
4. Train a new generation of entrepreneurs, managers and skilled employees to develop businesses that focus on quality service and take advantage of under-utilized tourism assets in Maine.
5. Enhance the market share captured by Maine's tourism businesses in the northeast region.
6. Encourage the development of new tourist destinations, products and services.
7. Help communities improve the economic contribution of tourism in all regions of the State.
8. Develop new and improved information sources and reports for the industry and the State to better inform and guide policy planning and business development.
9. Conduct research to identify the tourism industry best suited to Maine through protection of the resource base, minimizing community impacts, strengthening job quality and income, and making a sustainable contribution to the citizens of State of Maine.
10. Develop a consensus within government and industry on key programmatic and strategic steps to enhance the role of tourism in Maine's economy.

These goals, while increasing the competitiveness of Maine's tourism industry, will also assure that the qualities of Maine on which tourism depends are sustained. Programs, in research, education, and outreach will increase Maine's ability to expand tourism in ways that do not degrade the natural resource or community qualities of Maine on which tourism depends.

Now is an important time for the University and Community College Systems to join the State and Maine's tourism businesses to strengthen the industry. Tourism is Maine's largest industry, but there is reason for concern. Maine has been losing tourism market share in recent years and many other states are taking substantial action to increase their share of the tourism market. A strong partnership between the institutions of higher learning, the State and the industry will place Maine in a unique position to use tourism as an economic engine to increase employment opportunities for Maine's youth and enhance the economic vitality of Maine's communities.

C. Education: Providing Leadership and Ensuring Quality Teachers in Maine

The University of Maine System will continue to support and expand its partnership activities and projects in Maine's public schools, the Department of Education, and other post-secondary institutions. The University of Maine System has had a long, continuous relationship with the public schools and with the Department of Education that extends far beyond the boundaries of its member universities' Colleges and Departments of Education. Those relationships include programs and partnerships between K-12 institutions and universities' arts and sciences faculties, professional schools, athletic departments and other administrative units.

A recent University of Maine System compilation, entitled *Education Partnerships and Initiatives with Schools and Government Agencies* (October 2002), describes over 150 examples of partnership activities, university initiatives and collaborative projects currently existing between the universities and schools, early childhood agencies, the Maine Department of Education, and Maine's technical colleges. Examples include youth academics, sports, and music camps; Early College programs for young adults; and summer science research institutes and humanities seminars for teachers. The University System pledges to maintain and enhance these programs according to the needs of Maine's youth, teachers, and schools. At the heart of the larger school-university partnerships lie the education colleges and departments of the University of Maine System. Through their teacher education programs, alumni relationships, research activities, and ongoing involvement in public schools' professional development, the departments and colleges have maintained close ties to the needs of Maine's classroom teachers, administrators, and officials in the Department of Education and other agencies concerned with the education of children and youth. By strengthening the commitment to school-university partnerships, the universities of the UMS will ensure an even stronger bond between the public schools and higher education in the future.

Working in partnership with P-12 education leaders, the University System will undertake seven action steps intended to strengthen the educational preparation of aspiring teachers and teaching professionals at all points along the education spectrum. Furthermore, the initiatives will ensure the continued professional development of educators working throughout that spectrum.

1. Establish Professional Development Schools

The University of Maine System will form partnerships with others in Maine's education community to pursue establishing regionally oriented Professional Development Schools (PDSs). Utilizing existing campus facilities and enhanced by technology, P-12 faculty and university faculty will collaborate to improve curriculum, teaching and learning at all levels, and to enhance the preparation of new teachers. Key elements will include improvements to teacher mentoring as well as providing a continuing presence of UMS faculty in P-12 schools. That presence will include UMS faculty experts in teacher preparation and in specific subject content areas.

2. Improve Teacher Retention

About one-third of new teachers nationally opt out of the profession within their first few years because they do not receive the necessary level of professional support to perform their duties in ways that satisfy their own expectations or the expectations of others. To address this issue in Maine, UMS will align university resources to assist with mentoring new teachers during their induction period. Working in partnership with P-12 peers, supervisors and administrators, university faculty experts in education and in specific subject areas can help provide support and assist in teachers' ongoing professional development and certification.

3. Provide Alternative Routes Toward Teacher Certification

In many academic disciplines, especially in rural areas of the State, qualified teachers are unavailable. That condition often forces schools to hire teachers who lack the required professional credentials. Currently in Maine there are approximately 1,800 classroom teachers who are not fully qualified for certification in their teaching field. Through use of UMS's Distance Education system and with greater efforts involving off-campus outreach courses and support, Maine's universities will work with local school mentors to provide the pedagogical and academic content-area support to help under-prepared teachers to become fully qualified.

4. Provide Teachers with Broader Access to Graduate-level Education

Under Maine Learning Results legislation, all Maine students are expected to graduate from high school with certain life skills to pursue advanced, post-secondary learning opportunities. Research here in Maine on high-achieving schools has found a strong correlation between student achievement and the number of teachers with a master's degree. However, Maine's rural nature and geography limit access to graduate education and professional development. The University System will address this problem by adding key faculty coordinators to graduate programs, creating a Statewide graduate faculty with expertise in content areas as well as professional education, and expanding the technology needed to support more extensive distance education opportunities.

5. Early Childhood Research and Professional Development Center

Drawing on faculty expertise and assisting with the development of each campus's resources, UMS will create an Early Childhood Research and Professional Development Center to provide services throughout the State. Examples of these services include: developing model pre-kindergarten programs for public schools; identifying and developing professional development programs for early-childhood professionals; forming partnerships between the public schools and Head Start and Early Head Start programs; working with employers and private sector organizations to design and evaluate quality child care programs; developing parent outreach programs; conducting research and developing policies on increasing equity and quality in programs from birth to age five; and partnering with the

Department of Education to develop appropriate certification for early childhood professionals.

6. Teacher Recruitment Scholarships

UMS will facilitate the creation of a dedicated scholarship fund to attract and assist individuals to the teaching profession. The relatively low salaries offered to teachers – especially to those starting out in the profession – discourage many individuals from pursuing teaching as a first or second career. They may also be discouraged by the amount of debt that they would have to incur to earn the college degree necessary to enter the teaching profession. In addition, many adults already in the workforce find they cannot afford to return to school to earn a post-baccalaureate teaching credential without financial assistance. A scholarship program for future teachers – aimed both at students who have excelled academically in high school and at college graduates seeking certification who could provide outstanding academic and life work experience to the classroom – would accomplish two objectives: reduce the cost of college as an obstacle to pursuing a teaching career; and, with the proper structure and promotion, raise the prestige associated with choosing the teaching profession.

7. Use Modern Communication Technologies to Improve Links Between the Universities and Public Schools

The need for distance education options for advanced or specialized educational courses and programs continues to increase. Using and expanding the Maine Department of Education's high-speed video and data transmission system, the University System and Maine's schools can implement several of the initiatives described in this action plan more efficiently, thoroughly and equitably. The University System, through its UNET division, provides the Department of Education with the high-speed transmission system to high school sites throughout the State. This system has the potential to network dozens of instructional clusters simultaneously, with three or four instructional sites in each cluster, containing a group of learners and one or more instructors involved in a course, workshop, clinic or conference. Examples are diverse and varied, such as a workshop for school bus drivers; a seminar for municipal EMT units; a high school advanced placement physics course; a graduate course for teachers; and a Statewide discussion of changes in education law. Though not presently in place on all campuses, the University System and the Department of Education will work to expand the availability of the technology so that faculty and associates at all campuses will be able to participate in this Statewide initiative.

Maine Community College System: System-based Initiatives

A. Health Care Workforce Initiatives

The Maine Community College System has long been a provider of education and training for nursing and allied health occupations. Five of the seven Community Colleges offer Associate Degree Nursing programs which annually graduate about a third of new RN's in Maine. A sixth college – York County Community College in Wells – has received authorization to add an ADN program, which is greatly needed in that region. Due to the growth of the health care industry, and the increasing specialization of care, the number of health care program options available at the Community Colleges has grown significantly. Today the colleges offer over 20 program options, ranging from cardiovascular technology to health information systems, respiratory therapy to emergency medical services, and many others. Fifteen percent of Community College students are enrolled in health-related programs.

The urgency surrounding obtaining and maintaining an adequate supply of skilled workers in the health care industry has increased substantially in recent years and has led to several specific projects and partnerships at the System level which have helped address the workforce needs of health care providers. Several of these projects are summarized below.

2001

1. MCCS was awarded a grant from The Betterment Fund to address the critical shortage of Registered Nurses. The grant provided matching funds for two new sections of nursing for two years (the cycle for an associate degree) and for 30 scholarships for second-year associate degree nursing students, the match for which was provided by employers for whom the recipients agreed to work for at least one year after graduation.
2. Maine Health Care Workforce Needs Survey: This was the first in a series of workforce needs surveys conducted in critical industries on behalf of the Maine Chamber of Commerce by MCCS. The survey included employer needs by Department of Labor job title in occupations requiring from one year of higher education to a baccalaureate degree. It also assessed new worker supply by obtaining projections of graduates in related programs from all of Maine's public and private higher education institutions. This was the first current-data look at the gap in the workforce supply-and-demand for health care occupations.
3. A group called the Committee to Address the Health Care Skilled Worker Shortage issued its recommendations in a report to the Governor and Legislature entitled, *Maine's Health Care Skilled Worker Shortage: A Call To Action*. The Committee included representatives of both MCCS and UMS, as well as the University of New England (UNE). The report relied on the information from the

employer/higher education survey referenced above and made a series of specific recommendations to address the shortage, with specific actions involving employers, legislators, and the higher education institutions.

2003

1. MCCS and the Maine Hospital Association formed the Health Care Workforce Alliance, joined in 2004 by the Maine Society of Healthcare Human Resource Administrators, to work together to address this critical need. Through this alliance, the MHA and MCCS have contributed to expanding capacity for new allied health graduates by funding one nursing section and one section of radiologic technology. In addition, the MHA and MCCS joined with Anthem Blue Cross and Blue Shield to provide 100 scholarships to students entering nursing and allied health programs at Community Colleges; the scholarships provided up to \$1,000 per year for up to two years of full-time study. The Alliance is currently pilot-testing the first offering from its Health Care Leadership Development Institute, designed for the employees of MHA and MSHHRA members and delivered by the Community Colleges.
2. One of the recommendations of *A Call to Action* report was to create an ongoing Health Care Workforce Leadership Council to monitor the health care workforce shortage and make recommendations to address trends and needs over time. This group was convened in the fall of 2003 and published its final report in October 2004. Membership of the group included representatives of MCCS, UMS and UNE as well as members of the industry.

In addition to these initiatives, the increase in articulation agreements between the Systems during this period have provided more access for workers with associate degrees to continue on to the baccalaureate level and—hopefully—beyond, since there is a growing need for credentialed faculty in all institutions.

B. Education

Across the U.S., community colleges are being called on to play a larger role in the preparation of educators. In fact, according to the *Chronicle of Higher Education*, four out of every ten teachers in the country have completed at least a portion of their undergraduate coursework at a community college.

The federal *No Child Left Behind Act* has resulted in an even larger role for community colleges. The law requires that all paraprofessionals hold at least an associate degree by 2005. In Maine – as in all states – this has put pressures on existing paraprofessionals to return to school and attain the required coursework. Community colleges have become a convenient and low-cost way for these employees to access their necessary coursework.

Maine's Community Colleges offer a number of options for aspiring educators and those who need to attain coursework for certification. This year, fully ten percent of Maine Community College degree students – or roughly 1,000 students – are pursuing a credential in an education-related program. Programs include education and paraprofessional education, early childhood education, special education, and speech/language pathology assistant. In addition, the Associate in Arts (Liberal Studies) transfer program can also be used as a starting point for those who want to begin at a community college before transferring into a baccalaureate program.

Maine Community College education and liberal studies programs have transfer agreements in place at University of Maine System campuses, helping students transfer easily from the two-year level to four-year programs. In addition, students can have their prior college coursework evaluated, to be applied toward a Community College degree.

Part II:
**Initiatives in Research and Development, Commercialization of
Products and Services, Business Development, and Workforce
Training**

UNIVERSITY OF MAINE SYSTEM:

A. The University of Maine

1. How workforce needs are reflected in academic program planning

Workforce needs are reflected in three different ways in academic program planning. The first and most formal approach is that necessitated by external accreditation bodies and professional program review and qualifications. Examples of programs that fit within this category are found in Accounting, Education, Engineering, Forestry, and Nursing to name a few. As the laws and regulations along with professional certification/licensure change, UMaine's academic programs must change as well. In the College of Natural Sciences, Forestry, and Agriculture (NSFA) for example, the College has two advisory committees--The Board of Agriculture and the Forest Resources Advisory Committee that are comprised of industry and commodity leaders in communities throughout Maine. Curriculum is shared with these boards and their input is actively sought and encouraged

The second approach is through direct programmatic offerings to non-traditional students through Continuing Education Division (CED). This programming can reflect typical course content as well as non-degree programs. The Continuing and Distance Education Division (CED) collaborates with academic departments to offer credit courses and programs at times and in instructional options convenient for working adult students. For example, over 6,700 students register annually in UMaine's growing on-line and distance education programs, including courses in business, nursing, K-12 education, social work, the arts, electrical engineering, and human nutrition. Additionally, courses are offered at off-campus centers and sites throughout the State, including the Hutchinson Center in Belfast, the Darling Center in Walpole, and the Humbolt Field Research Institute in Steuben. Over 1,000 courses are offered in the evening, on week-ends, and in abbreviated schedules to accommodate the growing number of part-time students who are gainfully employed in Maine's workforce. Additionally, CED serves over 1,800 students who register in a non-degree status to take courses that best meet professional and personal interests.

The third approach is through academic program planning and review that often serves to develop new initiatives and ideas in content and delivery for emerging skills and knowledge for the future. An example of this was the development of the new media program within the College of Liberal Arts and Sciences and the Tourism initiative at the System level noted below. Another example of such development can be found with cooperation between Economics and the Maine Business School. In September of 1999,

the Department of Economics implemented new baccalaureate and master's degrees in financial economics with the cooperation of the Maine Business School. The new degree programs were created in part as a response to expected continued growth in Maine and nationally in the demand for workers with the skills needed to function effectively in financial services jobs. Department of Labor projections of jobs in the financial services field were incorporated into the proposal ultimately approved by the University of Maine System Board of Trustees. The financial economics programs serve the needs of students who wish to acquire marketable skills that will give them an opportunity to pursue successful careers. The programs also serve the needs of the State by augmenting the supply of workers with skills demanded by employers in the important financial services sector.

2. Programs/courses that are targeted to meet current and future workforce needs, such as UMS initiatives in nursing, teacher development, and tourism

This is an enormous area of work at the University of Maine. Extension of the MBA, M.Ed.(Special Education), and MSW degrees at the Hutchinson Center are designed to serve specific designated cohorts of students in mid-coast Maine. Offered and guaranteed over a five-year period, these compressed weekend offerings accommodate two sets of graduate students. This approach is designed to address regional needs while simultaneously accommodating working professionals. Students can plan to earn their degree on a part-time basis within a minimum of three years or if necessary extended over five. Courses originating from Orono via television, compressed video and on-line options, add to the comprehensiveness of these programs. The B.S. in Electrical Engineering Technology program is offered on-site at National Semiconductor in a weekend model, and beginning in Fall 2005 courses in the undergraduate degree program in Mechanical Engineering will be offered in Portland in cooperation with USM. Distance programs are also offered in electrical and computing engineering (M.S.), the Bachelor of University Studies degree completion program, and information systems (M.S.). Additionally, numerous credit certificate programs are offered in health care administration, information systems, Maine Studies, Classical Studies, landscape horticulture, and child and family services. A pilot project is underway at the Hutchinson Center to offer a certificate in tourism related programs and several institutes are offered around specific Statewide legislative initiatives such as the Wabanaki Institute developed in response to LD 291 that assists teachers in developing curriculum materials for Native American curricula in Maine's public schools.

There are numerous programs within specific departments of the University that address these issues and concerns. For example, in Economics, the department's master's program in economics is a professional degree program with an applied orientation designed to yield graduates with analytical skills demanded by the job market. The program includes a regularly offered course in regional economics and an occasional course in human resource policy, both policy areas of importance to Maine.

In addition to the degree programs, the department offers specific courses that support a variety of professionally-oriented degree programs centered in other departments at both

the undergraduate and graduate levels. Examples of programs in which economics courses constitute core requirements or key electives include: B.S. in Business Administration; Master's in Resource Economics and Policy, Master's in Marine Policy, and the B.A. in International Affairs.

The department also offers key courses in the Canadian American Center's Canadian Studies Program. The Philosophy department has developed courses in Biomedical Ethics, Environmental Ethics and Business Ethics to address the demand for workforce education in ethics. Finally, the department regularly offers a course at the Hutchinson Center that serves the needs of local employers, including MBNA, for introductory-level training in economics for their employees interested in pursuing the UMaine MBA.

The Resource Economics and Policy (REP) Department had created new concentrations in "Adventure Recreation Business Management" and in "Equine Business Management" which reflect emerging sectors in Maine's Economy. This department has also taken the lead in development of Maine's Tourism Industry and research activities related thereto. A tourism minor is being developed and a proposal for a Statewide Center for Tourism research is being advanced through the System in cooperation with USM.

The Communication Sciences and Disorders (CSD) Department offers the only BA and MA programs in speech-language pathology in the State and these graduates meet national certification and State licensure requirements. UMaine's Political Science Department has a close relationship with the Camden Conference on World Affairs and offers a course through CED to compliment this renowned program.

More specifically, one can find programs that are targeted to meet current and future workforce needs in the following areas that show the University's breadth and depth of involvement and leadership.

Health-related

- Clinical Laboratory Sciences (hospital lab technicians)
- Communication Sciences & Disorders (speech pathologists--also provided major outreach to the community and serves 700+clients and families a year))
- Ph.D. in Psychology (clinical psychologists)
- MS in Social Work (social workers)
- BS in Nursing (nurses)
- MS in Nursing (nurse practitioners)
- Food Science & Human Nutrition (registered dietitians)
- Health Professions Office (pre-med students to med school)
- Animal & Veterinary Sciences (students into vet schools)

Natural-resource-related

- Aquaculture (aquaculture industry)
- Agribusiness (marketing & management of natural-resource industries)
- Recreation, Park Management & Tourism (tourism industry)
- Equine Sciences (harness racing industry)
- Pulp & Paper technology (paper industry)

- Forest Management (forest industry)
- Wood Science & Technology (forest products industry)
- Environmental Science (regulatory agencies, industry environmental science workers)
- Landscape Horticulture (landscaping and gardening industry)
- Sustainable Agriculture (agriculture industry)
- Food Science & Human Nutrition (food industry product developers)
- Biological Sciences & Biochemistry (biotechnology industry personnel)

Engineering-related

- Advanced Manufacturing Center (prototype development for a variety of industries)
- Survey Engineering Technology (surveyors for civil engineering companies)
- Computer Science (software developers)

- Electrical Engineering Technology (microtechnology industry)
- Electrical Engineering (microtechnology industry)
- Mechanical Engineering Technology (broad spectrum manufacturing)
- Mechanical Engineering (broad scale manufacturing, building & systems design)
- Construction Management Technology (construction industry)
- Civil Engineering (construction and site development engineering)

Education-related

- Education (teacher training)
- Human Development & Family Relations (pre-school, daycare personnel)
- Health, Physical Education & Recreation (community recreation managers, teachers, tourism)
- Art (teachers, artists)
- Music (teachers, performers)
- Theatre (teachers, theatre professionals)

Business-related

- Business Administration (wide variety of businesses)
- MBA (business management)
- Financial Economics (banking, insurance, brokerages)
- Public Administration (public-sector managers)

3. Non-credit courses/programs that are designed to address workforce needs

Serving the education needs of Maine businesses continues to be the focus of Corporate and Organizational Learning Services. These services take the form of on campus programs (including the Hutchinson Center in Belfast) for managers, supervisors, and lead employees in subjects including communication, problem solving, team building, project management, and leadership. The services take another form when offered as customized programs for an individual company where the instruction is targeted to the exact needs of the employer. In both models, the primary goal is to provide practical, timely, engaging and bottom-line focused information. Examples of recent contracts include those with: Bar Harbor Bankshares, Child and

Family Opportunity, Irving Forest Products, Progressive Distributors, Community Health and Counseling, Bangor Savings Bank, St. Joseph Hospital, Maine Public Broadcasting Corporation, and University of Maine at Machias.

Additional examples of recent non-credit programs include: OSHA funded project training employees within Maine's Ship/Boat Building and Repair Industries; Homeland Security Conference; Animal Control Certification Training; Basic Law Enforcement Mountain Bike School; Property Tax School; the Maine Model Building Code Workshop, Maine Firefighters Academy; and, Non-Profit Organization Management.

More than 200 people from all parts of the State have participated in the Target Technology Incubator's award-winning Lunch and Learn series of seminars for entrepreneurs since the program began in 2002. The seminars cover topics such as patent basics, market research, commercialization, business development and human resource issues.

The Target Technology Center also hosts a patent attorney from the Maine Patent Program, part of the University of Maine Law School. Students, faculty, and area companies can receive assistance without traveling to Portland. The Patent Program also held eight inventors' forums in FY04, with 38 people attending and 14 attending more than one.

The Office of Professional Development, an integral part of the Department of Forest Management, provides workshops and conferences to assist with the continuing education of Professional foresters.

The University also provides ethics consulting services to EMMI and is in the process of developing a certificate program in tourism.

4. Research, outreach and consultation available to the public and private sectors

The University of Maine provides extensive research and consultation to the public and private sectors. UMaine's Cooperative Extension Service has offices in each of Maine's sixteen counties to provide outreach to the public. UMCE provides Maine people with research-based educational programs to help them live fuller, more productive lives. UMCE specializes in outreach and education in the areas of agriculture, nutrition, community development, small and home-based business development, and child and family development.

UMaine's Department of Industrial Cooperation makes the research and technical resources of the UMaine available to the State, the private sector and individuals. Appendix II, Section A is a partial list of companies that had active research and consultation projects with UMaine in the last two years.

To further increase its capacity to serve businesses, UMaine has incorporated "pilot plant" space in its new labs and facilities, that help companies create prototypes and do small-scale production. UMaine's chemical engineering department has for many years

helped Maine's paper plant capabilities for industries such as food, composites, information technology and aqua-culture.

State and local governments, the non-profit sector and businesses also provide grants to research and consult on topics important to the State. Appendix II, Section B is a list of grants made to UMaine from these sources in the last two years.

Individual faculty and staff are extensively involved in organizations throughout the State. Appendix II, Section C is a sampling of the roles faculty/staff and departments play in various organizations throughout the State.

The University of Maine's Centers (for example, the Margaret Chase Smith Center, George Mitchell Center among others) provide extensive research, outreach, and consultation. NSFAs provides extensive research outreach and consultation to an enormous variety of individuals and organizations throughout the State via its laboratories (18 different ones), study collections (4), and research farms, forests and centers (13).

5. How the State's economic and business needs are addressed through research and development

The State of Maine has invested in research and development (R&D) as a way to transition Maine's economy from one that relies mainly upon its traditional industries to a more knowledge-based economy. Since the State of Maine began making targeted investments in university research and development capacity through the Maine Economic Improvement Fund (MEIF), UMaine has leveraged this support to more than double its federal research funding in less than five years. Beyond the immediate impacts of R&D funding such as new research jobs and spending in the local economy, the funding has increased UMaine's capacity to serve businesses and spin-off new technologies. UMaine has a goal of reaching \$100 million in annual total R&D funding, a level at which a critical mass of activity should result in significant increases in patent and copyright activity, as well as frequent spin-offs of new business ventures.

Maine has identified seven industry sectors that are important to the future of Maine's economy. These sectors include some of Maine's traditional industries as well as new industries that have great potential for growth. The University of Maine is the only institution in the State that performs extensive research in each of these sectors. UMaine is focusing on adding value and developing new technologies that will help sustain traditional industries and on creating new economic clusters through the spin-off of products, services and companies from its research programs. In addition, over 50% of the companies that have received grants from the Maine Technology Institute to commercialize technologies in each of these sectors have partnered with UMaine.

UMaine used \$5.5 million in MEIF match to leverage \$40.5 million in external grants in the targeted sectors, a 7.36 to 1 leverage. Table 1, shown on the next page demonstrates the breadth of UMaine's R&D activity.

UMaine is also committed to involving students in R&D and encouraging them to consider entrepreneurship as a way to create their futures in Maine. Students, graduate and under-graduate, continue to play a major role in research. Nearly \$14 million from grant and contracts was used to support students in all technology sectors. Graduate students receive stipends and tuition, while undergraduates are paid hourly to work in labs and on the projects.

Table 1

Maine Targeted Technology Sector Match **External Grants** **UM**

Maine Targeted Technology Sector Match	External Grants	UM
Aquaculture/Marine Science	\$12,183,772	\$705,312
Biotechnology	\$4,507,252	\$1,210,436
Advanced Materials and Composites	\$6,196,543	\$186,258
Environmental Technologies	\$3,533,453	\$981,649
Advanced Technologies for Forestry and Agriculture	\$5,716,850	\$1,213,792
Information Technologies	\$6,083,536	\$970,611
Precision Manufacturing	\$2,232,765	\$195,996
Total All Sectors	\$40,454,171	\$5,464,054

Design work has begun on the Student Innovation Center, a 5,000+ square-foot building on campus that will support the creation of innovative businesses by students involved in R&D and the creative economy. In addition, credit and non-credit courses are being developed to encourage entrepreneurship and increase the opportunity for graduates to use their education in Maine. Several of the companies started at the Target Incubator have been created by graduate students commercializing their research (The Zebra Fish Operation) and by faculty commercializing their research (Stillwater Scientific Instruments).

Maine's economy is highly dependent on the natural resources that lie within its borders. The agriculture, forestry, and aquaculture and marine industries are all mainstays of the Maine Economy. The Maine Agriculture and Forestry Experiment Station (MAFES) and many of the units of NSFA are active in this area.

6. The role the University of Maine System plays in commercialization of new products and services.

A major goal of UMaine's research program is to develop intellectual property that has commercial potential. UMaine has emphasized moving technologies from the lab into new or existing companies.

UMaine's total patent portfolio now has more than 50 patents, patent applications, and inter-national patents. In Fiscal Year 2004 (FY04), UMaine filed 4 new patent applications. In addition six new US Patents were issued:

- 1 US 6,598,013 Method for reducing cross-talk within DNA data
- 2 US 6,610,125 Selective filtration and concentration of toxic nerve agents

- 3 US 6,699,575 Wood composite panels for disaster-resistant construction
- 4 US 6,699,363 Modified starch and process therefore
- 5 US Patent 6,703,014 Attractants and repellants for Colorado potato beetle
- 6 US Patent 6,745,132 Method for determining the molecular weight of a substance contained in a solution

Also in FY04, three new licenses were executed to Stillwater Scientific of Orono, Biode Inc. of Westbrook, and Saltwater Marketing of Portland. UMaine helped start or spin-off four new companies: Orono Spectral Solutions, Orono; Maine Marine Manufacturing LLC, East Boothbay; Entwood, LLC, of Bangor; and Knife Edge Productions of Orono.

UMaine's Target Technology Incubator, one of seven in the Statewide Advanced Technology Development Centers, provides both physical space and business counseling services to technology companies. Even though the center had only been open for two and one half years at the end of FY04, it had already graduated one company that has located in Ellsworth. Two other spin-off companies from UMaine, Stillwater Scientific Instruments and Intelligent Spatial Technologies were tenants during FY04. The incubator also has an affiliate program that serves companies that want to take advantage of the programs and services of the incubator, but do not need physical space. There were 11 affiliate companies in FY04. In addition, more than 100 other individuals and companies received referrals or counseling from the incubator.

More than 200 people from all parts of the State have participated in the program's award-winning *Lunch and Learn* series of seminars since the program began. The seminars cover topics such as patent basics, market research, commercialization, business development and human resource issues.

The Target Technology Center also hosts a patent attorney from the Maine Patent Program, part of the University of Maine Law School. Students, faculty and area companies can receive assistance without traveling to Portland. The Patent Program also held eight inventors' forums in FY04.

UMaine also partners with the Maine Aquaculture Innovation Center to manage an aquaculture incubator, another of the Maine Applied Technology Development Centers. The incubator has locations in Franklin at the Center for Cooperative Aquaculture Research (CCAR) and in Walpole at the Darling Marine Center. The CCAR incubator has two tenants, Seabait of Maine and Maine Halibut Farms. The Darling Center incubator has one tenant, Microtechnologies. All of these companies are moving toward full-scale commercialization and have received Maine Technology Institute grants to further their development.

The Composites Technology Center is also managed by a partnership that includes the Sanford Industrial Development Corporation, the Town of Greenville, Eastern Maine Development Corporation and UMaine. The Target Technology Incubator provides management assistance while the Advanced Engineered Wood Composites Center provides sources of new technology and technical assistance. The facility in Sanford is

fully occupied and a new building is under construction in Greenville that will open in January.

7. Specific partnerships with industry, business and economic development organizations

Often cited as exemplary of the land-grant university's engagement with community, the Hutchinson Center in Belfast is a stellar example of a private/public partnership. With financial support from MBNA, the Hutchinson Center opened its doors in the Fall of 2000 and now serves over 16,000 mid-coast Maine citizens annually. Offering undergraduate and graduate degrees to meet the educational and training needs of mid-coast citizens and businesses, the Center also hosts numerous meetings and workshops to hundreds of small business clients. The Hutchinson Center continues to serve Maine citizens and employees of MBNA with tailored educational opportunities designed to improve professional practice, personal advancement, and Maine's quality of life.

Although Hutchinson is a specific example of such partnerships, UMaine has numerous others. Every year, UMaine works with companies throughout the State providing technical assistance and developing research collaborations. These partnerships allow companies without the in-house expertise or resources to become more competitive by creating new products or processes.

The State's increased investment in University R&D has also increased UMaine's capacity to work with these companies. Since 1998, UMaine's industrial contract activity has grown by 79%. The Office of Research and Economic Development worked with over 125 clients last year, ranging in size from some the State's largest employers to individual entrepreneurs.

Many of the newer Maine companies receive R&D funding from the Maine Technology Institute. At last count the University of Maine had relationships with over 50% of the MTI funded projects. In addition an UMaine-SAPPI project was the first MTI funded technology to repay MTI through successful commercialization. When the Maine Technology Institute created its Accelerated Growth Fund, Stillwater Scientific Instruments (a UMaine spin-off) was the first company funded. The following brief examples are projects that represent the wide range of industries that UMaine serves.

Hancock Gourmet Lobster Company

There is a surprising amount of meat left on the shells of crab after they are processed, and Dr. Denise Skonberg and her students wondered what food product could be made from the left-over meat, called crab mince, rather than let it be wasted. She and her students have worked with Cal Hancock from Hancock Gourmet Lobster, Co., in Scarborough, Maine, to develop ravioli stuffed with the crab mince and chunks of lobster. Taste testers gave the ravioli high marks, and the specialty food business is considering ways to make the product unique from other lobster-stuffed ravioli, such as creating a distinctive shape. A \$10,000 seed grant from the Maine Technology Institute assisted Hancock's efforts to develop new lobster and crab pasta products.

Maine Marine Manufacturing

A joint R&D effort between the University of Maine and Hodgdon Yachts, Inc. of East Boothbay has resulted in a new spin-off company named Maine Marine Manufacturing. The team has developed new technologies in composite construction and has pursued Navy funding to develop the next version of the MARK V, the Navy Seal boat. To date the partnership has secured over \$4 million and will soon build the first proto-type. A successful demonstration could result in a procurement contract in 2008. Because of this effort Maine Marine Manufacturing is now pursuing other large composite ship structure contracts for vessels in the 65-150 foot range.

NSFA has partnered with over 100 different organizations and individuals State-wide to improve the economic vitality and viability of the State of Maine and its business and non-profit organizations.

B. University of Southern Maine

1. How workforce needs are reflected in academic program planning

The University of Southern Maine is a major educational and economic engine for southern Maine, and its academic program planning reflects and responds to this role in a variety of ways.

The School of Business offers professional degree programs that directly address the management education needs of Maine's public and private sectors. The Maine Small Business Development Center (SBDC), for example, is the managing partner of Project GATE (Growing America Through Entrepreneurship). Funded by the U.S. Department of Labor, GATE offers one-on-one business assistance, courses and workshops to DOL select participants helping them start and/or expand their own businesses. This program offers the opportunity for individuals receiving Unemployment Compensation to work full-time to develop their own businesses in lieu of seeking employment in established companies. Maine SBDC holds a contract with the Maine Department of Labor, Bureau of Rehabilitation Services, to provide business assistance to nascent entrepreneurs with disabilities. Maine SBDC partners with the Maine MEP to offer training programs for degreed professionals under a federally funded H1-B Training Initiative.

For future teachers and human service providers, USM's College of Education and Human Development offers academic training, field work, and certification in Counselor Education, Mental Health Rehabilitation, and Teacher Education.

The College of Nursing and Health Professions has responded to the health care communities need for entry-level nurses in the Southern Maine and Lewiston-Auburn area and have increased the capacity of the program including: (1) opening a 15-month accelerated baccalaureate nursing program for persons with a degree in another field on the Portland campus, admit 32 students/year and (2) opening the baccalaureate nursing program for non-nurses on the Lewiston-Auburn campus (admit all qualified students as

freshman and transfer students on a space available basis with goal to graduate 24/year when program fully up and running). In addition, the College is working closely with Maine Medical Center and other health care providers to design and implement a new graduate track at USM – the Clinical Nurse Leader. This program will prepare graduates to work in a new health care delivery model, assuring better coordination of care.

The School of Applied Science, Engineering and Technology (ASET) delivers applied medical science, computer science, engineering, environmental science and technology programs in five different departments: the Department of Applied Medical Sciences, the Department of Computer Science, the Department of Engineering, the Department of Environmental Science, and the Department of Technology, offering bachelor degrees. ASET also offers Master of Science degrees in computer science and manufacturing systems as well as applied immunology and molecular biology, and industrial education is offered in collaboration with the College of Education and Human Development. ASET encourages students to participate in cooperative education and internship experiences. Both options integrate classroom learning with meaningful and rewarding work experience in a field related to student's academic or career goals.

At USM's Lewiston-Auburn campus, State Senator Peggy Rotundo (D-Lewiston), Henry Bourgeois (Maine Compact for Higher Education), and Colleen Quint (Mitchell Institute), are helping draft legislation for a State pilot program of employer initiatives (for which the Androscoggin County group would apply). In December 2004, Sen. Rotundo submitted the preliminary "Act to Establish the Maine Higher Education Employer Initiative."

The Muskie School of Public Policy offers courses in public policy and management to students who often go into the private sector to assist companies in working better in the public/private/non-profit interface, and to students who are engaged in business-related policy in the public and nonprofit sectors. Examples of courses specifically related to business include: Economic Development, Environmental Policy, Introduction to Community Development, State and Regional Development, and Government-Business Relations.

The Technology Law Center hosts a course in Patent Law and another in a technology-related subject, such as Internet Law or Technology Licensing. These courses are for-credit and available to matriculated law students or attorneys. The Center also supports two law students per semester enrolled in an externship course. The students gain experience working with small businesses by assisting Maine Patent Programs clients with intellectual property counseling needs.

At the University of Maine School of Law, numerous credit courses relating to business legal needs are offered, such as Contracts, Business Associations, Intellectual Property, Secured Transactions, and related subjects.

2. Programs/courses that are targeted to meet current and future workforce needs, such as UMS initiatives in nursing, teacher development, and tourism

USM's College of Nursing and Health Professions offers the following academic programs that prepare entry-level and advanced practice nurses: Baccalaureate nursing program for individuals who are not nurses (Portland and Lewiston-Auburn); 15-month accelerated baccalaureate program for persons with a degree in another field; an RN/BS program for diploma and Associate Degree prepared nurses; options program for persons with a degree in another field to pursue graduate nursing education; master's degree and post-master's certificate programs in Adult Health Clinical Nurse Specialist, Adult Health Nurse Practitioner, Family Nurse Practitioner, and Psychiatric/Mental Health Clinical Nurse Specialist/Nurse Practitioner.

The College of Education and Human Development (CEHD) addresses the teacher shortage areas of K-12 education by providing qualified teachers in the areas of extended teacher education programs in K-8 and special education. To address the need of the region's quickly growing multicultural communities the CEHD provides a diverse pool of multi-lingual and multicultural teachers. To meet the needs of practicing teachers, USM offers advanced coursework for continuing certification and endorsements to help them become highly qualified. This is done through the Professional Development Center, Educational Leadership, Literacy Education, and Special Education. These efforts help address the State-wide need for teachers and administrators in all Maine's regions, and allows working teachers to remain on the job while receiving professional development. In addition, the CEHD provides advanced training for school psychologists through its new Doctor of Psychology in School Psychology program.

At the Muskie School, the Community Planning & Development program is producing a workforce necessary for Maine government to function well. The School's graduates fill positions of town managers, planning officers, and many other functions. These are all heavily involved in economic development decisions that affect the success of business initiatives.

The Health Policy Management master's degree produces trained professionals who work in the health provider community where there is a critical need for management and personnel. This is a major economic activity of the State and needs strong management capability. The Public Policy Management master's program produces graduates who are trained broadly to help make the public, private and non-profits function more effectively independently and as a group, thereby providing the kind of business climate that will be attractive to businesses.

Pathways to Higher Education is collaborating with Health Care providers (Sisters of Charity Health System, Central Maine Medical Center, and Androscoggin Home Care and Hospice) and Nursing schools (USM, CMCC, CMMC) in Lewiston/Auburn to design and deliver a Pathways to Health Care Higher Education program to increase the

supply of Registered Nurses and other workers requiring college degrees for “hard to fill” occupations in the industry.

Pathways helps working adults plan for and get started on their path to achieving a college degree by delivering college prep and entry-level college credit classes in the workplace. After completing a series of on-site classes, learners will complete their degree at a local Institution for Higher Learning in the degree program of their choice. Customized programs have been implemented at five public and private organizations in southern Maine.

As Maine’s economic development efforts targeted at R&D in science and technology result in more technology-driven enterprises in Maine, the State will see a need for attorneys skilled in intellectual property law and technology licensing. The Technology Law Center’s courses in Patent Law, Technology Licensing and Internet Law, as well as its externship program in patent practice, address this future need.

Making contributions to the manufacturing sector, the School of Applied Science, Engineering and Technology (ASET) works with over 250 businesses State-wide, assisting in a wide variety of operations. This assistance, particularly in the Manufacturing Applications Center where products are improved, tested, and evaluated, assists in the commercialization process.

3. Non-credit courses/programs that are designed to address workforce needs

The Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation, and Project Management and offers a wide range of programs for nurses, social workers, counselors, and allied health and human services professionals. An advisory committee composed of health and human services professionals from southern Maine meets twice a year to discuss community issues and training needed to address those local issues. Programs provide CEUs which meet requirements for re-licensure for many professions.

USM’s College of Education and Human Development enables school and public libraries access and continued interconnectivity to the Maine School Library Network through the Professional Development Center. The CEHD increases the education level of Maine’s workforce by offering low income high school students the opportunity to attend college and give them the tools to succeed, with programs such as the Southern Maine Partnership: Promising Futures and Upward Bound. In addition to teacher training and partnerships, the CEHD provides staff development opportunities to local businesses and industries through experiential education programs and activities.

Among the Muskie School’s six graduate certificates offered, many related to management, the School provides a four-course non-profit certificate for those who want to improve the management of non-profit organizations. The School’s Institute for Child & Family Policy offers extensive training to managers and personnel in private

organizations and public agencies that deal with services for children and families throughout the United States. The School's Institute for Public Sector Innovation also provides training, technical assistance, research and evaluation services to private organizations and public agencies in Maine and elsewhere that are working in a variety of public policy and service fields.

The School of Applied Science, Engineering and Technology (ASET) offers credit, non-credit and certificate programs to students who are unable to attend classes or programs on campus through External Programs. Customized programs, including workshops, seminars and short courses are available on specialized topics as requested by educational, corporate or industrial organizations to meet their specific objectives.

The Business School's Center for Real Estate Education is the largest State-wide provider of pre-licensing and continuing education courses for the real estate and appraisal industries, addressing the needs of approximately 2,500 students/per year. Periodically, the Center develops tailored certificate programs for trade associations. And, in partnership with the Heart of Maine, the Business School's Center for Entrepreneurship provides the FastTrac business development program to over 1,000 business owners and start-up individuals from Presque Isle to Sanford. With a USDA Rural Development grant, technical assistance is being provided to select FastTrac graduates in rural areas of the State using a case management approach. For military veterans, Maine was the national launch for the FastTrac for Veterans program, in partnership with Maine's Bureau of Veteran Affairs, the national Veteran's Corporation and Gateway Computer. Courses for veterans have been held in Bangor, Augusta, Brunswick, Biddeford, and Portland. Veterans receive a scholarship and a \$675 voucher from Gateway Computer toward a computer and/or business software.

Annually, the Maine Small Business Development Centers (SBDC) addresses workforce need when selecting courses. For example, the Maine SBDC has been engaged in providing business training to daycare providers as a result of a need determined by State sponsored research. Similarly, Maine SBDC expanded its training offerings for value-added food producers and local growers resulting from studies conducted by the University of Maine.

The Technology Law Center's annual conference offers education on legal issues relevant to technology-based businesses. The conference is attended by lawyers and businesses alike, and offers attorneys continuing legal education credits. The School of Law is presently considering certificate programs and summer institutes to address legal workforce needs in Maine.

Pathways to Higher Education has created customized curriculum and training for workers at Barber Foods, primarily refugees and immigrants whose primary language is not English, so they can pass OSHA written tests and succeed in critical Safety Training programs at their worksite, and creates curriculum to deliver non-credit classes at Barber Foods. Two levels of Food Manufacturing Certificates are being created, one which provides foundational skills to develop current and future leaders in the food

manufacturing industry, and another that is designed to create food manufacturing specialists who are the highest-level experts in the field, and who can safely and effectively introduce new food products and processes to the manufacturing process.

4. Research, outreach and consultation available to the public and private sectors

The University of Southern Maine's Center for Entrepreneurship at the Business School Performs consultation and establishes partnerships with local organizations to develop non-credit education programs, seminars and workshops to address specific needs. For example, the Center is working with the Freeport Economic Development Office to offer a one-day program to both start-up businesses and existing business owners. Primary outreach State-wide is through the business development programs offered by the Center, including FastTrac Planning and New Ventures, which are offered at local request.

Through a variety of outreach venues, the School of Applied Science, Engineering and Technology works with over 250 businesses in Maine. For example, the Manufacturing Applications Center works with Maine industries to improve quality and efficiency in production operations. Assistance is provided in technical training, quality assurance, product testing and analysis, reverse engineering, production control, project management, CAD/CAM/CIM technologies, lean manufacturing, metrology, and other areas.

Programs at the Center for Real Estate Education focus on addressing the needs of the real estate industry (including not only real estate licensees but also appraisers, mortgage bankers) through education as well as tailored research projects. For example, the Center developed the first Affordable Housing Index for middle income buyers nation-wide. Other organizations in Maine have now been trained in that formula. It also developed the first data bases in existing housing, new construction and the Real Estate Transfer Tax. Real estate data bases initially developed through the center are available to the public.

Pathways to Higher Education has served as a consultant to and partner with local adult education programs in designing and creating basic skill workplace education programs.

The College of Education and Human Development provides research, assessment, evaluation, consultation, and technical assistance to school districts, agencies, and organizations, including the studies on Maine education policy and the Maine public education system for the Maine Legislature.

Outreach is a major component of the Muskie School's efforts. Faculty and research staff of the School consult with businesses, federal, state and local governments and agencies across the U.S. and abroad in the fields of economic and community planning and development as well as health policy, child & family policy, and other fields related to public policy and service. Faculty often provide evaluations and economic analysis of specific projects and proposals.

The Business School is a major contributor to outreach initiatives in Southern Maine. The Maine Small Business Development Center provides high-quality, free, individualized business management assistance through one-on-one consulting and counseling. It coaches and encourages micro, small and technology-based business owner/operators and navigates micro, small and technology-based businesses access to capital. The culminating efforts of the School build awareness of the multiple resources of academic communities, federal, state and local governments, private enterprise and the non-profit sector that support the Maine SBDC's focus.

Reaching out to the health industry, the Dean of the College of Nursing and Health Professions, in collaboration with the Maine State Board of Nursing, has implemented data collection on the nursing workforce at the time of re-licensure. The School is currently in the process of analyzing the first full cycle of data.

5. How the State's economic and business needs are addressed through research and development

USM's ability to compete for external funds continues to grow dramatically, staying on pace to double activity every five years. MEIF investments have made a significant impact in leveraging federal R&D dollars. In FY04, externally funded R&D activity increased 36% from the prior year, outpacing all other areas at USM.

Awards, benefiting from last year's record proposal level, grew by \$6.1 million to \$48.4 million. Over the past two years alone USM has generated a \$14.1 million increase in external funds, a 41% gain. Every School/College has shown increased activity over this period with the School of Applied Science, Engineering and Technology and the College of Nursing and Health Professions receiving more awards in FY04 than in the two prior years combined.

The following highlights a few initiatives:

- A partnership with the Gulf of Maine Research Institute to open new opportunities in aquatic systems research and regional collaboration among marine scientists;
- The initiative to expand the John Mitchell Center at USM is a response to the need for expanded offerings in engineering and technology programs - both vital to the economic growth of the State and region;
- Lobster Synthesis: The project is driven by both basic scientific questions about population and coupled bio-physical models as well as the societal, industry, and management applications

Another project is studying the onshore movement of shrimp during winter, the oceanographic conditions that influence the extent and timing of these movements, and the consequences for larval distributions and recruitment.

USM's College of Education and Human Development provides the research, evaluation, and tools needed by the Maine Department of Education for State-wide initiatives such as

Maine's Impact Study of Technology in Mathematics, the lap-top initiative, alternate assessment and portfolio initiatives. Affiliates include: Professional Development Center; Center for Education Policy, Applied Research, and Evaluation; Southern Maine Partnership.

The College of Nursing and Health Professions has responded to the health care community's need for entry-level nurses in the Southern Maine and Lewiston-Auburn area. The College has increased the capacity of the nursing program including: (1) opening a 15-month accelerated baccalaureate nursing program for persons with a degree in another field on the Portland campus, admit 32 students/year and (2) opening the baccalaureate nursing program for non-nurses on the Lewiston-Auburn campus.

USM's Lewiston/Auburn College has been working on an action plan to significantly increase Maine's number of college-educated citizens by 40,000 over the next 15-20 years. Strategies include a scholarship program to eliminate the burden of educational debt, an early college initiative offering college experiences and success before graduating from high school, a college transition program to help adult students transition to college, employer initiatives to encourage employers to support the education of their employees, and a marketing campaign to address prevailing attitudes about higher education.

The School of Business focuses primarily on applied research in the business and economic development sector. This research is generally conducted through the Center for Business and Economic Research, the Maine Small Business Development Centers, the Center for Entrepreneurship and the Center for Real Estate Education. Research topics include the Maine Labor Force Analysis, the Maine Technology Clusters Study, the BankNorth Geographical Diversifications Study, Evaluation of Technical Assistance Based on Needs Perception of Business Owners.

The Muskie School and USM Business School jointly lead the Center for Business and Economic Research. Under a grant from the economic development administration, the Schools work with economic development interests in the State to plan and implement improved economic development strategies, initiatives, and assist businesses in developing them. Overall economic development rests heavily on quality of life, sensible public policy (including tax policy, development policy, and education). The Muskie School teaches graduate students in these fields and they in turn help set the overall business climate of the State.

Pathways to Higher Education conducts research usually for one-time specific projects. Formerly the Center for Workplace Learning, Pathways was one of nine programs selected nationally by the Aspen Institute in Washington, D.C. to measure the Return on Investment (ROI) of workplace training interventions. Pathways is partnering with the Muskie School Institute for Health Policy conducting Research and Needs Assessments for small to mid-sized Home Health Care Agencies in order to develop and deliver programs to help recruit and retain workers in that industry (critical shortages currently exist).

The Center for Business and Economic Research in the School of Business provides contract research to the public and private sector. Examples include the Maine Labor Force Analysis, the Maine Technology Institute Program Evaluation, Aroostook County Out-migration Study, Maine Technology Clusters Study, and others.

The Center for Entrepreneurship has engaged in applied research activities with other service provider organizations for entrepreneurs and small businesses. It has received numerous USDA Rural Development grants to provide technical assistance and business development programs State-wide – work that is in line with the State’s economic development strategy that includes entrepreneurship development.

The School of Business’s Center for Real Estate Education engages in applied research for the real estate industries. As examples, the Center created a Maine Home Buyer Profile for the Maine Assn. of Realtors and also conducted the New Hampshire state-wide Housing Analysis for the New Hampshire Housing Authority

The Maine Small Business Development Center’s mission is to engage itself and others in development activities that contribute to the improvement of the economic climate for and the success of micro, small and technology-based businesses in the State of Maine. The Maine SBDC's focus is to assist in the creation, growth and the maintenance of viable micro, small and technology-based businesses and the jobs these businesses provide. Maine SBDC serves those seeking assistance who are willing and able to build, sustain, and/or expand their business.

The Technology Law Center conducts research on the role of law in economic development. In early 2004, for example, the Center released a report that studied the capacity of Maine’s research institutions to engage in innovation and technology transfer. The report was presented to the Business Research and Economic Development committee in January of 2004. It is relied upon by many who are considering policy and practical solutions to the State’s lack of technology transfer capacity, including the Office of Innovation within DECD, Research Initiatives at USM, and the Department of Research and Economic Development at the University of Maine. The Center also conducts research on the abuse of the patent system and how it is exploited to the detriment of small businesses in Maine and throughout the country. The Center is available to DECD’s Office of Innovation to provide analysis of intellectual property law and technology transfer issues in an economic development strategy focusing on R&D in science and technology.

6. The role UMS plays in commercialization of new products and services.

USM's School of Applied Science, Engineering and Technology works with over 250 businesses State-wide, assisting in a wide variety of operations (see Research and Development section). This assistance, particularly in the Manufacturing Applications Center where products are improved, tested, and evaluated, assists in the commercialization process.

The School of Business' Center for Business and Economic Research (CBER) projects and analyzes the economic and business conditions in Maine and New England. This information is often helpful in the commercialization process. In addition, the Center's role in evaluating the impact of grants awarded by the Maine Technology Institute helps track the success of some commercialization efforts in Maine.

The Center for Entrepreneurship, with the Center for Environmental Enterprise (Maine's first incubator), hosts programs with the National Renewal Energy Laboratory to link Maine entrepreneurs with federal research opportunities for technology commercialization.

As a recognition of the role that technology plays in the future of Maine's, the Maine Small Business Development Centers, through a contractual agreement with the Maine Technology Institute and other means, offers focused business assistance to Maine's technology community. This arrangement builds on the technology business counseling programs offered by the Maine SBDC, including technical assistance with federal Small Business Innovation Research (SBIR) projects and counseling and training at Maine's Advanced Technology Development Centers (ATDC). In 2004, the SBDC met a rigorous national accreditation, authorizing them to formally provide technology support to Maine's small businesses and entrepreneurs. The SBDC is integrating technology-focused capabilities into all of its 11 service centers and 25 outreach offices throughout Maine.

Patent advice is critical to commercialization decisions technology-driven businesses must make. USM's Technology Law Center's Maine Patent Program assists businesses with understanding the importance and role of patents to product commercialization and licensing. Through the Center's connection with other economic development programs, including the Maine Small Business Technology Center, the Maine Technology Institute and the Maine Manufacturing Extension Partnership, the Center assists businesses with utilizing the State's business assistance network.

7. Specific partnerships with industry, business and economic development organizations

Center for Continuing Education

Human Resource Association of Southern Maine

Microsoft Certified Partners

MESDA Members (supporting growth and development in the IT industry in Maine)

College of Nursing and Health Professions

The College of Nursing and Health Professions has partnered with the majority of hospitals and community health agencies in Southern Maine and Lewiston-Auburn. Nursing students complete their clinical training in these hospitals/agencies and subsequently are likely to be employed by them if the graduate elects to stay in the area.

Muskie School of Public Service

The School's Institute for Health Policy and the Health Policy Management master's program work closely with a wide variety of organizations that provide health care, that plan health care policy, and that implement State-governed policy. These are both non-profit and profit-making organizations. They are a significant part of the business activity of the State.

Pathways to Higher Education

Each customized Pathways program is a partnership with the participating business and the local Community College (active partnerships with SMCC & CMCC). Pathways Director, Steve McFarland, is a member of the Compact for Higher Education and the USM Corporate Partners organization. The Pathways to Healthcare Higher Education program is overseen by the Health Care Action Team, whose membership consists of local health care organizations and educational institutions.

Technology Law Center

The Technology Law Center and Maine Patent Program work closely with the Maine Technology Institute, the Maine Small Business Development Centers (and the SBDTC), the State Office of Innovation, the Technology Centers (incubators), Research Initiatives at USM, and the Office of Research and Economic Development at the University of Maine.

School of Applied Science, Engineering and Technology

ASET currently interacts with over 250 businesses in Maine and has an extensive network of partnerships with trade organizations and industry groups.

School of Business

The School of Business has developed a wide network of partnerships with business, industry and economic development organizations. See Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and Maine Small Business Development Centers. In addition, the School of Business is assisted by an Advisory Council which represents organizations such as UNUM-Provident, Wright Express, Maine Employers' Mutual Insurance Co., Lee International, Bisson Transportation, to name a few.

School of Business/Center for Business and Economic Research

CBER partners regularly with numerous public- and private-sector organizations on projects of mutual interest.

School of Business/Center for Entrepreneurship

Maine Small Business Development Centers
Technology and Law Center
Center for Environmental Enterprise and Applied Technology Centers Network
Maine Technology Institute
Entrepreneurship Working Group (co-chair)
Entrepreneurship Education Task Force (co-chair)
Heart of Maine Resource Conservation and Development Area
Veterans Corporation
Maine Bureau of Veterans Affairs
Local Business Coalitions to offer FastTrac
Chambers of Commerce
Economic Development organizations
Southern Maine Community College

School of Business/Center for Real Estate Education

Maine Real Estate Commission
Maine Appraisal Board
Maine Assn. of Realtors
Mortgage Bankers Assn

School of Business/Maine Small Business Development Centers

From the U.S. Small Business Administration to the Piscataquis County Economic Development Council, the MSBDC partners with hundreds of national and local businesses and organizations, building relationships that support small businesses and stimulate economic growth. (See Appendix III, section A for a list).

C. University of Maine at Augusta

1. How are the State's economic and business needs addressed in your research and development activities?

The Maine Community Policing Institute (MCPI) has been instrumental in the development of a Security training program in the area of mass transportation. This program was piloted to airport and port security officials in Maine prior to delivery on a national environment.

2. Research, outreach and consultation available to the public and private sectors?

The MCPI's outreach in this area includes the inclusion of private sector representatives in some of the training initiatives provided for basic community policing and Mass-transportation security. The Institute employs a "problem solving" strategy referred to as "SARA" in training initiatives that are applicable to the private sector.

3. What specific programs/services do you provide to assist in the commercialization process?

UMA offers degrees in Criminal Justice and Administration of Justice that are appropriate to the field of private security. Many firms in the State employ their own security groups as part of the corporate world, therefore, the UMA student base includes this as an option in career planning.

4. What credit courses do you offer which address business needs?

MCPI's curriculum related to business needs include Community Policing and Community Policing Practicum. There are two levels of college degrees appropriate to this field.

5. What non-credit courses/programs do you offer which address business needs?

Basic Community Policing, Mass-transportation security, Infrastructure Protection, Other courses can be designed by staff upon request.

6. Programs/courses which are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

Plans have been made to address the interests of private security in the proposed "Justice Studies Degree." This program modification will allow us to offer more courses oriented toward that market. Implementation of this proposal depends in part of the outcomes of the UMS Strategic Plan.

7. Please identify specific partnerships with industry, business and economic development organizations.

An example of this type partnership would be a project MCPI and the law firm of Pierce Atwood undertook a couple of years ago on the subject of Workplace Violence. This partnership provided training to the private sector on how to protect assets against such events.

The Mass transportation security project has important implications concerning the safety of the traveling public, and community policing plays a significant role in the reduction of the fear of crime and thus fosters the free movement of the citizen in the community, and has a positive impact on the economic viability of a community.

Examples of activities in all these are available via a publication known as Community Policing across Maine. This publication is printed quarterly and made available to the entire Maine legislative delegation, the Governor's office and the federal congressional delegation.

University of Maine at Presque Isle

1. How workforce needs are reflected in your academic program planning?

Programs in Education are developed to lead to Maine Teacher Certification and are designed around the Ten Initial Teaching Standards enacted by the Maine Legislature

2. Programs/courses which are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

UMPI's recreation programs include a Wilderness First Responder course which provides students with three academic credits toward their major program and WFR Certification. The B.A. in Criminal Justice prepares students for the Maine Police Academy and for many federal, state, and local police and justice related jobs. These students are well prepared to quickly advance to jobs in criminal justice requiring higher skill levels.

UMPI's Bachelor of Social Work program prepares students for graduate school (MSW available on-campus through a cooperative program with the University of New England) and for immediate social work licensure. This degree, along with Criminal Justice and Psychology, provides the Mental Health Rehabilitation Technician/Community (MHRT/C) certification required by the State of Maine for employment in certain public welfare positions.

The Bachelor of Liberal Studies-Teacher Certification Program, which allows individuals possessing Bachelor's degrees in certifiable areas to complete their professional education sequence of courses and student teaching, normally within 18 months, leads to MDOE certification.

UMPI's Associate degree in Education is designed for Education Technicians to meet the requirements of No Child Left Behind Act.

3. Non-credit courses/programs designed to address workforce needs?

The University of Maine at Presque Isle offers two relevant certificate programs in American Management Association and Human Resource Management.

Several events each year coordinated through the Central Aroostook Consortium for Education provide CEUs for the in-service teaching force; and growing cooperation with the Regional Teacher Development Center for Aroostook County enables MDOE certification and in-service development of practicing teachers.

4. Please identify specific partnerships with industry, business and economic development organizations.

The Central Aroostook Council on Education (CACE) and the Regional Teacher Development Center are two important partnerships for the University. CACE In-Service Education creates opportunities such as the annual Common In-Service day that are designed to keep teachers up-to-date on topics of current interest in education. The Regional Teacher Development center matches individual teacher's needs to meet certification requirements with educational opportunities.

MAINE COMMUNITY COLLEGE SYSTEM:

Of the four focus areas cited in the legislation, the Maine Community College System addresses two through its mission and programs: workforce training and business development. The following is an overview of how the MCCS is addressing the economic development needs of Maine through its programs and services, and current initiatives. Please note that this overview is a *System-level* summary, and does not include the many initiatives, partnerships and efforts underway at each of Maine's seven Community Colleges.

Mission

Meeting the economic and workforce needs of Maine employers is central to the MCCS mission:

"The basic mission of the Maine Community College System is to provide associate degree, diploma and certificate programs directed at the educational, occupational and technical needs of the State's citizens and the workforce needs of the State's employers. The primary goals are to create an educated, skilled and adaptable labor force which is responsive to the changing needs of the economy of the State and to promote local, regional and State-wide economic development." (MRSA 20-A, c.431)

It is through this mission, established by the Maine Legislature and prescribed by the MCCS Board of Trustees, that each Community College has a role, collectively and individually, in creating an educated workforce for the State of Maine, meeting the continuing education and transfer aspirations of students, responding to the changing workforce needs of the State's employers, and strengthening Maine's overall economy.

Programs and Services

To fulfill their mission, the Community Colleges offer the following programs and services:

One and two-year career programs prepare students for careers in Maine, and are designed to match the skills and education of local citizens with the workforce needs of local industries. Two-year associate degree programs also prepare students for transfer to four-year baccalaureate programs (thanks to extensive articulation agreements), enabling students to continue on to advance their education and careers. Career programs lead to the certificate, diploma, and associate degree credentials. Over 300 program options – in technical fields, health care, business, and trade occupations – are offered throughout the seven-college System. Each career program has a Program Advisory Committee, comprised of local employers, which advises the college on current work methods, curriculum and program equipment. Every five years, each program undergoes a thorough review by the college and the Board of Trustees' Educational Policy Committee. Career programs have maintained an average 95 percent placement rate –

either in jobs or continued education. Of those who enter jobs, 97 percent are employed in Maine.

Associate in Arts in Liberal Studies. Launched in 1999, the AA in Liberal Studies provides a general education foundation for most associate and baccalaureate degree programs. The AA prepares students for transfer to four-year colleges and universities, or a Community College career program. The program now enrolls over 3,079 students – 30 percent of the total MCCS enrollment – and has become a critical entry point to higher education for students who are preparing for transfer, as well as for those who are unsure of their career goals, need to strengthen their academic foundation, and/or need a low-cost option for college. With this program, the MCCS hopes to increase the number of students entering higher education, as well as increase the number transferring on to Maine’s universities and other four-year institutions.

Credit and non-credit courses. Like all community colleges, Maine’s Community Colleges offer extensive credit and non-credit offerings for citizens interested in a career change, career advancement, or personal enrichment. These classes are open to degree students and the general public. Courses cover a range of topics, from business to computer software, English literature to Web-site development, marketing to culinary arts, and others. Last year, the seven Community Colleges served over 5,000 people in non-credit courses, and roughly 5,000 in non-degree credit courses – for a total of about 10,000 in (non-degree) credit and non-credit courses.

College transition and support services – The colleges offer a variety of programs and services designed to help individuals transition successfully into college, and complete their program of study successfully. These services help ensure that college is accessible to those historically under-represented in higher education, including minorities, low-income residents, displaced workers, those needing academic support, and others. Services include remedial education; early college programs; partnerships with Adult Education and other organizations; tutoring and counseling; child care (and referrals), and other services.

Business & Economic Development Activities – The colleges offer a variety of business development services to employers and students.

Customized training for business and industry.

Each Community College has a Business and Industry Division that coordinates credit and non-credit courses, workshops and seminars for employers. Staff meet with businesses to assess their skill needs and design a program that meets their specifications. These programs are designed to be flexible, responsive and competitively-priced. Topics range from customer service to leadership, change management, team building, and trade-related topics like computer-aided drafting, electronics and others. Last year, 10,164 employees went through customized training delivered by Business & Industry divisions (34,609 actual course registrations).

Maine Quality Centers

The Maine Quality Centers program provides training for businesses locating or expanding their operations in Maine, at no cost to the business or the trainees. The MQC program – which is an important component of Maine’s economic development offerings – has helped 191 companies expand, with projects in each of Maine’s 16 counties. Over 9,500 Maine citizens have been trained for new jobs, with the training funded by the program and delivered by the Community Colleges. The expansions and locations represent a projected \$1.7 billion in private investment in Maine. The program has spurred new education/business partnerships all over the State, and has an estimated return on investment of 14 months.

Entrepreneurial Training

The colleges offer a growing array of entrepreneurial services designed to support the new business ventures of Community College students and the general public. Many Community College students enter career programs with an interest in starting their own businesses. To support these aspirations, entrepreneurship courses are offered as credit electives and non-credit courses in a variety of topics, including marketing, legal issues, hiring issues, creating a business plan, and many other topics. Several colleges have established Entrepreneurial Centers, with business counseling services and business incubators for students.

Workforce Standards and Research The MCCS, through its Center for Career Development, also offers a range of workforce and economic development services, including research, curriculum consulting, expertise in industry skill standards; and technical support for other education providers and State agencies. Examples of recent projects include:

Workforce Needs & Higher Education Surveys. The MCCS partnered with the Maine State Chamber of Commerce to conduct Workforce Needs & Higher Education Surveys in the following industries: health care; hospitality; precision metals manufacturing; and construction. These surveys were intended to quantify employers’ current and projected hiring needs for college graduates in specific occupations, and the number of students projected to graduate from Maine’s higher education institutions. The reports have been shared with all Maine higher education institutions, to provide data for program planning.

Career and Technical Education Comprehensive School Review Pilot. The Center is assisting the Maine Department of Education with comprehensive school reviews in three of Maine's secondary career and technical education (CTE) institutions.

Career Preparation Curriculum. MCCS conducted a series of Career Preparation Train-the-Trainer workshops around the State for secondary educators and guidance counselors. The accompanying Teacher's Guide and Student Handouts are available for free download at <http://ccd.me.edu/careerprep/>.

MAVEA Initiative. The Center is working with the Maine Association of Vocational Education Administrators (MAVEA) to provide State-wide staff development.

Current Initiatives and Priorities

Community colleges, by their mission, are open to all who can benefit, and thus provide a starting point for many individuals who could not otherwise attend college. Increasing college attainment has been, and is, a high priority for Maine. It is considered by leaders in the policy, business and education arenas to be one of the top challenges facing the State if we are to build a stronger economic foundation for Maine, and provide opportunities for citizens – including youth who want to live and work in the State. Therefore, the top priorities of the MCCS are to: broaden access to college, and increase the number of graduates to support Maine’s economic growth. Specifically, the System is addressing these priorities through the following goals:

A. Expanding Career Programs

The major challenge facing the MCCS is the shortage of resources to expand high-demand programs. The Maine Economic Growth Council’s most recent survey of businesses (in 2001) found that 68 percent of Maine businesses were having trouble finding skilled workers. The situation is particularly acute in the health care industry but many other industries are hindered by the skilled worker shortage. MCCS has been focused on expanding and adding career programs to meet the technological advances of the workplace and the rising education levels required by employers. Efforts include: increasing employer partnerships and private donations; pursuing additional State funding and federal grants, and collaborating with industry associations.

The MCCS and its colleges have developed a number of partnerships with employers and employer associations to expand or add programs. Some examples include: initiatives with the Maine Hospital Association and individual hospitals to add or expand nursing, radiologic technology, cardiovascular technology and other health programs to regions previously underserved by such programs; a partnership between SMCC and the Maine Auto Dealers Association to re-start the Automotive Program to serve southern Maine businesses; a closer alliance between WCCC and the Maine Marine Trades Association to support boatbuilding education in Maine; and partnerships with the Maine Metal Products Association, the Maine Hospitality Association, and others.

In the past five years, approximately 50 programs have been added or expanded. Enrollment in career programs – including traditional trade programs – has grown by 38 percent during this period.

B. Increasing access to college for adults

A survey conducted in 2001 of Maine adults aged 18 to 55 without a college degree found that one in five Maine adults (or 90,000 Mainers) have a high interest in pursuing a degree. Of those, 76 percent, or 68,000 adults, want to attend within the next one or two years. With 77 percent of Maine's workforce in the year 2010 already working, Maine has a tremendous opportunity to increase the educational credentials of its workforce by engaging more adults in higher education. In addition to benefiting employers, a more highly educated citizenry can help raise income levels, reduce pressures on social services, generate more tax revenues for the State, and help strengthen communities and the economy as a whole.

In the 2001 survey, the chief barriers to college cited by adults were: (1) cost and ability to pay; and (2) time. Also cited were uncertainty of career goals and lack of child care. When asked what factors would help them go to college, the adults cited many of the services and attributes that are hallmarks of community colleges, which have traditionally served a large adult population.

The MCCS has taken a number of steps to make college more accessible for Maine adults:

- **Tuition freeze.** With cost being the number one barrier to college, and Maine having relatively low income levels, the MCCS Board of Trustees has made affordability a top priority of the System. The Board has frozen tuition at \$68 per credit hour (\$2,040 a year) for six straight years. The significant increase in enrollment (and increase in student credit hours taken) can at least partially be attributed to this freeze.
- **MCCS/Adult Education Partnership.** Through a joint initiative launched in 2003, the MCCS and Adult Education providers have been working to create stronger linkages in all regions of Maine, to help more adults transition into college.
- **Child care.** Child care services are offered at each Maine Community College – an important service for students juggling college and parenting responsibilities. Several of these programs also serve as teaching facilities for early childhood education students.
- **Geographic access.** For many adults, traveling to a college campus is a major challenge. The MCCS now operates six off-campus centers in regions not immediately served by a main campus. Four of these centers are collaborative efforts with the University of Maine System. Today, 92 percent of Maine's population is within 25 miles of a Community College campus or center. In addition, the Community Colleges have added online courses and programs to help adults faced with time or geographic challenges.
- **Inter-agency Partnerships.** Community College officials work collaboratively with State and local education, labor and economic development agencies when mass layoffs *and* expansion activities occur, to assist workers in retraining and transition into college. Some innovative and effective local partnerships are helping to match up under-employed and/or dislocated workers with new employment opportunities.

C. Raising Maine's high-school-to-college rate

There is a general consensus that the lack of a true Community College System has likely been a contributing factor in Maine's low high-school-to-college rate of 55 percent. In Maine, only seven percent of recent high school graduates enrolled in Maine's public two-year colleges, well below the national rate of 17 percent. Massachusetts, with a long-established Community College System, had the highest high-school-to-college rate in the nation, at 71 percent. Sixteen percent of that state's recent high school graduates enrolled in community colleges.

The MCCS has a number of initiatives underway to engage more high school graduates in higher education, and support Governor Baldacci's goal of achieving a 70 percent high-school-to-college rate by 2010:

- **Early College.** The MCCS is piloting the *Early College for ME* program that targets high school students who are academically capable but have traditionally not gone on to higher education. These students are offered scholarships, early college courses, and support through the college admissions and financial aid process, and through their Community College experience. Early results are very positive for this program, showing a high retention and grade point average for participating students.
- **Tech Prep.** Through Tech Prep, the Community Colleges have worked with partners to build articulation agreements with Maine high schools and technical regions and centers – and to help enhance “applied learning” techniques in schools. Tech Prep is a partnership of the MCCS, the Maine Department of Education, Maine secondary technical centers and regions, Maine high schools, business, industry and labor.
- **Reaching out to Guidance Counselors.** Staff at the seven Community Colleges have increased their communication and recruitment efforts with high schools to help increase understanding of the “new” Community College mission, admissions requirements, and transfer opportunities for students. These efforts have resulted in a higher level of awareness of this “new” higher education option in Maine.
- **Maine Learning Results Curriculum Integration Project.** The MCCS has partnered with the Maine Association of Vocational Education Administrators (MAVEA) to conduct the Curriculum Integration Project (CIP). This project involves a comprehensive review of applied technology education curricula, updating that curricula, and developing a process to link applied technology education curricula to Maine's Learning Results. Major components of the project include the development of Statewide standards for secondary-level technology programs, professional development opportunities for instructors through school-based learning teams, and implementation of the Student

Information System (SISME) database to record and report on student achievement on program tasks and associated MLR.

These efforts are already having an effect. In just the past two years, the number of students entering the Community Colleges directly from high school has increased 41 percent. At Southern Maine Community College, the number has jumped 107 percent in just two years.

D. Increasing the number of Community College graduates transferring to UMS and other four-year colleges

Since the MCCC assumed its new name and mission – which now includes transfer preparation – more students are entering the Community Colleges with the express goal of preparing to transfer into a baccalaureate-granting institution.

The MCCC is working with the University of Maine System and other four-year institutions to expand and streamline 2/4 transfer. The focus of these efforts include: expanding transfer agreements; expanding associate in arts offerings (majors and arts and science courses in particular); and providing more (and earlier) transfer advising so students can adequately plan their curriculum.

In two years, the number of MCCC transfer students enrolled in UMS institutions increased 21 percent, to over 1,700 students. Furthermore, these students' GPAs are comparable to their university peers. The goal of the MCCC is to increase this number to about 3,000 by the end of the decade.

APPENDICES

I. State-wide Strategic Plan on Nursing

II. University of Maine

- a. Economic Development Partnerships
- b. Grants
- c. Partnerships

III. University of Southern Maine

- a. Maine Small Business Development Centers-Partnerships
- b. Applied Science and Engineering Technology Inventory
- c. Center for Continuing Education
- d. Center for Entrepreneurship
- e. College of Education and Human Development
- f. Center for Real Estate Education
- g. Lewiston-Auburn College
- h. Maine Small Business Development Centers
- i. The Muskie School
- j. College of Nursing and Health Professions
- k. Pathways to Higher Education
- l. School of Business
- m. Technology Law Center and Maine Patent Program at the School of Law
- n. Center for Business and Economic Research

IV. Guaranteed Admission Agreement



*Maine's
Public
Universities*

UNIVERSITY OF MAINE SYSTEM



Brightening futures. Helping Maine reach higher.

STRATEGIC PLAN FOR MAINE'S NURSING PROGRAMS:

UNIVERSITY OF MAINE SYSTEM

AND

MAINE COMMUNITY COLLEGE SYSTEM

JANUARY 20, 2005

INTRODUCTION

The Committee and Education and Cultural Affairs of the Legislature requested that a Strategic Plan for Nursing for the State of Maine be drafted jointly by the Community College System and the University of Maine System. During the public hearing and work sessions on LD 1871, the Organization for Maine Nurse Executives (OMNE) presented information to the Education Committee regarding the nursing workforce shortage in Maine and the capacity of nursing preparation programs at the University of Maine System and the Maine Community College System to address this issue. While the Education Committee did not reach consensus on the merits of loan forgiveness versus loan repayment in recruiting and retaining qualified nursing candidates, Education Committee members agreed that it is time to address the capacity of nursing preparation programs in the State.

Given the present shortage of nurses in the State of Maine and as “baby boom” nurses retire and the health care increases with the graying of Maine population, there is a dire need for program expansion in Nursing both in the University of Maine System and the Maine Community College System. The Committee and Education and Cultural Affairs has asked both the Maine Community College System and the University of Maine System to propose a model for expansion that would support the needs of the State of Maine. Both Systems have carefully studied their program strengths and have strategically outlined in this Strategic Plan the way in which they would add capacity to their Nursing Programs. Included herein is a vision, including a budget request that would address the State’s need and continue to support high quality academic nursing programs in both Systems.

I. DESCRIPTION OF EXISTING NURSING PROGRAMS

Maine has 13 nursing programs. All programs are accredited and hold fast to the highest standards in the profession. The level of student preparation is very substantial, producing graduates who can successfully pass the standardized nursing examination required by the State.

Maine's 13 nursing programs include:

- Central Maine Community College (CMCC)
- Central Maine Medical Center (CMMC)
- Eastern Maine Community College (EMCC)
- Husson College (HC)
- Kennebec Valley Community College (KVCC)
- Northern Maine Community College (NMCC)
- Saint Joseph's College of Maine (SJC)
- Southern Maine Community College (SMCC)
- University of Maine (UM)
- University of Maine at Augusta (UMA)
- University of Maine at Fort Kent (UMFK)
- University of New England (UNE)
- University of Southern Maine (USM)

Applications, Enrollments, Admissions, and Graduations¹

Trend data on nursing enrollments and graduations in Maine's 13 nursing programs is reported in Table 1. Enrollments and graduations from RN to BSN and graduate programs in Maine are provided in Table 2.

Table 1. Maine's Nursing Programs: Trend Data on Enrollments and Graduates

	1999-2000	2000-2001	2001-2002	2002-2003	% Change Previous Year
Enrollments ²					
Associate's Degree	492	537	668	773	16%
Baccalaureate Degree	861	805	1,100	1,210	10%
Total	1,353	1,342	1,768	1,983	12%
Graduates					
Associate's Degree	221	241	239	251	5%
Baccalaureate Degree	204	184	153	162	6%
Total	425	425	392	413	5%

¹ Data source for description information: Report Fall 2003 Survey of Maine Nursing Education Programs, available at www.usm.maine.edu/conhp.

² Enrollment numbers in generic Baccalaureate Degree programs reflect students enrolled as freshmen, sophomores, juniors, and seniors, in contrast to Associate Degree numbers, which reflect 1st year and 2nd year students.

Table 2. Maine's Nursing Programs: 2002 and 2003 Enrollments and Graduates from RN to BSN and Graduate Programs

Program	Enrollments		Graduates	
	2002	2003	2002	2003
RN to BSN ³	821	656	82	71
Master's Degree in Nursing ⁴	453	486 ^{5,6}	44	40 ¹⁵
Masters Entry Program for Persons with Baccalaureate Degree in Another Field	45	48	9	8
Post-master's Certificate	-	20	-	8

Five Associate Degree programs reporting wait listing applicants in 2003. Reasons for wait listing included: (1) CMCC enrollment capped at 32 entering AD students; (2) EMCC wait lists are generated to fill any openings that may occur if accepted students withdraw prior to start-up; (3) KVCC enrollment cap of 40; (4) NMCC admission office admits just above capacity as there are generally several who may withdraw applications throughout the summer months and those who are wait listed are accepted prior to beginning of fall semester; (5) UMA all students who meet pre-requisites are wait listed, admission to Fall class is by date from waitlist; and (6) UNE not enough clinical placements, space availability in skills center. None of the Generic Baccalaureate Degree programs utilized waiting lists in 2003. UNE's Nurse Anesthesia program wait listed 4 students in case a student who was offered admission did not accept (i.e., students taken from the wait list).

Program Credit Hours and Costs

In Table 3, Maine's nursing programs provided information on the total number of credits required for degree completion, the cost per credit hour, whether the nursing courses had nursing fees in addition to the credit hour cost, and if a student completed all course work for the degree at the institution as a full-time student how many semesters it would take.

Table 3. Maine's Nursing Programs: Credit Hours and Cost in 2002-2003

Program	Credit Hours	Cost per Credit Hour ⁷	Nursing Fees ⁸	Time to Degree Completion Full-time Student
<i>Licensed Practical Nurse (LPN) Programs</i>				
CMCC	35	\$68	\$100/semester lab fee; \$56/semester testing fee	3 semesters
EMCC	34	\$68	\$21.42	3 semesters (fall, spring, summer sessions)
NMCC	35	\$68	Fall \$651, Spring \$301	3 semesters (2 credit practicum summer)
KVCC	38	\$64	\$250 per semester	2 semesters + 3 week summer session

³ Includes distance programs offered by UMFK and SJC.

⁴ Includes distance program offered by SJC.

⁵ Includes UN Nurse Anesthesia program.

⁶ In 2003 SJC enrolled 253 master's degree students in their distance program. The vast majority of these students are not from Maine and will not likely work in Maine upon completion of the program.

⁷ For state-support programs, in-state tuition rate is provided.

⁸ Fees specific to nursing vs. university wide fees.

Table 3. Maine's Nursing Programs: Credit Hours and Cost in 2002-2003

Program	Credit Hours	Cost per Credit Hour ⁷	Nursing Fees ⁸	Time to Degree Completion Full-time Student
<i>LPN to RN Programs</i>				
CMCC	68 ⁹	\$68	\$100/semester lab fee; \$56/semester testing fee	3 semesters, does not include PN program
EMCC	69.5 ¹⁰	\$68	\$21.42	3 semesters (summer, fall, spring)
KVCC	71	\$68	\$250 per semester	4 semesters
NMCC	35	\$68	Fall \$651, Spring \$301	3 semesters (1 credit transition course – summer)
SMCC	59	\$68	\$23/credit for nursing courses	4 semesters
UMA	54	\$123	\$150/semester	2 semesters ¹¹
<i>Associate Degree Programs</i>				
CMCC	67	\$68	\$100/semester lab fee; \$56/semester testing fee	4 semesters
CMMC	69	\$130	\$590 Fall and \$495 Spring	4 semesters
EMCC	66	\$68	\$21.42	4 semesters
KVCC	69	\$68	\$250 per semester	4 semesters
NMCC	67	\$68	Fall \$651, Spring \$301	4 semesters
SMCC	68	\$68	\$23/credit for nursing courses	4 semesters
UMA	69	\$123	\$150/semester	4 semesters
UNE	68	\$558.53	Approximately \$28/credit	4 semesters
<i>Baccalaureate Degree in Nursing</i>				
HC	126	\$346	No	8 semesters
SJC	129	\$8,075/sem ¹²	Nursing major fee \$200/year	8 semesters
UM	123	\$146	No but proposing fee for clinical semesters (\$150-\$250/semester)	8 semesters
UMFK	128	\$123	\$30/nursing course with a lab	8 semesters
USM	127	\$144	\$15-85/selected nursing courses	8 semesters
<i>Accelerated Baccalaureate Degree in Nursing for Persons with Baccalaureate Degree in Another Field</i>				
UM	62	\$146	No	Not Provided
UMFK	62	\$123	\$30/nursing course with a lab	5 semesters
USM	57	\$144	\$15-35/selected nursing courses	15 months
<i>RN to BS</i>				
HC	124	\$346	No	4
UM	121 ¹³	\$146	No	Not Provided
UMFK	128	\$123	\$30/nursing course with a lab	4
UNE	63	\$602.86	Approximately \$28/credit	4
USM	122	\$144	\$30 selected nursing courses	4

⁹ CMCC includes 33 credits from Practical Nursing program.

¹⁰ EMCC students admitted into upgrade program typically have to complete only 35.5 credit hours, as they have 34 credit hours from their LPN program.

¹¹ UMA Length of program depends on number of credits transferred in for general educational requirements.

¹² SJC 9-11 credits \$500, 1-8 credits \$275, 12+ credits.

¹³ UM usual transfer is 60+ credits.

Table 3. Maine's Nursing Programs: Credit Hours and Cost in 2002-2003

Program	Credit Hours	Cost per Credit Hour ⁷	Nursing Fees ⁸	Time to Degree Completion Full-time Student
<i>Master's Degree in Nursing</i>				
HC	43	\$346	No	6
UM	36-48	\$218	No	4
UNE Nurse Anesthesia	50	\$545	Lab fee \$50-75/course	6
USM	45-56	\$215	\$30 selected lab/practicum courses	4

Programs with student enrollment caps were asked about plans for admitting more students during 2003-2004. Responses included: (1) NMCC plans to admit a cohort of 16 generic ADN students for distance education site at Washington County Community College for 2003; (2) UM no cap, but increasing enrollment continues; and (3) USM no cap, but increasing enrollment continues. Programs were also asked about plans for admitting fewer students during the coming year, one program responded: SJC is planning to admit 35 freshmen rather than 40 to 45.

NCLEX "First-Time" Test Takers Pass Rates

Practical Nurses – For the year October 1, 2003 through September 30, 2004, 28 first-time candidates educate in Maine wrote the NCLEX examination for practical nurses and 28 passed, a 100% pass rate. The national rate for the same period was 88.94%. (The total number of P.N. candidates was 47,795; 42,511 passed the first time.)

Registered Nurses – For the year October 1, 2003 through September 30, 2004, 525 first-time candidates educated in Maine wrote the NCLEX examination for registered nurses and 420 passed, an 80% pass rate (see Table 4). The national pass rate for the same time period was 85.41%. (The total number and percent passing of first-time candidates educated in U.S. jurisdictions: 85,532 R.N. candidates; 73,057 passed first time for 85.41% pass rate.)

Table 4. NCLEX-RN "First-time" Test Takers Pass Rates for the Year October 1, 2001 through September 30, 2002^{14,15}

Maine Nursing Program	Number of Candidates	Number Passed	% Pass Rate
Central Maine Medical Center	47	37	78.7
Central Maine Community College	19	15	90.0
Eastern Maine Community College	21	21	100
Husson College	19	12	63.2
Kennebec Valley Community College	40	36	90.00
Northern Maine Community College	32	26	81.3
St. Joseph's College	21	19	90.5
Southern Maine Community College	51	46	90.2

¹⁴ When viewing statistics, keep in mind absolute numbers as well as percentages. (Percentages for smaller absolute numbers can vary widely).

¹⁵ Maine State Board of Nursing BULLETIN, December 2004.

Table 4. NCLEX-RN “First-time” Test Takers Pass Rates for the Year October 1, 2001 through September 30, 2002^{14,15}

Maine Nursing Program	Number of Candidates	Number Passed	% Pass Rate
University of Maine at Augusta	52	44	84.6
University of Maine at Fort Kent	6	5	83.3
University of Maine at Orono	61	44	72.1
University of New England – AD	46	28	60.9
University of New England – BSN (closed)	1	1	100
University of Southern Maine	109	86	78.9

II. FACULTY INFORMATION

In Fall 2002 the State’s 13 nursing programs employed 128 full-time¹⁶ nursing faculty (range 4 to 24 FTEs) and in Fall 2003 they employed 11 additional full-time nursing faculty (139, range 3 to 26 FTEs). Of the full time faculty in 2003, 15 had full-time and 18 had part-time administrative responsibilities. In 2003, the majority of nursing faculty were female (130) and Caucasian (138). In 2003, 6 programs had males on their faculty ranging from 1 to 2.

For further analysis, the 13 programs were broken down into those that currently admit students to an associate’s degree program as the terminal degree for preparation as an registered nurse (RN) (8 programs¹⁷) and those that offer a generic baccalaureate degree program as the terminal degree for preparation as an RN (5 programs¹⁸). Table 5 provides an overview of full-time faculty members’ highest degree and rank. Current and projected vacancies for full-time faculty are also provided. Table 6 provides a breakdown of full-time faculty by age.

Table 5. Maine’s Nursing Programs: Full-Time Faculty Profile and Vacancies

	Associate’s Degree (8 programs)			Generic Baccalaureate Degree (5 programs)		
	2001	2002	2003	2001	2002	2003
Full-time nursing faculty	6 to 15, total 65.6 ¹⁹	6 to 15, total 69	6-20, total 77 ²⁰	5 to 24, total 63	4 to 24, total 59	3 to 26, total 62
<i>Full-Time Faculty Highest Degree</i>						
Doctorally prepared in nursing	3 (5%)	3 (4%)	2 (3%)	19 (31%)	18 (31%)	19 (31%)
Doctorally prepared in other field	3 (5%)	2 (3%)	4 (5%)	14 (22%)	9 (15%)	10 (16%)
Master’s prepared in nursing	56.6 (86%)	60 (87%)	68 (88%)	29 (46%)	32 (54%)	32 (52%)

¹⁶ Includes any full-time faculty member that had any teaching responsibilities within the nursing program(s), even if the person had administrative responsibilities.

¹⁷ Associate Degree programs: CMCC, CMMC, EMCC, KVCC, NMCC, UMA, and UNE.

¹⁸ Baccalaureate Degree programs: HC, SJC, UM, UMFK, and USM.

¹⁹ Within the Maine Community College System, faculty who are three-fifths time receive full benefits and are considered full time.

²⁰ Data reported on UNE’s nurse anesthesia master’s program is included this year, represent 4 additional faculty.

Table 5. Maine's Nursing Programs: Full-Time Faculty Profile and Vacancies

	Associate's Degree (8 programs)			Generic Baccalaureate Degree (5 programs)		
	2001	2002	2003	2001	2002	2003
Master's prepared in other field ²¹	2 (3%)	3 (4%)	2 (3%)	-	-	1 (1%)
Bachelor's prepared in nursing ⁸	1 (1.5%)	1 (1.4%)	1 (1%)	1 (1.6%)	-	-
<i>Full-time Faculty Rank²²</i>						
Professor	1 (1.5%)	2 (4%)	5 (6%)	4 (6%)	2 (3%)	2 (3%)
Associate Professor	7 (11%)	5 (11%)	9 (12%)	30 (48%)	29 (49%)	31 (50%)
Assistant Professor	15 (23%)	17 (36%)	30 (39%)	19 (30%)	17 (29%)	17 (28%)
Lecturer/Instructor/Other	42.6 (65%)	23 (49%)	33 (43%)	10 (16%)	11 (19%)	12 (19%)
<i>Full-time Faculty Vacancies</i>						
Current vacancies ²³	2 programs, 2.5 FTEs	2 programs, 1.5 FTE	1 program, 1 FTE	3 programs, 3 FTEs	3 programs, 9 FTEs	2 programs, 4 FTEs
Projected vacancies next year	1 program, 1 FTE	4 programs, 1 to 2.5 FTEs	2 programs, 5 FTEs	1 program, 1 FTE	1 program, 1 FTE	4 programs, 4 FTE

Table 6. Maine's Nursing Faculty: Age Distribution

	Associate's Degree (8 programs)			Generic Baccalaureate Degree (5 programs)		
	2001	2002	2003	2001	2002	2003
30 years of age or younger	0	0	0	2 (3%)	0	0
31 to 40 years of age	5.6 (9%)	2 (4%)	6 (8%)	7 (11%)	3 (5%)	4 (6%)
41 to 50 years of age	28 (43%)	30 (55%)	33 (43%)	18 (29%)	20 (35%)	14 (23%)
51 to 60 years of age	24 (37%)	16 (29%)	27 (35%)	29 (46%)	32 (56%)	37 (60%)
61 to 65 years of age	7 (11%)	6 (11%)	10 (13%)	7 (11%)	2 (4%)	7 (11%)
66 years of age or older	1 (1.5%)	1 (2%)	1 (1%)	0	0	0

Programs with current full-time faculty vacancies were asked how long the position(s) has been vacant, what types of difficulties the program has experienced in filling the position, and the qualifications for the position. In 2001 three programs and in 2002 seven programs with full-time faculty vacancies expressed concern about the overall lack of applicants for the vacant positions. In 2003 the following programs responded:

- CMMC August 2003, very few applicants, nearly all applicants had no teaching experience; nearly all applicants are nurse practitioners.
- UM 2 years, pediatric specialty, PhD required, will hire if near completion of degree. Have had position posted for 2 years and no applicants.
- USM very limited applicant pool for vacant positions, especially in pediatrics and adult health.

²¹ Requires exemption from Maine State Board of Nursing.

²² Some Community Colleges do not use "rank" with faculty; classified as "other".

²³ Included in this FTE is any full-time faculty positions that was temporarily being filled with someone who had been hired on a temporary/short term basis until the "permanent" full-time person is hired.

Nursing programs were also asked about their use of part-time nursing faculty²⁴ and difficulties they have experienced in hiring part-time faculty. In 2002, 8 programs reported problems with recruiting part time faculty. Major reasons cited included: very limited response to advertisements and applicants not willing to work for low wages or not wanting to do clinical instruction. In 2003, 8 programs responded as follows:

- CMCC finding qualified faculty a problem with 20 hour non-benefit position, leaving no time to work full-time elsewhere and be eligible for benefits.
- CMMC lack of applicants.
- KVCC lack of educational credentials (i.e., MSN), schedule (i.e., 2 days/week x 12 weeks).
- NMCC one of the clinical adjunct faculty has MSN, 2 remaining have BSN's and are enrolled in Master's nursing programs. It is difficult to attract MSN prepared adjuncts given both geographic location and pay scale for adjunct.
- SMCC lack of applicants, lack of teaching experience and/or education related to being a nurse educator (unemployed nurse practitioners are typical applicants).
- UMA master's degree, salary.
- UNE salary, appropriate expertise in specialty areas (pediatrics/maternal child).
- USM few applicants, minimal response to ads.

III. DEMAND FOR NURSING

*The Nursing Workforce in Maine*²⁵

The nursing shortage in Maine is current and quantifiable. For example, the number of unfilled RN positions in Maine hospitals has increased by 40% since September 2000. In fact, Maine hospitals are currently reporting an overall vacancy rate of 9.4% for nursing positions²⁶. More significantly, according to the Maine Hospital Association's Long Term Care Workforce Survey²⁷, the vacancy rate for nursing home RNs has increased by 71%. Today, 18.6% of nursing positions in long-term care are unfilled. The United States Department of Health and Human Services recently projected that in 2000 Maine experienced a 12% shortage of full-time-equivalent RNs in contrast to a national average of 6%²⁸. Nationally, the United States Department of Health and Human Services has projected that the nursing shortage will grow to 12% by 2010, 20% by 2015, and 29% by 2020.

There is increasing concern that the shortage will grow. First, Maine's Department of Labor projects that there will be 2,676 new RN positions by 2008²⁹. This number does not include current positions that will remain unfilled due to retirements or inability to recruit successfully.

²⁴ Part-time faculty included anyone who received enumeration from the nursing program.

²⁵ Report derived from Ponti, Whitehead, et al. (2002) report, 2002 Overview of Maine's Nursing and Health Care Workforce, available at www.usm.maine.edu/conhp.

²⁶ Maine Hospital Association (2001, September). Maine's health care workforce: Examining the implications of a growing labor shortage on access to hospital care. Augusta, ME: Author.

²⁷ Maine Hospital Association (2001, October). Maine's long term care workforce: Examining the implications of a growing labor shortage on access to long term care. Augusta, ME: Author.

²⁸ U.S. Department of Health and Human Services bureau of Health professions. (2000, December). HRSA's state profile for Maine. Retrieved 10/29/99 http://158.72.83.3/profiles/maine/me_pg2.htm.

²⁹ Evans, D. (2000, July). Maine employment outlook 1998 to 2008: Industrial and occupational employment projects. Augusta, ME: State of Maine, department of Labor, Division of Labor Market Information Services, Economic and Demographic Research Group.

The Maine Chamber of Commerce surveyed hospitals, long-term care facilities, and home health care services and found that 1,584 additional LPNs and RNS will be needed by the end of 2002³⁰. Second, while Maine's population has remained relatively stable, the percentage of elderly persons is substantial. In 2000, 14% of Maine's population was 65 years of age or older, which is the 10th highest percentage in the nation, and compares to 12% in New Hampshire, 13% in Vermont, and 12% nationally³¹. The elderly are represented disproportionately in health care settings, particularly in hospitals. Although hospital admissions in Maine declined 3.9% for persons under the age of 65 between 1994 and 1999, they increased 8.6% for persons aged 65 or older, 13.7% for persons aged 75 to 84, and 24.3% for persons aged 85 and older³² (Maine Hospital Association, November 2000). Third, Maine has an aging nursing workforce. In the 2000 Maine Hospital Association survey, 45% of hospital nurses and 50% of nurses in continuing care were aged 45 and older, 10% (hospital) and 14% (continuing care) were aged 55 to 62, and 2% (hospital) and 4% (continuing care) were aged 62 or older.

The Supply of Registered Nurse in Maine

Data on the extent of the nursing shortage in Maine is fairly limited, although recent efforts have established that there is a nursing shortage in Maine and Maine's registered nurses are older than the national registered nurse workforce, are more likely to be working, and are more likely to work in settings other than the hospital. In 2001-2002³³, Maine's registered nurses who were working were 45.0 years of age on average in contrast to registered nurses in Maine who were not working who were 54.2 years of age³⁴. In 2000, nationally registered nurses who were working were 43.3 years of age on average. The percentage of Maine registered nurses under the age of 30 (8.6%) falls below the shrinking national percentage of registered nurses under the age of 30 (9.1%).

A total of 85% of Maine's registered nurses report working as a nurse³³. This is in contrast to 82% of registered nurses nationally who report being employed in nursing. Of the Maine registered nurses working as a nurse, 57% reported working full-time. In contrast, 72% of registered nurses working nationally reported working full-time. The most frequent place of work for the Maine sample was hospital (50%), followed by other settings (e.g., ambulatory care, school nursing, nursing education) (22%), long-term care (11%), home care (9%), and mental health (7%). Nationally 59% of registered nurses worked in hospitals.

³¹ U.S. Census Bureau. (2001). Census 2000 supplementary survey profile for United States. Retrieved from <http://www.census.gov/c2ss/www/Products/Priles/2000/Tabular/010/01000US3.htm>. Census 2000 supplementary survey profile for Maine. Retrieved from <http://www.census.gov/c2ss/www/Products/Profiles/2000/Tabular/010/01000US3.htm>.

³² Maine Hospital Association. (2000, November). Maine hospital association research on nursing and allied health professional staff shortages. Augusta, ME: Author.

³³ As of November 25, 2002 Maine had 19,609 "active" registered nurses, 2001-2002 sample includes 10,171 "active" registered nurses. It is important to note that "active" does not assure that the nurse is working, nor does it mean that the nurse is working in the State of Maine. Many nurses maintain licenses in multiple states.

³⁴ Kirschling, J.M., Broadway, M., & Vines, S. (2001, December). Pilot study – Maine's active nursing workforce. Available at www.usm.maine.edu/conhp.

Table 7. Maine's Working Nurses: Plans to be Working in 5 Years by Age

Response	30 or <	31-40	41-50	51-60	61-70	71-80	81-90	All
Yes	85.4%	85.6%	83.6%	69.1%	25.9%	13.3%	-	77.4%
No	1.6%	1.4%	2.7%	8.3%	29.8%	24.4%	50.0%	5.2%
Uncertain	13.0%	12.9%	13.6%	22.6%	44.0%	62.0%	50.0%	17.4%

IV. MAINE COMMUNITY COLLEGE SYSTEM – NURSING PREPARATION PROGRAMS OF STUDY

Background

At the request of the 121st Maine Legislature's Joint Standing Committee on Education and Cultural Affairs, the Maine Community College System and University of Maine System were asked to conduct a joint review of the policy recommendations proposed in the 2003 Review of Maine's Nursing Graduate Capacity study conducted by the Organization of Maine Nurse Executives (OMNE) and work together to develop a plan that responds to the nursing workforce shortage in Maine.

What follows is the Maine Community College System's (MCCS) examination of the capacity of its nursing preparation programs and recommended plans to expand the capacity of nursing preparation programs throughout the MCCS.

Summary of Nursing Programs

Five of Maine's Community Colleges currently offer nursing programs of study at the associate degree nurse (ADN) and licensed practical nurse (LPN) levels. They are Central Maine Community College in Auburn, Eastern Maine Community College in Bangor, Kennebec Valley Community College in Fairfield, Northern Maine Community College in Presque Isle, and Southern Maine Community College in South Portland. York County Community College in Wells recently received approval by the MCCS Board of Trustees to implement a nursing program as funds are available. In addition, Washington County Community College in Calais has an agreement with the University of Maine at Augusta and Northern Maine Community College to provide nursing program options in the Downeast region.

A summary of MCCS Nursing Preparation Program Information can be found in **Attachment #1**. A review of fall 2004 enrollment data indicates that 389 students are currently enrolled either full or part time in a nursing program of study at a Maine community college. Of the 389, 213 are first-year students and 176 are second year students, and for the 213 first year student slots, 1350 applications were received. The graduation rates for spring 2004 range from 52% to 92% of that cohort. Of those who graduated in May 2004, the NCLEX (Nursing Examination) pass rates range from 80% to 100%.

In addition, included in **Attachment #2** is a college by college breakdown of the summary information noted above (enrollments, capacity, wait lists, graduation rates and nursing test results), faculty information and program demand data. Unless otherwise noted, all information is based on fall 2004 data.

Maine Community College Proposal to Expand Nursing Program Capacity

In order to begin addressing the nurse workforce shortage in Maine, the Maine Community College System proposes to increase student enrollment in nursing preparation programs of study as follows:

	FY06	FY07
Enrollment	160	320
Cost	\$1.6M	\$3.2M
Number of Programs Added	20	NA

Based on the funding noted above, starting in May 2007 the MCCS could graduate an additional 160 nurses that would be immediately available to Maine's health care institutions.

V. UNIVERSITY OF MAINE SYSTEM – NURSING PREPARATION PROGRAMS OF STUDY

The University of Maine System offers nursing education at four of its campus – University of Maine, University of Maine at Augusta, University of Maine at Fort Kent, and University of Southern Maine. Each program is described below.

University of Maine

The nursing programs at UM are housed in the School of Nursing which is in the College of Business, Public Policy and Health. UM offers two options for individuals who want to pursue entry level nursing educations: (1) 4-year baccalaureate degree for individuals seeking their first baccalaureate degree, and (2) an accelerated program for persons who hold a baccalaureate degree in another field (first class admitted September 1, 2002). The School of Nursing also offers a baccalaureate degree for registered nurses (RN to BSN) who want to complete their professional education; most of the students choose to do this part-time. In addition, UM offers a master's program. Student demand for the entry level nursing programs has been growing at a phenomenal rate. For example, in fall 2001, there were 313 students in the undergraduate nursing major. In fall 2004 there were 490.

For Fall 2004, UM's School of Nursing has one director and 15 full-time nursing faculty. The School also employs 5 part-time faculty and has 20 clinical associates who supervise students on the clinical units and in the nursing laboratories. Of the regular full-time faculty (including the director), 9 are doctorally prepared and 7 have master's degrees. The aging of nursing faculties is of concern nationally. There are too few nurses prepared at the doctoral level. A few years ago, UM initiated a master's level program aimed at preparing teachers for nursing programs. This is part of a national movement: "growing your own." UM's nursing full-time faculty include 1 who is 31 to 40 years of age, 4 who are 41 to 50, 9 who are 51 to 60, and 2 who are 61 to 65.

UM is requesting 3 additional doctorally prepared tenure-track faculty and 3 master's level clinical faculty (see Table 8). Two of the non-tenure positions are for fiscal year appointments³⁵ since we will have to offer the program through the summer. The number of faculty needed is due to increase in enrollments but also due to loss of faculty positions over the past decade. We have fewer faculty now than we had when the program started. The intent was to admit 48 basic students per year. Since then, the RN to BSN program was added and the master's program initiated in 1992. The program has more than doubled in size. Over the past decade, graduating classes from the basic program have ranged in number from 48 to 80 graduates each year with an additional 20 to 24 students graduating from the RN to BSN and master's programs.

In addition, we are requesting funds to: (1) support on-going faculty development, (2) purchase faculty computers at the time of hiring, and (3) increase the operating budget to cover the costs of expanded enrollments (e.g., faculty travel to clinical sites, laboratory and office supplies, photocopying, mailing, telephone, and advertising) and purchase of nursing/science equipment to increase seat capacity.

Table 8. UM Budget Request

Budget Item	Amount Requested
3 Doctorally Prepared Academic Year Faculty	$(\$54,000 + \text{benefits } \$23,220^{36}) \times 3 = \$231,660$
2 Master's Prepared Fiscal Year Faculty	$\$40,000 \times 1.23^{37} = (\$49,200 + \text{benefits } \$21,156) \times 2 = \$140,712$
1 Master's Prepared Academic Year Faculty	$\$40,000 + \text{benefits } \$17,200 = \$57,200$
Faculty Development	$\$1,200 \times 6 = \$7,200$
Additional Operating Costs ³⁸	\$10,000
Nursing/Science Equipment	\$65,000 (one-time expense)
Faculty Computers	$\$2,200 \times 6 = \$13,200$ (one-time expense)
Total	$\$446,772$ (on-going) + $\$78,200$ (one-time expense)

University of Maine Augusta

The nursing program at UMA is a part of the College of Math and Professional Studies. UMA offers an associate degree program for individuals who want to pursue entry level nursing education with the goal of graduating in two years, eligible to take the State board examination for license as a registered nurse. The program, based on the Augusta campus, includes a distant education program in Thomaston, Ellsworth, Machias, and Calais. Beginning in Fall 2003 the distant program was expanded to include Brunswick.

Students applying to UMS's nursing program are placed on the priority admission list if they meet the prerequisites for the program. Students who do not meet prerequisites are placed in pre-

³⁵ The UMS nursing programs recognize that the necessary approvals for fiscal year faculty appointments will need to be secured.

³⁶ Benefit rate calculated at 43%.

³⁷ Multiply academic year salary by 1.23 to get fiscal year salary.

³⁸ Estimated at roughly 2.6% of faculty salaries.

nursing, a degree program allowing a student to receive financial aid while working on courses necessary to enter nursing. All admissions to the nursing program occur by the date a student was placed on the priority admission list. Currently, the nursing program admits 56 students to nursing every other fall in Augusta. On the alternate year, 48 are admitted in Augusta, 8 in Brunswick, 8 in Thomaston, 8 in Ellsworth, and 8 in Machias. As of fall 2004, UMA has 5 students in the LPN to ADN program and 114 students in the Associate Degree program. In addition, there are 618 students who are taking course work in preparation for nursing. Applications to nursing at UMA have been increasing. Given the length of the priority admission list, some students ready to enter nursing may not be given the opportunity until Fall 2005. We believe clinical opportunities are available in the Augusta area to increase enrollments by 50% to accommodate the increase demand for nursing programs in this area.

UMA's full-time faculty consist of 9 master's prepared faculty. One of the nine has limited teaching responsibilities as coordinator of the nursing program. All full-time faculty are located in Augusta with one having responsibility to distant sites to oversee clinical experiences. The age breakdown of UMA's faculty includes 5 who are 41-50 years of age and 4 who are 51 to 60 years of age.

Table 9 provides an overview of UMA's budget request, which includes salary and benefits for 2 doctorally prepared tenure-track academic year faculty and 2 master's prepared tenure-track academic year faculty. This will allow UMA to increase enrollments in our entry level nursing program. UMA is also requesting faculty development funds to allow existing faculty to pursue doctoral degrees and additional operating costs and nursing/science equipment.

Table 9. UMA Budget Request

Budget Item	Amount Requested
2 Doctorally Prepared Academic Year Faculty	$(\$54,000 + \text{benefits } \$23,220) \times 2 = \$154,440$
2 Master's Prepared Academic Year Faculty	$(\$40,000 + \text{benefits } \$17,200) \times 2 = \$114,400$
Faculty Development	\$5,000
Additional Operating Cost	\$6,800
Nursing/Science Equipment	\$65,000 (one-time expense)
Total	$\$280,640 + \$65,000$ (one-time expense)

University of Maine at Fort Kent

The Bachelor of Science in Nursing (BSN) program at UMFK is available to prospective students in one of two options: a basic BSN entry-level track and an RN to BSN track. The latter option is available through distance education for students who are already licensed as Registered Nurses.

Students in the basic BSN option are comprised equally of traditional and nontraditional students. Most students balance multiple roles with their academic life, including children, family, marriage, and jobs. They typically commute to UMFK from their home communities within the St. John Valley, many driving over 60 miles, in variable weather conditions, to meet class and clinical obligations. Because the RN to BSN program is offered through distance

education, students consult with faculty by telephone, electronic mail, via on-line educational software tools, or mail. Maine is considered a rural state, a factor that defines the UMFK campus as well as the RN to BSN students enrolled in the BSN program, which lends another dimension to defining the undergraduate student. For example, the Division of Nursing was pleased to recognize RN to BSN graduates as the class valedictorian in 1997 and 1999. Both students exemplified the need for distance delivery options in baccalaureate nursing education. Furthermore, they were exemplary students who instilled academic integrity and excellence throughout their BSN education.

Three full-time nursing faculty members assist the program Director to achieve the mission and goals of the program. In addition, an Administrative Assistant is responsible for providing clerical support for the Director and the faculty, and a professional staff member manages the Nursing Resource Center. Adjunct faculty are hired, as necessary, to augment those areas of expertise not represented by full-time faculty, for example, psychiatric nursing. In Fall 2003 UMFK had 76 students enrolled in the BSN program and graduated 11 students. They also had 149 students in the RN to BSN program and graduated 10 students.

Because the program can accommodate more basic BSN students, increasing student enrollments is a priority for the Division of Nursing and UMFK. Therefore, a recruitment plan was developed in October 1999 to assist in achieving this goal. Implementation of this plan began in September 2000 with the hiring of a nursing student recruiter, which resulted in an increased number of inquires. More aggressive recruitment efforts for 2001-2002 resulted in an incoming 2002-2003 class of 25 confirmed freshmen. Further funding is requested for continued aggressive program advertising and recruitment efforts (e.g., open house, ads, media, and web-site update).

As the numbers in the UMFK nursing program grow to meet the nursing shortage needs of rural Northern Maine, the faculty of the Division of Nursing are stretched thin. The Division of Nursing is requesting an additional tenure-track full-time nursing faculty position with Doctoral or Master's level preparation to meet the growing demands of the nursing program (see Table 10). Furthermore, the request for an additional faculty member is further substantiated by the growing interest in UMFK's RN to BSN on-line distance education program. The large numbers in the RN to BSN program warrants additional funding to develop a database to better track student progress for purposes of advising and reporting. In addition, funding to support faculty development and computer needs is also requested.

Table 10. UMFK, Division of Nursing, Budget Request

Budget Item	Amount Requested
1 Master's/Doctorally Academic Year Prepared Tenure-Track Nursing Faculty Position ³⁹	\$54,000 + benefits \$23,220 = \$77,220
Recruitment and Advertising	\$2,500
Faculty Development	\$1,200
Computer	\$2,200 (one-time expense)
Nursing/Science Equipment	\$15,000 (one-time expense)
Total	\$80,920 + \$17,200 (one-time expense)

³⁹ Budgeted at higher salary, doctorally prepared faculty member.

University of Southern Maine

The nursing programs at USM are housed in the College of Nursing and Health Professions. USM offers four options for individuals who want to pursue entry-level nursing education: (1) 4-year baccalaureate degree on the Portland campus, initiated in 1969; (2) a 4-year baccalaureate degree on the Lewiston-Auburn campus, initiated in 2000⁴⁰; (3) a 15-month accelerated baccalaureate degree on the Portland campus for persons who hold a baccalaureate degree in another field, initiated in 1990. Enrollments have increased considerably at USM from 238 matriculated baccalaureate nursing students in fall 2001 to 562 in fall 2004. In 2003-2004 USM graduated 103 students from the baccalaureate degree program, 23 from the accelerated baccalaureate degree program in nursing (in 2000-2001 61 baccalaureate degree students graduated). In addition, to the entry-level nursing programs, USM also offers a master's degree and post-master's certificate option for RNs in four areas: adult nurse practitioner, family nurse practitioner, adult health care management, and psychiatric/mental health nursing.

For Fall 2004 USM's 29 full-time nursing faculty includes 1 baccalaureate prepared faculty, 13 master's prepared faculty, and 15 doctorally prepared faculty. Of these, three faculty are located at the Lewiston-Auburn campus. The majority of the full-time faculty are between the ages of 51 to 60 (18), 2 are 61 to 65, and 9 are under 50. In addition to the full-time nursing faculty, USM has 18 part-time faculty.

USM is requesting 2 additional doctorally prepared tenure-track fiscal year positions to deal with growing enrollments in our entry-level nursing programs and 2 master's prepared continuous contract fiscal year faculty positions (see Table 11). The need for the fiscal year faculty positions is driven by nursing's 12-month programmatic offering at USM. Demand for didactic course offerings to accommodate the increased number of students and limited clinical resources requires that didactic and clinical nursing courses be offered year round. Academic year nursing faculty can volunteer to teach in summer, however, we need a core of fiscal year faculty to assure that we can meet the instruction and advising needs of the growing number of nursing students at USM. In addition, we are requesting funds to: (1) support on-going faculty development, (2) purchase faculty computers, and (3) purchase additional nursing/science equipment to increase seat capacity.

Table 11. USM Budget Request

Budget Item	Amount Requested
2 Doctorally Prepared Fiscal Year Faculty	$\$54,000 \times 1.23 = (\$66,420 + \text{benefits } \$28,561) \times 2$ positions = \$189,961
2 Master's Prepared Fiscal Year Faculty	$\$40,000 \times 1.23 = (\$49,200 + \text{benefits } \$21,156) \times 2$ positions = \$140,712
Faculty Development	$\$1,200 \times 4 = \$4,800$
Faculty Computers	$\$2,200 \times 4 = \$8,800$ (one-time expense)
Nursing/Science Equipment	\$65,000 (one-time expense)
Nursing/Science Equipment	\$15,000 (one-time expense)
Total	$\$335,473 + \$88,800$ (one-time expense)

⁴⁰ Development of the Lewiston-Auburn entry-level baccalaureate nursing program is supported with a 3-year federal grant from HRSA Division of Nursing.

University of Maine System Proposal to Expand Nursing Program Capacity

Table 12 includes the requested budget for expansion of UMS nursing programs.

If its appropriation is increased for this purpose, the University of Maine System would expand its Nursing programs by creating 170 slots for students in the Nursing Programs. The total cost for this expansion is \$1.5M. This expansion is presented in the University of Maine System Strategic Plan (See Attachment III).

Table 12. Projected Total Budget Request for UMS Nursing Program Expansion

Budget Item	Amount Requested				
	UM	UMA	UMFK	USM	Total
On-going Expenses					
Faculty Positions including benefits	\$429,572	\$268,840	\$77,220	\$330,473	\$1,106,105
Faculty Development	\$ 7,200	\$ 5,000	\$ 1,200	\$ 4,800	\$ 18,200
Additional Operating Costs	\$ 10,000	\$ 6,800	\$ 2,500	\$ 8,400	\$ 27,700
Total On-going Expenses	\$446,772	\$280,640	\$80,920	\$343,673	\$1,152,005
One-Time Expenses					
Computers and Nursing /Science Equipment	\$78,200	\$65,000	\$17,200	\$88,800	\$249,200

VI. CONCLUSION

The nursing shortage in Maine is current and quantifiable. For example, in 2001 Maine hospitals report an overall vacancy rate of 9.4% for nursing positions and 18.6% of nursing positions in long-term care are unfilled. The United States Department of Health and Human Services recently projected that in 2000 Maine experienced a 12% shortage of full-time-equivalent RNs in contrast to a national average of 6%. Nationally, the United States Department of Health and Human Services has projected that the nursing shortage will grow to 12% by 2010, 20% by 2015, and 29% by 2020. It is clear that the nursing shortage will deepen in Maine as the “baby boom” nurses retire and the demand for health care increases with the graying of Maine’s population.

The University of Maine and the University of Southern Maine are a primary resource for entry level baccalaureate nursing education in Maine. In addition, the University of Maine at Fort Kent provides the only entry-level baccalaureate nursing program in Northern Maine and the University of Maine at Augusta offers an Associate Degree nursing program, an option that many Maine citizens elect to pursue. Consequently, the University of Maine System (UMS) nursing programs respective responses to Maine’s current and growing nursing shortage is critical to assure an adequate supply of nurses. All of the UMS programs require additional full-time faculty positions in order to respond to the growing student demand for entry-level nursing education.

The Community College System provides important and critical access to the Associate Degree Programs in the State. These programs are practically oriented, and respond well to State needs. All five nursing programs in the Community College System serve a modest number of students given the great demand for these programs. Its expansion of these programs will require additional full-time faculty line as well as an investment in the laboratory facilities to strengthen its infrastructure.

In addition, both baccalaureate prepared nurses and master’s prepared nurses need financial support in order to pursue master’s or doctoral nursing education, respectively, in order to assure a future cadre of master’s and doctorally prepared nursing faculty.

ATTACHMENT #1

MAINE COMMUNITY COLLEGE SYSTEM SUMMARY NURSING PROGRAM INFORMATION

	CMCC	EMCC	KVCC	NMCC	SMCC	Totals
Enrollment	62	56	79	68	124	389*
Capacity	64	56	80	72	128	400
Wait List	20	11	25	0 (33)	(32**)	91
Faculty (FT only)	6	6	7	8	8	35***
Students Applied	272	184	242	144	508^	1350
Students Accepted	38	27	41	43	64	213^^

* 389 Enrolled – 213 first year / 176 second year

** SM: 32 accepted for fall 05

*** 34 MSN / 1 BSN

^ SM: 508 Applied – 176 in process / 332 likely into General Studies

^^ 213 Accepted – first year only (fall 04)

ATTACHMENT #2

MAINE COMMUNITY COLLEGE SYSTEM

Report on Nursing Programs

(Fall 2004 Data unless otherwise noted)

CENTRAL MAINE COMMUNITY COLLEGE – Auburn

Description of Existing Nursing Programs

- Enrollment 62
- Capacity/Maximum Enrollment 64
- Waiting List 20
- Graduation Rate * 52% (2004 graduating class)
- Nursing Test Results 80% (2004 graduating class)

* Rates are based on a three year time period to graduate

Faculty Information

- Number of Faculty 6
- Credentials 6 MSN
- Professional Affiliations National League for Nursing
Maine ADN Council
Organization of Maine Nurse Executives
American Assoc. of Critical Care Nurses
American Assoc. of Safety Engineers
American Assoc. of Occup. Health Nurses

Demand for Nursing

- Number Applied 272
- Number Accepted 38
- Number on Waiting Lists ** 234

** Number of students not able to enroll in Nursing Program

EASTERN MAINE COMMUNITY COLLEGE – Bangor

Description of Existing Nursing Programs

- Enrollment 56 (55 RN, 1 LPN)
- Capacity/Maximum Enrollment 56
- Waiting List 11
- Graduation Rate 91.6% (2004 graduating class)
- Nursing Test Results 100% (2004 graduating class)

Faculty Information

- Number of Faculty 6
- Credentials 4 with one Masters
1 PhD candidate
1 with two Masters
- Professional Affiliations National League for Nursing
Maine ADN Council
American Nursing Association

Demand for Nursing

- Number Applied 184 (176 RN, 8 LPN)
- Number Accepted 27
- Number on Waiting Lists 11 (10 RN, 1 LPN)

KENNEBEC VALLEY COMMUNITY COLLEGE – Fairfield

Description of Existing Nursing Programs

- Enrollment 79
- Capacity/Maximum Enrollment 80
- Waiting List 25
- Graduation Rates 74% (2004 graduating class)
- Nursing Test Results 93% (2004 graduating class)

Faculty Information

- Number of Faculty 7
- Credentials 7 MSN
- Professional Affiliations National League for Nursing
American Association of Critical Care Nurses
Maine ADN Council
Maine Pediatric Association

Demand for Nursing

- Number Applied 242
- Number Accepted 41
- Number on Waiting Lists 25

NORTHERN MAINE COMMUNITY COLLEGE – Presque Isle

Description of Existing Nursing Programs

- Enrollment 68
- Capacity/Maximum Enrollment 72
- Waiting List 0 (33 enrolled in AA with goal of transferring into Nursing)
- Graduation Rates 64% (2001 cohort)

- Nursing Test Results 94% (2004 graduating class)

Faculty Information

- Number of Faculty 8
- Credentials 8 MSN
- Professional Affiliations National League for Nursing
Maine ADN Council

Demand for Nursing

- Number Applied 144
- Number Accepted 43
- Number on Waiting Lists 0 (33 enrolled in AA with goal of transferring into Nursing)

SOUTHERN MAINE COMMUNITY COLLEGE – South Portland

Description of Existing Nursing Programs

- Enrollment 119 Fall/124 Spring
- Capacity/Maximum Enrollment 128
- Waiting List 32 accepted for Fall 2005; currently accepting for Spring 2006 (these students are on the wait list for the previous semester to which they are accepted)
- Graduation Rates 81% (2004 graduating class)
- Nursing Test Results 90% (2004 graduating class)

Faculty Information

- Number of Faculty 8
- Credentials 7 MSN
1 BSN (MSN candidate)
- Professional Affiliations: National League for Nursing
Maine ADN Council
American Nurses' Association
ANA of Maine
National Association of Assoc. Degree Nursing

Demand for Nursing

- Number Applied 176 in process for next available semester
332 with admission code of NU will likely become AA students with goal of Nursing
- Number Accepted 64 (32 Fall 04/32 Spring 05)
- Number on Waiting Lists Currently accepting students for Spring 2006

Appendix II, Section A

University of Maine Economic Development Partnerships

Examples of Private Sector Companies Receiving Consultation and Assistance (1/1/03-present)

Applied Thermal Sciences, Sanford and Orono
Biode, Westbrook
Domtar Inc, Baileyville
Correct Deck, Biddeford
GAC Specialty Chemicals, Searsport
FMC Corporation, Rockland
Bath Iron Works, Bath
Ice Brand Seafoods, Inc., South Portland
Gates Formed Fiber Products Inc., Auburn
Technology Systems Inc., Wiscasset
Sea Bait, Franklin
Access Technology, Bangor
Raven Technologies Inc., Scarborough
Ames Corporation, Bangor
J.M. Huber Corp, Easton
Alteva, Inc., Bangor
Port-A-Lite Industires, LLC, Rumford
BSW Timber
Nexfor-Fraser Sawmill, Madawaska
Commercial Paving Co., Scarborough
Wild Blueberry Commission, Orono
Maine Development Foundation, Augusta
IPET Inc., Jackson
SpillFree Oil Drainage LLC, Old Town
Noyes Boatyard and Construction, Sorrento
Madison Paper Industries, Madison
Harbor Technologies, Brunswick
Solon Manufacturing, Solon
Hancock Lumber, Belgrade
FoxTech Design, Ellsworth
Tethys Research, Orono
Eastern Maine Medical Center, Bangor
Tempguard, Kennebunk
Fairfield Economic Development Corp, Fairfield
CLC Forms, Freeport
NetForms, Inc., South Portland
Bangor Region Partners for Health
Georgia Pacific, Old Town
Ed Hodsdon Masonry, Inc.
Maine Bio Research, Orono
Talon Industries, Hampden
Stillwater Scientific, Orono
Clamp-Co. Inc., Mechanics Falls

Amato's Restaurant, Portland
Brooklin Boat Yard, Brooklin
Hodgdon Yachts, Inc., East Boothbay
Irving Forest Products Limited,
Jacob Pelletier, Orono
GE Energy Services, Bangor
Jakerstin Bracing, Inc. North Monmouth
Cousineau Wood Products, Strong
Robbins Lumber Company, Searsmont
Innovative Industries, East Livermore
Metso Paper, Biddeford
Safe Handling, Inc., Auburn
D2 In-Line Solutions, LLC, Gray
Cross Point Yachts, Inc., Edgecomb
Sheepscot Machine Works, Sheepscot
Stolt Seafarm Inc., Eastport
Wausau-Mosinee Paper Company, Jay
Passamaquoddy Tribal Government
International Paper , Bucksport
Huhtamaki Foodservice, Waterville
Freshwater Stone & Brick Work, Orland
J.D. Sullivan & Sons Lumber Company, New Glouster
Ryan Mechanical Services, Rumford
Khameleon Nails Corp, Carrabassett
Saltwater Marketing LLC, Portland
Allagash Valve & Controls, Inc., Millinocket
Mead Oxford Corporation, Rumford
SAPPI Fine Paper - Somerset Operations
Pottle's Transportation Inc., Portland
Maine BioProducts, LLC, Rumford
Oceanos, LLC, Searsmont
Eclipse Marine Research
Cerealus Holdings, LLC, Waterville
National Semiconductor Corporation, Portland

Appendix II, Section B

Type	Sponsor	Role	Funded	PI	Title
FDN	Annie E Casey Foundation	Admin	8/1/2004	Jenson, C.	Evaluation of the Casey Family Reunification Program Yr4
FDN	Annie E Casey Foundation	Admin	3/1/2004	Werrbach, G.	Evaluation of the Casey Family Reunification Program Yr3
FDN	Davis Conservation Foundation	Admin	6/1/2004	Stone, E.	Building a Wildlife Health Surveillance System in Maine
FDN	Davis Family Foundation	Admin	10/1/2003	Trostel, P.	Improving Educational Resource Allocation in Rural Maine
FDN	Davis Family Foundation	Admin	4/1/2003	Kaye, L.	Music Uniting Students and Elders
FDN	Ewing Marion Kauffman Foundation	Admin	5/1/2004	Jones, N.	An Entrepreneurship Curriculum for the University of Maine System
FDN	Friends of Acadia	Admin	7/1/2003	Gabe, T.	MDI Tomorrow Citizen Survey
FDN	Henry P Kendall Foundation	Admin	8/1/2004	Wilson, J.	Development of a Umaine Graduate Program in Marine Science and Policy
FDN	Holt Foundation	Admin	4/1/2004	Hunter, M.	Holt Woodlands Ecosystem Research
FDN	Holt Foundation	Admin	10/1/2003	Hunter, M.	Holt Woodlands Ecosystem Research 2004 +\$
FDN	Holt Foundation	Admin	4/1/2003	Hunter, M.	Holt Woodlands Ecosystem Research 2004
FDN	Maine Cancer Foundation	Admin	7/1/2003	Gundersen, R.	Examination & Characterization of the Protein Palmitoyl-CoA Transferase Family
FDN	Maine Community Foundation	Admin	12/1/2004	Phelps, L.	Maine 4-H GIS/GPS Community Mapping Project (Franklin County)
FDN	Maine Community Foundation	Admin	10/2/2004	Hoyt, S.	Sustainable Marine Fisheries
FDN	Maine Community Foundation	Admin	8/1/2004	Kaye, L.	RSVP Bone Builders
FDN	Maine Community Foundation	Admin	4/1/2004	Trostel, P.	Creating a College Savings Account Program Targeted to Children in Rural Maine
FDN	Maine Community Foundation	Admin	4/1/2004	Wilson, L.	The Lake Leaders Institute
FDN	Maine Community Foundation	Admin	2/1/2003	Hoyt, S.	Sustainable Management of Marine Fisheries
FDN	Maine Health Access Foundation	Admin	11/1/2004	Sorg, M.	Assessment and Evaluation Activities for a Therapeutic Community Treatment Prog.
FDN	Maine Health Access Foundation	Admin	5/1/2004	Kaye, L.	Maine Partners for Elder Protection Project
FDN	Maine Lighthouse Corporation	Funding	11/1/2004	Sorg, M.	Assessment and Evaluation Activities for a Therapeutic Community Treatment Prog.
FDN	Maine Science & Technology Foundation	Admin	11/1/2004	Ward, J.	Development & Demonstration of Marine Aquaculture Based on Halibut & Haddock +\$
FDN	National Fish & Wildlife Foundation	Funding	12/1/2004	Kinnison, M.	Migration of Penobscot River Salmon Smolts: Ultrasonic Telemetry Studies
FDN	National Fish & Wildlife Foundation	Funding	6/1/2004	Megquier, D.	Maine Educational Opportunity Center Project - Program Years 2004 - 2005
FDN	National Fish & Wildlife Foundation	Funding	7/1/2003	Riley, J.	Fishing Gear and Whale Flukes: A Tool for Studying Line Types
FDN	New England Forestry Foundation	Admin	1/1/2004	Sader, S.	Forest Legacy Conservation Easement Monitoring in Northern New England
FDN	New England Forestry Foundation	Admin	8/1/2003	Sader, S.	Monitoring at the Landscape Scale from Satellite to Ground 2003-2004
FDN	Pew Charitable Trusts	Admin	3/1/2004	Steneck, R.	A proposal to help establish no-take protected areas on the coral reefs of Bonai
FDN	Pew Charitable Trusts	Admin	3/1/2003	Steneck, R.	Proposal to Help Establish No-Take Protected Areas on the Coral Reefs of Bonaire
FDN	The David and Lucile Packard Foundation	Admin	4/1/2004	Smith, R.	Microinstrument for Nucleic Acid Sequencing via Nanopores
FDN	The EJLB Foundation	Admin	3/1/2004	Verdi, J.	MMCRI Graduate Student Assistantships Yr 2 +\$
FDN	The EJLB Foundation	Admin	11/1/2003	Verdi, J.	MMCRI Graduate Student Assistantships Yr 2 +\$
FDN	The EJLB Foundation	Admin	5/1/2003	Verdi, J.	MMCRI Graduate Student Assistantships Yr 2
FDN	The Robert Wood Johnson Foundation	Admin	1/1/2003	Beard, R.	Improving Quality of Care
FDN	United Way of Eastern Maine	Admin	7/1/2004	Kaye, L.	United Way Support to 2004-2005 RSVP Project
FDN	United Way of Eastern Maine	Admin	11/1/2003	Kaye, L.	United Way Support to 2003-2004 RSVP Project
FDN	Wolfe's Neck Farm Foundation	Funding	6/1/2003	Potter, D.	Wolfe's Neck Farm Foundation Cooperative Agreement
I	American Chemical Society	Admin	1/1/2004	Frederick, B.	11th International Conference on Vibrations at Surfaces
I	American Chemical Society	Admin	6/1/2003	Patterson, H.	Metal-Metal Bonded Exciplexes and Their Tunability
I	BAE Systems	Funding	9/1/2004	Kotecki, D.	Direct Digital Synthesizer for TFAST
I	BAE Systems	Funding	4/1/2004	Kotecki, D.	IC Design Investigation +\$
I	BAE Systems	Admin	3/1/2004	Hummels, D.	High Speed Mixed Signal Research
I	BAE Systems	Funding	1/1/2004	Kotecki, D.	IC Design Investigation + \$
I	BAE Systems	Funding	9/1/2003	Kotecki, D.	IC Design Investigation
I	Bath Iron Works	Funding	12/1/2003	Dunning, S.	Technology Evaluation and Demonstration for a Marine Fuel Cell

I	Howard Hughes Medical Institute	Admin	3/1/2004 McKay, S.	Biomedical Research Experiences for Teachers and Students
I	Maine Organic Farmers & Gardeners Asso.	Admin	9/1/2004 Kersbergen, R.	Maine Grass Farmers Network
I	Maine Organic Farmers & Gardeners Asso.	Admin	9/1/2003 Kersbergen, R.	Maine Organic Farmers & Gardeners Association and the University of Maine
I	Maine Yankee Atomic Power Company	Admin	7/1/2004 Hess, C.	The Examination of Radionuclide Levels in Sediments and Biota in the Vicini +\$
I	Maine Yankee Atomic Power Company	Admin	3/1/2004 Hess, C.	The Examination of Radionuclide Levels in Sediments and Biota in the Vicinity
I	MBNA	Admin	5/1/2003 Lehnhard, R.	New England Point Lookout Fitness Center (Amy Van Vuren) Yr 2
I	Pfizer Inc	Admin	5/1/2004 Croall, D.	Regulation of Calpain-2 Activity by an IQ Motif Structure
I	Stillwater Scientific Instruments	Funding	2/1/2004 Lad, R.	Manufacturing Prototype of TOF-HREELS Analyzer
I	Technology Planning & Management Corporation	Funding	11/1/2003 Watling, L.	Stellwagen Bank Monitoring Yr 3
I	Technology Planning & Management Corporation	Funding	2/1/2003 Watling, L.	Stellwagen Bank Monitoring Yr 2
I	Trefoil Corporation	Funding	2/1/2004 Cobo-Lewis, A.	Computer-aided Assessment of Early Vocabulary Phase II Yr 3
I	Tundra Semiconductor	Funding	4/1/2004 Kotecki, D.	SerDes, Circuit Design, Microelectronics
O	American Heart Association	Admin	6/1/2004 Patterson, H.	Cardiovascular Disease and Modification of LDL
O	Bangor Area Target Development Corporation	Funding	8/1/2004 Ward, J.	Target Technology Center Yr 3
O	Bangor Area Target Development Corporation	Funding	12/1/2003 Ward, J.	Target Technology Center Yr 2
O	Bigelow Laboratory for Ocean Sciences	Funding	8/1/2003 Chen, Y.	Developing Stock Assessment Methods for the New England Deep Sea Red Crab
O	Boralax Athens Energy, Inc	Funding	2/1/2004 Humphrey, D.	Beneficial Use of Solid Waste in Maine -Framework for Long-Term Growth-Phase II
O	Catholic Charities Maine	Admin	3/1/2004 Sorg, M.	Rapid Response Program Evaluation August 1, 2003 - January 31, 2005
O	Catholic Charities Maine	Admin	3/1/2003 Sorg, M.	Rapid Response Program Evaluation Yr 2
O	Coastal Enterprises Inc	Admin	11/4/2004 Hutchinson, M.	Farms for the Future
O	Coastal Enterprises Inc	Admin	3/1/2004 Brzozowski, R.	New American Sustainable Agriculture Project
O	Coastal Enterprises Inc	Funding	11/1/2003 Zeph, L.	Early Learning Opportunities Grant - Mid Coast Region
O	Corporation for Public Broadcasting	Admin	2/1/2004 Beard, R.	Creating a User-Designed Rural News Service
O	Eastern Area Agency on Aging	Funding	3/1/2004 Kaye, L.	Maine Primary Partners in Caregiving Family Caregiver Support Program Yr3
O	Government of Canada	Admin	10/1/2003 Harrison, D.	Thresholds/Response to Fragmentation by Endangered Newfoundland Marten +\$
O	Government of Canada	Admin	10/1/2003 Harrison, D.	Thresholds/Response to Fragmentation by Endangered Newfoundland Marten Yrs 2 & 3
O	Gulf of Maine Ocean Observing System	Funding	10/1/2004 Xue, H.	Gulf of Maine Ocean Observing System: Circulation Modeling 2004 - 2005
O	Gulf of Maine Ocean Observing System	Funding	10/1/2004 Thomas, A.	Gulf of Maine Ocean Observing System: Data Lab 2004 - 2005
O	Gulf of Maine Ocean Observing System	Funding	10/1/2004 Pettigrew, N.	Gulf of Maine Ocean Observing System: Buoy Program 2004 - 2005
O	Gulf of Maine Ocean Observing System	Funding	10/1/2004 Townsend, D.	Gulf of Maine Ocean Observing System: Nutrient Component 2004 - 2005
O	Gulf of Maine Ocean Observing System	Funding	5/1/2004 Denton, G.	Alliance for Coastal Technologies, Dissolved Oxygen Sensor Evaluation and Verific
O	Gulf of Maine Ocean Observing System	Funding	2/1/2004 Janzen, C.	ACT Workshop
O	Gulf of Maine Ocean Observing System	Funding	1/1/2004 Pettigrew, N.	Monitoring & Predicting Interannual Oceanographic Variability
O	Gulf of Maine Ocean Observing System	Funding	8/1/2003 Pettigrew, N.	Gulf of Maine Ocean Observing System 2003-2003 Yr 2
O	Houlton Band of Maliseet Indians	Admin	4/1/2004 Williams, M.	Meduxnekeag Watershed Project
O	Indian Township Tribal Government	Admin	1/1/2003 Werrbach, G.	The Kmiqhitahtasultipon Project "We Remember" Yr 6
O	Jackson Laboratory	Funding	5/1/2004 McKay, S.	Biomedical Research Experiences for Teachers and Students
O	Jackson Laboratory	Funding	3/1/2004 McKay, S.	Biomedical Research Experiences for Teachers and Students
O	Kennebec Valley Council of Governments	Admin	7/1/2004 Trostel, P.	Economic Impact Analysis of Possible Consolidation of Maine General
O	Maine Aquaculture Innovation Center	Funding	6/1/2004 Ward, J.	Aquaculture Applied Technology Development Center
O	Maine Audubon Society	Admin	9/1/2004 Calhoun, A.	Wetland Ecology Program 2004
O	Maine Audubon Society	Admin	10/1/2003 Calhoun, A.	Wetland Ecology Program 2003
O	Maine Audubon Society	Admin	6/1/2003 Calhoun, A.	Wetland Ecology Program 2002
O	Maine Community Action Association	Admin	6/1/2004 Acheson, A.	Community Action Program Poverty Data Update
O	Maine Dairy and Nutrition Council	Admin	7/1/2004 Savoie, K.	3-A-Day of Dairy Nutrition Education Grant
O	Maine Humanities Council	Admin	11/1/2004 Dean, P.	Maine Roots Radio Program
O	Maine Humanities Council	Admin	11/1/2003 Faulkner, G.	African Origins: Sole Survivors of a Diverse Past

O	Maine Humanities Council	Admin	4/1/2003 MacDougall, P.	Peter Paul & Nicholas Smith: Presevation of Maliseet Heritage
O	Maine Mathematics & Science Alliance	Funding	9/1/2004 Weller, H.	UMS: SMET Collaborative for Excellence in Teacher Preparation Yr 5
O	Maine Mathematics & Science Alliance	Funding	2/1/2004 Weller, H.	UMS: SMET Collaborative for Excellence in Teacher Preparation Yr 4
O	Maine Mathematics & Science Alliance	Funding	10/1/2003 Weller, H.	UMS: SMET Collaborative for Excellence in Teacher Preparation Yr 2 +\$
O	Maine Medical Center	Funding	3/1/2004 Verdi, J.	MMCRI Graduate Student Assistantships Yr 2 +\$
O	Maine Medical Center	Funding	11/1/2003 Verdi, J.	MMCRI Graduate Student Assistantships Yr 2 +\$
O	Maine Medical Center	Funding	5/1/2003 Verdi, J.	MMCRI Graduate Student Assistantships Yr 2
O	Maine Outdoor Heritage Fund	Admin	2/1/2003 Kling, L.	Investigations into the culture of Rainbow Smelts
O	Maine Parent Federation	Admin	1/1/2003 Rebar, J.	Parents as Teachers 2003
O	Maine Space Grant Consortium	Funding	9/1/2004 Comins, N.	Present Two Invited Talks at Cosmos in the Classroom 2004
O	Maine Space Grant Consortium	Funding	7/1/2004 Caccese, V.	Maine Space Grant Consortium Fellowship Program at the University of Maine 2004
O	Maine Space Grant Consortium	Funding	6/1/2004 Vel, S.	Active Vibration Suppression of Composite Structures Yr 3
O	Maine Space Grant Consortium	Funding	6/1/2004 Peterson, M.	Nonlinear Nondestructive Evaluation of Sandwich Composites Yr 3
O	Maine Space Grant Consortium	Funding	6/1/2004 Resson, H.	Development of Neural Network-Based Models for Chlorophyll-a Estimation Yr 3
O	Maine Space Grant Consortium	Funding	2/1/2004 Caccese, V.	Structural Integrity Assurance of Aerospace Vehicles
O	Maine Space Grant Consortium	Admin	7/1/2003 Resson, H.	Monitoring Seagrass Health from Remotely Sensed Reflectance
O	Maine Space Grant Consortium	Admin	7/1/2003 Resson, H.	Monitoring Seagrass Health from Remotely Sensed Reflectance
O	Maine Space Grant Consortium	Admin	5/1/2003 Caccese, V.	Maine Space Grant Consortium Fellowship Program the University of Maine 2003
O	Maine Space Grant Consortium	Funding	5/1/2003 Comins, N.	Summer Research in Astronomy for High School Student Dominic Winski
O	Maine Space Grant Consortium	Funding	3/1/2003 Resson, H.	Development of Neural Network-Based Models for Chlorophyll-a Estimation Yr 2
O	Maine Space Grant Consortium	Funding	3/1/2003 Peterson, M.	Nonlinear Nondestructive Evaluation of Sandwich Composites Yr 2
O	Maine Space Grant Consortium	Funding	3/1/2003 McClymer, J.	The Kinetics of Crystallization of Colloids and Proteins: Yr 2
O	Maine Space Grant Consortium	Funding	3/1/2003 Vel, S.	Active Vibration Suppression of Composite Structures Yr 2
O	Maine Technology Institute	Admin	5/1/2004 Anderson, P.	Administration of Maine Technology Infrastructure Fund Research Competition
O	Maine Technology Institute	Admin	4/1/2004 Kotecki, D.	SerDes, Circuit Design, Microelectronics
O	Maine Youth Camping Association	Admin	7/1/2004 Babkirk, D.	Maine Youth Camping Association
O	Maine Youth Camping Association	Admin	8/1/2003 Babkirk, D.	Maine Youth Camping Association 2003 - 2004
O	March of Dimes	Admin	4/1/2003 White, A.	Web-based Folic Acid Education
O	National 4-H Council	Admin	6/1/2004 Lobley, J.	Maine 4-H Afterschool
O	National 4-H Council	Admin	4/1/2003 Elliott, C.	Maine 4-H Engaging Youth, Serving Community Program
O	National Collegiate Athletic Association	Funding	5/1/2004 Butterfield, S.	2004 National Youth Sports Program
O	National Collegiate Athletic Association	Funding	5/1/2003 Butterfield, S.	2003 National Youth Sports Program
O	National Council of the Paper Industry for Air & Stream Improvement	Admin	5/1/2004 Harrison, D.	Predicting Responses of Snowshoe Hares and Lynx to Alternative Forest Harvesting
O	National Council of the Paper Industry for Air & Stream Improvement	Funding	12/1/2003 O'Connor, R.	Unifying FIA Data With National Environmental Datasets
O	New England Greenhouse Conference	Admin	2/1/2004 Stack, L.	Directory of Maine Cut Flower Growers
O	Northeast Consortium	Funding	11/1/2003 Morse, D.	Selective Gear Research and Development to Reduce Bycatch
O	Northeast Consortium	Funding	11/1/2003 Morse, D.	Field Trials of 4" Rings in the Inshore Scallop Fishery of the Gulf of Maine
O	Northeast Consortium	Funding	11/1/2003 Bayer, R.	Developing an Alternative Bait for the American Lobster Fishery
O	Northeast Consortium	Funding	10/1/2003 Chen, Y.	An Evaluation of the Maine Sea Cucumber Resources and Impacts of Exploitation
O	Northeastern Regional Aquaculture Center	Funding	7/1/2004 Brown, N.	Development of Broodstock Diets for Atlantic Halibut Yr 2
O	Northeastern Regional Aquaculture Center	Funding	7/1/2003 Brown, N.	Development of Broodstock Diets for Atlantic Halibut
O	Northeastern Regional Aquaculture Center	Funding	6/1/2003 Singer, J.	Surveillance for & Control of Infectious Salmon Anemia Virus in the NE Yr 3
O	Penobscot Nation	Admin	1/1/2004 Morris, C.	Analysis of Survey Results - Penobscot Nation
O	Penquis Community Action Program	Funding	6/1/2004 Acheson, A.	Community Action Program Poverty Data Update
O	Perry Institute for Marine Science	Funding	8/1/2003 Steneck, R.	Trophic Cascades and the Role of Coralline Algae in Coral Recruitment Yr 2
O	Smithsonian Astrophysical Observatory	Funding	12/1/2003 Fastook, J.	Constraining Paleoclimate Parameters Using Space Geodetic Determinations Yr 2
O	Soil Preparation, Inc.	Admin	1/1/2003 Fernandez, I.	Effects of N-Viro Soil Amendments on Soils in a Northeastern Forested Ecosystem

O	Technology Systems Inc.	Funding	7/1/2004 Caccese, V.	Structural Testing of HSLA-65 Laser Welded Steel +\$
O	Technology Systems Inc.	Funding	3/1/2003 Caccese, V.	Structural Testing of HSLA-65 Laser Welded Steel +\$
O	Technology Systems Inc.	Funding	1/1/2003 Caccese, V.	Structural Testing of HSLA-65 Laser Welded Steel
O	The Gallup Organization	Admin	3/1/2004 Harris, W.	The Gallup Projects 2003-04
O	Town of Castine	Admin	6/1/2003 Faulkner, A.	Witherle Woods Archaeological Survey 2003-04
O	Training & Development Corporation	Admin	7/1/2003 Ives, L.	Summer Work Experience Program 2003
O	United Soybean Board	Admin	3/1/2004 Skonberg, D.	Quality Evaluation of Salmonid Fillets in Response to Soy-Based Diets Yr 2
O	United Soybean Board	Admin	1/1/2003 Skonberg, D.	Quality Evaluation of Salmonid Fillets in Response to Soy-Based Diets
O	University of Southern Maine	Funding	12/1/2004 Zeph, L.	Independence Plus Yr 2
O	University of Southern Maine	Funding	10/1/2004 Sigmon, S.	Intensive Case Management Clinical Psychology Practicum 2004-2005
O	University of Southern Maine	Funding	9/1/2004 Zeph, L.	Independence Plus
O	University of Southern Maine	Funding	8/1/2004 Butler, S.	Training CMHT 2004-2005
O	University of Southern Maine	Funding	7/1/2004 Butler, S.	Child Welfare Field Instruction Unit 2004-2005
O	University of Southern Maine	Funding	5/1/2004 Jones, N.	An Entrepreneurship Curriculum for the University of Maine System
O	University of Southern Maine	Funding	4/1/2004 Rumery, J.	Circulation of School Health Audio-Visual and Print Resources 2003-2004
O	University of Southern Maine	Funding	4/1/2004 Cook, R.	Nutrition for Seniors 2004
O	University of Southern Maine	Funding	4/1/2004 Lincoln, W.	Summer Nutrition Education for Youth 2003-2004
O	University of Southern Maine	Funding	1/1/2004 Werrbach, G.	Child Welfare Field Instruction Unit 2003-2004
O	University of Southern Maine	Funding	1/1/2004 Werrbach, G.	Training CMHT 2003-2004
O	University of Southern Maine	Funding	12/1/2003 Sigmon, S.	Intensive Case Management Clinical Psychology Practicum 2003-2004
O	University of Southern Maine	Funding	8/1/2003 Markowsky, G.	Maine Laptop Initiative
O	University of Southern Maine	Funding	7/1/2003 Rumery, J.	Circulation of School Health Audio Visual and Print Resources 2002 - 2003
O	University of Southern Maine	Funding	7/1/2003 Lincoln, W.	Summer Nutrition Education for Youth 2002-2003
O	University of Southern Maine	Funding	7/1/2003 Pierson, P.	Maine Nutrition Network/ Parents Are Teachers Too FY 2003
O	University of Southern Maine	Funding	5/1/2003 Sigmon, S.	Intensive Case Management Clinical Psychology Practicum 2002-2003
O	University of Southern Maine	Funding	3/1/2003 Gilmer, D.	Quality Choices: Perspectives on Quality Yr 2
O	University of Southern Maine	Funding	1/1/2003 Werrbach, G.	Training CMHT 2002 - 2003
O	University of Southern Maine	Funding	1/1/2003 Cook, R.	Nutrition for Seniors 2003
O	University of Southern Maine	Funding	1/1/2003 Klein, R.	STOP Grant Evaluation
O	Washington Hancock Community Agency	Funding	11/1/2004 Bassano, L.	Maine Microenterprise Network
O	WERU Community Radio	Funding	2/1/2004 Beard, R.	Creating a User-Designed Rural News Service
O	Woods Hole Marine Biological Lab	Funding	4/1/2003 Huryn, A.	Survey of Stream Invertebrates in the Vicinity of Toolik Lake
O	Woods Hole Oceanographic Institution	Funding	11/1/2003 Janzen, C.	Physical Processes and Interactions in Eastern Casco Bay and the Gulf of Maine
O	Woods Hole Oceanographic Institution	Funding	5/1/2003 Townsend, D.	GLOBEC 01: Integration and Synthesis of the Georges Bank
S	Maine Arts Commission	Admin	12/1/2004 Mikotowicz, T.	Presentation of the Wabanaki Transformers' Theatre: Drama for Giving
S	Maine Arts Commission	Admin	6/1/2004 MacDougall, P.	Narrative: Discovering the Boatbuilding Tradition in Maine
S	Maine Public Utilities Commission	Admin	7/1/2004 Chiavacci, J.	Circuit Rider, Maine School and Library Network (MTEAF) 2004-2005
S	Maine Public Utilities Commission	Admin	7/1/2003 Chiavacci, J.	Circuit Rider, Maine School and Library Network (MTEAF)
S	Maine State Legislature	Admin	1/1/2004 Harris, W.	Educational Policy Research Institute 2003-2004
S	Maine State Library	Admin	1/1/2003 Lutz, M.	Retrospective Conversion of Palmer Collection - Hudson Museum
S	ME Dept of Agriculture	Funding	7/1/2004 Watt, B.	Survey of Maine Nurseries for the Sudden Oak Death Pathogen
S	ME Dept of Agriculture	Admin	7/1/2004 Groden, E.	Assessing the Extent of the Imported European Fire Ant Infestations
S	ME Dept of Agriculture	Admin	5/1/2004 Dill, J.	Pesticide Application Training Support Person 2005
S	ME Dept of Agriculture	Admin	10/1/2003 Dalton, T.	Analysis of the Factors Affecting Profitability and Exit Decisions
S	ME Dept of Agriculture	Admin	9/1/2003 Dalton, T.	Milk Processing Costs 2003
S	ME Dept of Agriculture	Admin	6/1/2003 Marcinkowski, D.	Maine Cattle Health Assurance Program
S	ME Dept of Agriculture	Admin	6/1/2003 Potter, D.	Wolfe's Neck Farm Foundation Cooperative Agreement

S	ME Dept of Agriculture	Admin	6/1/2003 Dill, J.	Pesticide Application Training Support Person 2004
S	ME Dept of Behavioral & Developmental Services	Admin	12/1/2004 Zeph, L.	Independence Plus Yr 2
S	ME Dept of Behavioral & Developmental Services	Admin	11/1/2004 Zeph, L.	Maine Employment Curriculum Implementation Project Phase II
S	ME Dept of Behavioral & Developmental Services	Admin	9/1/2004 Zeph, L.	Independence Plus
S	ME Dept of Behavioral & Developmental Services	Funding	3/1/2004 Dana, R.	Prevent High-Risk Drinking and Violent Behavior Among College Students
S	ME Dept of Behavioral & Developmental Services	Admin	12/1/2003 Sigmon, S.	Intensive Case Management Clinical Psychology Practicum 2003-2004
S	ME Dept of Behavioral & Developmental Services	Admin	11/1/2003 Gilmer, D.	Maine Employment Curriculum Implementation Project
S	ME Dept of Behavioral & Developmental Services	Admin	5/1/2003 Sigmon, S.	Intensive Case Management Clinical Psychology Practicum 2002-2003
S	ME Dept of Conservation	Admin	12/2/2004 Holmes, V.	Women and the Woods
S	ME Dept of Conservation	Admin	9/1/2004 Boyle, K.	Assessing the Regional Economic Impact of Land Conservation Yr 2
S	ME Dept of Conservation	Admin	7/1/2004 Rubin, J.	ATV Economic Impact Analysis
S	ME Dept of Conservation	Funding	7/1/2004 Davis, R.	Environmental Education at Orono Bog Boardwalk Trail
S	ME Dept of Conservation	Admin	6/1/2004 Livingston, W.	Radial Growth Reduction Caused by Balsam Woolly Adelgid Damage
S	ME Dept of Conservation	Admin	3/1/2004 Boyle, K.	Assessing the Regional Economic Impact of Land Conservation
S	ME Dept of Conservation	Admin	1/1/2004 Bell, K.	Assessing Public Awareness of Hemlock Woolly Adelgid
S	ME Dept of Conservation	Funding	12/1/2003 Manley, R.	Native Trees for Maine Landscapes
S	ME Dept of Conservation	Admin	9/1/2003 Daigle, J.	Allagash Wilderness Waterway Visitor Survey
S	ME Dept of Conservation	Funding	8/1/2003 Davis, R.	Orono Bog Boardwalk Project +\$
S	ME Dept of Conservation	Admin	5/1/2003 Calhoun, A.	Improving Management of Forested Hillside Seep Communities
S	ME Dept of Economic & Community Development	Admin	11/1/2004 Bassano, L.	Maine Microenterprise Network
S	ME Dept of Economic & Community Development	Admin	11/1/2004 Ward, J.	Development and Demonstration of Marine Aquaculture Based on Halibut and Haddock
S	ME Dept of Economic & Community Development	Admin	8/1/2004 Hutchison, K.	Enhancing Biotechnology Through Telecommunications
S	ME Dept of Economic & Community Development	Admin	8/1/2004 Ward, J.	Target Technology Center Yr 3
S	ME Dept of Economic & Community Development	Admin	8/1/2004 Ward, J.	Marine Connectivity Interoperability
S	ME Dept of Economic & Community Development	Admin	6/1/2004 Ward, J.	Aquaculture Applied Technology Development Center
S	ME Dept of Economic & Community Development	Admin	12/1/2003 Ward, J.	Target Technology Center Yr 2
S	ME Dept of Education	Funding	12/1/2004 Harris, W.	Task Force on Gender Equity in Education
S	ME Dept of Education	Funding	11/1/2004 Zeph, L.	LEARNS 2004/2005
S	ME Dept of Education	Admin	11/1/2004 Harris, W.	Evaluation of the Maine Reading First Program
S	ME Dept of Education	Admin	11/1/2004 Butterfield, S.	National Youth Sports Program - Food Service 2004
S	ME Dept of Education	Admin	9/1/2004 Wilson-Barker, S.	Advanced Placement Incentive Program 2004
S	ME Dept of Education	Admin	8/1/2004 Davis, W.	Institute for the Study of Students at Risk 2003 - 2004
S	ME Dept of Education	Funding	8/1/2004 Beaulieu, E.	The Center for Adult Learning and Literacy (CALL) 2004-2005
S	ME Dept of Education	Admin	6/1/2004 Harris, W.	Partnerships in Character Education 2004
S	ME Dept of Education	Admin	5/1/2004 Butterfield, S.	National Youth Sports Program Food Service 2003
S	ME Dept of Education	Admin	4/1/2004 Harris, W.	Technical Standards for Local Assessment Systems - Phase II +\$
S	ME Dept of Education	Funding	3/1/2004 Zeph, L.	LEARNS 2003/2004
S	ME Dept of Education	Funding	2/1/2004 Beaulieu, E.	The Center for Adult Learning and Literacy (CALL) 2003-2004 +\$
S	ME Dept of Education	Admin	1/1/2004 Davis, W.	Institute for The Study of Students at Risk 2002 - 2003
S	ME Dept of Education	Admin	9/1/2003 Harris, W.	Partnerships in Character Education Yr 2
S	ME Dept of Education	Admin	9/1/2003 Ritchie, C.	Partnerships in Character Education Yr 4
S	ME Dept of Education	Admin	8/1/2003 Markowsky, G.	Maine Laptop Initiative
S	ME Dept of Education	Admin	6/1/2003 Hall, N.	Providing Clinical Practicum Experience to Speech Clinicians Yr 4 +\$
S	ME Dept of Education	Funding	6/1/2003 Beaulieu, E.	The Center for Adult Learning and Literacy (CALL) 2003-2004
S	ME Dept of Education	Admin	5/1/2003 Beaulieu, E.	Workforce Investment Act 2002 - 2003 +\$
S	ME Dept of Education	Admin	5/1/2003 Wilson-Barker, S.	Advanced Placement Incentive Program
S	ME Dept of Education	Funding	4/1/2003 Zeph, L.	LEARNS 2002/2003

S	ME Dept of Education	Admin	3/1/2003 Harris, W.	Technical Standards for Local Assessment Systems - Phase II
S	ME Dept of Education	Admin	2/1/2003 Cobb, R.	Alternative Certification of Teachers
S	ME Dept of Education	Admin	2/1/2003 Harris, W.	Maine Laptop Technology Initiative
S	ME Dept of Education	Admin	1/1/2003 Ritchie, C.	Partnerships in Character Education
S	ME Dept of Environmental Protection	Admin	12/1/2004 Stone, E.	Using Birds as Bioindicators of Water-borne Pesticides
S	ME Dept of Environmental Protection	Admin	8/1/2004 Webster, K.	Defining 'Natural' Reference Conditions and Indicators on Lakes in Maine
S	ME Dept of Environmental Protection	Admin	8/1/2004 Webster, K.	Interaction of Nutrient Enrichment Planktivores in Structuring Zooplankton
S	ME Dept of Environmental Protection	Admin	8/1/2004 Patterson, H.	Detection of Pesticides in Washington County (Maine) Surface Waters Using POCIS
S	ME Dept of Environmental Protection	Admin	6/1/2004 Humphrey, D.	Maine Surface Water Ambient Toxics Monitoring Program & Dioxin Monitoring FY04
S	ME Dept of Environmental Protection	Admin	3/1/2004 Anderson, P.	MOSAC - 2004 Research Competition and Administration
S	ME Dept of Environmental Protection	Admin	2/1/2004 Humphrey, D.	Beneficial Use of Solid Waste in Maine -Framework for Long-Term Growth-Phase II
S	ME Dept of Environmental Protection	Admin	2/1/2004 Janzen, C.	Observations of Tidal, Subtidal & Seasonal Variability in Casco Bay Circulation
S	ME Dept of Environmental Protection	Admin	5/1/2003 Peckenham, J.	Characterizing Flow of Effluent from Stockpiled Biosolids
S	ME Dept of Environmental Protection	Admin	4/1/2003 Webster, K.	Defining 'Natural' Reference Conditions & Indicators of Maine Lakes
S	ME Dept of Environmental Protection	Admin	3/1/2003 Xue, H.	MOSAC - 3-Dimensional Modeling in Cobscook Bay
S	ME Dept of Environmental Protection	Admin	3/1/2003 Rubin, J.	MOSAC - Measuring the Economic Damages from Oil Spills
S	ME Dept of Environmental Protection	Admin	3/1/2003 Anderson, P.	MOSAC - A Field Study of Circulation Patterns in Cobscook Bay
S	ME Dept of Environmental Protection	Admin	1/1/2003 Van Beneden, R.	Investigation of the Biological Effects of Agrochemicals
S	ME Dept of Human Services	Admin	12/2/2004 Rumery, J.	Circulation of School Health Audio-Visual and Print Resources 2004 - 2005
S	ME Dept of Human Services	Funding	12/1/2004 Zeph, L.	Child Care Plus ME 2004-2005
S	ME Dept of Human Services	Admin	12/1/2004 Tu, S.	Biobehavioral Informatics in Newborn Screening
S	ME Dept of Human Services	Funding	10/1/2004 Boyle, K.	Fish Consumption Advisories +\$
S	ME Dept of Human Services	Admin	8/1/2004 Ganiel, C.	BEAS Support to 2004-2005 Senior Companion Program
S	ME Dept of Human Services	Admin	8/1/2004 Kaye, L.	BEAS Support to 2004-2005 RSVP Project
S	ME Dept of Human Services	Funding	8/1/2004 Lincoln, W.	Nutrition Education Project 2003-2004 +\$
S	ME Dept of Human Services	Admin	7/1/2004 Butler, S.	Child Welfare Field Instruction Unit 2004-2005
S	ME Dept of Human Services	Funding	4/1/2004 Lincoln, W.	Nutrition Education Project 2003-2004
S	ME Dept of Human Services	Admin	4/1/2004 Butterfield, S.	NYSP Nutrition Education Network 2003-2004
S	ME Dept of Human Services	Funding	4/1/2004 Zeph, L.	Child Care Plus ME 2003-2004
S	ME Dept of Human Services	Admin	4/1/2004 Rumery, J.	Circulation of School Health Audio-Visual and Print Resources 2003-2004
S	ME Dept of Human Services	Admin	4/1/2004 Rumery, J.	Circulation of School Health Audio-Visual and Print Resources 2003-2004
S	ME Dept of Human Services	Admin	4/1/2004 Lincoln, W.	Summer Nutrition Education for Youth 2003-2004
S	ME Dept of Human Services	Admin	4/1/2004 Pierson, P.	Maine Nutrition Network/Parents Are Teachers Too - Waldo County FY04
S	ME Dept of Human Services	Admin	2/1/2004 LaHaye, P.	BHPATT FY06
S	ME Dept of Human Services	Admin	1/1/2004 Madden, M.	Maine Youth Suicide Prevention Program +\$
S	ME Dept of Human Services	Admin	1/1/2004 Peckenham, J.	Revisions to Digests on Private Drinking Water Wells & Wellhead Protection +\$
S	ME Dept of Human Services	Admin	1/1/2004 Werrbach, G.	Training CMHT 2003-2004
S	ME Dept of Human Services	Admin	1/1/2004 Quimby, G.	University of Maine Children's Center 2003-2004
S	ME Dept of Human Services	Admin	1/1/2004 Werrbach, G.	Child Welfare Field Instruction Unit 2003-2004
S	ME Dept of Human Services	Funding	12/1/2003 Gilmer, D.	Maine Works for Youth! Yr 3
S	ME Dept of Human Services	Funding	11/1/2003 Boyle, K.	Fish Consumption Advisories
S	ME Dept of Human Services	Admin	10/1/2003 Kaye, L.	BEAS Support to 2003-2004 RSVP Project
S	ME Dept of Human Services	Admin	10/1/2003 Peckenham, J.	Revisions to Digests on Private Drinking Water Wells & Wellhead Protection
S	ME Dept of Human Services	Admin	9/1/2003 Blazej, B.	Youth Violence Prevention: Conflict Education in K-16 Schools
S	ME Dept of Human Services	Admin	9/1/2003 Zeph, L.	Child Care Plus ME 2002-2003 +\$
S	ME Dept of Human Services	Admin	8/1/2003 Elliott, C.	BEAS Support to the Senior Companion Program
S	ME Dept of Human Services	Admin	8/1/2003 LaHaye, P.	Parents Are Teachers Too -- Waldo County Add'l\$

S	ME Dept of Human Services	Admin	8/1/2003 Peckenham, J.	Arsenic Rule Compliance for Small Water Systems in Maine
S	ME Dept of Human Services	Admin	7/1/2003 Rumery, J.	Circulation of School Health Audio Visual and Print Resources 2002 - 2003
S	ME Dept of Human Services	Admin	7/1/2003 Lincoln, W.	Summer Nutrition Education for Youth 2002-2003
S	ME Dept of Human Services	Admin	7/1/2003 Butterfield, S.	NYSP Nutrition Education Network 2002-2003
S	ME Dept of Human Services	Admin	7/1/2003 Pierson, P.	Maine Nutrition Network/ Parents Are Teachers Too FY 2003
S	ME Dept of Human Services	Admin	6/1/2003 Kaye, L.	BEAS Support to 2003/2004 RSVP Project
S	ME Dept of Human Services	Funding	5/1/2003 Gilmer, D.	Maine Works for Youth! Yr 2
S	ME Dept of Human Services	Admin	3/1/2003 Madden, M.	Maine Youth Suicide Prevention Program
S	ME Dept of Human Services	Admin	3/1/2003 Gilmer, D.	Quality Choices: Perspectives on Quality Yr 2
S	ME Dept of Human Services	Admin	3/1/2003 Lincoln, W.	Nutrition Education Project 2002-2003
S	ME Dept of Human Services	Admin	1/1/2003 Rumery, J.	Circulation of School Health Audio-Visual and Print Resources
S	ME Dept of Human Services	Funding	1/1/2003 Zeph, L.	Child Care Plus ME
S	ME Dept of Inland Fisheries & Wildlife	Admin	6/1/2004 Hunter, M.	Road Mortality & Conservation Planning for Blanding's and Spotted Turtles
S	ME Dept of Inland Fisheries & Wildlife	Admin	6/1/2004 Rhymer, J.	Habitat Selection, Relocations, and Fish Hosts of the Yellow Lampmussel
S	ME Dept of Inland Fisheries & Wildlife	Admin	4/1/2004 Vaux, P.	Developing PEARL as the Environmental Database for Atlantic Salmon Restoration
S	ME Dept of Inland Fisheries & Wildlife	Admin	3/1/2004 Kahl, J.	Fisheries Data Integration Project
S	ME Dept of Inland Fisheries & Wildlife	Admin	8/1/2003 Kinnison, M.	Ecology & History of Atlantic Salmon in a Tributary of the Narraguagus River
S	ME Dept of Inland Fisheries & Wildlife	Admin	7/1/2003 Kahl, J.	Determining Trends in Water Chemistry for Two Salmon Rivers
S	ME Dept of Inland Fisheries & Wildlife	Funding	2/1/2003 Kling, L.	Investigations into the culture of Rainbow Smelts
S	ME Dept of Inland Fisheries & Wildlife	Admin	1/1/2003 Harrison, D.	Influence of Forest Practices on Stand-and Sub-Stand Habitat Yr 2
S	ME Dept of Labor	Admin	11/1/2004 Trostel, P.	Integrating Student and Employment Data
S	ME Dept of Labor	Admin	1/1/2003 Morris, C.	Customer Satisfaction Measurement Survey +\$
S	ME Dept of Marine Resources	Admin	12/1/2004 Steneck, R.	Monitoring Maine's Lobster Settlement: In Zones A-D
S	ME Dept of Marine Resources	Admin	11/1/2004 Chen, Y.	Department of Marine Resources Cooperative Research
S	ME Dept of Marine Resources	Admin	11/1/2004 Chen, Y.	Developing & Evaluating Biological Reference Points for Maine Lobster Fishery
S	ME Dept of Marine Resources	Admin	10/1/2004 Wilson, J.	Right Whale Policy Issues
S	ME Dept of Marine Resources	Admin	9/1/2004 Chen, Y.	A Comprehensive Study of Maine's Baitworm Industry
S	ME Dept of Marine Resources	Admin	3/1/2004 Acheson, J.	History of the Social and Ecological Changes in the Maine Lobster Industry
S	ME Dept of Marine Resources	Admin	9/1/2003 Wilson, J.	Right Whale Policy Issues
S	ME Dept of Marine Resources	Admin	9/1/2003 Steneck, R.	Monitoring Maine's Lobster Settlement in Zones A-D
S	ME Dept of Marine Resources	Admin	8/1/2003 Chen, Y.	Assessing the American Lobster Stock in the Gulf of Maine
S	ME Dept of Marine Resources	Funding	7/1/2003 Chen, Y.	Abundance, Migration and Recruitment of Northern Shrimp in the Gulf of Maine
S	ME Dept of Marine Resources	Admin	7/1/2003 Chen, Y.	Fisheries Stock Assessment in Maine
S	ME Dept of Marine Resources	Funding	7/1/2003 Townsend, D.	Abundance, Migration and Recruitment of Northern Shrimp in the Gulf of Maine
S	ME Dept of Marine Resources	Admin	4/1/2003 Chen, Y.	Department of Marine Resource Fellowship
S	ME Dept of Mental Health	Admin	8/1/2003 Dana, R.	Juvenile Justice and Delinquency Prevention Grant Yr 2
S	ME Dept of Mental Health	Admin	1/1/2003 Werrbach, G.	Training CMHT 2002 - 2003
S	ME Dept of Public Safety	Admin	3/1/2004 Ball, C.	Needs Assessment of the Criminal Justice System
S	ME Dept of Public Safety	Admin	1/1/2003 Klein, R.	STOP Grant Evaluation
S	ME Dept of State	Admin	4/1/2004 Dean, P.	Preserving Audio Tape Collections at the Maine Folklife Center Archives
S	ME Dept of State	Admin	6/1/2003 Dean, P.	Preservation of Selected Audio Tapes, Various State Agencies 2003
S	ME Dept of State	Admin	5/1/2003 Dean, P.	Preserving Audio Tape Collections at the Maine Folklife Center Archives
S	ME Dept of Transportation	Admin	11/1/2004 Garder, P.	Traffic Conflict Studies at Camden Hills Park Entrance
S	ME Dept of Transportation	Admin	10/1/2004 Garder, P.	Traffic Studies Before and After Introduction of Red-Light Running Photo Enforce
S	ME Dept of Transportation	Admin	8/1/2004 Humphrey, D.	Gulford Route 15 Instrumented Pavement Test Section Phase I
S	ME Dept of Transportation	Admin	7/1/2004 Humphrey, D.	Alternative Shallow Cross Pipe Installation Method
S	ME Dept of Transportation	Admin	2/1/2004 Sandford, T.	Monitoring of a Pile-Supported Integral Abutment on Shallow Bedrock

S	ME Dept of Transportation	Admin	12/1/2003 Dagher, H.	Prestressed FRP-Glulam Girder Bridge
S	ME Dept of Transportation	Admin	9/1/2003 Humphrey, D.	Monitoring Program for Tire Shred Insulation and Drainage Layer Beneath Route 1
S	ME Executive Department	Admin	10/1/2004 Rubin, J.	Prepare an Analysis of the Fiscal Effects of the Palesky Tax Cap Initiative
S	ME Executive Department	Admin	8/1/2004 Tanski, P.	Analysis of Public Engagement in the Formation of Public Health Policy
S	ME Executive Department	Admin	6/1/2004 Zeph, L.	Maine's National Service Inclusion Project
S	ME Executive Department	Funding	4/1/2004 Stancioff, E.	Healthy Coastal Beaches Program
S	ME Executive Department	Funding	3/1/2004 Stancioff, E.	Coastal Water Quality Technical Assistance Project
S	ME Executive Department	Admin	2/1/2004 Peckenham, J.	Biosolids White Paper
S	ME Executive Department	Admin	4/1/2003 Zeph, L.	A Collaborative Effort of the Maine Commission on Community Service and CCI
S	ME Executive Department	Funding	1/1/2003 Stancioff, E.	Coastal Water Quality Program Development Project

Appendix II, section C

Sort	Partner Organization/Company	Faculty/Department Involved	Type of Partnership
State Govt.	Department of Environmental Protection	AEWC	Assistance with boat building project including training boat builders
Trade Association	Maine wood Products Association	Advanced Engineered Wood Composites Center	Partner Organization
Trade Association	Maine Composites Alliance	Advanced Engineered Wood Composites Center	Member
Trade Association	Maine Boat builders	Advanced Engineered Wood Composites Center	Partner Organization
Incubator	Composites Technology Center	Advanced Engineered Wood Composites Center	Board Member
Trade Association	Maine Manufactured Housing Association	Advanced Engineered Wood Composites Center	Research Support
State Govt.	Maine Historic Preservation Commission	Alaic Faulkner, Archaeology	Manages the historic archaeological sites inventory; serves on archaeology advisory board
State Govt.	DECD Composites Technology Incubator	Bob Lindyberg, Deb Neuman	Serves on board of directors; technical assistance
Nonprofit R&D	Maine Technology Institute	Bruce Segee, College of Engineering	Serves on precision manufacturing technology advisory board
Nonprofit	Bangor Halfway House	Carol Gilmore, College of BPPH	Serves on board of directors
State Govt.	Maine State Labor Relations Board	Carol Gilmore, College of BPPH	Serves on board of directors
Nonprofit	Wellspring	Carol Gilmore, College of BPPH	Serves on board of directors
Private Sector	Eastern Maine Medical Center	Carol Wood, College of BPPH	Member research committee and review board
Nonprofit	Harbor House Community Center	Carolyn Ball, College of BPPH	Serves on board of directors
Nonprofit	Shaw House	Cary Jenson, College of BPPH	Serves on board of directors
Nonprofit	Wings for Families and Children	Cary Jenson, College of BPPH	Serves on board of directors
Education Inst.	Eastern Maine Community College	Catherine Berardelli, College of BPPH	School of nursing professional advisory committee
Nonprofit	Adoptive and Foster Families of Maine	Center for Community Inclusion	Support
State Govt.	Blaine House Early Literacy Initiative	Center for Community Inclusion	Read With Me program
State Govt.	Bureau of Elder and Adult Services	Center for Community Inclusion	CHOICES statewide advisory committee
State Govt.	Bureau of Health	Center for Community Inclusion	Maine donated dental services advisory committee; Maine Works for Youth! steering committee; children with special health needs program
State Govt.	Bureau of Rehab & BDS Statewide Policy Council	Center for Community Inclusion	Member
Nonprofit	Care for Caregivers	Center for Community Inclusion	Serves on advisory board
State Govt.	Department of Education, Division of Special Services	Center for Community Inclusion	Maine Alternative Assessment Committee; Comprehensive System of Personnel Development Advisory Council; Developmental Therapy Leadership Group; Maine Early Intervention Coalition Committee; Maine Geographic Alliance, Alternative Assessment Work Collaborative; Maine Support Network; Learns program.
State Govt.	Department of Labor	Center for Community Inclusion	Ticket to Work and Work Incentives Improvement committee
Nonprofit	Disability Rights Center of Maine	Center for Community Inclusion	Support
Education Inst.	Eastern Maine Community College	Center for Community Inclusion	Early childhood program advisory committee
State Govt.	Governor's Council on Developmental Disabilities	Center for Community Inclusion	Serves on council
Education Inst.	Kennebec Valley Community College	Center for Community Inclusion	Education technician program advisory committee
Nonprofit	Maine Association of Directors of Services for Exceptional Children	Center for Community Inclusion	Support
Nonprofit	Maine Center for Deafness	Center for Community Inclusion	Deaf advisory group; access network
State Govt.	Maine Criminal Justice Academy; BDS	Center for Community Inclusion	Maine Partners in Justice team leader
Nonprofit	Maine Disabilities Coalition	Center for Community Inclusion	Support
Nonprofit	Maine Parent Federation	Center for Community Inclusion	Behavioral and developmental services family support project
State Govt.	Maine State Board of Nursing	Center for Community Inclusion	Support

State Govt.	Office of Childcare and Head Start	Center for Community Inclusion	Childcare advisory council; childcare licensing task force; early care and education task force; Maine Roads to Quality Training Coordination committee, advisory board and higher education committee; New England Work Force Partners; Maine Early Care and Education Child Care Plus ME! partnership
State Govt.	Office Trauma Services, Department of Labor	Center for Community Inclusion	Serves as committee member
Nonprofit	Penobscot County Speakout Project	Center for Community Inclusion	Support
Nonprofit	Project for Supported Living	Center for Community Inclusion	Serve on board of directors
Nonprofit	Shaw House	Center for Community Inclusion	Serves on board of directors
Nonprofit	Southern Maine Advisory Council on Transition	Center for Community Inclusion	Serve on developmental service committee designing employment specialist training
Nonprofit	Southern Maine Parent Awareness Special Education Guide	Center for Community Inclusion	Serves on task force
State Govt.	Department of Marine Resources Fish Health Committee	Chris Bartlett & Mike Opitz, College of NSFA	Serve on committee
State Govt.	Department of Transportation	Civil and Environmental Engineering	Research arm of Maine DOT
State Govt.	Department of Education	College of Education	Lead Center for Adult Learning and Literacy; Center for Early Literacy; National Center for Student Aspirations; Center for Research and Evaluation; Institute for the Study of Students At Risk
Nonprofit	Maine Leadership Consortium	College of Education	Fiscal agent; promotes school involvement
State Govt.	Maine Public Broadcasting System	College of Education	Hosts regional National Teacher Training Institute on technology; assistance with documentary about the lives and work of teachers
Nonprofit	Penobscot River Educational Partnership	College of Education	Professional development network with area school districts
Education Inst.	Penquis Superintendents' Assn Research Cooperative	College of Education	Research, networking and policy with 23 school districts
Trade Assoc.	Agricultural Council of Maine	College of NSFA	Partner organization
Trade Assoc.	Center for Innovation in Biotechnology	College of NSFA	Partner organization
Trade Assoc.	Cooperative Forest Research Unit	College of NSFA	Partner organization
State Govt.	Department of Conservation	College of NSFA	Partner organization
State Govt.	Department of Marine Resources	College of NSFA	Partner organization
Trade Assoc.	Maine Beef Association	College of NSFA	Partner organization
Trade Assoc.	Maine Dairy Industry Association	College of NSFA	Partner organization
Trade Assoc.	Maine Deer & Elk Association	College of NSFA	Partner organization
State Govt.	Maine Department of Agriculture	College of NSFA	Partner organization
State Govt.	Maine Department of Fisheries & Wildlife	College of NSFA	Partner organization
Trade Assoc.	Maine Farm Bureau	College of NSFA	Partner organization
Trade Assoc.	Maine Forest Products Council	College of NSFA	Partner organization
State Govt.	Maine Forest Service	College of NSFA	Partner organization
Trade Assoc.	Maine Golf Course Superintendents	College of NSFA	Partner organization
Trade Assoc.	Maine Greenhouse & Flower Growers Association	College of NSFA	Partner organization
Trade Assoc.	Maine Harness Racing Association	College of NSFA	Partner organization
Trade Assoc.	Maine Landscape and Nursery Association	College of NSFA	Partner organization
Trade Assoc.	Maine Lobster Institute	College of NSFA	Partner organization
Trade Assoc.	Maine Lobstermen Association	College of NSFA	Partner organization
Trade Assoc.	Maine Organic Farmers & Gardeners Association	College of NSFA	Partner organization
Trade Assoc.	Maine Oyster Growers Association	College of NSFA	Partner organization
Trade Assoc.	Maine Pomological Society	College of NSFA	Partner organization
Trade Assoc.	Maine Potato Board	College of NSFA	Partner organization, Steve Reiling on board

Trade Assoc.	Maine Sheepbreeders Association	College of NSFA	Partner organization
Trade Assoc.	Maine Small Fruit & Vegetable Growers	College of NSFA	Partner organization
Trade Assoc.	Maine Wild Blueberry Commission	College of NSFA	Partner organization, UM provides campus space
Trade Assoc.	Small Woodlot Association of Maine	College of NSFA	Partner organization
Trade Assoc.	Maine Aquaculture Innovation Center	College of NSFA, Center for Cooperative Aquaculture Research	Partner organization
Nonprofit R&D	Jackson Laboratory	College of NSFA; VP for Research	Co-hosted symposium series in biophysics; co-hosted an International Conference in Biomaterials
Nonprofit	Wellspring	Darlene Bay, College of BPPH	Serves on board of directors
Nonprofit R&D	Maine Technology Institute	Debbie Neuman, Target Technology Incubator	Serves on information technology technical advisory board
Nonprofit	Challenger Center	Debbie Neuman, Target Technology Incubator	Serves on board of directors
Econ. Dev.	Greater Bangor Region Chamber of Commerce	Debbie Neuman, Target Technology Incubator	Serves on board of directors
Econ. Dev.	Eastern Maine Development Corporation	Deirdre Mageean, Margaret Chase Smith Center for Public Policy	Serves on board of corporators
State Govt.	Governor's Economic Development Conference	Deirdre Mageean, Margaret Chase Smith Center for Public Policy	Lead steering committee; organization
Nonprofit R&D	Maine Technology Institute	Denise Skonberg, College of NSFA	Serves on forestry and agriculture technical advisory board
Nonprofit	Maine Play Therapy Association	Dorothy Breen, College of Education	Serves as president
State Govt.	Laptop Computer Initiative	Edward Brazee, College of Education	Serves on task force to design professional development
Nonprofit	Maine Commission on Middle Level Education	Edward Brazee, College of Education	Co-chairs
Nonprofit	Maine Initiative Foundation	Edward Laverty, College of BPPH	Serves on board of advisors
Econ. Dev.	Piscataquis County Economic Development Council	Edward Laverty, College of BPPH	Serves on board of directors
Nonprofit	Workforce for Maine's Future	Edward Laverty, College of BPPH	Serves on board of advisors
Nonprofit	Rape Response Services of Penobscot & Piscataquis Counties	Elizabeth Allan, College of Education	Serves on board of directors
Nonprofit	Conseil Communautaire	Franco-American Centre	members
Nonprofit	Maine Association of School Libraries	Gail Garthwait, College of Education	Serves on board of directors
Nonprofit	Behavioral Healthcare Higher Education Collaborative	Gail Werrbach, College of BPPH	Member
State Govt.	Child Welfare Training Institute (DHS)	Gail Werrbach, College of BPPH	Professional development committee
State Govt.	Department of Behavioral and Development Services Region III Task Force	Gail Werrbach, College of BPPH	Co-chair implementation task force
Trade Assoc.	National Association of Social Workers	Gail Werrbach, College of BPPH	Maine chapter, chair of professional review committee
Nonprofit	Parent-Child Alliance	Gail Werrbach, College of BPPH	Serves on board of advisors
Trade Assoc.	Maine Software Developers Association	George Markowsky, Computer Science	Served as founding president
Econ. Dev.	Orono Economic Development Committee	Gloria Vollmers, College of BPPH	Member
State Govt.	DECD Aquaculture Incubator	Industrial Cooperation, CCAR, Darling Center	Incubator housed at CCAR and Darling Center; technical assistance
State Govt.	DECD Information Technology Incubator	Industrial Cooperation, NCGIA, Computer Science, ECE	Management of incubator; major tenant
State Govt.	Department of Education	Intensive English Institute	Project Mainstay for training and outreach in ESL and bilingual education; development of credit courses in ESL for teachers
State Govt.	DECD Aquaculture Incubator	Jake Ward, Industrial Cooperation	Serves on board of advisors
State Govt.	DECD Composites Technology Incubator	Jake Ward, Industrial Cooperation	Serves on of directors
State Govt.	DECD Information Technology Incubator	Jake Ward, Industrial Cooperation	Serves on board of advisors
State Govt.	Department of Economic & Community Development	Jake Ward, Industrial Cooperation	Advanced Technology Development Centers board of advisors
Econ. Dev.	Eastern Maine Development Corporation	Jake Ward, Industrial Cooperation	Serves on board of corporators
Trade Assoc.	Maine Composites Alliance	Jake Ward, Industrial Cooperation	serves on board of directors
Econ. Dev.	Maine Manufacturing Extension Partnership	Jake Ward, Industrial Cooperation	Serves on board of directors
Nonprofit R&D	Maine Technology Institute	Jake Ward, Industrial Cooperation	Serves on board of directors and as secretary
Econ. Dev.	Bangor Area Target Development Corporation	Jake Ward, Industrial Cooperation	Serves on Board of directors
Econ. Dev.	Millinocket Area Growth and Investment Council	Jake Ward, Industrial Cooperation	Working on joint grants
State Govt.	State Revenue Forecasting Committee	James Breece, Economics	Serves on committee
Education Inst.	Higher Education Coalition	James Horan, College of BPPH	Executive committee member
Education Inst.	Maine Education Association	James Horan, College of BPPH	Representative assembly; government relations committee

nonprofit	Center for the Study of Language and Thinking	Janice Kristo, College of Education	Chairs membership section
Trade Assoc.	Biotechnology Association of Maine	Jody Jellison, College of NSFA	Serves on board of directors
nonprofit	American Society for Public Administration	Kenneth Nichols, College of BPPH	Serves on board of directors for Maine chapter
nonprofit	Orono Land Trust	Kenneth Nichols, College of BPPH	Serves on board of directors; chair of publicity committee
nonprofit	Orono Public Library	Kenneth Nichols, College of BPPH	Chair, board of trustees
nonprofit R&D	Maine Space Grant Consortium	Larryl Matthews, College of Engineering	Serves on board of directors
nonprofit	Association Canado-Americaine Chapter	Lisa Michaud, Franco-American Centre	president of Chez Nous chapter
on. Dev.	Maine International Trade Center	Maine Business School	Coordinate and provide graduate certificate in international business
municipal	City of Bangor	Maine Folklife Center	Full partner in National Folk Festival (2002-2004); work on Bangor Cultural Directory
Trade Assoc.	Maine Organic Farmers & Gardeners Association	Maine Folklife Center	
State Govt.	Maine State Archives	Maine Folklife Center	Collaborating on sound preservation and photo reproduction
d. Govt.	National Park Service	Maine Folklife Center	Oral history research at Acadia National Park
nonprofit	Area Health Education Center	Marcella Sorg, Margaret Chase Smith Center for Public Policy	Academic community partnership
State Govt.	Bureau of Health	Marcella Sorg, Margaret Chase Smith Center for Public Policy	Serves on Health Research Group
State Govt.	Maine Center for Public Health	Marcella Sorg, Margaret Chase Smith Center for Public Policy	Turning point project steering committee
nonprofit	Penquis CAP	Marcella Sorg, Margaret Chase Smith Center for Public Policy	Academic community partnership
nonprofit	Statewide Gerontology Center	Marcella Sorg, Margaret Chase Smith Center for Public Policy	Academic community partnership
State Govt.	Maine State Legislative Forums	Margaret Chase Smith Center for Public Policy	Serves on planning committee
State Govt.	Office of Childcare and Head Start	Margaret Chase Smith Center for Public Policy	Cost-Quality Study Advisory Group
nonprofit	Wabanaki Studies Commission	Maureen Smith, Native American Studies	Serves as chair; represents UMS
State Govt.	Department of Environmental Protection	Mitchell Center for Environmental and Watershed Research	Regular guidance and lab services support
d. Govt.	U.S. Geological Survey	Mitchell Center for Environmental and Watershed Research	Water resources research institute program
nonprofit	Maine Ambulatory Care Coalition	Nancy Fishwick, College of BPPH	Rural coalition advisory board member
nonprofit	Maine Coalition Against Sexual Assault	Nancy Fishwick, College of BPPH	Serves on advisory board for sexual assault nurse program
nonprofit	Nursing Network on Violence Against Women International	Nancy Fishwick, College of BPPH	Member of research consortium member
nonprofit	Rural Health Family Violence Initiative	Nancy Fishwick, College of BPPH	Serves on advisory committee
nonprofit	Healthy Families	Nancy Kelly, College of BPPH	Penobscot County committee
nonprofit	Orono Housing Foundation	Nancy Kelly, College of BPPH	Serves on board of directors
nonprofit	Parent-Child Alliance	Nancy Kelly, College of BPPH	President of advisory board
nonprofit	Project Atrium	Nancy Kelly, College of BPPH	Serves on board of directors
State Govt.	Governor's Children's Cabinet	Nancy Webster, College of BPPH	Task Force on Early Care and Education
nonprofit	American College of Sports Medicine	Nellie Orr, College of Education	State of Maine representative
nonprofit	Maine Association of Health, Physical Education, Recreation and Dance	Nellie Orr, College of Education	Serves as president
State Govt.	Maine State Arts Commission	Owen Smith, Art	Serves on public art advisory board; member of percent for arts program
nonprofit	North American Trainer Organization	Paula Moore, College of Education	Chairs the training and professional development committee
nonprofit	Maine Association of Family and Consumer Sciences	Peggy Schomaker, College of Education	Chairs the family economics, management and housing subject matter section
Education Inst.	Glenburn, Hermon and SAD4 School Districts	Psychological Services Center	Contracted support
Education Inst.	Kidspeace	Psychological Services Center	Advisors
nonprofit	Maine Center for Integrative Rehabilitation	Psychological Services Center	Support
Education Inst.	Penquis CAP Head Start	Psychological Services Center	Mental health consultation and technical assistance
nonprofit	Penobscot Job Corps Center	Psychological Services Center, Prof. Hecker	Mental health consultation
on. Dev.	Eastern Maine Development Corporation	Renee Kelly	Serves on loan committee and community economic development strategy committee
on. Dev.	Bangor Region Development Alliance	Renee Kelly, Industrial Cooperation	Member; assist with marketing
nonprofit	Bangor Region Leadership Institute Alumni	Renee Kelly, Industrial Cooperation	Serves on board of directors

Econ. Dev.	Coastal Acadia Development Corporation	Renee Kelly, Industrial Cooperation	Serves on board of directors
Econ. Dev.	Maine & Company	Renee Kelly, Industrial Cooperation	Assistance with biotechnology marketing
Econ. Dev.	Economic Development Council of Maine	Renee Kelly/Jake Ward, Industrial Cooperation	Members
State Govt.	Education Commissioner's Professional Development Policy Advisory Committee	Robert Cobb, College of Education	Serves on commission
State Govt.	Legislative Commission on the Recruitment & Retention of Teachers	Robert Cobb, College of Education	Represents UMS
Nonprofit	Maine Leadership Consortium	Robert Cobb, College of Education	Executive committee member
Education Inst.	Maine Science and Math Alliance	Robert Cobb, College of Education	Serves on advisory board
Education Inst.	New England Land-Grant Education Deans' Council	Robert Cobb, College of Education	Serves on council
State Govt.	State Board of Education Administrator Certification Task Force	Robert Cobb, College of Education	Serves on task force
Nonprofit R&D	Maine Technology Institute	Robert Lindyberg, AEWC	Serves on composites technical advisory board
Nonprofit	American Red Cross, Pine Tree Chapter	Robert Strong, College of BPPH	Serves on board of directors
Private Sector	Bangor Savings Bank	Robert Strong, College of BPPH	Serves on board of directors
Nonprofit	Bangor Savings Bank Foundation	Robert Strong, College of BPPH	Serves on board of directors
Trade Assoc.	Boston Security Analysts Society	Robert Strong, College of BPPH	Serves on board of directors for Maine chapter
Nonprofit	Eastern Finance Association	Robert Strong, College of BPPH	Serves on board of directors
Nonprofit	Eastern Maine Charities	Robert Strong, College of BPPH	Serves on board of directors
Private Sector	Eastern Maine Healthcare	Robert Strong, College of BPPH	Member of investment committee
Private Sector	Energy Atlantic, Inc.	Robert Strong, College of BPPH	Member of risk management committee
Private Sector	James W. Sewall Company	Robert Strong, College of BPPH	Serves on board of directors; corporate treasurer
Private Sector	Livada Securities	Robert Strong, College of BPPH	Chair, board of directors
Private Sector	Whitehouse, Inc.	Robert Strong, College of BPPH	Serves on board of directors
Nonprofit	New England Biosolids and Residuals Association	Rose Mary Seymour, College of NSFA	Serves on board of directors
Nonprofit	Mabel Wadsworth Health Center	Sandy Butler, College of BPPH	Serves on board of directors; chair of lesbian health project
Nonprofit	Maine Coalition for Equal Rights	Sandy Butler, College of BPPH	Penobscot County committee
Nonprofit	Maine Migrant and Seasonal Farmworkers Health Services Council	Sandy Butler, College of BPPH	Member
Nonprofit	Maine Women's Fund	Sandy Butler, College of BPPH	Member of allocations committee
Nonprofit	Maine Women's Lobby	Sandy Butler, College of BPPH	Serves on board of advisors; chair of research, outreach & education committee
Nonprofit	Women's Development Institute	Sandy Butler, College of BPPH	Serves on board of directors
Nonprofit	Community Nursing	School of Nursing	40,000-50,000 hours of student community service with clinical providers
Fed. Govt.	Acadia National Park	Sea Grant	Partner organization
Nonprofit R&D	Bigelow Laboratory for Ocean Sciences	Sea Grant	Partner organization
Nonprofit	Blue Hill Heritage Trust	Sea Grant	Partner organization
Nonprofit	Casco Bay Estuary Program	Sea Grant	Partner organization
Nonprofit R&D	Center for Marine Conservation	Sea Grant	Partner organization
Nonprofit	Chewonki Foundation	Sea Grant	Partner organization
Nonprofit	Coastal Conservation Association	Sea Grant	Partner organization
Econ. Dev.	Coastal Enterprises Inc.	Sea Grant	Partner organization
Trade Assoc.	Cobscook Bay Fishermen's Association	Sea Grant	Partner organization
Education Inst.	Colby College	Sea Grant	Partner organization on Marine research projects
Education Inst.	College of the Atlantic	Sea Grant	Partner organization on Marine research projects
Private Sector	Commercial Fisheries News	Sea Grant	Partner organization
Nonprofit	Conservation Law Foundation	Sea Grant	Partner organization
Nonprofit	Cooperative Institute for Coastal and Estuarine Environmental Technology	Sea Grant	Partner organization

onprofit R&D	Downeast Institute for Applied Marine Research and Education	Sea Grant	Partner organization
rade Assoc.	Downeast Lobsterman's Association	Sea Grant	Partner organization
onprofit	Friend's of Acadia	Sea Grant	Partner organization
onprofit	Friend's of Casco Bay	Sea Grant	Partner organization
onprofit	Gulf Of Maine Council on the Marine Environment	Sea Grant	Partner organization
onprofit R&D	Island Institute	Sea Grant	Partner organization
onprofit	Islesboro Island Trust	Sea Grant	Partner organization
tate Govt.	Joint Standing Committee on Marine Resources	Sea Grant	Partner organization
onprofit	Laudholm Trust	Sea Grant	Partner organization
onprofit	Maine Coastal Program	Sea Grant	Partner organization
tate Govt.	Maine Department of Environmental Protection	Sea Grant	Partner organization
tate Govt.	Maine Department of Inland Fish and Wildlife	Sea Grant	Partner organization
tate Govt.	Maine Department of Marine Resources	Sea Grant	Partner organization
onprofit	Maine Environmental Education Association	Sea Grant	Partner organization
tate Govt.	Maine Geological Survey	Sea Grant	Partner organization
onprofit	Maine Island Trail Association	Sea Grant	Partner organization
rade Assoc.	Maine Lobstermans Association	Sea Grant	Partner organization
rade Assoc.	Maine Marine Trades Association	Sea Grant	Partner organization
ducation Inst.	Maine Maritime Academy	Sea Grant	Partner organization on seagrant advisory board
ducation Inst.	Maine Math and Science Alliance	Sea Grant	Partner organization
tate Govt.	Maine Oil Spill Advisory Committee	Sea Grant	Partner organization
rade Assoc.	Maine Soft-shell Clam Advisory Council	Sea Grant	Partner organization
tate Govt.	Maine State Legislature	Sea Grant	Partner organization
rade Assoc.	Maine Urchin Harvester's Association	Sea Grant	Partner organization
onprofit R&D	Mount Desert Island Biological Laboratory	Sea Grant	Partner organization
ed. Govt.	NOAA Fisheries / NEFSC Maine Field Station	Sea Grant	Partner organization
rade Assoc.	North Atlantic Marine Alliance	Sea Grant	Partner organization
rade Assoc.	Ornamental Horticulture Council	Sea Grant	Partner organization
onprofit	Penobscot Bay Marine Volunteers	Sea Grant	Partner organization
onprofit	Penobscot Bay Stewards	Sea Grant	Partner organization
onprofit	Penobscot Marine Museum	Sea Grant	Partner organization
onprofit	Shore Stewards Collaborative	Sea Grant	Partner organization
ducation Inst.	Southern Maine Community College	Sea Grant	Partner organization
rade Assoc.	Stonington Fisheries Alliance	Sea Grant	Partner organization
con. Dev.	Sunrise County Economic Development Corporation	Sea Grant	Partner organization on Marine issues in Washington County
onprofit R&D	The Lobster Conservancy	Sea Grant	Partner organization
onprofit	The Nature Conservancy	Sea Grant	Partner organization
onprofit	The Ripple Effect	Sea Grant	Partner organization
tate Govt.	The Sea Urchin Zone Council	Sea Grant	Partner organization
ed. Govt.	U.S. Coast Guard	Sea Grant	Partner organization
ed. Govt.	U.S. Fish and Wildlife Service	Sea Grant	Partner organization
ducation Inst.	University of New England	Sea Grant	Partner organization
ducation Inst.	Washington County Community College	Sea Grant	Partner organization
onprofit	Wells National Estuarine Research Reserve	Sea Grant	Partner organization
onprofit	Wild Salmon Resource Center	Sea Grant	Partner organization
tate Govt.	Lobster Zone Management Council	Sea Grant and Jim Wilson, REP	Advisors to council
onprofit R&D	Gulf of Maine Aquarium	Sea Grant and SMS	Partner organization
onprofit R&D	Gulf of Maine Ocean Observation System	Sea Grant, Neal Pettigrew on BOD	Partner organization
onprofit	Bangor Historical Society	Sheila Pechinski, College of BPPH	Serves as a director
tate Govt.	Department of Economic & Community Development	Sheila Pechinski, College of BPPH	Serves on Governor's Task Force on Small Business

Trade Assoc.	Maine Businesses for Social Responsibility	Sheila Pechinski, College of BPPH	Serves on planning committee
Trade Assoc.	New England Regional Quality Academy	Sheila Pechinski, College of BPPH	Serves on board of advisors
Private Sector	St. Joseph's Hospital, Bangor	Sheila Pechinski, College of BPPH	Serves on board of directors; chair of strategic planning
State Govt.	Governor's Council on Physical Fitness and Sports	Stephen Butterfield, College of Education	Serves on council
State Govt.	Physical Education Learning Results Assessment Design Team	Stephen Butterfield, College of Education	Serves on team
Nonprofit	Orono Land Trust	Steve Colburn, College of BPPH	Serves on board of directors
State Govt.	Bureau of Health	Suzanne Hart, Margaret Chase Smith Center for Public Policy	Serves on Prevention Advocacy for Youth Workgroup
State Govt.	Department of Behavioral and Developmental Services	Suzanne Hart, Margaret Chase Smith Center for Public Policy	Serves on steering committee on research in mental health; serves on advisory committee for Office of Substance Abuse Treatment Needs
Nonprofit	Maine Children's Trust	Suzanne Hart, Margaret Chase Smith Center for Public Policy	Serves on program committee
State Govt.	Maine Comprehensive Assessment System	Ted Coladarci, College of Education	Chairs technical advisory committee
Nonprofit	Maine Primary Partnership in Caring	Terry Shipps, College of BPPH	Serves on advisory panel
State Govt.	Maine State Board of Nursing	Terry Shipps, College of BPPH	Serves on board
State Govt.	Maine State Healthcare Workforce Task Force	Terry Shipps, College of BPPH	Serves on task force; worker shortage committee
Private Sector	St. Joseph's Hospital, Bangor	Terry Shipps, College of BPPH	Serves on institutional review board for human subjects
Trade Assoc.	Maine Software Developers Association	Tom Byther, Computer Science	Serves on board of directors
Nonprofit R&D	Maine Space Grant Consortium	Vince Caccese, Mechanical Engineering	Serves on board of directors
Nonprofit	Bangor Symphony Orchestra	Virginia Gibson, College of BPPH	Serves on board of directors
Private Sector	Eastern Maine Medical Center	Virginia Gibson, College of BPPH	Serves on board of trustees
Education Inst.	University of Maine General Alumni Association	Virginia Gibson, College of BPPH	Serves on board of directors
Nonprofit	Care Development	Walter Harris, College of Education	Serves on board of directors
Nonprofit	Maine Leadership Consortium	Walter Harris, College of Education	Serves on board of directors
Nonprofit	Kennebec/Chaudiere Heritage Corridor	Yvon Labbe, Franco-American Centre	past chair and member of the board of the directors

Appendix III, Section F

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: Center for Real Estate Education/School of Business/USM

Contact person for this Inventory: Valarie Lamont, Director
lamont@usm.maine.edu
228-8400

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

Periodically, the Center engages in applied research for the real estate industries. As examples, the Center created a Maine Home Buyer Profile for the Maine Assn. of Realtors and also conducted the New Hampshire state-wide Housing Analysis for the New Hampshire Housing Authority.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

The purpose of the Center includes addressing the needs of the real estate industry (including not only real estate licensees but also appraisers, mortgage bankers) not only through education but also through tailored

Appendix III, section A:

Maine Small Business Development Centers Partnerships

University of Maine's College of Natural Sciences, Forestry, and Agriculture, Department of Resource Economics and Policy, to coordinate and manage an education outreach plan for Maine's rural grocery stores located in three distinct geographic areas (north and east; central; and south and west). The Four-Step Education Plan includes workshops, courses, conference participation, workshops/cluster follow-up, and one-on-one business assistance;

The Maine SBDC collaborated with USM's Center for Entrepreneurship and UMaine College of Business, Public Policy and Health, and obtained a Kauffman Foundation grant to fund the Kauffman Higher Education for Entrepreneurship Academy. Maine SBDC provided logistical support for the project;

The Maine SBDC through a U.S. Small Business Administration approval of an extension of services under the Katahdin Entrepreneurial Education Programs (KEEP) continued to provide targeted business assistance in the Katahdin region.

The Maine SBDC holds a Memorandum of Agreement with the Maine Centers for Women, Work and Community, University of Maine at Augusta, to provide targeted training, business assistance and one-on-one counseling, and networking opportunities for Maine's value-added food producers. The Maine Gourmet and Specialty Food Producers Association is the third partner in this project.

The Maine SBDC holds a Letter of Agreement with Blethen Maine Newspapers, d/b/a MaineToday.com. In this agreement, articles written by the Maine SBDC Director of Training and Communications are regularly submitted for publication on MaineToday.com as appropriate.

Maine SBDC is contracted with Market Development Center (MDC), Eastern Maine Development Corporation, Bangor, to support both MDC's SBA-funded BusinessLINC and DOD Defense Logistics Agency's procurement (PTAC) projects.

An Inter-Departmental Memorandum of Agreement is held with USM's Center for Entrepreneurship for the Rural Business Enterprise Technical Assistance Project (R-TAP).

The State Director for the Maine SBDC is a working member of the State's Economic Development Team.

The State Director for the Maine SBDC is the support systems chair for the Entrepreneurship Working Group, the advisory body to the Maine Small Business Commission.

Maine SBDC is part of Maine DOL's Rapid Response Team which works with displaced workers upon plant closure.

The Maine SBDC is working with DEP, OSHA, and IRS to assist in compliance issues that effect small business.

The Maine SBDC is an active member of the Economic Development Council of Maine. The State Director for the Maine SBDC is an active member of Maine's Small Business Commission's Entrepreneurship Working Group. Members include staff from SBA, DECD, MCWWC/UMA, CEI, Maine Dept. of Education, USM Center for Entrepreneurship, Maine DOL, FAME, UM Cooperative Extension, Washington-

Hancock CAP, Maine Economic Development District Association, etc. The State Director chairs the support systems task force, which worked closely with the Kauffman Foundation on drafting recommendations to Governor Baldacci on improving entrepreneurship support systems in Maine. Additionally, the Director has been responsible for development of "BusinessFirst", Maine's model for business assistance collaboration, under development throughout the State.

The Maine SBDC was actively engaged with the University of Maine and the Offices of Governor John Baldacci and Senator Susan Collins in putting on a Homeland Security Conference in the spring of 2004, targeted to assisting small businesses in obtaining government contracts with the Department of Homeland Security.

The Maine SBDC is authorized by the Maine Department of Economic and Community Development to manage, expand and operate MaineBusinessWorks, the state's primary small business online resource.

The Maine SBDC operates under a memorandum of agreement with the Maine Department of Labor, Bureau of Labor Standards, that mirrors the national ASBDC/OSHA agreement to provide worker safety information to small businesses. Maine SBDC partners and/or subcontracts with various economic and/or community development corporations to deliver Maine SBDC services statewide. Among them are Coastal Enterprises, Inc., Eastern Maine Development Corporation, Kennebec Valley Council of Governments, Midcoast Council for Business Development and Planning, Androscoggin Valley Council of Governments, Southern Maine Regional Planning Commission, Northern Maine Development Commission, Maine Technology Institute, and Maine DOL's Career Centers. Additionally, the Maine SBDC has relationships with similar organizations to provide outreach offices conveniently throughout the State. Maine SBDC has a MOU with Service Corps of Retired Executives to collaborate through various mechanisms to assist small business.

The Maine SBDC State Director is a member of the SBA Maine Resource Partners and the SBA Advisory Council.

Maine SBDC regularly partners with the University of Maine's Cooperative Extension on joint training opportunities.

Maine SBDC has a detailed strategic alliance with the Women's Business Center at CEI leveraging each others' strengths and support systems.

Maine SBDC provides business assistance counselor coverage for the Lakes Region area through partnership with Lakes Region Economic Development Center;

Maine SBDC collaborates with the Windham Adult Ed to put on a variety of business development workshops, including Lakes Region Entrepreneur Training;

Maine SBDC actively participates in the New England Products Trade Show including counseling new exhibitors, participation on jury, exhibiting Maine SBDC at the show, organizing and implementing "Best Booth" competition;

Maine SBDC is working in collaboration with the Portland Economic Development Department on plans for an Enterprise Development Center in Bayside area of Portland;

Maine SBDC provided support and expertise to the Southern Maine Entrepreneur Summit, sponsored by MaineBiz;

Maine SBDC assisted the Freeport Economic Development office with the facilitation of small business training and concurrent trade show;

Through an agreement with the Maine Department of Agriculture, the Maine SBDC provides business assistance in the State's Farms for the Future program. Maine SBDC counselors are the driving force to help the farmers prepare business plans that harness their entrepreneurial spirit in a way that will provide written direction and financial analysis, so their farms can sustain themselves into the future;

Maine SBDC partners annually with the USM Center for Entrepreneurship on its Student Business Planning Competition;

Maine SBDC facilitates, co-teaches and provides team guidance in USM's Marketing Opportunities class, as to assist at a minimum 12 small businesses annually;

Maine SBDC partnered with the U.S. Small Business Administration to identify 6 of its 2004 business and business advocate winners;

Maine SBDC is collaborating with the Southern Maine Economic Development District to help facilitate the Saco-Biddeford Creative Economy Project;

Maine SBDC co-sponsors a monthly series of Inventor Forums with the Maine Patent Program;

Maine SBDC and the Mid-coast Council on Business Development and Planning collaborate to promote job growth in the mid-coast region. MCBDP is a co-host for the Maine SBDC in Bath;

Maine SBDC provides technical assistance directly to the Executive Director of MCBDP;

Maine SBDC assists the Lewiston/Auburn Chapter of SCORE in its presentation of annual fall training events;

Maine SBDC works with the Brunswick Curtis Memorial Library in the development of their small business reference materials and business library;

The Maine SBDC is a partner in the Aroostook Partnership for Progress (APP). Through this arrangement the Maine SBDC is providing technical assistance in the area of survey development and analysis that will eventually provide financial resources for targeted outreach and business retention programs.

The Maine SBDC maintains an on-going relationship with the staff and members of Upper Valley Economic Council, an organization of community and business leaders in Patten, Mt. Chase, Sherman and Stacyville, that is devoted to building communities with healthy economies and a good quality of life;

Maine SBDC has initiated a collaborative arrangement with the Katahdin Trust Company of Patten to promote Maine SBDC activities and to provide space for Maine SBDC counseling;

Through supplemental funding from the SBA, the Maine SBDC delivered \$25,000 in grants as part of the Katahdin Entrepreneurial Educational Program (KEEP) for 25 small businesses located in Southern Aroostook and Northern Penobscot counties;

Under a Maine Micro-Enterprise grant, the entire Maine SBDC network will receive e-commerce professional development training and subsequently will deliver e-commerce training to Maine's small business community;

Maine SBDC participates in the Piscataquis County Economic Development Council to facilitate counseling and training throughout Piscataquis county;

Maine SBDC participates with the Millinocket Area Growth and Investment Council to facilitate counseling and training throughout the Katahdin region;

Maine SBDC participates with the Lincoln Lakes Region Development Corporation to facilitate counseling and training throughout the Lakes Region area;

Maine SBDC has membership on the board of the Coastal Acadia Development Corporation and has participated in its strategic planning process;

Maine SBDC works with the towns of Brewer, Calais, and Bucksport Economic Development Offices and regularly collaborate on client projects;

Maine SBDC has a working relationship with and participates in many collaborative projects with the Washington Hancock CAP Agency, some of which include the Incubator without Walls Project, the Higher to Hire Project and the Maine Micro-Enterprise Initiative;

Maine SBDC participated as an original member of the Brewer Transition Team that was formed in response to the closing and resultant layoffs of Eastern Fine Paper Company in Brewer. Composed of congressional delegates, area service providers, union leaders and business people, this transition team developed and implemented action plans to provide services to area families. Over time this transition team matured into a rapid response team with specific response plans and at-the-ready personnel, so they could respond to other area layoffs;

Maine SBDC participated as an original member of the Lincoln Transition Team that was formed in response to the closing and resultant layoffs of Lincoln Pulp and Paper Company in Lincoln. Composed of congressional delegates, area service providers, union leaders and business people, this transition team developed and implemented action plans to provide services to area families. Over time this transition team matured into a rapid response team with specific response plans and at-the-ready personnel, so they could respond to other area layoffs;

Maine SBDC has a working relationship with and participates in many collaborative projects with the Penquis CAP Agency, some of which include the Incubator without Walls Project, GATE, and the Highland Guilds Artisan Training;

Maine SBDC has a working relationship with the Four Directions Development Corporation, a Native American CDFI that includes ongoing counseling. Maine SBDC Counselors helped Four Directions set up their counseling program and supplied them with various business related materials;

Maine SBDC is working with Four Directions to develop, participate in and be speakers at a series of seminars, events and conferences for the Wabanaki Business Development Institute. This series will focus on the 'building blocks' for business development and will be presented to the tribal leaders of the 4 Native American Tribes in Maine;

Maine SBDC, along with the Business Development Director at EMDC, are working with the Penobscot Native Americans in a formalized project that reviews perspective business purchase and development options for the business development group of the Penobscot Nation;

Maine SBDC participates annually on the Program Board for the Washington County Business Conference and Marketplace that is held in Calais;

Maine SBDC joined DECD representatives as panel experts and presenters at the Governor's Conference on Tourism. Their subject was "Financial Rx for Your Business".

Maine SBDC is an active member of the Kennebec/Somerset CEDS Committee;

Maine SBDC is an active member of KVCOG RLF loan committee;

Maine SBDC is an active member of GPCOG RLF loan committee;

Maine SBDC maintains numerous partnerships with the State's trade associations, such as the Maine Wood Products Association, the Maine Gourmet and Specialty Food Producers Association, Maine Boat Builders Association, Maine Adult Day Services Association, etc;

Maine SBDC is a member and works with the Western Maine Mountain Alliance;

Maine SBDC appeared in a central Maine community television program on business know-how;

Maine SBDC maintains active membership in numerous local chambers of commerce, including the Portland Chamber, Kennebec Chamber, Bangor Chamber, etc;

Maine SBDC provides technical assistance to the Somerset County Economic Development Commission;

Maine SBDC participates in technical assistance for the Early Learning Opportunity Grant program administered by Coastal Enterprises Inc.;

Maine SBDC is an active participant in Maine's Working Waterfront Coalition;

Maine SBDC serves at the pleasure of Governor Baldacci on the Compliance Advisory Committee of the Department of Environmental Protection.

Maine SBDC serves on the Substance Abuse and the Workplace Committee of the Maine Office of Substance Abuse;

Maine SBDC provides small business start-up assistance for pre-release inmates at the Maine Correctional System Pre-Release Center in Hallowell;

Maine SBDC works with local area high schools to promote entrepreneurship, such as Cony High School in Augusta and Lewiston High School in Lewiston;

Maine SBDC aids clients within many of Maine's targeted business development programs such as the Pine Tree Zone initiative, the Rural Development Authority Outreach, CDBG business grants, etc.

Maine SBDC partners with the Heart of Maine RC&D and the USM Center for Entrepreneurship in funding and delivery of many of the State's Fast Trac and or NexLevel courses;

Maine SBDC regularly engages in Small Business Forums conducted by various Congressional delegations;

Maine SBDC participates in various DOL Career Fairs throughout the State;

Maine SBDC partnered in the management of the Western Maine Economic Summit;

Maine SBDC supports the State's CAP agencies and Women, Work & Community to encourage Maine citizens to set up Family Development Accounts (FDA's) for the purpose of business start up;

Maine SBDC participated in the first Women's Business Expo held in S. Paris, in conjunction with area women business owners;

Maine SBDC is an active member of the Oxford Hills Business Development Network;

Maine SBDC participated in the creation and continuance of the River Valley Service Providers group in Rumford.

Maine SBDC participated in the establishment and on-going development of the Small Business Resource Partnership in conjunction with Central Maine Community College. Focus is to network awareness and foster training cooperation within the local and regional area by service providers, including: Maine SBDC @ AVCOG, CMCC, SCORE, Start Smart, Andover College, & the Career Center.

The Maine SBDC has partnered with the Coastal Business Institute in the delivery of start-up business training to local entrepreneurs.

Maine SBDC provides business assistance counselor coverage for western Maine through partnerships with Bridgton Chamber of Commerce, Oxford Hills Chamber of Commerce, River Valley Tech Center, and the DOL Career Center in Wilton;

Maine SBDC has relationships with the Maine State Bar Association, Maine Society of Certified Public Accountants and the Maine Association of Private Consultants to make quality referrals for its clients;

Maine SBDC partners with DECD's "Made in Maine" and Maine Ag's "Get Real Get Maine" to promote the sale of Maine products locally, regionally, nationally, and globally;

Maine SBDC partners with the Maine International Trade Center to facilitate exporting and importing for small businesses, especially with neighboring Canada;

Maine SBDC is working closely with the Community College System on its entrepreneurship initiatives and has developed a Memorandum of Agreement with Eastern Maine Community College as a model for the Community College system to leverage Maine SBDC capabilities. Additionally, the Maine SBDC is partnering with the Community College System on regional training conferences and a PBS production targeted to educate Maine citizens on entrepreneurship.

Maine SBDC under a supplemental grant from the SBA, offered Defense Economic Transition Assistance (DETA) to small businesses affected by the base closures in Downeast Maine.

Maine SBDC has an effective working relationship with the Maine Manufacturing Extension Partnership (Maine MEP). The resulting collaboration has generated numerous joint counseling sessions and successful applications for grant funding through the Small Business Manufacturing Grant program funded through a Rural Business Enterprise Grant. Additionally, the Maine SBDC and Maine MEP have partnered on joint training opportunities and have collaborated on the implementation of the federally funded H1-B Training Initiative.

Since 2002, the Maine Small Business & Technology Development Center (SBTDC) has been hosted by the Maine Technology Institute (MTI) to provide counseling services to MTI clients and other tech commercialization aspiring entrepreneurs.

MTI recently received a FAST Grant for technology commercialization training. As its partner in the proposal, the Maine SBDC has committed to filming these intensive ten-week sessions for distribution to every Maine SBDC office, including the same workbooks and goals sheets used in the workshops.

CCVI is a private investment fund focused on Northern New England that sponsors programs of the Maine SBDC.

The Maine SBTDC provides training and certification to the seven Applied Technology Incubator Directors as Associate Maine SBTDC Counselors. To date, five of the seven have completed professional training for this certification.

Under a MOU with the Maine Department of Economic and Community Development the Maine SBDC provides support for the State's incubator program and as such, provides workshops that stress the growth strategies required of high tech enterprises. Additionally, every ATDC Incubator has a Maine SBDC Counselor available to it on a

priority basis. Some Counselors are at their incubators on a visitation-as-needed schedule; others have office space at their incubators and are in-house on a regular schedule.

The Maine SBDC sponsored a day-long event with the Maine Investment Exchange and the Finance Authority of Maine (FAME) to educate private investors and high-net-worth individuals on the process of identifying and making Angel Investments in small companies. Presented by the National Association of Seed and Venture Funds (NASVF), a parallel session taught entrepreneurs how to prepare their companies for private equity investment.

The Maine SBTDC works with the UMS Technology Transfer Initiative to develop a method for identifying and commercializing the research within the University of Maine System, thus creating revenue streams therein.

The Maine SBTDC works with the UMaine Department of Industrial Cooperation to provide resources, expertise and assistance to entrepreneurs throughout Maine.

The Maine SBTDC partners with the Maine Patent Program to support the Inventors' Forum, held monthly in both Portland and Orono.

The Maine SBTDC is on the Board of Advisors to develop a consistent, coherent policy on intellectual property and disclosure throughout the University System.

The Maine SBTDC partners with the Technology Law Center to present intellectual property strategy and management seminars

Maine SBTDC regularly partners with trade associations such as, MMMP, to assist clients seeking specialty manufacturers, products and/or sourcing specialty raw materials. SEGF partners with the Maine SBTDC so that its portfolio companies have access to counseling for fast-growth companies. SEGF has utilized our expertise in evaluating the assets of one company, identifying new markets for another and working on executive management for another.

Maine SBDC works closely with the U.S. Small Business Administration, the Finance Authority of Maine, CDFIs, RLF providers, venture capitalists, angel investors, credit unions, and commercial and community banks to assist clients in raising capital for their businesses. *(Throughout CY 2004, the Maine SBDC assisted businesses in capital formation in upwards of \$26million.)*

Appendix III, section B

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: School of Applied Science, Engineering and Technology

Contact person for this Inventory: _____

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

ASET recently opened the Advanced Technology wing, an addition to the John Mitchell Center, to give students and Maine employers access to new manufacturing technologies.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

Through a variety of outreach venues, ASET works with over 250 businesses in Maine. For example, the Manufacturing Applications Center works with Maine industries to improve quality and efficiency in production operations. Assistance is provided in technical training, quality assurance, product testing and analysis, reverse engineering, production control, project management, CAD/CAM/CIM technologies, lean manufacturing, metrology, etc.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

ASET works with over 250 businesses state-wide, assisting in a wide variety of operations (see Research and Development section). This assistance, particularly in the Manufacturing Applications Center where products are improved, tested, evaluated, etc., assists in the commercialization process.

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

External Programs provides credit, non-credit and certificate programs to students who are unable to attend classes or programs on campus. Customized programs, including workshops, seminars and short courses are available on specialized topics as requested by educational, corporate or industrial organizations to meet their specific objectives

- b. What non-credit courses/programs do you offer which address business needs?

External Programs provides credit, non-credit and certificate programs to students who are unable to attend classes or programs on campus. Customized programs, including workshops, seminars and short courses are available on specialized topics as requested by educational, corporate or industrial organizations to meet their specific objectives.

- c. Other

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

The School of Applied Science, Engineering and Technology (ASET) delivers applied medical science, computer science, engineering, environmental science and technology programs. The School is organized into five departments: the Department of Applied Medical Sciences, the Department of Computer Science, the Department of Engineering, the Department of Environmental Science, and the Department of Technology, offering the appropriate bachelor degrees.

ASET offers the M.S. degree in computer science and a master's in manufacturing systems.

The M.S. degree in applied immunology and molecular biology is offered in collaboration with the Maine Medical Center and the Foundation for Blood Research.

The M.S. in industrial education is offered in collaboration with the College of Education and Human Development.

ASET encourages students to participate in cooperative education and internship experiences. Both options integrate classroom learning with meaningful and rewarding work experience in a field related to student's academic or career goals.

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

See above.

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

External Programs provides credit, non-credit and certificate programs to students who are unable to attend classes or programs on campus. Customized programs, including

workshops, seminars and short courses are available on specialized topics as requested by educational, corporate or industrial organizations to meet their specific objectives.

5. Please identify specific partnerships with industry, business and economic development organizations.

ASET currently interacts with over 250 businesses in Maine and has an extensive network of partnerships with trade organizations and industry groups.

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, Section C

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: **Center for Continuing Education**

Contact person for this Inventory: **Terry Foster, X4895**

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e. g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.
- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

3. Business Development

a. What credit courses/programs do you offer which address business needs?

None

b. What non-credit courses/programs do you offer which address business needs?

***Advertising and Promotion**

***Accounting for Non-Financial Professionals,
Small Businesses, Non-Profits**

c. Other

The Center for Continuing Education also offers computer and technology courses through TECCME@USM. Microsoft, CompTIA and Cisco networking programs and a variety of Microsoft

desktop application classes, along with QuickBooks for accounting and a web design program with Microsoft FrontPage.

A major focus of TECCME@USM is on how to care for an information systems network. Keeping up with current trends in business applications both hardware and software at all levels to ensure the workforce obtains training with the most recent technologies.

TECCME@USMs Administrators Program includes everything for information systems employees

and

management to obtain an MCSA, CompTIA Linux+ and Security+ Certifications. The more advanced systems engineer program includes all of the above plus the MCSE certification.

The Microsoft Certified Desktop Technician Program is a new program designed to have individuals

available in

the company to support desktop problems and troubleshoot issues with end users.

Microsoft Project Levels 1 and 2 provide managers of businesses in various disciplines the ability to manage their projects electronically from beginning to end. This traces a project from inception to final analysis and follow up including the individual's project plans and individuals who are involved with specific tasks along with their particular timelines.

TECCME at USM provides Information Systems training for individuals that administer, support and design computer networks. Computer training on accounting programs for payroll application are offered. Database and other Microsoft application training is available for administrative support.

planning?

a. How are workforce needs reflected in your academic program

N/A because we do not do academic programs

b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

c. Non-credit courses/programs designed to address workforce needs?

The Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

**Business communication skills workshops
Supervisory, management and leadership workshops
Mediation workshops
Certificate Programs;
Human Resource Management
Mediation
Meeting Facilitation
Project Management
Supervision**

The Center for Continuing Education offers a wide range of continuing education programs for nurses, social workers, counselors and allied health and human services professionals.

An advisory committee composed of health and human services

professionals from southern Maine meets twice a year to

discuss

community issues and training needed to address those local

issues.

Programs provide CEUs which meet requirements for re-licensure for many professions.

USM CCE is accredited as a provider of ANCC-COA contact hours which meets requirements for advanced practice nurse re-licensure.

Offer Certificate programs in Case Management and Holistic Health Care, both of which are extremely relevant to current trends in health care.

Offer 2 refresher courses for RN's who have been out of the field and are interested in re-entering their profession

The Center for Continuing Education in cooperation withTECCME at USM provides computer training to a variety of businesses, large and small in Portland or at the customer's location. IT consulting engagements are also considered. Space is also available at the Sanford and Saco University College locations for TECCME programs.

5. Please identify specific partnerships with industry, business and economic development organizations.

Human Resource Association of Southern Maine

Microsoft Certified Partners

MESDA Members (supporting growth and development in the IT industry in Maine)

Appendix III, Section D

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program:Center for Entrepreneurship/School of Business/USM

Contact person for this Inventory: Valarie Lamont
lamont@usm.maine.edu
207/780-5919

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

The Center has engaged in applied research activities with other service provider organizations for entrepreneurs and small businesses. For example, the Center has received numerous USDA Rural Development grants to provide technical assistance and business development programs state-wide. This work is in line with the state's economic development strategy which includes entrepreneurship development.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

Consultation and partnerships with local organizations to develop non-credit education programs, seminars and workshops to address specific needs. For example, the Center is working with the Freeport Economic Development Office to office a one-day program to both start-up businesses and existing business owners.

Primary outreach statewide is through the business development programs offered by the Center, e.g. FastTrac Planning and New Ventures, which are offered only when there is a local request.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

With the Center for Environmental Enterprise (Maine's first incubator), hosted program with the National Renewal Energy Laboratory (a federal laboratory) to link Maine entrepreneurs with federal research opportunities for technology commercialization.;

See also, FastTrac programs identified under Business Development.

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

Initiated by the Center, all **undergraduate electives** in Entrepreneurship offered by the School of Business, are co-taught by a faculty member and an entrepreneur trained at the Price-Babson Fellow Program;

The Center at USM teamed with the University of Maine School of Business to receive a Kauffman Foundation grant to develop the first steps in the creation of a **state-wide entrepreneurship curriculum** for the

University of Maine System and open to the Maine Community College System;

The Center hosted **Maine's first Faculty Forum in Entrepreneurship** in June, 2004, attended by faculty from the University of Maine System, the Maine Community College System, private colleges and the Maine Department of Education.

b. What non-credit courses/programs do you offer which address business needs?

- In partnership with the Heart of Maine, a Resource Conservation and Development Area located in Newport, ME, the Center provided the **FastTrac business development program** to over **1,000 business owners and start-up individuals from Millinockett and Presque Isle to Sanford, from Fryeburg and Norway/Paris to Camden**. The **non-credit courses** are taught only by individuals who have owned or been a partner in a business and courses are preceded by the formation of a **local business coalition** to assure the programs are community-based;
- With a USDA Rural Development grant, **technical assistance** is being provided to select FastTrac graduates in rural areas of the state, e.g. **Buckfield, Machias, Fayette, Patten and Millinocket** using a case management approach;
- For **military veterans**, Maine was the national launch for the FastTrac for Veterans program, in partnership with Maine's Bureau of Veteran Affairs, the national Veteran's Corporation and Gateway Computer. Courses for veterans have been held in **Bangor, Augusta, Brunswick, Biddeford, and Portland**. Veterans receive a scholarship and a \$675 voucher from Gateway Computer toward a computer and/or business software;
- The Center provides the FastTrac program on the SMCC campus in partnership with the **SMCC Center for Entrepreneurship**. The program is targeted to SMCC alumni.
- The Center for Entrepreneurship has developed a **relationship at the program level** with the **Center for Environmental Enterprise**, Maine's first incubator, co-sponsoring events, providing faculty and MBA students with opportunities with research opportunities and engaging in joint grant-writing;

- The Center partners with the **MIT Alumni Club** to bring the Entrepreneurship series to Maine via satellite broadcast. This program is seen in a variety of locations including Presque Isle and Lewiston-Auburn, as well as Portland;
- The Center director co-chairs the state-wide **Entrepreneurship Working Group**, a services support organization which provides policy recommendations to the Maine Small Business and Entrepreneurship Commission.

c. Other

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

NA

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

Business development programs for tourism industry

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

See above

5. Please identify specific partnerships with industry, business and economic development organizations.

Maine Small Business Development Centers
Technology and Law Center
Center for Environmental Enterprise and Applied Technology Centers Network
Maine Technology Institute
Entrepreneurship Working Group (co-chair)
Entrepreneurship Education Task Force (co-chair)
Heart of Maine Resource Conservation and Development Area
Veterans Corporation
Maine Bureau of Veterans Affairs
Local Business Coalitions to offer FastTrac
Chambers of Commerce
Economic Development organizations
Southern Maine Community College

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, Section E

Inventory of USM Activities
Related To
Needs of the Business Sector

Please identify your School/College/Center/Institute/Program:

College of Education and Human Development

Contact person for this Inventory:

James Curry, Associate Dean, College of Education and Human Development

1. Research and Development

a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

• Provide the research, evaluation, and tools needed by the Maine Department of Education for state-wide initiatives such as: Maine's Impact Study of Technology in Mathematics, the lap-top initiative, alternate assessment and portfolio initiatives.

- Professional Development Center
- Center for Education Policy,
Applied Research, and Evaluation
- Southern Maine Partnership

b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

• Provide research, assessment, evaluation, consultation, and technical assistance to school districts, agencies, and organizations, including the studies on Maine education policy and the Maine public education system for the Maine Legislature.

- Center for Education Policy,
Applied Research, and Evaluation

2. Commercialization of new products and services

a. What specific programs/services do you provide to assist businesses in the commercialization process?

N/A

3. Business Development

a. What credit courses/programs do you offer which address business needs?

N/A

b. What non-credit courses/programs do you offer which address business needs?

N/A

c. Other

N/A

4. Workforce Education and Training

a. How are workforce needs reflected in your academic program planning?

- Provide the programs, certification, and courses needed for pre-service teacher, counselors, and adult educators through distance education.

- Adult Education
- Counselor Education
- MHRT/Community (Mental Health Rehabilitation Technician)

Community specialist)
- Unified Extended Teacher
Education Program (K – 8, K – 8
special education)

b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

- Address the teacher shortage areas of K-12 education by providing qualified teachers in these areas.

- Newcomer Extended Teacher
Education Program
- Extended Teacher Education
Program (ETEP)
- Unified Extended Teacher
Education Program (K – 8, K – 8
special education)
- Special Education Program
- Teachers for Elementary and
Middle Schools (TEAMS)

- Address the need of the region's quickly growing multicultural communities by providing a diverse pool of multi-lingual and multicultural teachers.

- Newcomer Extended Teacher
Education Program
- Literacy Education & Multicultural
Education Programs: ESL
endorsement

- Meet the needs of practicing teachers by supporting them with advanced coursework for continuing certification and endorsements to help them become highly qualified (NCLB)

- Professional Development Center
(PDC)

- Educational Leadership: Professional Teachers in a Democratic Society
- Literacy Education Program
- Special Education Program
- Meet the state-wide need of teachers (pre-service, initial, and practicing) and administrators in all Maine's regions by allowing this workforce to remain employed in their region, while receiving the training, mentoring, and certifications needed.
 - Unified Extended Teacher Education Program (K-8, K-8 special education)
 - Educational Leadership: Leaders for Tomorrow's Schools
 - Regional Teacher Development Center
 - Professional Development Center
 - Southern Maine Partnership
- Address the need for providing trained administrators in K-12 schools.
 - Educational Leadership Program
 - Southern Maine Partnership
 - Professional Development Center
 - Literacy Education Program
 - Special Education Program
- Address the need of providing advanced training for school psychologists.
 - Doctor of Psychology in School Psychology
- c. **Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.**
 - Enable school and public libraries access and continued interconnectivity to the Maine School Library Network.
 - Professional Development Center

- Increase the education level of Maine’s workforce by offering low income high school students the opportunity to attend college and give them the tools to succeed.

- Southern Maine Partnership:
Promising Futures
- Upward Bound

- Support schools in the induction, training, and retention of initially, conditionally, and alternate route teachers.

- Regional Development Teacher Centers
- Professional Development Center
- Southern Maine Partnership

- Provide staff development opportunities to local businesses and industries through experiential education programs and activities.

- Action Learning Center

5. Please identify specific partnerships with industry, business and economic development organizations.

N/A

Appendix

Information on College of Education and Human Development academic programs and centers noted in this inventory can be found at the following web addresses.

Academic Programs

Adult Education Program

<http://www.usm.maine.edu/cehd/Adult-Education/index.htm>

Counselor Education Program

<http://www.usm.maine.edu/cehd/Counselor-Education/index.htm>

Educational Leadership Program

<http://www.usm.maine.edu/cehd/Educational-Leadership/masters.htm>

Extended Teacher Education Program

<http://www.usm.maine.edu/cehd/ETEP/index.htm>

Literacy Education Program: ESL endorsement

<http://www.usm.maine.edu/cehd/Literacy-Education/mastersprograms.htm>

School Psychology Program

<http://www.usm.maine.edu/cehd/School-Psychology/index.htm>

Special Education Program

<http://www.usm.maine.edu/cehd/Special-Education/index.htm>

Teachers for Elementary and Middle Schools

<http://www.usm.maine.edu/cehd/TEAMS/index.htm>

Unified Extended Teacher Education Program

<http://www.usm.maine.edu/~wkimball/etepunified/>

Centers

Action Learning Center

<http://www.usm.maine.edu/alc/>

Center for Education Policy, Applied Research, and Evaluation

<http://www.usm.maine.edu/cepare>

Professional Development Center

<http://www.usm.maine.edu/pdc>

Newcomer Extended Teacher Education Program

<http://www.usm.maine.edu/cehd/Multicultural-education-programs/newcomer.htm>

Regional Teacher Development Center

<http://www.usm.maine.edu/cehd/cehdITspring2004.pdf>

Southern Maine Partnership

<http://www.usm.maine.edu/smp>

Upward Bound

<http://www.usm.maine.edu/upwardbound/>

Appendix III, Section F

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: Center for Real Estate Education/School of Business/USM

Contact person for this Inventory: Valarie Lamont, Director
lamont@usm.maine.edu
228-8400

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

Periodically, the Center engages in applied research for the real estate industries. As examples, the Center created a Maine Home Buyer Profile for the Maine Assn. of Realtors and also conducted the New Hampshire state-wide Housing Analysis for the New Hampshire Housing Authority.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

The purpose of the Center includes addressing the needs of the real estate industry (including not only real estate licensees but also appraisers, mortgage bankers) not only through education but also through tailored

research projects. For example, the Center developed the first Affordable Housing Index for middle income buyers nation-wide. Other organizations in Maine have now been trained in that formula. It also developed the first data bases in existing housing, new construction and the Real Estate Transfer Tax. Real estate data bases initially developed through the center are available to the public.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

NA

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

NA

- b. What non-credit courses/programs do you offer which address business needs?

The Center provides pre-licensing and continuing education courses to approximately 2,500 individuals each year in real estate, appraisal, assessment, etc.

- c. Other

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

NA

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

The Center operates on a demand basis. Content varies in continuing education based on trends in the industry.

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

The Center is the largest STATE WIDE provider of pre-licensing and continuing education courses for the real estate and appraisal industries, addressing the needs of approximately 2,500 students/per year.

Periodically, the Center develops tailored certificate programs for trade Associations, e.g. Mortgage Bankers Assn.

5. Please identify specific partnerships with industry, business and economic development organizations.

Maine Real Estate Commission
Maine Appraisal Board
Maine Assn. of Realtors
Mortgage Bankers Assn.

Maine Assn. of Community Banks
Appraisal Foundation
Appraisal Board (national)

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, Section G

Campaign for Higher Education, Androscoggin Country (and beyond!)

I. Planning Activities

Fourteen key stakeholders attended a Planning Meeting at USM/Lewiston-Auburn College on October 21. They represented K-16 education (including three area colleges and an Early College high school program), business through the local Chamber of Commerce, and economic development via the local area Growth Council.

Henry Bourgeois from the Maine Compact for Higher Education, together with Meredith Jones and Peter Taylor from the Maine Community Foundation, briefed the group on the Compact's action plan to significantly increase Maine's number of college-educated people. Henry identified five strategies as the means to increase by 40,000 the degree holders in Maine over the next 15-20 years: a *scholarship* program to eliminate the burden of educational debt, an *early college* initiative offering college experiences and success before graduating from high school, a *college transition* program to help adult students transition to college, *employer initiatives* to encourage employers to support the education of their employees, and a *marketing campaign* to address prevailing attitudes about higher education.

USM/LAC Dean Zark VanZandt facilitated enthusiastic brainstorming around what might be the goals, possible initiatives, barriers, target groups, and next steps of a related campaign in Androscoggin County. Participants committed to the need for and value of such a campaign, and then established an ad hoc planning team (the core of a future steering committee) to work on next steps aimed at identifying other needed participants as well as firm up our goals and plan of action.

Further planning is currently underway for a steering committee meeting in January 2005, followed by two community stakeholder workshops in early 2005. These workshops will help us finalize vision, mission, and primary goals (proposed currently as **30/15: Attain 30% degree holders in Androscoggin County by 2015**), and launch working committee to move efforts toward implementation.

II. State Legislative Initiative

Working with State Senator Peggy Rotundo (D-Lewiston), Henry Bourgeois (Maine Compact for Higher Education), and Colleen Quint (Mitchell Institute), we are helping draft legislation for a state pilot program of employer initiatives (for which the Androscoggin County group would apply). On December 17, Sen. Rotundo submitted the following as a preliminary description under the title *An Act to Establish the Maine Higher Education Employer Initiative*:

A college degree is fast becoming the new minimum credential in the workplace, and a college-educated workforce is the new minimum requirement for our state's economic and civic well being. Studies show that the more you learn, the more you earn and the more you contribute to your community – in everything from taxes to civic participation. Yet only 25% of Maine

adults, age 25 to 64, hold a bachelor's degree (with considerably lower proportions in certain counties, such as the 14.4% rate in Androscoggin County).

As part of a multi-year effort to raise educational attainment in Maine, spearheaded by the Maine Compact for Higher Education, this bill seeks to establish a Maine Higher Education Employer Initiative (called *Employers Commit*) in the form of a three-year state pilot program. Designed to help both public and private employers in 3-5 areas with low numbers of degree holders, this initiative will fund a menu of incentives to encourage these employers to adopt policies and take actions in order to encourage workers to earn degrees. It is intended to build on the good work that many employers are already doing, providing greater incentives to do more in community-focused ways. Actions on the part of employers could include workplace mentoring support and flextime to allow workers to take courses, skills and training inventories or career counseling to help workers evaluate higher-education needs, on-site delivery of courses, creation of and matched funding for individual development accounts (IDAs) that help workers save for college expenses, full or partial direct payment of worker tuition, paid time for actual studying (up to 3 hours per week), connecting increased educational attainment to workplace advancement in conjunction with tuition assistance, cash or stock bonuses for degree completion, sponsorship of employees' dependents in early start college programs, development of internship opportunities for college students, and release time to employees to teach and mentor adult or youth college students. In return for these efforts, employers could qualify for partial direct reimbursement (in the form of seed money grants), tax credit, credit banked toward discounts in other programs such as Dirigo Health, training and technical assistance, and free audits of existing practices and employee needs. Employers would be encouraged to partner with educational institutions, state and local government, and business associations such as local Chambers of Commerce. Best practices will be benchmarked and successful approaches evaluated (and showcased) so that they might be replicated in a more long-term state project.

III. USM Federal Earmarks

[Here, I'm essentially borrowing Zark's wording]

We put together some ideas for consideration by Marjorie Strayer, the USM lobbyist in DC who works with our national legislative contingent on federal earmark requests. We are delighted that our ideas are being recommended to the President's staff as one of the top 3 USM requests. One of the reasons it rose to the top so fast was the thinking that this would be an initiative that Mike Michaud could champion since LAC is in his district, and many of the other requests are for the Portland and Gorham campuses in District 1. The language is still tentative and the suggestion was made last week to use language like "Educated Workforce" instead of "College-Educated Citizens."

Needless to say, we're delighted that it seemed like a plausible request to the council that reviewed it. Marjorie's assessment of its prospects certainly helped in the deliberations. Now we'll need to make sure that it is a complement to any legislation that might surface from the state legislature.

Increasing Maine's Number of College-Educated Citizens
Requested Amount: \$250,000 (??)
Funding Source: Labor HHS

Analysis: Good community "buy-in." Need clarification on what Legislature will provide versus fed earmark. If Legislature is fully supportive, we can have strong "lobbying" from legislators to Michaud, and project is small enough for him to "carry."

EARMARKS COUNCIL FEEDBACK:

Council consensus to submit. We especially liked the strong community partnerships and linkage with the Community College System.

MARJORIE'S FEEDBACK TO COUNCIL:

No additional feedback over and above her original analysis. We will roll into this some components from last year's "Comprehensive Jobs and Training" proposal. Possibility exists to go up to \$500,000, but it must be scaleable.

Description:

Lewiston-Auburn College is working with the Maine Compact for Higher Education on an Androscoggin County piece of the Compact's statewide efforts to significantly increase Maine's number of college-educated people. Already emerging is an emphasis on working with Androscoggin County employers to enhance opportunities for adult workers/learners, especially given our large number of nontraditional students. As we work with the Maine Legislature to seek funding for a limited, statewide pilot program focused upon employer initiatives, keyed to areas like our own with low numbers of degree holders, we are also very interested in corollary federal earmarks that might allow USM/LAC (including the Center for Workplace Learning plus Pathways to Education working through this campus) to offer any of the following:

Selected skills and training inventories that could help employers provide workplace-based college teaching, advising and/or application assistance;

Opportunities to restructure elements of our current curriculum so as to eliminate barriers and provide more non-degree holders with opportunities to do course work (e.g., Weekend College, WinterSession, compressed summer classes, etc.);

Incentives for a "Learning Together" program that would encourage and reward more than one generation in a household or family to undertake college work at the same time, and;

Greater collaboration among area institutions of higher learning, including 2- and 4-year colleges, in delivering the above services to Androscoggin County.

Appendix III, Section H

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program:

University of Southern Maine/School of Business/Maine Small Business Development Centers

Contact person for this Inventory: **John R. Massaua, Maine SBDC State Director**

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

The Maine Small Business Development Centers' mission is to engage itself and others in development activities that contribute to the improvement of the economic climate for and the success of micro, small and technology-based businesses in the State of Maine. The Maine SBDC's focus is to assist in the creation, growth and the maintenance of viable micro, small and technology-based businesses and the jobs these businesses provide.

Maine SBDC serves those seeking assistance who are willing and able to build, sustain, and/or expand their business. Maine SBDC services are provided on an equal opportunity basis.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

The Maine Small Business Development Centers:

- **Provide high-quality, no cost to client, individualized business management assistance through one-on-one consulting and counseling.**
- **Coach and encourage micro, small and technology-based business owner/operators.**
- **Conduct and/or organize information and training programs that build small firm capacity to operate, compete and thrive.**
- **Navigate micro, small and technology-based businesses access to capital.**
- **Abet in the process of technology commercialization for new and existing small businesses.**

- Draw on, link with and build awareness of the multiple resources of academic communities, federal, state and local governments, private enterprise and the non-profit sector that support the Maine SBDC's focus.
- Aid access to information, technology, markets and research that assists business owners in the profitable operation of their businesses.
- Facilitate network and mentoring opportunities for micro, small and technology-based business owner/operators.
- Offer targeted and customized programs for business and economic stimulation that are designed and managed on the basis of clearly defined, specialized business owner or prospective business owner needs.
- Support partnering and collaborating organization economic development programs in as much as they are "Good Business" for micro, small business and/or tech-focused firms.
- Recognize, advocate for and champion micro, small and technology-based business success.
- Preserve individual capital and self-worth as appropriate.

(Throughout CY2004, the Maine SBDC served in excess of 2,900 clients with 14,500 hours of one-on-one counseling and an additional 3,600 individual information requests.)

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

As a recognition of the role that technology plays in the future of Maine's, the Maine SBDC, through a contractual agreement with the Maine Technology Institute and other means, offers focused business assistance to Maine's technology community. This arrangement builds on the technology business counseling programs offered by the Maine SBDC including technical assistance with federal Small Business Innovation Research (SBIR) projects, and counseling and training at Maine's Advanced Technology Development Centers (ATDC). This specialized technology focus assist entrepreneurs in developing innovative and profitable technology businesses by providing commercialization and in-depth business planning consulting services to technology-based businesses throughout the State of Maine.

In 2004, the Maine Small Business Development Centers (Maine SBDC) met a rigorous national accreditation authorizing them to formally provide technology support to Maine's small businesses and entrepreneurs. Maine SBDC is only the fourth SBDC program in four years of the national technology accreditation process to earn the "T" designation from the Association of Small Business Development Centers, joining North Carolina, Ohio, and Michigan as Small Business & Technology Development Centers (SBTDC).

The Maine SBDC is integrating technology-focused capabilities into all of its 11 service centers and 25 outreach offices throughout Maine. Those capabilities include strategic

technology planning, technology marketing strategies, funding and capitalization work, technology licensing strategies, and partnership development. The technology focused services are branded as the “Maine Small Business and Technology Development Centers” (Maine SBTDC).

3. Business Development

a. What credit courses/programs do you offer which address business needs?

None

b. What non-credit courses/programs do you offer which address business needs?

Maine SBDC offers training, seminars and conferences on business related topics at key locations around the state, usually at a minimal charge. Programs cover fundamental as well as complex business issues. Formats include workshops, informational sessions, courses, and conferences. Examples of workshops include start-up, marketing, technology commercialization, and customer service; examples of informational sessions include IRS, SafetyWorks, Doing Business with the Government and Energy Efficiency Programs; examples of courses include Business Planning, and New Venture Start-up offerings; and examples of conferences include leading roles in such events as the Homeland Security Conference, the New England Products Trade Show, SBIR Opportunities, and HUD’s Procurement Conference. Quantity and quality are continuously measured and the effectiveness of Maine SBDC training is confirmed by the repeated calls from the small business community and others for Maine SBDC training activities.

(Throughout CY2004, the Maine SBDC offered 172 non-credit training programs attended by over 2,800 participants.)

c. Other

N/A

4. Workforce Education and Training

(Throughout CY2004, Maine SBDC clients report that the Maine SBDC assisted in the estimated creation of 387 new jobs and the retention of an additional 314 jobs.)

a. How are workforce needs reflected in your academic program planning?

- Maine SBDC is the managing partner of Project GATE (Growing America Through Entrepreneurship). Funded by the U.S. Department of Labor, GATE offers one-on-one business assistance, courses and workshops to DOL select participants helping them start and/or expand their own businesses. This is a pilot research project with funding targeted to three states: Maine, Minnesota, and Pennsylvania.

- **Maine SBDC is contracted by the Maine DOL to assist in delivering the Maine Enterprise Option (MEO) program services. This program offers the opportunity for individuals receiving Unemployment Compensation to work full-time to develop their own businesses in lieu of seeking employment in established companies. MEO eligibility is determined by DOL.**
- **Maine SBDC holds a contract with the Maine Department of Labor, Bureau of Rehabilitation Services, to provide business assistance to nascent entrepreneurs with disabilities.**
- **Maine SBDC partners with the Maine MEP to offer training programs for degreed professionals under a federally funded H1-B Training Initiative.**
- **The Maine SBDC network is a recipient of a Community Development Block Grant to provide business assistance to potential entrepreneurs who are categorized as LMI (low/moderate income).**
- **Maine SBDC is an approved provider of courses under the U.S. Veterans Administration's Educational Benefit Plan for entrepreneurship training.**

(Throughout CY2004, the Maine SBDC served 164 clients under Project GATE, 304 clients under the MEO project and 53 clients as part of the VocRehab program.)

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

(See response to A)

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

Annually the Maine SBDC conducts a needs assessment to determine the courses it will be offering throughout the year, during which workforce need is addressed accordingly. For example, the Maine SBDC has been engaged in providing business training to daycare providers as a result of a need determined by State sponsored research. Similarly, Maine SBDC expanded its training offerings for value-added food producers and local grocers resulting from studies conducted by the University of Maine.

- 5. Please identify specific partnerships with industry, business and economic development organizations.
- **USM holds a cooperative agreement with the U.S. Small Business Administration to administer the Federal element of the Maine SBDC program;**
- **USM has a contract through the Maine Small Business Commission to administer the State's element of the Maine Small Business Development Centers program. The Commission consists of 10 members: The Commissioner of the Department of Economic and Community Development; The Chief Executive Officer of the**

Finance Authority of Maine (FAME); the District Director of the US Small Business Administration's Maine District Office; the Dean of USM's School of Business ; the chairs of Maine's Legislative Business Research and Economic Development Committee; 3 public members with expertise and knowledge in small business and entrepreneurship, appointed by the commissioner; and the chair of the Maine SBDC Advisory Council;

- The Maine SBDC holds a Memorandum of Agreement with the University of Maine's College of Natural Sciences, Forestry, and Agriculture, Department of Resource Economics and Policy, to coordinate and manage an education outreach plan for Maine's rural grocery stores located in three distinct geographic areas (north and east; central; and south and west). The Four-Step Education Plan includes workshops, courses, conference participation, workshops/cluster follow-up, and one-on-one business assistance;
- The Maine SBDC collaborated with USM's Center for Entrepreneurship and UMaine College of Business, Public Policy and Health, and obtained a Kauffman Foundation grant to fund the Kauffman Higher Education for Entrepreneurship Academy. Maine SBDC provided logistical support for the project;
- The Maine SBDC through a U.S. Small Business Administration approval of an extension of services under the Katahdin Entrepreneurial Education Programs (KEEP) continued to provide targeted business assistance in the Katahdin region.
- The Maine SBDC holds a Memorandum of Agreement with the Maine Centers for Women, Work and Community, University of Maine at Augusta, to provide targeted training, business assistance and one-on-one counseling, and networking opportunities for Maine's value-added food producers. The Maine Gourmet and Specialty Food Producers Association is the third partner in this project.
- The Maine SBDC holds a Letter of Agreement with Blethen Maine Newspapers, d/b/a MaineToday.com. In this agreement, articles written by the Maine SBDC Director of Training and Communications are regularly submitted for publication on MaineToday.com as appropriate.
- Maine SBDC is contracted with Market Development Center (MDC), Eastern Maine Development Corporation, Bangor, to support both MDC's SBA-funded BusinessLINC and DOD Defense Logistics Agency's procurement (PTAC) projects.
- An Inter-Departmental Memorandum of Agreement is held with USM's Center for Entrepreneurship for the Rural Business Enterprise Technical Assistance Project (R-TAP).
- The State Director for the Maine SBDC is a working member of the State's Economic Development Team.
- The State Director for the Maine SBDC is the support systems chair for the Entrepreneurship Working Group, the advisory body to the Maine Small Business Commission.
- Maine SBDC is part of Maine DOL's Rapid Response Team which works with displaced workers upon plant closure.

- The Maine SBDC is working with DEP, OSHA, and IRS to assist in compliance issues that effect small business.
- The Maine SBDC is an active member of the Economic Development Council of Maine.
- The State Director for the Maine SBDC is an active member of Maine's Small Business Commission's Entrepreneurship Working Group. Members include staff from SBA, DECD, MCWWC/UMA, CEI, Maine Dept. of Education, USM Center for Entrepreneurship, Maine DOL, FAME, UM Cooperative Extension, Washington-Hancock CAP, Maine Economic Development District Association, etc. The State Director chairs the support systems task force, which worked closely with the Kauffman Foundation on drafting recommendations to Governor Baldacci on improving entrepreneurship support systems in Maine. Additionally, the Director has been responsible for development of "BusinessFirst", Maine's model for business assistance collaboration, under development throughout the State.
- The Maine SBDC was actively engaged with the University of Maine and the Offices of Governor John Baldacci and Senator Susan Collins in putting on a Homeland Security Conference in the spring of 2004, targeted to assisting small businesses in obtaining government contracts with the Department of Homeland Security.
- The Maine SBDC is authorized by the Maine Department of Economic and Community Development to manage, expand and operate MaineBusinessWorks, the state's primary small business online resource.
- The Maine SBDC operates under a memorandum of agreement with the Maine Department of Labor, Bureau of Labor Standards, that mirrors the national ASBDC/OSHA agreement to provide worker safety information to small businesses.
- Maine SBDC partners and/or subcontracts with various economic and/or community development corporations to deliver Maine SBDC services statewide. Among them are Coastal Enterprises, Inc., Eastern Maine Development Corporation, Kennebec Valley Council of Governments, Midcoast Council for Business Development and Planning, Androscoggin Valley Council of Governments, Southern Maine Regional Planning Commission, Northern Maine Development Commission, Maine Technology Institute, and Maine DOL's Career Centers. Additionally, the Maine SBDC has relationships with similar organizations to provide outreach offices conveniently throughout the State.
- Maine SBDC has a MOU with Service Corps of Retired Executives to collaborate through various mechanisms to assist small business.
- The Maine SBDC State Director is a member of the SBA Maine Resource Partners and the SBA Advisory Council.
- Maine SBDC regularly partners with the University of Maine's Cooperative Extension on joint training opportunities.
- Maine SBDC has a detailed strategic alliance with the Women's Business Center at CEI leveraging each others' strengths and support systems.

- **Maine SBDC provides business assistance counselor coverage for the Lakes Region area through partnership with Lakes Region Economic Development Center;**
- **Maine SBDC collaborates with the Windham Adult Ed to put on a variety of business development workshops, including Lakes Region Entrepreneur Training;**
- **Maine SBDC actively participates in the New England Products Trade Show including counseling new exhibitors, participation on jury, exhibiting Maine SBDC at the show, organizing and implementing “Best Booth” competition;**
- **Maine SBDC is working in collaboration with the Portland Economic Development Department on plans for an Enterprise Development Center in Bayside area of Portland;**
- **Maine SBDC provided support and expertise to the Southern Maine Entrepreneur Summit, sponsored by Mainebiz;**
- **Maine SBDC assisted the Freeport Economic Development office with the facilitation of small business training and concurrent trade show;**
- **Through an agreement with the Maine Department of Agriculture, the Maine SBDC provides business assistance in the State’s Farms for the Future program. Maine SBDC counselors are the driving force to help the farmers prepare business plans that harness their entrepreneurial spirit in a way that will provide written direction and financial analysis, so their farms can sustain themselves into the future;**
- **Maine SBDC partners annually with the USM Center for Entrepreneurship on its Student Business Planning Competition;**
- **Maine SBDC facilitates, co-teaches and provides team guidance in USM’s Marketing Opportunities class, as to assist at a minimum 12 small businesses annually;**
- **Maine SBDC partnered with the U.S. Small Business Administration to identify 6 of its 2004 business and business advocate winners;**
- **Maine SBDC is collaborating with the Southern Maine Economic Development District to help facilitate the Saco-Biddeford Creative Economy Project;**
- **Maine SBDC co-sponsors a monthly series of Inventor Forums with the Maine Patent Program;**
- **Maine SBDC and the Mid-coast Council on Business Development and Planning collaborate to promote job growth in the mid-coast region. MCBDP is a co-host for the Maine SBDC in Bath;**
- **Maine SBDC provides technical assistance directly to the Executive Director of MCBDP;**
- **Maine SBDC assists the Lewiston/Auburn Chapter of SCORE in its presentation of annual fall training events;**
- **Maine SBDC works with the Brunswick Curtis Memorial Library in the development of their small business reference materials and business library;**

- **The Maine SBDC is a partner in the Aroostook Partnership for Progress (APP). Through this arrangement the Maine SBDC is providing technical assistance in the area of survey development and analysis that will eventually provide financial resources for targeted outreach and business retention programs.**
- **The Maine SBDC maintains an on-going relationship with the staff and members of Upper Valley Economic Council, an organization of community and business leaders in Patten, Mt. Chase, Sherman and Stacyville, that is devoted to building communities with healthy economies and a good quality of life;**
- **Maine SBDC has initiated a collaborative arrangement with the Katahdin Trust Company of Patten to promote Maine SBDC activities and to provide space for Maine SBDC counseling;**
- **Through supplemental funding from the SBA, the Maine SBDC delivered \$25,000 in grants as part of the Katahdin Entrepreneurial Educational Program (KEEP) for 25 small businesses located in Southern Aroostook and Northern Penobscot counties;**
- **Under a Maine Micro-Enterprise grant, the entire Maine SBDC network will receive e-commerce professional development training and subsequently will deliver e-commerce training to Maine's small business community;**
- **Maine SBDC participates in the Piscataquis County Economic Development Council to facilitate counseling and training throughout Piscataquis county;**
- **Maine SBDC participates with the Millinocket Area Growth and Investment Council to facilitate counseling and training throughout the Katahdin region;**
- **Maine SBDC participates with the Lincoln Lakes Region Development Corporation to facilitate counseling and training throughout the Lakes Region area;**
- **Maine SBDC has membership on the board of the Coastal Acadia Development Corporation and has participated in its strategic planning process;**
- **Maine SBDC works with the towns of Brewer, Calais, and Bucksport Economic Development Offices and regularly collaborate on client projects;**
- **Maine SBDC has a working relationship with and participates in many collaborative projects with the Washington Hancock CAP Agency, some of which include the Incubator without Walls Project, the Higher to Hire Project and the Maine Micro-Enterprise Initiative;**
- **Maine SBDC participated as an original member of the Brewer Transition Team that was formed in response to the closing and resultant layoffs of Eastern Fine Paper Company in Brewer. Composed of congressional delegates, area service providers, union leaders and business people, this transition team developed and implemented action plans to provide services to area families. Over time this transition team matured into a rapid response team with specific response plans and at-the-ready personnel, so they could respond to other area layoffs;**
- **Maine SBDC participated as an original member of the Lincoln Transition Team that was formed in response to the closing and resultant layoffs of Lincoln Pulp and**

Paper Company in Lincoln. Composed of congressional delegates, area service providers, union leaders and business people, this transition team developed and implemented action plans to provide services to area families. Over time this transition team matured into a rapid response team with specific response plans and at-the-ready personnel, so they could respond to other area layoffs;

- Maine SBDC has a working relationship with and participates in many collaborative projects with the Penquis CAP Agency, some of which include the Incubator without Walls Project, GATE, and the Highland Guilds Artisan Training;
- Maine SBDC has a working relationship with the Four Directions Development Corporation, a Native American CDFI that includes ongoing counseling. Maine SBDC Counselors helped Four Directions set up their counseling program and supplied them with various business related materials;
- Maine SBDC is working with Four Directions to develop, participate in and be speakers at a series of seminars, events and conferences for the Wabanaki Business Development Institute. This series will focus on the ‘building blocks’ for business development and will be presented to the tribal leaders of the 4 Native American Tribes in Maine;
- Maine SBDC, along with the Business Development Director at EMDC, are working with the Penobscot Native Americans in a formalized project that reviews perspective business purchase and development options for the business development group of the Penobscot Nation;
- Maine SBDC participates annually on the Program Board for the Washington County Business Conference and Marketplace that is held in Calais;
- Maine SBDC joined DECD representatives as panel experts and presenters at the Governor’s Conference on Tourism. Their subject was “Financial Rx for Your Business”.
- Maine SBDC is an active member of the Kennebec/Somerset CEDS Committee;
- Maine SBDC is an active member of KVCOG RLF loan committee;
- Maine SBDC is an active member of GPCOG RLF loan committee;
- Maine SBDC maintains numerous partnerships with the State’s trade associations, such as the Maine Wood Products Association, the Maine Gourmet and Specialty Food Producers Association, Maine Boat Builders Association, Maine Adult Day Services Association ,etc;
- Maine SBDC is a member and works with the Western Maine Mountain Alliance;
- Maine SBDC appeared in a central Maine community television program on business know-how;
- Maine SBDC maintains active membership in numerous local chambers of commerce, including the Portland Chamber, Kennebec Chamber, Bangor Chamber, etc;

- **Maine SBDC provides technical assistance to the Somerset County Economic Development Commission;**
- **Maine SBDC participates in technical assistance for the Early Learning Opportunity Grant program administered by Coastal Enterprises Inc.;**
- **Maine SBDC is an active participant in Maine's Working Waterfront Coalition;**
- **Maine SBDC serves at the pleasure of Governor Baldacci on the Compliance Advisory Committee of the Department of Environmental Protection.**
- **Maine SBDC serves on the Substance Abuse and the Workplace Committee of the Maine Office of Substance Abuse;**
- **Maine SBDC provides small business start-up assistance for pre-release inmates at the Maine Correctional System Pre-Release Center in Hallowell;**
- **Maine SBDC works with local area high schools to promote entrepreneurship, such as Cony High School in Augusta and Lewiston High School in Lewiston;**
- **Maine SBDC aids clients within many of Maine's targeted business development programs such as the Pine Tree Zone initiative, the Rural Development Authority Outreach, CDBG business grants, etc.**
- **Maine SBDC partners with the Heart of Maine RC&D and the USM Center for Entrepreneurship in funding and delivery of many of the State's Fast Trac and or NexLevel courses;**
- **Maine SBDC regularly engages in Small Business Forums conducted by various Congressional delegations;**
- **Maine SBDC participates in various DOL Career Fairs throughout the State;**
- **Maine SBDC partnered in the management of the Western Maine Economic Summit;**
- **Maine SBDC supports the State's CAP agencies and Women, Work & Community to encourage Maine citizens to set up Family Development Accounts (FDA's) for the purpose of business start up;**
- **Maine SBDC participated in the first Women's Business Expo held in S. Paris, in conjunction with area women business owners;**
- **Maine SBDC is an active member of the Oxford Hills Business Development Network;**
- **Maine SBDC participated in the creation and continuance of the River Valley Service Providers group in Rumford.**
- **Maine SBDC participated in the establishment and on-going development of the Small Business Resource Partnership in conjunction with Central Maine Community College. Focus is to network awareness and foster training cooperation within the local and regional area by service providers, including: Maine SBDC @ AVCOG, CMCC, SCORE, Start Smart, Andover College, & the Career Center.**

- The Maine SBDC has partnered with the Coastal Business Institute in the delivery of start-up business training to local entrepreneurs.
- Maine SBDC provides business assistance counselor coverage for western Maine through partnerships with Bridgton Chamber of Commerce, Oxford Hills Chamber of Commerce, River Valley Tech Center, and the DOL Career Center in Wilton;
- Maine SBDC has relationships with the Maine State Bar Association, Maine Society of Certified Public Accountants and the Maine Association of Private Consultants to make quality referrals for its clients;
- Maine SBDC partners with DECD's "Made in Maine" and Maine Ag's "Get Real Get Maine" to promote the sale of Maine products locally, regionally, nationally, and globally;
- Maine SBDC partners with the Maine International Trade Center to facilitate exporting and importing for small businesses, especially with neighboring Canada;
- Maine SBDC is working closely with the Community College System on its entrepreneurship initiatives and has developed a Memorandum of Agreement with Eastern Maine Community College as a model for the Community College system to leverage Maine SBDC capabilities. Additionally, the Maine SBDC is partnering with the Community College System on regional training conferences and a PBS production targeted to educate Maine citizens on entrepreneurship.
- Maine SBDC under a supplemental grant from the SBA, offered Defense Economic Transition Assistance (DETA) to small businesses affected by the base closures in Downeast Maine.
- Maine SBDC has an effective working relationship with the Maine Manufacturing Extension Partnership (Maine MEP). The resulting collaboration has generated numerous joint counseling sessions and successful applications for grant funding through the Small Business Manufacturing Grant program funded through a Rural Business Enterprise Grant. Additionally, the Maine SBDC and Maine MEP have partnered on joint training opportunities and have collaborated on the implementation of the federally funded H1-B Training Initiative.
- Since 2002, the Maine Small Business & Technology Development Center (SBTDC) has been hosted by the Maine Technology Institute (MTI) to provide counseling services to MTI clients and other tech commercialization aspiring entrepreneurs.
- MTI recently received a FAST Grant for technology commercialization training. As its partner in the proposal, the Maine SBDC has committed to filming these intensive ten-week sessions for distribution to every Maine SBDC office, including the same workbooks and goals sheets used in the workshops.
- CCVI is a private investment fund focused on Northern New England that sponsors programs of the Maine SBDC.
- The Maine SBTDC provides training and certification to the seven Applied Technology Incubator Directors as Associate Maine SBTDC Counselors. To date, five of the seven have completed professional training for this certification.

- Under a MOU with the Maine Department of Economic and Community Development the Maine SBDC provides support for the State's incubator program and as such, provides workshops that stress the growth strategies required of high tech enterprises. Additionally, every ATDC Incubator has a Maine SBDC Counselor available to it on a priority basis. Some Counselors are at their incubators on a visitation-as-needed schedule; others have office space at their incubators and are in-house on a regular schedule.
- The Maine SBDC sponsored a day-long event with the Maine Investment Exchange and the Finance Authority of Maine (FAME) to educate private investors and high-net-worth individuals on the process of identifying and making Angel Investments in small companies. Presented by the National Association of Seed and Venture Funds (NASVF), a parallel session taught entrepreneurs how to prepare their companies for private equity investment.
- The Maine SBTDC works with the UMS Technology Transfer Initiative to develop a method for identifying and commercializing the research within the University of Maine System, thus creating revenue streams therein.
- The Maine SBTDC works with the UMaine Department of Industrial Cooperation to provide resources, expertise and assistance to entrepreneurs throughout Maine.
- The Maine SBTDC partners with the Maine Patent Program to support the Inventors' Forum, held monthly in both Portland and Orono.
- The Maine SBTDC is on the Board of Advisors to develop a consistent, coherent policy on intellectual property and disclosure throughout the University System.
- The Maine SBTDC partners with the Technology Law Center to present intellectual property strategy and management seminars
- Maine SBTDC regularly partners with trade associations such as, MMMP, to assist clients seeking specialty manufacturers, products and/or sourcing specialty raw materials.
- SEGF partners with the Maine SBTDC so that its portfolio companies have access to counseling for fast-growth companies. SEGF has utilized our expertise in evaluating the assets of one company, identifying new markets for another and working on executive management for another.
- Maine SBDC works closely with the U.S. Small Business Administration, the Finance Authority of Maine, CDFIs, RLF providers, venture capitalists, angel investors, credit unions, and commercial and community banks to assist clients in raising capital for their businesses. *(Throughout CY 2004, the Maine SBDC assisted businesses in capital formation in upwards of \$26million.)*

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Appendix III, Section I

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: USM Muskie School

Contact person for this Inventory: Karl Braithwaite (Dean)
Jennifer Hutchins (Communications Coordinator)

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.
 - The USM Muskie School and the USM Business School jointly lead the Center for Business and Economic Research. Under a grant from the economic development administration, we work with economic development interests in the state to plan and implement improved economic development strategies, initiatives, and assist businesses in developing these.
 - Overall economic development rests heavily on quality of life, sensible public policy (including tax policy, development policy, education, etc.) The Muskie School teaches graduate students in these fields and they in turn help set the overall business climate of the state.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.
 - Faculty and research staff of the USM Muskie School consult extensively with businesses, federal, state and local governments and agencies across the U.S. and abroad in the fields of economic and community planning and development as well as health policy, child & family policy and other fields related to public policy and service. Faculty often provide evaluations and economic analysis of specific projects and proposals.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

- The Muskie School offers courses in public policy and management to students who often go into the private sector to assist companies in working better in the public/private/non-profit interface, and to students who are engaged in business-related policy in the public and nonprofit sectors. Examples of courses specifically related to business include:

Economic Development
Environmental Policy
Introduction to Community Development
State and Regional Development
Government-Business Relations

- While non-profit organizations are not specifically private sector economic development, non-profits provide many important functions in this state, higher people, receive funding from government, foundations, and other sources of fund, and provide significant business activity in the region. The Muskie School provides a four course non-profit certificate for those who want to improve the management of these non-profit organizations.

- b. What non-credit courses/programs do you offer which address business needs?

- Among the six graduate certificates offered, many of which related to management, the Muskie School provides a four-course non-profit certificate for those who want to improve the management of non-profit organizations.

- c. Other

- The Muskie School runs a non-credit, four-session Municipal Leaders Institute attended by about 35 students each year from across Maine. This assists municipal officials in better providing the leadership necessary to make appropriate decisions about economic development activities and business related functions of government.
- The Muskie School partners with the Greater Portland Chamber of Commerce to present public policy forums three times per year to the Greater Portland business community.

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

(see response in 4B)

b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

- Our Community Planning & Development program is producing a workforce necessary for Maine government to function well. Our graduates are fill positions of town managers, planning officers, and many other functions. These are all heavily involved in economic development decisions that affect the success of business initiatives.
- Our Health Policy Management master's degree produces trained people who work in the health provider community where there is a critical need for management and personnel. This is a major economic activity of the state and needs strong management capability.
- Our Public Policy & Management master's degree produces graduates who are trained broadly to help make the public, private and non-profits function more effectively independently and as a group, thereby providing the kind of business climate that will be attractive to businesses.

c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

- The Muskie School's Institute for Child & Family Policy offers extensive training to managers and personnel in private organizations and public agencies that deal with services for children and families throughout the Unites States. The School's Institute for Public Sector Innovation also provides training, technical assistance, research and evaluation services to private organizations and public agencies in Maine and elsewhere that are working in a variety of public policy and service fields.

5. Please identify specific partnerships with industry, business and economic development organizations.

- Our Institute for Health Policy and our Health Policy Management master's program work closely with a wide variety of organizations that provide health care, that plan health care policy, and that implement state-governed policy. These are both non-profit and profit-making organizations. They are a significant part of the business activity of the state.

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, Section J

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: College of Nursing and Health Professions

Contact person for this Inventory: Jane Kirschling, Dean, 780-4404,
jane.kirschling@usm.maine.edu

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

The College of Nursing and Health Professions has responded to the health care communities need for entry-level nurses in the Southern Maine and Lewiston-Auburn area. We have increased the capacity of our nursing program including: (1) opening a 15-month accelerated baccalaureate nursing program for persons with a degree in another field on the Portland campus, admit 32 students/year and (2) opening the baccalaureate nursing program for non-nurses on the Lewiston-Auburn campus (admit all qualified students as freshman and transfer students on a space available basis with goal to graduate 24/year when program fully up and running).

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

The Dean of the College of Nursing and Health Professions, in collaboration with the Maine State Board of Nursing, has implemented data collection on the nursing workforce at the time of relicensure. We are currently in the process of analyzing the first full cycle of data (2 years while includes registered nurses with licenses in Maine).

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process? Not applicable

3. Business Development

- a. What credit courses/programs do you offer which address business needs?
Not applicable
- b. What non-credit courses/programs do you offer which address business needs? Not applicable
- c. Other

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

Please see #1 above. In addition, the College is working closely with Maine Medical Center and other health care providers to design and implement a new graduate track at USM – the Clinical Nurse Leader. This program will prepare graduates to work in a new health care delivery model – assuring better coordination of care.

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

The College of Nursing and Health Professions offers the following academic programs that prepare entry-level and advanced practice nurses. Baccalaureate nursing program for individuals who are not nurses (Portland and Lewiston-Auburn), 15-month accelerated baccalaureate program for persons with a degree in another field (Portland), RN/BS program for diploma and Associate Degree prepared nurses (Portland and Lewiston-Auburn), Options program for persons with a degree in another field to pursue graduate nursing education (Portland), Master's degree and post-master's certificate programs – Adult Health Clinical Nurse Specialist, Adult Health Nurse Practitioner, Family Nurse Practitioner, and Psychiatric/Mental Health Clinical Nurse Specialist/Nurse Practitioner.

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

USM's Continuing Education offers an array of non-credit courses, including a holistic health certificate program, for nurses.

- 5. Please identify specific partnerships with industry, business and economic development organizations.

The College of Nursing and Health Professions has partnered with the majority of hospitals and community health agencies in Southern Maine and Lewiston-Auburn. Nursing students complete their clinical training in these hospitals/agencies and subsequently are likely to be employed by them if the graduate elects to stay in the area.

Thanks for your help in this!

Appendix III, Section K

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: Pathways to Higher Education

Contact person for this Inventory: Steve McFarland

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

Pathways conducts research usually for one time specific projects.

- *Pathways (formerly the Center for Workplace Learning) was one of nine programs selected nationally by the Aspen Institute in Washington, D.C. to measure the Return on Investment (ROI) of workplace training interventions.*
 - *Pathways is partnering with the Muskie School Institute for Health Policy conducting Research and Needs Assessments for small to mid-sized Home Health Care Agencies in order to develop and deliver programs to help recruit and retain workers in that industry (critical shortages currently exist).*
- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.
- *Pathways has served as a consultant to and partner with local adult education programs in designing and creating basic skill workplace education programs.*

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

- b. What non-credit courses/programs do you offer which address business needs?

- *Created customized curriculum and training for workers at Barber Foods, primarily refugees and immigrants whose primary language is not English, so they can pass OSHA written tests and succeed in critical Safety Training programs at their worksite.*
- *Creating curriculum and preparing to deliver non-credit classes at Barber Foods. Two levels of Food Manufacturing Certificates are being created. Level 1 is designed to provide the foundational skills and required knowledge to develop current and future leaders in the food manufacturing industry; Level 2 is designed to create food manufacturing specialists who are the highest level experts in the field, and who can safely and effectively introduce new food products and processes to the manufacturing process.*

- c. Other

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?
- *Pathways is collaborating with Health Care providers (Sisters of Charity Health System, Central Maine Medical Center, and Androscoggin Home Care and Hospice) and Nursing schools (USM, CMCC, CMMC) in Lewiston/Auburn to design and deliver a Pathways to Health Care Higher Education program to increase the supply of Registered Nurses and other workers requiring college degrees for “hard to fill” occupations in the industry.*
 - *Pathways helps working adults plan for and get started on their path to achieving a college degree by delivering college prep and entry-level college credit classes in the workplace. After completing a series of on site classes, learners will complete their degree at a local Institution for Higher Learning in the degree program of their choice. Customized programs have been implemented at five public and private organizations in southern Maine.*
- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.
5. Please identify specific partnerships with industry, business and economic development organizations.
- *Each customized Pathways program is a partnership with the participating business and the local Community College (active partnerships with SMCC & CMCC).*
 - *Pathways Director, Steve McFarland, is a member of the Compact for Higher Education.*
 - *Pathways Director, Steve McFarland, is a member of USM Corporate Partners organization*
 - *The Pathways to Healthcare Higher Education program is overseen by the Health Care Action Team, whose membership consists of local health care organizations and educational institutions.*

Appendix III, Section L

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: School of Business

Contact person for this Inventory: Valarie Lamont
228-8400

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

The School of Business focuses primarily on applied research in the business and economic development sector. This research is generally conducted through the Center for Business and Economic Research, the Maine Small Business Development Centers, the Center for Entrepreneurship and the Center for Real Estate Education. Research topics include the Maine Labor Force Analysis, the Maine Technology Clusters Study, the BankNorth Geographical Diversifications Study, Evaluation of Technical Assistance Based on Needs Perception of Business Owners.

See also, Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and Maine Small Business Development Centers.

- b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

See Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and Maine Small Business Development Centers.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

See Center for Business and Economic Research, Center for Entrepreneurship and Maine Small Business Development Centers.

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

The School of Business offers undergraduate degrees in Business Administration and Accounting and Finance. It also offers the master of business administration and the master of science in accounting. The ms in accounting is the newest graduate program, developed in response to industry needs.

In addition, three undergraduate electives in entrepreneurship have been added over the past several years, partly in response to student and business needs.

- b. What non-credit courses/programs do you offer which address business needs?

See Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and Maine Small Business Development Centers.

c. Other

4. Workforce Education and Training

a. How are workforce needs reflected in your academic program planning?

The School of Business offers professional degree programs that directly address the management education needs of Maine's public and private sectors.

b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

The School of Business offers professional degree programs that directly address the management education needs of Maine's public and private sectors.

c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

See Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and Maine Small Business Development Centers.

5. Please identify specific partnerships with industry, business and economic development organizations.

The School of Business has developed a wide network of partnerships with business, industry and economic development organizations. See Center for Business and Economic Research, Center for Real Estate Education, Center for Entrepreneurship and

Maine Small Business Development Centers. In addition, the School of Business is assisted by an Advisory Council which represents organizations such as UNUMProvident, Wright Express, Maine Employers' Mutual Insurance Co., Lee International, Bisson Transportation, to name a few.

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, Section M

Inventory of USM Activities Related To Needs of the Business Sector

Please identify your School/College/Center/Institute/Program: Technology Law Center and Maine Patent Program at the School of Law

Contact person for this Inventory: Rita Heimes, Director of the Technology Law Center

1. Research and Development

- a. How are the State's economic and business needs reflected in your research and development activities? e.g. the Center for Business and Economic Research in the School of Business provides contract research to the public and private sectors; examples include the Maine Labor Force Analysis.

The Technology Law Center conducts research on the role of law in economic development. In early 2004, for example, the Center released a report that studied the capacity of Maine's research institutions to engage in innovation and technology transfer. The report was presented to the Business Research and Economic Development committee in January of 2004. It is relied upon by many who are considering policy and practical solutions to the state's lack of technology transfer capacity, including the Office of Innovation within DECD, Research Initiatives at USM, and the Department of Research and Economic Development at the University of Maine.

The Center also conducts research on the abuse of the patent system and how it is exploited to the detriment of small businesses in Maine and throughout the country. In November 2004, the Center submitted an application for a research grant from the National Institutes of Health to study the role of the potential chilling effect on research created by litigation involving genetics and genomics subject matter patents.

The Center is available to DECD's Office of Innovation to provide analysis of intellectual property law and technology transfer issues in an economic development strategy focusing on R&D in science and technology.

- b. What research, outreach and consultation do you make available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses.

The Maine Patent Program, the service unit of the Technology Law Center, provides counseling services to inventors, scientists and small businesses in Maine. Up to 150 clients per year apply to the program for advice on patenting at least one invention. Our staff presently consists of two patent professionals and two law student research assistants. We provide from 5 to 20 hours of legal research, analysis and consultation per client at no cost to the client. Our primary service is determining patentability of clients' inventions, although we also offer technology licensing, trademark and copyright assistance.

2. Commercialization of new products and services

- a. What specific programs/services do you provide to assist businesses in the commercialization process?

See answer to Question 1(b). Patent advice is critical to commercialization decisions technology-driven businesses must make. The Maine Patent Program assists businesses with understanding the importance and role of patents to product commercialization and licensing. Through our connection with other economic development programs; including the Maine Small Business Technology Center, the Maine Technology Institute and the Maine Manufacturing Extension Partnership, we assist businesses with utilizing the state's business assistance network.

3. Business Development

- a. What credit courses/programs do you offer which address business needs?

The Technology Law Center hosts a course in Patent Law and another in a technology-related subject, such as Internet Law or Technology Licensing. These courses are for-credit and available to matriculated law students or attorneys. The Center also supports two law students per semester enrolled in an externship course. The students gain experience working with small businesses by assisting Maine Patent Programs clients with intellectual property counseling needs.

The School of Law offers numerous credit courses relating to business legal needs, such as, but not limited to, Contracts, Business Associations, Intellectual Property, Secured Transactions, and related subjects.

- b. What non-credit courses/programs do you offer which address business needs?

The Technology Law Center routinely offers no-fee seminars open to businesses on subjects in intellectual property law and technology commercialization. In FY 2004, for example, the Center offered several workshops all over the state on the basics of patents, trademarks and product commercialization, with total attendance of 280. The Center received over 100 requests for the videotaped presentations of our basic patent seminar, and hosted bi-monthly meetings of the Maine Inventors Forum. Each year the Center hosts a conference bringing together members of the business, legal, economic development, technology transfer and scientific research communities in Maine. The 2004 conference, titled Bio-Innovation, brought approximately 90 attendees from throughout Maine.

- c. Other

See 3(b).

4. Workforce Education and Training

- a. How are workforce needs reflected in your academic program planning?

As a program within a professional school, the Center focuses its academic programming on students who will be acting as counsel to technology-driven businesses. The School of Law is presently involved in strategic planning to develop certificate programs, summer institutes and related academic programs designed to reflect the state's needs for particular legal training and expertise.

- b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives?

As Maine's economic development efforts targeted at R&D in science and technology result in more technology-driven enterprises in Maine, the state will see a need for attorneys skilled in intellectual property law and technology licensing. The Center's courses in Patent Law, Technology Licensing and Internet Law, as well as its externship program in patent practice, address this future need.

- c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management.

The Center's annual conference offers education on legal issues relevant to technology-based businesses. The conference is attended by lawyers and

businesses alike, and offers attorneys continuing legal education credits. The School of Law is presently considering certificate programs and summer institutes to address legal workforce needs in Maine.

5. Please identify specific partnerships with industry, business and economic development organizations.

The Technology Law Center and Maine Patent Program work closely with the Maine Technology Institute, the Maine Small Business Development Centers (and the SBDTC), the state Office of Innovation, the Technology Centers (incubators), Research Initiatives at USM, and the Office of Research and Economic Development at the University of Maine Orono.

Thanks for your help in this!

Please return **electronically** to: Valarie Lamont
E-mail: lamont@usm.maine.edu

Center for Entrepreneurship
68 High St.
Portland

Tel. 780-5919
Fax: 228-8401

Appendix III, section N

Center for Business and Economic Research

Inventory of USM Activities Related To Needs of the Business Sector Please identify your School/College/Center/Institute/Program: _____ Contact person for this Inventory: _____

1. Research and Development a. How are the State's economic and business needs reflected in your research and development activities? b. What research, outreach and consultation available to the public and private sectors? e.g. the Maine Small Business Development Centers provide up to 24 hours of free business consulting to Maine businesses. 2. Commercialization of new products and services a. What specific programs/services do you provide to assist businesses in the commercialization process? Center for Business and Economic

Research (CBER) a joint center of the School of Business and the Muskie School of Public Service
Bruce Andrews 207 780-4185

The Center for Business and Economic Research in the School of Business provides contract research to the public and private sector. Examples include the Maine Labor Force Analysis, the Maine Technology Institute Program Evaluation, Aroostook County Outmigration Study, Maine Technology Clusters Study, Maine's Creative Economy, Maine Metal Products Association Human Resource Management Study, UnumProvident Long Term Disability Claims Estimation Study, the Banknorth Geographical Diversification Study, Predicting Small Business Loan Defaults.

CBER facilitates private and public sector access to all forms of technical assistance provided by the faculties of the School of Business, the Muskie School of Public Service, and other academic units within the USM community.

CBER projects and analyzes the economic and business conditions in Maine and New England. This information is sometimes helpful in the commercialization process. In addition, the Center's role in evaluating the impact of grants awarded by the Maine Technology Institute helps track the success of some commercialization efforts in Maine.

3. Business Development a. What credit courses/programs do you offer which address business needs? b. What non-credit courses/programs do you offer which address business needs? c. Other 4. Workforce Education and Training a. How are workforce needs reflected in your academic program planning? b. What programs/courses are targeted to meet current and future workforce needs, e.g. nursing, teacher development and tourism initiatives? c. Non-credit courses/programs designed to address workforce needs? e.g. the Center for Continuing Education provides certificate programs in a variety of areas including Human Resources Management, Mediation and Project Management. The School of Business offers undergraduate and graduate programs in business administration and accounting.

Valarie -CREE and CESB, and SBDC

The School of Business and the Muskie School of Public Service offer professional degree programs that directly address the management education needs of Maine's public and private sectors.

The School of Business and the Muskie School of Public Service offer professional degrees are directed at meeting management education needs in the private and public sectors.

Valarie -CESB, and CREE, and SBDC

5. Please identify specific partnerships with industry, business and economic development organizations.

Appendix IV

Guaranteed Admission Agreement between University of Maine System and Maine Community College System

The purpose of this agreement is to establish a transfer process called Associate of Arts Advantage (AA Advantage) program between the University of Maine System (UMS) and the Maine Community College System (MCCS). MCCS students, upon completion of an associate degree in Liberal Studies from an MCCS campus, are guaranteed admission with junior standing (only grades C- or above will transfer), to any institution of the University of Maine System. *

Under this agreement, an MCCS student must join the AA Advantage program and complete appropriate forms prior to completion of 45 credits at MCCS. Upon joining the AA Advantage program, students will have the benefits of receiving early advising, a streamlined application process and advanced course registration with continuing students.

Please note that under the terms of this agreement, students are guaranteed admission to any institution of the UMS, although not necessarily to a particular degree program. Certain UMS programs may have specific grade point average (GPA) requirements and/or program specific criteria for admission and class standing. Upon transfer, students may be required to satisfy current general education requirements at the receiving institution that were not available or completed at the transferring institution.

The Maine Higher Education Partnership (MHEP), representing both Systems, will provide oversight of this agreement and may, as necessary, establish ad-hoc committees responsible for its implementation.

This agreement shall be in effect for three years, upon which time it will be reviewed and revised as appropriate.

* The University of Maine requires a 2.5 grade point average (GPA) for guaranteed admission.

* The University of Maine at Farmington requires a 2.5 GPA minimum for some programs and is subject to an enrollment cap.

Dr. Joseph W. Westphal
Chancellor
University of Maine System

Dr. John Fitzsimmons
President
Maine Community College System

Date signed: _____

Date signed: _____