

A Call to Action:

Maine's Colleges and Universities Respond to an Aging Population

by Jeffrey E. Hecker and Marilyn R. Gugliucci

Jeffrey E. Hecker and Marilyn R. Gugliucci report on the findings of the Higher Education Workgroup, which is part of the Maine Aging Initiative. They present summary information on aging-related research, gerontology/geriatrics educational curricula, and educational opportunities for older adults including retooling for employment.

Maine is at the center of one of the biggest demographic shifts in its history. It is predicted that one in four Mainers will be 65 years of age or older within the next two decades. The age demographic shifts in the population are a national phenomenon, but Maine, as the oldest state in the nation, is at the forefront of change. Maine's older adult population (65 years and older) is expected to reach 20.9 percent by 2020 and 26.5 percent by 2030, second only to Florida (Ortman, Velkoff, and Hogan, 2014). Some towns in Maine, Kennebunk, for example, will reach the 25 percent 65-or-older benchmark by 2016 (SMRPC 2012), making the demographic shift of older adults in this town a full 5 percent higher and 14 years ahead of the national prediction of 20.3 percent (<http://quickfacts.census.gov/qfd/states/23000.html>). To further illustrate this point, currently, Maine's median age is 44.0 years and Kennebunk's median age is 56.2 (<http://www.city-data.com/city/Kennebunk-Maine.html>).

Read the mission statement of most colleges and universities in the United States and you will find reference to the tripartite mission of educating students so that they are prepared to lead productive lives (teaching), producing new knowledge (research), and applying knowledge to enhance communities, be they local or global (service). The teaching–research–service mission is particularly emphasized in public universities. For example, *The University of Maine advances learning and discovery through excellence and innovation in undergraduate and graduate academic programs while addressing the complex challenges and opportunities of the 21st century through research-based knowledge*. At the University of New England, a private university, the mission statement follows suit: *The University of New England provides students with a*

highly integrated learning experience that promotes excellence through interdisciplinary collaboration and innovation in education, research, and service. Given their missions, Maine's higher education institution's focus on education, research, and service make them well poised to respond to the aging demographic.

Last year, Maine Speaker of the House, Mark Eves, convened a working group to explore higher education's response to Maine's aging population. The Higher Education Workgroup was one of five groups that constituted the Maine Council on Aging (MCOA) Maine Aging Initiative (the other four were Workforce and Employment, Aging-Friendly Communities, Public and Private Safety, and Health and Well-being of Older Mainers). The members of the Higher Education Workgroup included representatives from Maine's public and private institutions of higher education and a community member.¹ We are greatly indebted to our colleagues on the work group.

In this article, we summarize the findings of the Higher Education Workgroup and draw some general conclusions and suggestions for the future. The findings were a result of the workgroup creating three sub-groups: one focused on aging-related research; the second on gerontology/geriatrics educational curricula; and the third on educational opportunities for older adults including retooling for employment. The sub-groups used survey methods and interviews, as well as information gathered from existing data sources. The work was supported by the Maine Council on Aging and Speaker Eves's office. The resultant MCOA report, *Maine's Colleges and Universities Initiatives on Aging: Research, Education, and Retooling*, can be found on the MCOA website: <http://www.maineCouncilonaging.org/education.php>

AGING-RELATED RESEARCH

The fact that a larger percentage of Maine's population is over the age of 60 than at any prior time in the state's history presents a myriad of opportunities to advance our understanding of aging. An endless array of research questions beg to be answered. How can individuals and communities best adapt to the physical changes correlated with age? What diseases increase in prevalence as the population ages and why? What can be done to prevent these diseases or moderate their impact? How can we adapt physical environments so that they facilitate independent living for older adults? What policies support healthy aging and what policies exacerbate the challenges faced by the elderly? We found that Maine's institutions of higher education and research facilities are addressing these and related questions.

We surveyed Maine's colleges and universities, as well as medical centers and other research facilities, to get a snapshot of research activities related to aging that are currently underway in Maine. While the survey is undoubtedly incomplete, it provides an idea of the breadth of scholarship related to aging in Maine. We identified 74 aging-related research projects underway at seven institutions in the state (Table 1).

TABLE 1: Institutions Engaged in Aging-related Research and Number of Projects at Each

Academic/Research Center	Number of projects
Colby College	1
Jackson Lab	1
Maine Medical Center Research Institute	1
Mount Desert Island Biological Laboratory	5
University of Maine	26
University of Maine at Farmington	1
University of New England	26
University of Southern Maine	12
University of Texas: Austin	1
Total	74

To get a picture of the types of research being carried out by Maine scientists, we asked respondents to categorize their projects (see Table 2) and to indicate what funding agencies support their work. Researchers

identified over 70 sources of funding for aging-related research. Federal granting agencies, which tended to fund relatively larger projects (e.g., National Institute of Aging, National Institute of Health, National Science Foundation), funded 27 projects. The second most common source of funding was private foundations and trusts (16 projects, e.g., Maine Community Foundation, Atlantic Philanthropies) and state agencies (14 projects, e.g., Maine Center for Disease Control, Maine Department of Health and Human Services).

TABLE 2: Types of Research

Nature of Research	N*	Percentage
Education	7	7.1
Other	5	5.1
Basic Science	23	23.2
Policy	12	12.1
Applied/Clinical	27	27.3
Program Evaluation	25	25.3
Total types	99*	

* Sum greater than the total projects shown in Table 1, as some research fits two or more categories.

Maine is home to some well-established institutions whose research missions are focused on aging. For example, at the University of Maine (UMaine), the Center on Aging is a multidisciplinary center with an active research and evaluation division. The Center on Aging provides technical assistance, consultation, and a sponsoring site for faculty and community researchers developing aging research proposals and conducting aging research. The center is also committed to disseminating aging research and best practice innovation through its publication and professional and community presentations. At the University of New England (UNE), much of the research portfolio has implications for optimizing aging or is explicitly focused on health-related quality of life. Fully 26 of the 74 research projects identified in our survey are underway at UNE. Faculty at the UNE College of Osteopathic Medicine's Department of Geriatric Medicine engage in scholarship focused on translating evidence-based principles and practices of geriatric medicine to improve patient-centered outcomes. The University of Southern Maine's (USM) Cutler Institute for Health and Social

Policy identifies disability and aging as one of its core programs. The institute's staff conducts program evaluations and performs policy analysis related to aging.

Speaker Eve's formation of the Maine Aging Initiative served as a catalyst for expansion of aging-related research in Maine. Carol Kim, UMaine's vice president for research, has launched the Aging Research Initiative—a research collaborative among several units within UMaine as well as researchers from the other six University of Maine System campuses. The theme of the initiative focuses on successful aging. Kim has brought together engineers, social workers, and social scientists and challenged them to think about how their work relates to healthy aging and how they might collaborate to address larger questions related to aging. For example, at the Virtual Environment and Multimodel Interaction Laboratory (VEMI Lab), Nicholas Guidice and his research team are developing electronic interfaces that facilitate navigation of indoor and outdoor spaces for people with diminished vision. Other projects emanating from the Aging Research Initiative include exercise equipment adapted for people with impaired motor functioning and clothing designed to reduce the risk of injuries caused by falls.

GERONTOLOGY/GERIATRICS CURRICULA

As Maine and the nation age, there is a growing need for a workforce that understands the special needs of older adults. The need for specialized education in aging is, of course, most obvious in the health professions. Diagnostic protocols and treatment regimens developed from studies of middle-aged patients cannot be assumed to be valid for older adults. But the health care sector is not the only area where knowledge of physical, psychological, and social issues unique to older adults is important. People working in government, at cultural institutions, or in recreation or business sectors will need some understanding of the aging demographic if they are to be successful. Given the importance of the growing population of older adults, it is reasonable to ask what Maine's colleges and universities are doing to prepare graduates for the new demographic reality.

The Higher Education Workgroup set out to address this question by surveying institutions of higher education in Maine. In all, 29 individuals responded, representing 15 different institutions of higher education across the state. One approach to learning about what colleges and universities are doing to prepare

students to succeed in a world growing older is to look at whether or not the institutions had departments or other units whose primary mission deals with aging. We found that only Maine's three largest institutions of higher education have units focused solely on aging (Table 3).

TABLE 3: Maine Higher Education Units Focused Solely on Aging

Institution	Department/Program/Center
University of Southern Maine	Gerontology
University of New England	Department of Geriatric Medicine Maine Geriatrics Education Center
University of Maine	Center on Aging Interprofessional Graduate Certificate in Gerontology Hartford Partnership Program for Aging Education – Certificate in Leadership in Rural Gerontological Practice

Developing a department, unit, or division focused on aging requires a certain scale of operation that is not present at many of Maine's colleges and universities. We speculated that aging-focused educational experiences exist within many units even though their primary missions did not include aging. This proved to be valid; 14 different programs, housed within nine of the 15 institutions that responded to our survey, offer courses focused on aging. These courses are offered through programs in nursing, psychology, pharmacology, administration, education, mental health, biology, occupational therapy, social work, sociology, geriatric medicine, human development, nutrition, and health care. Narrowing the focus to course offerings over the last two years only, we found that 18 classes on aging or aging-related issues were offered and that 10 of these were medically related courses.

While there are no bachelor's- or master's-level programs in aging, there are a variety of certificate programs and concentrations within majors focused on aging. Northern Maine Community College offers a noncredit certificate and Washington County Community College offers an associates degree in aging. There are three certificate programs, two at UMaine and one at USM, related to aging, and UMaine offers a doctoral program that can be designed to focus on aging.

Course offerings and programs related to aging are growing. In response to an open-ended question asking participants to describe what plans their institutions were making for the coming two years in the area of aging and aging-related issues, participants from 10 distinct programs, representing five colleges or universities, indicated plans for adding new curricula or integrating content on aging and aging-related issues into current or future offerings. The plans varied, ranging from intent to incorporate more aging-related content into courses (five comments), to integrating more aging-focused field experiences (three comments), to larger-scale programs or departmental plans to create concentration tracks or new degree programs focused on aging or aging-related issues (four comments). The five colleges or universities developing plans to expand aging-related offerings include the University of Maine at Augusta, St. Joseph's College, UMaine, UNE, and Husson University.

In addition to educating matriculated students, Maine's institutions of higher education are also involved in the continuing professional education of Maine's citizens. UNE's Department of Geriatric Medicine and Maine Geriatrics Education Center, USM, and UMaine's Center on Aging all offer training and education resources related to aging in the form of gerontological and geriatrics-focused conferences, colloquia, training modules, workshops, publications, reports, and online resources. The Center on Aging, for example, sponsors an annual University of Maine Clinical Geriatrics Colloquium every May (now in its tenth year). UNE's Geriatric Medicine Department, in partnership with the Maine Gerontological Society, UMaine, USM, and community organizations, offers the annual Maine Geriatrics Conference (now in its 25th year), a two-day event in Bar Harbor each June. The University of New England's Maine Geriatrics Education Center also offers a series of trainings for health professionals on Alzheimer's disease and related disorders.

EDUCATIONAL OPPORTUNITIES FOR OLDER ADULTS

Maine's changing demographics are challenging the state's institutions of higher education in a variety of ways. For public universities in particular, the aging of Maine presents significant challenges. The number of students graduating from Maine high schools has been declining every year since 2008, and

this downward trend is predicted to continue through at least 2020. Colleges and universities are adapting to the demographic shift by exploring the educational needs of older adults and creating programs to fit those needs. At the same time, there is a complementary need to add older adults to Maine's workforce. The Maine Development Foundation, for example, has set the goal of adding 12,000 older workers to Maine's workforce by 2020 (Maine Development Foundation 2014). Clearly there is a need to increase access to higher education for older adults in Maine, and there is a need to understand the workforce competency needs of Maine's businesses.

As a first step toward understanding how Maine's colleges and universities are meeting the educational needs of older Maine citizens, we gathered baseline information on enrollment. Specifically, we looked at enrollment of students 50 years old or older at UMaine, USM, UNE, and the Maine Community College System. The data sets available for each institution varied so the findings will be presented separately for each.

At UMaine, for the decade from 2004 through 2013, just over 4 percent of the total enrollment was made up of students 50 years or older. Given UMaine's average enrollment over that period, in a typical year approximately 400 to 450 older students were enrolled in classes. For most years, less than 50 percent of these students were enrolled in degree programs. Most were taking courses, but not officially matriculated. For those students enrolled in degree programs, the most popular majors were nursing, educational leadership, literacy education, and social work.

Data from USM were available for the five-year period 2010 through 2014. On average, about 600 students 50 or older enrolled in class for at least one semester. This represents about 8 percent of the total head count enrollment for USM during that time period. The top majors for USM students 50 and over who were enrolled in degree programs were nursing, creative writing, counseling, leadership and organizational studies, adult and higher education, and social work.

For UNE, data were available for the years 2008 through 2013. During that time period about 3.5 percent of UNE students were 50 years old or older, or about 150 to 200 students per year. At UNE older students tend to choose the certificate of advanced graduate studies, master's degree in medical educational leadership, and the graduate certificate in program development.

The enrollment data from Maine's three largest universities suggest the following general conclusions. Adults over 50 make up a small minority of the enrolled students. Examination of the most popular degree options suggest that the older students who choose to enroll in degree or certificate programs at these institutions are pursuing opportunities that will allow them to advance in their careers or change careers. The programs they choose tend to be in the health, education, or social services sectors.

The opportunities for growth in aging-related research in Maine are tremendous.

Clearly there is work to be done to meet the educational needs of a larger portion of Maine's older adults. Recognizing this need, the University of Maine System developed a plan to target Maine adults who have accumulated credit hours, but have not earned a bachelor's degree. The Adult Baccalaureate Completion/Distance Education Initiative (ABCDE Initiative) was launched in 2012 to develop a plan to make it easier for adults to complete the bachelor's degree. The initiative has several components including a "concierge service" available at each of the seven campuses and eight additional outreach centers. The concierge service helps guide adult students through various activities such as applying to the institution, choosing a major, finding financial assistance, and registering for courses. The concierge serves as the single point of contact to support adult students returning to school to pursue their educational goals. UMS has created special scholarships for Maine citizens who want to return to school to complete their degrees as part of the ABCDE Initiative. While not limited to adults age 50 or older, the ABCDE Initiative makes it easier for older Mainers to return to school and complete their bachelor's degrees.

Data from the Maine Community College System were available for every other year from 2003 through 2013. The community college system enrolls approximately 600 to 1,300 students 50 years old or older each year. The Maine Community College System has recognized the importance of retooling older workers for the workforce and is currently conducting a review of best practices for engaging unskilled workers over 50 in training. Following the review (which is scheduled to be

completed by fall 2015), the Maine Community College System has committed to defining a plan and implementation schedule to address the needs of older learners beyond what is already being done across the system.

Not all education of older Maine citizens involves accredited institutions of higher education. Maine is fortunate to have a vibrant network of "senior colleges." The Maine Senior College Network (MSCN) is housed at the Wishcamper Campus Center at USM and is a consortium of 17 independent groups in 13 counties around the state. The colleges offer noncredit courses taught by volunteers and charges a modest membership fee and small tuition per course.

To learn more about what opportunities Maine's senior colleges offer older citizens, we surveyed the volunteer presidents and board chairs of the 17 senior colleges. Here's a summary of what we learned. The student members of Maine's senior college's tend to be financially independent individuals. More women than men are enrolled (about 75 percent women). Members tend to be retired with an age range of early 60s to mid-80s. Maine's senior colleges provide opportunities for lifelong learning and represent a wonderful example of healthy aging in action.

CONCLUDING REMARKS

Maine is the oldest state in the nation; it is a rural state, and its citizens face unique challenges as a consequence of its geography, culture, and history. At times these characteristics of the state can seem daunting. But they also present incredible opportunities to advance the understanding of, and adaption to, aging. Fortunately, there is already a considerable amount of research related to aging underway at Maine's colleges, universities, and research institutions—over 70 projects at nine different institutions with funding from 78 sources. The opportunities for growth in aging-related research in Maine are tremendous. Big challenges can be faced and big opportunities can best be taken advantage of by teams of researchers approaching the challenge/opportunity from different angles through different disciplinary lenses and at different levels of specificity. The time is right to build upon the strong foundation of aging-related research in the state and create new opportunities for researchers to share their findings, interact, and form collaborations.

Maine colleges and universities are ramping up course offerings and programs in aging; health professions

programs are ensuring that content on aging is integrated into existing curricula. These approaches aid in ensuring that graduates are prepared to work in a world where the aging demographic is a primary driver of services, programming, and health care. Maine citizens over the age of 50 are enrolling in academic programs at the state's public and private colleges and universities in meaningful numbers despite the fact that, until recently, these institutions have not prioritized recruitment and retention of older adults. This picture is beginning to change. The Maine Community College System is completing a review of its programs, policies, and procedures to assure that their offerings match the needs of older Mainers and to make it easy for these students to enroll in and complete programs. The University of Maine System has made baccalaureate completion for older learners one of its strategic priorities. At both public and private institutions, an increasing number of courses and programs are being offered online, thus facilitating enrollment for nontraditional-age students whose family and work commitments require flexible schedules.

To ensure that Maine's colleges and universities meet the needs of older Maine students as well as Maine's employers, there is more work to be done. What are the highest priority employment areas for older Maine workers looking to retool or return to the workforce? What competencies will they need to develop? What are the most common barriers to obtaining the education they need to compete for jobs in the priority areas? How can businesses and colleges/universities partner to lower those barriers?

We have tremendous opportunities in Maine as we have the foundation in aging-related (gerontology/geriatrics) educational programs and research expertise to meet the challenges that lie ahead. Maine is home to nationally recognized researchers and faculty members in gerontology and geriatrics and we have nationally competitive research facilities in some areas of specialization. With Maine's expanding older adult population, and with those adults living longer, it is prime time for Maine's colleges and universities to mobilize efforts in research, teaching, and retooling to lead the nation in advancing healthy aging. 🐟

ENDNOTE

1. Co-conveners of the Maine Aging Initiative's Higher Education Workgroup were Marilyn R. Gugliucci, Ph.D. (University of New England) and Jeffrey E. Hecker, Ph.D. (University of Maine). Members from the University

of Maine were Nancy Fishwick, R.N., Ph.D., Lenard W. Kaye, D.S.W., Ph.D., and Carol Kim, Ph.D.; from the University of New England, Cynthia Glidden, M.S. and Judy Metcalfe, M.S.; from the University of Southern Maine, Julie Fralich, M.S.; from Maine Cite, University of Maine–Augusta: Kathryn Adams, O.T.L., A.T.P.; from Maine Senior College, Anne Cardale, M.S.; and from the Maine Community College System, Gary Crocker, M.S.

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