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The Economic Implications of Maine's Changing Age Structure

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The Economic Implications of Maine's Changing Age Structure

by James Breece, Glenn Mills, and Todd Gabe

The authors analyze the major implications of Maine's aging population on the state's workforce and economy. They note that there are steps that can be taken to partially mitigate the negative impacts and capitalize on the opportunities associated with an aging population.

INTRODUCTION

Maine has the highest median age in the United States, a fact that has drawn the attention of policymakers in Augusta and employers throughout the state. Aging has major implications for the workforce and economy, influencing the supply of workers and demand for goods and services (e.g., health care), but the extent and timing of these impacts are not well understood. The first section of this paper examines the changing age structure of the population and how these changes affect the workforce. The second section focuses on the industries and occupations that will be most affected by aging, as well as the implications for the demand for various types of goods and services. The last section reviews the economic consequences of an aging population projected by other economists, demographers, and social scientists around the world to ascertain common themes, points of consensus, and pertinent policy recommendations that are applicable to Maine.

CHANGING AGE STRUCTURE AND WORKFORCE GROWTH

In the United States, life expectancy at birth increased tremendously from an average of 48 years in 1900, to 68 years in 1950, to 79 years today. We often hear that the financial strains on the Social Security and Medicare programs are because people are living far longer in retirement. It is true that longevity has increased, but that is a small part of the increase in life expectancy.

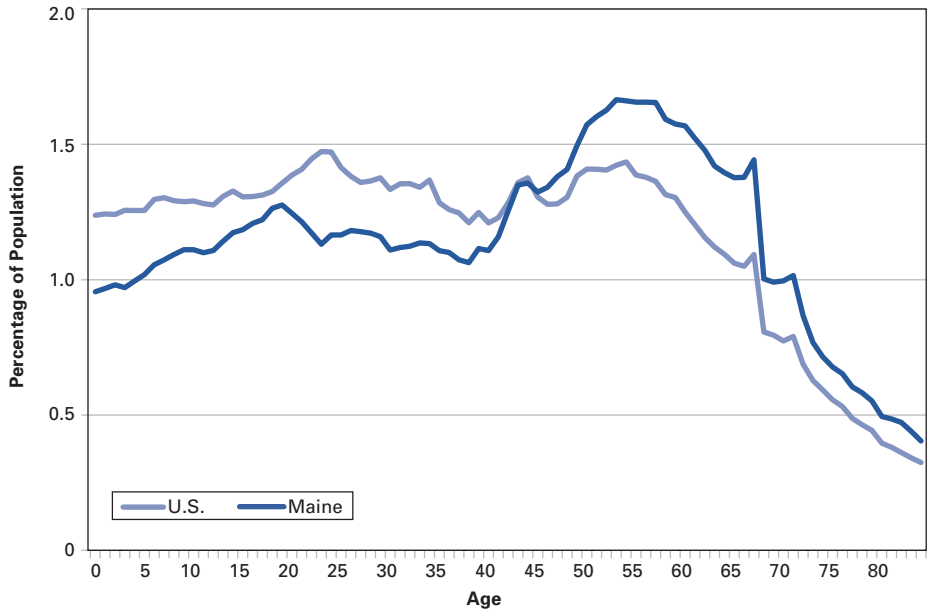
Average life expectancy for those who reach age 65 increased from 77 years in 1900, to 79 years in 1950, to 84 years today (NCHS 2014). Between 1900 and 2013, rising longevity of elders added just seven of the 31-year-gain in life expectancy at birth. Improvements in the diagnosis and treatment of disease and trauma care, reductions in infant mortality, and other factors played a much larger role in the gains in life expectancy—that is, we have become much better at preventing people from dying before reaching old age.

That being the case, it would seem that the median age of the population should be going down, which is what occurred between 1950 and 1970. However, since 1970, the median age in the United States increased faster than any time in our history, rising 9.6 years from 28.1 to 37.7 years between 1970 and 2014.[1] This occurred because birth rates plunged after the 1946 to 1964 baby boom to historic lows that prevail today. Baby boomers, who in 2015 range in age from 51 to 69, constitute an unusually high share of the U.S. population. Their advancing age is the major driver of the increase in median age.

The Oldest State

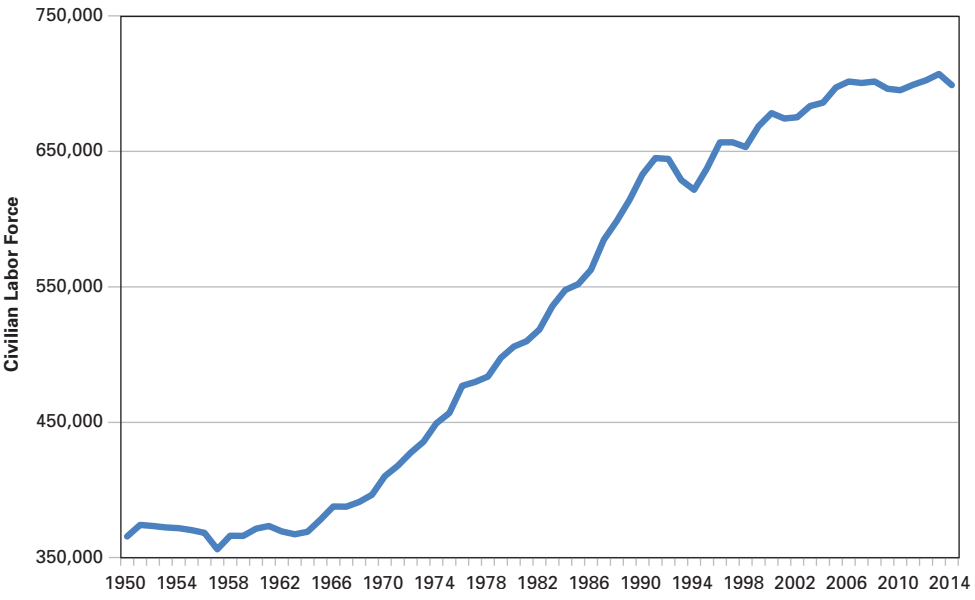
The median age in Maine was about the same as the nation's in 1970. Since then, it increased 15.6 years to 44.2 years of age in 2014, which is 6.5 years above the U.S. median. This occurred because the decline in birth rates was much greater in Maine than in the nation as a whole. Compared with the United States as a whole, Maine has a higher proportion of its population in the age groups of 45 and older and a lower proportion in the younger age groups (Figure 1). Nationwide, birth rates are down among all racial groups, but especially among whites who no longer maintain replacement fertility rates. Maine, New Hampshire, Vermont, and West Virginia are the least racially diverse states, 94 or

FIGURE 1: **Percentage of Maine and U.S. Population by Age, 2014**



Source: U.S. Census Bureau, Population Estimates, State Characteristics: Vintage 2014. https://www.census.gov/popest/data/state/asrh/2014/index.html

FIGURE 2: **Maine's Civilian Labor Force, 1950–2014**



Source: Maine Department of Labor, Center for Workforce Research and Information. 2014. Maine Job Outlook 2012–2022. http://www.maine.gov/labor/cwri/outlook.html

95 percent white; it is no coincidence they are also the four oldest states.

Through most of Maine's history, the workforce grew because the number of young people reaching working age outnumbered those exiting for retirement, disability, or other reasons. The fastest growth on record occurred in the 1970s and 1980s, the period when most baby boomers entered the workforce.[2] Growth slowed in the 1990s, after all the boomers reached their peak years of labor force attachment. Around 2000, baby boomers began to exert downward pressure on the size of the labor force when the oldest of the group began to transition beyond the age of peak labor force participation. (Labor force participation is highest among those 25 to 54 years of age; it is lower for young people and those 55 and over.) The growth of Maine's labor force continued at a very slow rate until 2006, at which time it essentially stalled. From 2006 to 2013 the workforce was largely unchanged, before beginning to decline in the middle of 2013 (Figure 2).

As of 2014, most of Maine's 370,000 baby boomers were still in the labor force. Two decades from now, the youngest

boomers will be 71 and only a small share will still be working. On the other end of the age spectrum, the population of youths under 19 who will replace them in the workforce totals 259,000. That 111,000 gap is significant in light of the fact that there are fewer than 700,000 in the workforce today.

Population Changes

According to its most recent forecast, the U.S. Census Bureau estimates that the U.S. population will increase by 38 million people between 2015 and 2030. The number of individuals aged 65 and older is expected to increase by 26 million, which is nearly three times the nine million additional people aged 16 to 64.[1] The ratio of working-age people (16 to 64) to seniors is expected to decline from 4.2 in 2015 to 2.8 in 2030.

The situation in Maine is far more striking. The Maine Office of Policy and Management (OPM) forecasts the total population will not change significantly through 2025, remaining around 1.3 million people, continuing the flat trend that has prevailed since 2008. After 2025, the OPM expects a slight decline in the total population through 2030.[3] Underlying this seeming stability is tremendous change in the age structure. The OPM projects the population aged 65 and older will increase by 101,000 people to a total of 350,000 residents, while the number age 16 to 64 will decline by 98,000 to a total of 755,000 individuals. The working-age-to-senior ratio is expected to decline from an already low 3.4 in 2015 to 2.2 in 2030.

Differing Population Profiles among Maine's Regions

Historically, population patterns have not been uniform across all regions of the state. Regional economic development has been driven by different factors over time, with subsequent differences in population and labor force patterns. Opportunities in agriculture and forest products industries such as logging and paper mills attracted many people to northern and western Maine in the late 1800s and early 1900s. Around that same time, the rise of apparel and textile mills and shoe shops built many of Maine's cities, especially in the central region of the state. Like living creatures, industries and companies tend to follow a lifecycle of growth, maturity, and decline. The rise of mechanized harvesting of crops and timber over the last few decades meant that far fewer people were needed per unit of output. Off-shoring of production to lower-wage nations of manufactured goods—especially commodity items such as apparel, textiles, and footwear—resulted in declining opportunities in some parts of Maine.

The economic development challenge for regions is the constant search for what's next in light of the changes in technology, trade, purchasing patterns, and demands for amenities. Regions that have not been able to fully replace the previous economic structure with something new are not able to offer the same opportunities to young people as were available to their parents. For large swaths of Maine, this general trend of decline has been taking place over the last several decades. As a result, many young people have responded by moving to areas offering better job opportunities, either in southern Maine or elsewhere.

The ratio of working-age people to seniors in Maine is lower than the U.S. average in every county (Table 1).

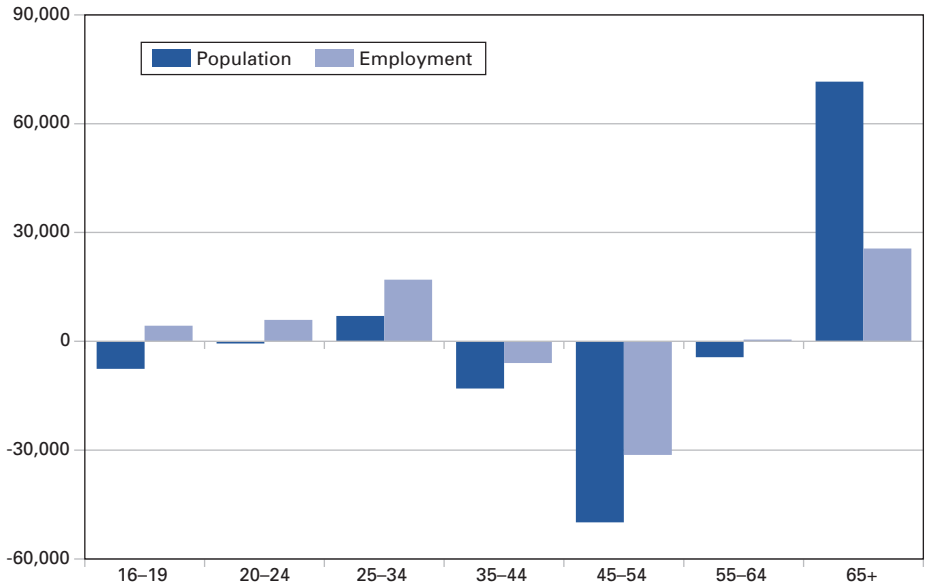
TABLE 1: **Working-Age-to-Senior Ratio***

	2015	2030
United States	4.2	2.8
Androscoggin	4.1	2.8
Penobscot	4.0	2.6
Cumberland	3.9	2.4
Kennebec	3.6	2.3
York	3.5	2.0
Maine	3.4	2.2
Oxford	3.3	2.0
Somerset	3.3	2.0
Franklin	3.2	2.0
Sagadahoc	3.1	1.8
Waldo	3.1	1.9
Aroostook	2.9	1.9
Hancock	2.8	1.7
Knox	2.7	1.8
Washington	2.6	1.8
Piscataquis	2.4	1.5
Lincoln	2.2	1.3

*The ratio is derived by dividing population of people age 16 to 64 by that of those 65 and over.

Sources: http://www.census.gov/population/projections/data/national/2014.html and http://maine.gov/economist/projections/index.shtml

FIGURE 3: **Maine's Projected Population and Employment Change by Age Group, 2012 to 2022**



Source: Maine Department of Labor (2014).

The exodus of young people from northern Maine left behind an older population. All five counties bordering Quebec or New Brunswick, as well as Piscataquis County, have a lower ratio of working-age people than the statewide average. The lone exception in northern Maine is Penobscot County, anchored by Bangor, which has a more diverse economy and is the region's primary service center. Mid-coast counties from Sagadahoc to Hancock also are among the oldest for a different reason: they attract retirees to some coastal communities.

Among the five counties with higher working-age-to-senior ratios than the state as a whole (the younger regions), the common thread is their location along the I-95 corridor and the inclusion in or proximity to a metropolitan area. Forecasts indicate that the working-age-to-senior population ratio will decline in each county as baby boomers advance in age. The OPM projects that the ratio will range from a high of 2.8 in Androscoggin County to a low of 1.3 in Lincoln County by 2030.

Future Workforce Growth

The Maine Department of Labor's Center for Workforce Research and Information (CWRI) developed a forecast of the state's labor force for the period of 2012 to 2022 by combining OPM's population forecasts for different age groups with labor force participation rates for those age cohorts (Figure 3). The CWRI expects the rate of participation in the labor force (i.e., the share of the population employed or actively seeking employment) to rise in all age groups, especially those under 35 and over 65 years of age.

For younger people, this reflects greater opportunity as the economy strengthens and large numbers of elders retire. For elders, this is influenced by changes in eligibility for retirement benefits and an increase in jobs that are not physically demanding, but primarily it reflects the rising share of young seniors in their upper sixties and early seventies. Young seniors have always been more likely to work than those in their upper seventies and beyond. This rise in participation of those aged 65 and older is expected to last for about the next 10 to 15 years, and then turn lower when most baby boomers are in their seventies and eighties. Despite rising participation among all age groups, the overall labor-force-participation rate is expected to continue to decline because of the rising proportion of seniors in the population.

The CWRI projects the labor force will decline slightly between 2012 and 2022, though they expect that employment will rise by 15,000 (Table 2). The diverging labor force and employment growth is based on the expectation of declining unemployment from the elevated levels of 2012, when the unemployment rate averaged 7.5 percent and there were more than 52,000 unemployed. At the time of this writing in 2015, the unemployment rate has declined to below 4.5 percent, and there are 22,000 fewer unemployed individuals. Delving deeper into what influenced the recent reduction in unemployment reveals the extent to which aging has already affected Maine's workforce. About one-third of the reduction in unemployment was due to rising

TABLE 2: **Civilian Noninstitutionalized Population and Labor Force in Maine, 2012 and Projected 2022**

Age Group	Number		Change	
	2012	2022	Net	Percentage
Civilian Noninstitutional Population				
Total 16+	1,084,000	1,087,100	3,100	0.3
16-19	73,000	65,400	-7,600	-10
20-24	83,000	82,400	-600	-1
25-34	137,000	144,000	7,000	5
35-44	162,000	149,000	-13,000	-8
45-54	215,000	165,100	-49,900	-23
55-64	204,000	199,600	-4,400	-2
65+	210,000	281,600	71,600	34
Civilian Labor Force				
Total 16+	704,000	695,500	-8,500	-1
16-19	34,000	34,700	700	2
20-24	64,000	65,700	1,700	3
25-34	111,000	122,100	11,100	10
35-44	137,000	128,200	-8,800	-6
45-54	176,000	137,800	-38,200	-22
55-64	140,000	138,100	-1,900	-1
65+	42,000	68,900	26,900	64
Employment				
Total 16+	650,000	665,000	15,000	2
16-19	26,000	30,300	4,300	17
20-24	55,000	60,900	5,900	11
25-34	100,000	117,000	17,000	17
35-44	130,000	124,000	-6,000	-5
45-54	165,000	133,700	-31,300	-19
55-64	133,000	133,500	500	0.4
65+	40,000	65,600	25,600	64

Source: Maine Department of Labor (2014).

employment. The other two-thirds of the reduction in unemployment was due to people leaving the labor force, nearly all for retirement.

Beyond 2022, employment will be further constrained by Maine's advancing age structure, which will influence the demand for products and services and the types of jobs that are available. Aging will stimulate the demand for health and retirement services and encourage employers to pursue improvements in productivity through automation and more efficient work practices. (See MDOL [2014] for further discussion of workforce trends and projections.)

THE SUPPLY-SIDE AND DEMAND-SIDE IMPACTS OF AGING

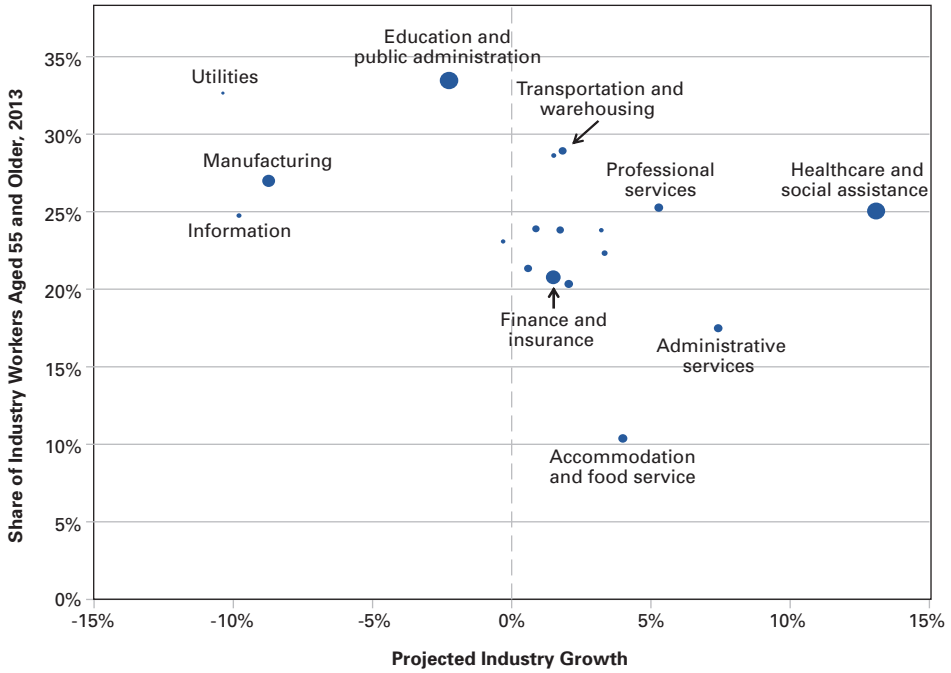
Maine's aging population will have significant implications for the economy, with particularly strong impacts not only on the labor market but also on the variety of goods and services purchased. These two types of impacts illustrate the dual roles that people of all ages play in the economy. First, the state's residents contribute to the demand-side of the market for goods and services, as households make purchases to satisfy needs and desires. And, relevant to the state's aging population, the goods and services purchased by households change as people grow older. Second, the state's residents also contribute to the supply-side of the market, as they constitute the workforce employed by businesses. Just as expenditures change as households grow older, the types of jobs held by workers also differ with age.

The Impact of Aging on Industry Employment in Maine

The supply-side impacts of an aging population—i.e., how the types of jobs held by workers differ with age—can be observed by looking at the age profile of industry employment in Maine. As shown in Figure 4, there is substantial heterogeneity across industries in terms of the percentages of jobs held by older workers. This fact, combined with the realization that some industries in Maine are expected to grow while others are not, suggests that the impacts of aging will play out in different ways across sectors of the economy.

Figure 4 is a bubble chart showing the projected growth of industries in Maine, as well as the shares of workers aged 55 and older. The size of the bubbles indicates the relative number of workers aged 55 and older. For example, the number of older workers is almost seven times higher in manufacturing (15,000 workers) than in the information sector (2,200 workers). Utilities and education/public administration have the highest shares of workers aged 55 and older, about one out of three. At the other end of the age spectrum, only one out of ten workers in the accommodation and food service sector is aged 55 and older.

FIGURE 4: **Projected Industry Growth in Maine, 2012 to 2022, and Share of Workers Aged 55 and Older***



*Bubble size indicates relative number of workers aged 55 and older.

Sources: Industry growth figures from MDOL (2014); worker age data from U.S. Census Bureau, Quarterly Workforce Indicators (http://qwiexplorer.ces.census.gov/).

The health care and social assistance sector has the highest projected growth rate between 2012 and 2022, as well as a large share of workers aged 55 and older. The projected employment growth in this industry is fueled in large part by the high demands for health care associated with an aging population. Health care and social assistance will also experience a supply-side impact of aging as about one out of four workers in the industry is aged 55 and older. In the face of these demand- and supply-side pressures, this sector will require a combination of an influx of new employees and current employees working past traditional retirement age.

The situation for manufacturing is very different. Although the manufacturing sector also has about one out of four workers aged 55 and older—similar to health care and social assistance—the projected decline in employment means that this sector will require fewer new workers to replace the current cohort of older employees. In other words, Maine's manufacturing sector will experience a supply-side impact (as older workers transition into retirement), but the state's aging population will not increase the demand for goods manufactured here.

This comparison of health care and social assistance to the manufacturing industry illustrates the point that—even for sectors with similar shares of older workers—there's no one-size-fits-all impact of aging on the Maine workforce. The same thing can be said about the impacts of aging on different occupations (e.g., job titles such as nurses, engineers, or high school teachers) within the same industry. Focusing again on health care, we know that this industry has large numbers of workers in two distinct occupational categories: (1) health care practitioners and technician occupations (e.g., dentists, physicians, therapists, and nurses), and (2) health care support occupations (e.g., home health aides and nursing assistants).

Employment in both of these occupational groups is expected to increase by about 10 percent between 2012 and 2022, consistent with growth projected for the health care and social assistance industry as a whole. Health care practitioners and technician occupations, however, have one of the highest shares of older workers, whereas health care support occupations have a much younger workforce. This large difference in the share of older workers points to different impacts related to an aging population. Both occupational groups will experience demand-side pressures due to aging. The high expected growth combined with an older current workforce in health care practitioners and technician occupations (e.g., dentists and doctors) means that the state will need an influx of new employees, and/or current

TABLE 3: **Per Person Consumer Expenditures of Older U.S. Households, 2013**

	Age 55–64	Age 65–74	Compared to Age 55–64	Age 75+	Compared to Age 55–64
Average annual expenditures	$26,615	$24,609	-$2,006	$21,489	-$5,126
Food at home	$2,015	$1,962	-$53	$1,766	-$250
Food away from home	$1,180	$1,206	$26	$824	-$356
Alcoholic beverages	$221	$211	-$11	$145	-$76
Owned dwellings	$3,460	$3,196	-$264	$2,646	-$813
Rented dwellings	$922	$760	-$162	$1,433	$510
Other lodging	$500	$471	-$29	$223	-$277
Utilities, fuels, and public services	$1,969	$2,013	$44	$1,889	-$80
Household operations	$492	$518	$26	$648	$156
Housekeeping supplies	$336	$423	$86	$333	-$4
Household furnishings and equipment	$862	$852	-$11	$526	-$337
Apparel and services	$744	$643	-$101	$480	-$264
Transportation	$4,515	$4,196	-$319	$3,218	-$1,297
Health care	$2,085	$2,731	$646	$3,069	$984
Entertainment	$1,262	$1,309	$47	$889	-$374
Personal care products and services	$304	$326	$22	$307	$3
Reading	$63	$77	$14	$79	$17
Education	$591	$184	-$407	$175	-$416
Tobacco products and smoking supplies	$209	$136	-$73	$56	-$153

Source: U.S. Bureau of Labor Statistics (2015)

workers will need to remain in their jobs longer. On the other hand, although the state is expected to experience an increase in demand for health care support workers, these occupations will be less affected by the retirement of current workers.

The Impact of Aging on Household Purchases

Another important trend related to Maine's aging population pertains to changes in the types of goods and services demanded by households. Although the consumer expenditure data discussed here are for the entire United States and are not specific to Maine, examining this information provides a glimpse of how an aging population might affect retailers and service providers in the state.

Table 3 shows how per person consumer expenditures are related to the age of the household head. The table focuses on the age cohorts of "65 to 74" and "75 and older," with comparisons to households headed by someone aged "55 to 64." For ease of interpretation, the expenditure categories with annual per person differences (either higher or lower) of $200 or more relative to the benchmark age cohort (of households headed by someone aged 55 to 64) are shaded in the table.

We see that households in the oldest two cohorts have substantially higher expenditures on health care than their younger counterparts. The oldest cohort spends over $3,000 per person on health care, which is about 15 percent of annual expenditures. For the cohort of households headed by someone aged 65 to 74, per person expenditures on health care are over 11 percent of annual expenditures. By comparison, and this figure is not shown in the table, households headed by individuals under 25 years of age devote about 3 percent of their annual expenditures to health care.

The consumer expenditure figures also point to a change in the living arrangements associated with age. The data reveal a sharp decline in expenditures on owned dwellings, corresponding with an increase in expenditures on rentals in the oldest cohort. These results are consistent with the behavior of older adults moving into senior and rental housing communities, or to some form of assisted living. This trend will have

important implications for Maine's housing market—both in terms of the demand for senior-appropriate rentals and the potential increased supply of single-family homes as older households transition into these rentals.

Other noteworthy trends in consumer expenditures associated with aging are the reductions in spending by the oldest age cohort on apparel and services, household furnishings and equipment, transportation, education, and even groceries (i.e., food at home). The data provide a clear indication that the oldest households reduce their spending compared to peak expenditure years (i.e., 55 to 64) in a variety of categories. These trends—along with others such as older households changing where they shop or purchasing different goods within the same broad expenditure category—will affect businesses ranging from grocery stores and clothiers to automobile and furniture dealers.

THE MACRO VIEW

Maine is not alone with a changing age structure. A National Bureau of Economic Research (NBER) report (Bloom, Canning, and Fink 2011) using data and projections from the United Nations, shows that nearly all countries in the world will experience aging of their populations, with drastic effects by 2050.[4] Countries such as Japan, Germany, and South Korea have elder populations that are outpacing those in Maine.

Economists, demographers, and other social scientists around the world have investigated, modeled, and projected the economic consequences of an aging population. There are common themes and points of consensus that are applicable to Maine, along with pertinent policy recommendations.

Economic Implications

The changing age structure experienced to date is mild compared to the looming predictions of the future, making the work of gauging the impending economic and social consequences more difficult. Nevertheless, there are some predictions that many researchers agree upon. Specifically, there will be significant labor and skill shortages; decreases in labor productivity; sectorial shifts driven by changes in supply and demand factors; and falling savings rates and increasing interest rates with corresponding changes in asset prices. When combined, these outcomes will contribute to slower economic growth, as already experienced in Japan and here in Maine.

In the United States, public spending for Medicare, Social Security, and Medicaid long-term care is expected to grow from 6.8 percent of GDP in 2000 to over 13 percent in 2050 (Wiener and Tilly 2002). Of course, these percentages depend on underlying growth in health care expenditures and the expansion of the overall economy. Nonetheless, this expected expenditure shift will place pressure on federal and state policymakers to set priorities on government spending and taxation.

Maine elders will react to the changing economic conditions they face and in so doing may cause consequences for others. For example, to minimize their financial portfolio risks, elders will be shifting their portfolios from equity to fixed-income annuities as they draw down their savings. This will directly affect stock prices and interest rates in national markets. At the same time, they will be downsizing their homes and moving into apartments that are closer to medical providers. Rural single-family home prices may fall (helping first time homebuyers) while urban apartment rents may rise (hindering young apartment seekers).

Behavioral Changes

The economic projections and consequences of an aging population may not be as adverse as they first appear, namely, because the projections are static and do not take into account behavioral changes as people adapt to the situation. Several potential behavioral changes may mitigate the consequences of an aging population (Bloom, Canning, and Fink 2011), including the following:

- As people age, if they remain in good health, they may opt to work longer—hence partially offsetting labor shortages.
- If people work longer, they will be able to sustain a higher standard of living, contributing to the economy.
- Labor force participation of aging women may increase and add to the overall workforce and improve productivity.
- An increase in human capital (e.g., formal education and training) either directly or by funding others will further increase productivity. Older adults may opt to go back to school or help others to obtain more education.

- Businesses, in reaction to labor shortages, may amend their practices and encourage older workers to remain employed by offering a more convenient and supportive work environment.
- Firms may respond by using more capital-intensive production practices to increase productivity.
- Shifts in migration patterns, both regionally and internationally, may occur to offset labor market gaps in some regions.

The combined impact of these behavioral changes can be significant. Maine people and business are likely to change their behavior in response to needs, circumstances, and incentives.

Policy Recommendations

McKinsey & Company wrote a short report making several recommendations to help Japan face the economic strains caused by their rapidly aging population (Adachi, Ishide, and Oka 2015). Other reports and writings have made additional recommendations, many of which directly apply to Maine's situation. Below are five reoccurring recommendations that are viable for Maine.

First, recognize that not all elders will age in a similar fashion—some will remain healthy and active while others will develop health problems and become less mobile. Healthy elders may be able to continue working beyond the traditional retirement age. This will require adjustments to the labor market and enterprises' handling of the expectations of older workers. Elders need a supportive and nurturing work environment. For example, elders often have physical limitations, may not want or be able to work full time, and may desire new careers.

Second, elders can share their knowledge and experiences with younger workers to enhance human capital and overall labor productivity. This sharing and engagement occurs in the workplace and through volunteer activities. Of course, volunteerism also adds directly to the social wellbeing of society. Avenues for engagement and volunteerism must be established and supported. (Crittenden and DeAndrade [2015] have a discussion of senior leadership and engagement programs currently underway in Maine.)

Third, policymakers and businesses should recognize that elders understand elders. Some healthy, active elders may focus their energy towards helping others in need in a thoughtful, understanding, and compassionate way. One example suggested in the article by Adachi, Ishide, and Oka (2015) is to have able-bodied elders provide nursing care for dependent elders. This directly fills a workforce need and contributes to the economy. Active elders could also help develop new products and services desired by other elders.

Fourth, to help able-bodied elders work beyond the traditional retirement age, new mechanisms, technology, and networks should be created to widen the flow of information to connect with potential employers and locate jobs that fit the elders' skills and situations. Current federal, state, and private senior employment services must be enhanced and expanded. Employers and elders must have access to these services and become comfortable using them.

Last, engaged elders who want to stay in place and continue working will require support networks that enable them to remain active and productive. They will need assistance in transportation; access to rural health providers and financial advisors; help with home maintenance and shopping for necessities; the establishment of social networks and entertainment (online and in-person); and functional telecommunications designed for the future digital world. (See Boober [2015] for discussion of aging in place in Maine, and Oh [2015] for discussion of the age-friendly community movement in Maine.)

Unfortunately, encouraging able-bodied elders to continue working will not fully offset the projected labor market gaps in Maine. Therefore, it is imperative to enhance the labor market in other ways so that more workers are available and equipped with the skills required for Maine's future economy. Widely articulated recommendations include making higher education more accessible; attracting others (of all ages and residencies) to move to Maine to live and work; creating incentives for higher rates of fertility; and establishing a virtual labor force through technology (as the health care industry does with telemedicine).

CONCLUSION

Maine is facing serious challenges associated with an aging population. If nothing changes, the working-age-to-senior ratio will fall by one-third and significant labor shortages will develop. The composition of the economy will also change. Collectively, these outcomes could stymie growth, placing financial pressures on state and local budgets. But behavioral change that could mitigate some of these consequences

is possible. With vision, leadership, and determination, new avenues for using elders in the labor market and establishing new products and services may produce positive results. But Maine must also find alternative ways not dependent on elders to expand the labor force and increase labor productivity.

ENDNOTES

1. These figures come from the U.S. Census Bureau's 2014 National Population Projections. (http://www.census.gov/population/projections/data/national/2014.html) and U.S. Bureau of the Census (1973).
2. Much of the information in this section, unless otherwise noted, is based on data and calculations from the Maine Department of Labor, Center for Workforce Research and Information (CWRI).
3. Data are from the Maine Office Policy and Management's website: http://maine.gov/economist/projections/index.shtml
4. Projections indicate that nearly two billion people worldwide will be over the age of 60 by 2050, representing 22 percent of the world's population. This age cohort will grow from 20 percent to 30 percent of the population in developed countries, and from 10 percent to 20 percent of the population in less-developed nations.

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