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# **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 Graduations<sup>1</sup>*

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 Date on Enrollments and Graduates**

	1999-2000	2000-2001	2001-2002	2002-2003	% Change Previous Year
Enrollments <sup>2</sup>					
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%

<sup>1</sup> Data source for description information: Report Fall 2003 Survey of Maine Nursing Education Programs, available at [www.usm.maine.edu/conhp](http://www.usm.maine.edu/conhp).

<sup>2</sup> Enrollment numbers in generic Baccalaureate Degree programs reflect students enrolled as freshmen, sophomores, juniors, and seniors, in contrast to Associate Degree numbers, which reflect 1<sup>st</sup> year and 2<sup>nd</sup> 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 <sup>3</sup>	821	656	82	71
Master's Degree in Nursing <sup>4</sup>	453	486 <sup>5,6</sup>	44	40 <sup>15</sup>
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 <sup>7</sup>	Nursing Fees <sup>8</sup>	Time to Degree Completion Full-time Student
<b><i>Licensed Practical Nurse (LPN) Programs</i></b>				
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

<sup>3</sup> Includes distance programs offered by UMFK and SJC.

<sup>4</sup> Includes distance program offered by SJC.

<sup>5</sup> Includes UN Nurse Anesthesia program.

<sup>6</sup> 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.

<sup>7</sup> For state-support programs, in-state tuition rate is provided.

<sup>8</sup> 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 <sup>7</sup>	Nursing Fees <sup>8</sup>	Time to Degree Completion Full-time Student
<b><i>LPN to RN Programs</i></b>				
CMCC	68 <sup>9</sup>	\$68	\$100/semester lab fee; \$56/semester testing fee	3 semesters, does not include PN program
EMCC	69.5 <sup>10</sup>	\$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 <sup>11</sup>
<b><i>Associate Degree Programs</i></b>				
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
<b><i>Baccalaureate Degree in Nursing</i></b>				
HC	126	\$346	No	8 semesters
SJC	129	\$8,075/sem <sup>12</sup>	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
<b><i>Accelerated Baccalaureate Degree in Nursing for Persons with Baccalaureate Degree in Another Field</i></b>				
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
<b><i>RN to BS</i></b>				
HC	124	\$346	No	4
UM	121 <sup>13</sup>	\$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
<b><i>Master's Degree in Nursing</i></b>				

<sup>9</sup> CMCC includes 33 credits from Practical Nursing program.

<sup>10</sup> 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.

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

<sup>12</sup> SJC 9-11 credits \$500, 1-8 credits \$275, 12+ credits.

<sup>13</sup> 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 <sup>7</sup>	Nursing Fees <sup>8</sup>	Time to Degree Completion Full-time Student
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<sup>14,15</sup>**

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
University of Maine at Augusta	52	44	84.6
University of Maine at Fort Kent	6	5	83.3

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

<sup>15</sup> 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<sup>14,15</sup>**

Maine Nursing Program	Number of Candidates	Number Passed	% Pass Rate
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-time<sup>16</sup> 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 programs<sup>17</sup>) and those that offer a generic baccalaureate degree program as the terminal degree for preparation as an RN (5 programs<sup>18</sup>). 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 <sup>19</sup>	6 to 15, total 69	6-20, total 77 <sup>20</sup>	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%)
Master’s prepared in other field <sup>21</sup>	2 (3%)	3 (4%)	2 (3%)	-	-	1 (1%)
Bachelor’s prepared	1 (1.5%)	1 (1.4%)	1 (1%)	1 (1.6%)	-	-

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

<sup>17</sup> Associate Degree programs: CMCC, CMMC, EMCC, KVCC, NMCC, UMA, and UNE.

<sup>18</sup> Baccalaureate Degree programs: HC, SJC, UM, UMFK, and USM.

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

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

<sup>21</sup> Requires exemption from Maine State Board of Nursing.

**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
in nursing <sup>8</sup>						
<i>Full-time Faculty Rank<sup>22</sup></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 <sup>23</sup>	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.

Nursing programs were also asked about their use of part-time nursing faculty<sup>24</sup> 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:

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

<sup>23</sup> 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.

<sup>24</sup> Part-time faculty included anyone who received enumeration from the nursing program.

- 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*<sup>25</sup>

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 positions<sup>26</sup>. More significantly, according to the Maine Hospital Association's Long Term Care Workforce Survey<sup>27</sup>, 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%<sup>28</sup>. 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 2008<sup>29</sup>. This number does not include current positions that will remain unfilled due to retirements or inability to recruit successfully. 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 2002<sup>30</sup>. 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 10<sup>th</sup> highest percentage in the nation, and compares to 12% in New Hampshire, 13%

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<sup>25</sup> 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](http://www.usm.maine.edu/conhp).

<sup>26</sup> 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.

<sup>27</sup> 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.

<sup>28</sup> 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](http://158.72.83.3/profiles/maine/me_pg2.htm).

<sup>29</sup> 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.

in Vermont, and 12% nationally<sup>31</sup>. 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 older<sup>32</sup> (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***

Date 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 2001-2002<sup>33</sup>, 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 age<sup>34</sup>. 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 nurse<sup>33</sup>. 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.

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<sup>31</sup> 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>.

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

<sup>33</sup> 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.

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

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

<b>Response</b>	<b>30 or &lt;</b>	<b>31-40</b>	<b>41-50</b>	<b>51-60</b>	<b>61-70</b>	<b>71-80</b>	<b>81-90</b>	<b>All</b>
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 121<sup>st</sup> Maine Legislature’s Joint Standing Committee on Education and Cultural Affairs, the Maine Community College System and University of Maine System were asked 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:

	<b>FY06</b>	<b>FY07</b>
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 MCCA 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

appointments<sup>35</sup> 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**

<b>Budget Item</b>	<b>Amount Requested</b>
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 <sup>38</sup>	\$10,000
Nursing/Science Equipment	\$65,000 (one-time expense)
Faculty Computers	$\$2,200 \times 6 = \$13,200$ (one-time expense)
<b>Total</b>	<b>\$446,772 (on-going) + \$78,200 (one-time expense)</b>

### *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-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

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

<sup>36</sup> Benefit rate calculated at 43%.

<sup>37</sup> Multiply academic year salary by 1.23 to get fiscal year salary.

<sup>38</sup> Estimated at roughly 2.6% of faculty salaries.

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**

<b>Budget Item</b>	<b>Amount Requested</b>
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**

<b>Budget Item</b>	<b>Amount Requested</b>
1 Master's/Doctorally Academic Year Prepared Tenure-Track Nursing Faculty Position <sup>39</sup>	\$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)

***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 2000<sup>40</sup>; (3) a 15-month

<sup>39</sup> Budgeted at higher salary, doctorally prepared faculty member.  
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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**

<b>Budget Item</b>	<b>Amount Requested</b>
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)

***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

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

<b>Budget Item</b>	<b>Amount Requested</b>				
	<b>UM</b>	<b>UMA</b>	<b>UMFK</b>	<b>USM</b>	<b>Total</b>
<b>On-going Expenses</b>					
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
<b>Total On-going Expenses</b>	<b>\$446,772</b>	<b>\$280,640</b>	<b>\$80,920</b>	<b>\$343,673</b>	<b>\$1,152,005</b>
<b>One-Time Expenses</b>					
Computers and Nursing /Science Equipment	<b>\$78,200</b>	<b>\$65,000</b>	<b>\$17,200</b>	<b>\$88,800</b>	<b>\$249,200</b>

## 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)

<b><i>KENNEBEC VALLEY COMMUNITY COLLEGE – Fairfield</i></b>
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### **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

<b><i>NORTHERN MAINE COMMUNITY COLLEGE – Presque Isle</i></b>
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### **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)

<b><i>SOUTHERN MAINE COMMUNITY COLLEGE – South Portland</i></b>
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### **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

## **ATTACHMENT III**

### **UNIVERSITY OF MAINE SYSTEM STRATEGIC PLAN**

