SILVER TO GOLD

THE BUSINESS OF AGING





By Paul Irving with Rita Beamish and Arielle Burstein



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REPORT FROM THE SUMMIT ON BUSINESS AND THE FUTURE OF AGING

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The mission of the Milken Institute Center for the Future of Aging is to improve lives and strengthen societies by promoting healthy, productive, and purposeful aging.

ACKNOWLEDGMENTS

Our work depends on the efforts of many colleagues who share our aspirations. I want to first thank the M Center of Excellence at the American College for its support in convening the Summit on Business and the Future of Aging and publishing this report. The M Center's focus on longer, healthier lives, lived well, is fully aligned with our own mission, vision, and values.

Special thanks to Rita Beamish for her journalist's eye and our productive and engaging writing collaboration, and to Arielle Burstein for her leadership in organizing the summit and her valued assistance with program development, research, and planning. My appreciation to Sophie Okolo and Caroline Servat for their work at the Center for the Future of Aging, and to my colleagues at the Milken Institute, including Jill Posnick, Heather Fields, and Bryan Quinan for their help. As always, I'm grateful to my assistant, Shantika Maharaj, for her support. Thanks also to Piderit & Partners for their creative assistance with editing and report design.

Finally, I want to express my gratitude to the summit participants for their inspiring contributions, and to the members of our board of advisors for their expertise, leadership, and commitment to a better future.

Paul Irving Chairman

Milken Institute Center for the Future of Aging

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PREFACE

Populations are aging across the world. This global demographic shift promises great opportunity—and challenge—in the decades ahead. No institutions have a greater stake in the changing demographic frontier than businesses, large and small, that have an integral role to play in realizing the upside of the new and unprecedented human longevity.

To discuss the significance of population aging for the business sector and society at large, the Milken Institute Center for the Future of Aging, with the collaboration and support of the M Center of Excellence at The American College of Financial Services, convened the 2017 Summit on Business and the Future of Aging in Los Angeles. The summit gathered thought leaders from a range of disciplines including academia, media, business, public policy, and the nonprofit world.

Participants agreed that there is much to be done to elevate the opportunities in population aging, including recognition of the human capital value of older adults and the market prospects for products, services, and innovative solutions to serve their growing numbers. The summit attendees recognized the need to promote understanding of the ways that linking business interests with the needs of the aging population can enhance health, well-being, and financial security for the benefit of all. This report summarizes the themes, findings, and vision of the Summit on Business and the Future of Aging.

THE 60-PLUS
POPULATION WILL
DOUBLE FROM
1 TO MORE THAN
2 BILLION BY 2050.



INTRODUCTION

"This increase in the life span and in the number of our senior citizens presents this nation with increased opportunities: the opportunity to draw upon their skill and sagacity—and the opportunity to provide the respect and recognition they have earned. It is not enough for a great nation merely to have added new years to life—our objective must also be to add new life to those years."

- John F. Kennedy, message to Congress, Feb. 21, 1963

President John F. Kennedy, whose appeal to create a better world inspired and motivated a generation of youth, had a keen but less-recognized focus on older Americans. He lamented that their talents were "all too often discarded" and that a narrow view of aging—as a time of decline and dependency—obscured the many ways they could contribute to their communities, employers, the economy, and the nation. He saw that cultural attitudes and institutions were not keeping pace with increased longevity and the vitality of older adults that had evolved throughout the 20th century. At the edge of what he termed "the new frontier of longevity," Kennedy called for "dignity and security and recognition" for older adults.

More than half a century later, Kennedy's concerns remain more pressing than ever for businesses, communities, and families across the nation and world. The new longevity landscape is a vital reality affecting the lives of today's adults and of generations to come. How society and its institutions respond to a rapidly aging world will determine humankind's future.

Today, the Kennedy-era youth have a strong personal connection to his words. They are the leading edge of a new demographic order. No longer young, they are part of the world's fastest growing age segment: the 60-plus cohort, on track to double by mid-century to more than two billion globally, up from nearly one billion today, and jumping to an estimated 3.1 billion in 2100.1 By 2050, the over 60s will be about equal in number to those 15 and younger; that younger group numbers about twice as many as today's 60-plus count globally.2

This demographic shift is no futuristic projection but today's reality, accelerated by the aging of the post-World War II baby boom generation, slowing birth rates, and increasing longevity realized through advances in science and public health.

In the United States:

- The number of Americans aged 45-64—who will reach 65 over the next two decades—increased by nearly 15 percent between 2005 and 2015.³
- By 2050, the 65-plus cohort will climb to nearly 84 million, up from 43 million in 2012.4
- By 2040, adults 65 and older will account for more than one in five Americans, up from 15 percent in 2015.⁵
- The 85-plus cohort is projected to more than double between 2015 and 2040.6

By 2040, adults 65 and older will account for more than one in five Americans, up from 15 percent in 2015.

Globally:

- In developed countries, average life expectancy increased from about 66 years in 1950 to roughly 78 in 2010, while fertility rates fell.⁷
- In the countries of the Association of Southeast Asian Nations, older adults are projected to reach 123 million by 2050, almost equal to Japan's current total population.8
- By 2030, Japan will become the world's first "ultra-aged" nation, with more than 28 percent of the population 65 and older, while Hong Kong, South Korea, and Taiwan will be considered "super-aged," with more than 21 percent above 65.9
- In Europe, where a quarter of the population is 60 or older, that proportion is projected to reach 35 percent in 2050.¹⁰
- For Latin America and the Caribbean, the 60-plus population will increase from 12 percent of the total in 2017 to 25 percent in 2050.¹¹
- Comparatively youthful Africa will also age, from 5 percent of the population aged 60 and over in 2017, to 9 percent in 2050.¹²



Like climate change, 21st century population aging will transform nations, communities, families, and individual lives in dramatic ways. The repercussions for economies and businesses will be no less impactful.

Business Implications

Called by some the world's most compelling business opportunity, population aging presents both opportunities and challenges. The corporate community has just begun to test the economic power of older adults—their consumer strength, their product and service needs, and the wisdom and experience that they bring to the workforce as employees, mentors, and entrepreneurs.

As aging continues to shape population ratios, investment in relevant products and services will prove lucrative for companies that reach out to older consumers. Businesses that understand this emerging market, including how today's older adults differ from past generations, will propel growth in sectors ranging from financial services, housing, and health to entertainment, travel, and retail goods.

As a growing human capital resource, older adults have the capacity to power economic expansion as entrepreneurs, innovators, and colleagues in intergenerational workforces. The business community has only to embrace their underutilized talents to realize mutually beneficial outcomes—opportunities too compelling to ignore.

Outdated Attitudes

What has not changed since Kennedy's time, however, is a culture shrouded in ageism, both implicit and overt. Too often we define aging in narrow, negative terms. We devalue older adults, underestimate them in hiring and promotion, and typecast them in consumer marketing.

The business community has been an unfortunate accomplice in this misdirection, steeped in advertising and media that glorifies youth in all its desirable aspects while perpetuating negative myths about older people. Nor does the working world broadly celebrate, or often recognize, the unique talents of older workers. Aging is represented by people who have fallen and "can't get up." They are routinely consigned to the sidelines regardless of their vitality and capabilities.

Amplifying these attitudes is that neither consumer markets nor key business sectors and institutions—whether financial services, transportation, education, or technology—have been designed with older adults in mind, let alone the diverse needs of a mature population with ages spanning several decades.

Too often we define aging in narrow, negative terms. We devalue older adults, underestimate them in hiring and promotion, and typecast them in consumer marketing.

Companies have a self-interested opportunity to steer a cultural shift, highlighting aging not simply as a time of decline and deterioration, but as a purposeful life stage, with an array of possibilities for meaningful interaction with younger generations. This new narrative can reflect the reality of an aging population that is not ready to move to society's periphery but seeks to remain engaged and relevant, contributing to companies, communities, and the world.

The upside for business? Bank of America Merrill Lynch analysts offer a tantalizing projection: by the end of this decade, annual consumer spending by age 60-and-over adults globally will reach \$15 trillion.¹³ And as a human capital resource, their potential value in work, mentoring, and volunteerism is immense.

Companies without strategies to integrate shifting demographics into their product, service, and workforce planning will miss out, and in the process, fail to serve their investors and other stakeholders as their competitors move ahead.

The broad challenge in imagining a new future of aging, states Peter Mullin, chair of the M Center of Excellence, is: "How can we rewire, not retire? Reboot not retread? Turn recreation in to re-creation?" The business sector can play a key role—and provide important leadership—in all of these areas.



MYTH—BUSTER

FALSE

The older population is monolithic.

Mature adulthood now spans several decades. Older adults are diverse in age, ethnicity, physical ability, interests, and needs.

FALSE

Older people don't like to try new things.

Most entrepreneurs are over 50.

People in their 50s and 60s launch new businesses at nearly twice the rate of people in their 20s.¹⁴

CHAPTER 1

THE LONGEVITY MARKETPLACE

"In coming decades, many forces will shape our economy and our society, but, in all likelihood, no single factor will have as pervasive an effect as the aging of our population."

- U.S. Federal Reserve Chairman Ben Bernanke, 2006

Advances in science and public health have gifted the 21st century with longer and healthier lives, shaping a demographic landscape that presents exciting, unprecedented prospects for businesses. The longevity economy is already massive, and it's growing: Americans over 50 account for \$7.6 trillion in direct spending and related economic activity, 15 a figure surpassing the GDP of every nation except the U.S. and China. Yet understanding of the mature market's potential is still nascent. Fewer than half of companies are taking global aging into account in their strategic planning, one survey indicates. 16

Older Americans boast two dominant economic characteristics: they have more assets, and they spend more money than younger people. It is unsurprising then that the economic power vested in the 75 millionstrong U.S. baby boom population already fuels the economy through their acquisition of countless products and services, and through their financial market activities. Dominating many spending categories, including health, they have their credit cards at the ready for children and grandchildren, pets, entertainment, travel, and fitness. The implications are undeniable.

Global Power

The McKinsey Global Institute points to older consumers as one of the few engines of global economic growth in the coming years. Throughout the developed world, the 60-plus population is on track to generate half of all urban consumption growth between 2015 and 2030, significantly fueled by health-care spending.¹⁷

In the United States, with adults over 60 controlling 70 percent of disposable income, and with those over 50 projected to increase their spending at more than twice the rate of younger adults in the next two decades, ¹⁸ we get a glimpse of the longevity market's size and potential to influence future brand and product success.



BY 2050,
THAT PROPORTION
IS PROJECTED TO
REACH 35 PERCENT.

The longevity business is destined to become "the world's largest industry," according to prominent British investor Jim Mellon.

Or, as *The Economist's* Schumpeter column asserted in 2016, "The old are becoming the new, new thing." ¹⁹

By any measure, this consumer segment deserves more attention from marketers and product makers. How much spending growth would result from a real effort by businesses to produce compelling offerings for older customers and clients? Companies that understand and anticipate their evolving behaviors will gain advantage in strategic decisions about product and service development, site selection, merchandise mix, and marketing. Shrewd planning focused on the older consumer will be crucial for 21st century success.

Distinct and Diverse

When eyeing this market, companies will do well to recognize past mistakes born of long-held cultural biases that overlook the complexity, needs, and desires of older people. Although typically lumped together as a single club, "seniors," older adults are far from monolithic. Understanding their diversity is key to market leadership.

The first distinction is stage of life—specifically the older population's broad age range. After more than a century of increasing longevity, this group spans several decades: from age 50, AARP's youngest members, to the 80-plus population that is expected to nearly quadruple globally between 2000 and 2050,²⁰ to the historic number of centenarians.

By the end of this decade, annual consumer spending by age 60-and-over adults globally will reach \$15 trillion.

Retirement expectations are changing as well. Age is a dynamic time, not a static snapshot, and norms are being disrupted as people live decades beyond traditional retirement age and seek far more than rest and leisure. An increasing number enjoy full and productive lives in their 60s, 70s, 80s, and beyond, with differing needs and patterns as their lives progress.

A 90-year-old, for instance, may need vision, hearing, and assistance products that likely are not as relevant to a 60-year-old. Similarly, a "younger" older adult may be a better target for online advertising than someone over 80, simply due to the digital gulf separating them. Adults 65 to 69 are about twice as likely as those 80 and older to go online or have broadband at home, and are nearly four times as likely to say they own smartphones as those in their 80s, according to the Pew Research Center.²¹

Nor is age synonymous with frailty, another stubborn generalization from earlier eras. The health and functional status of older adults has been improving steadily since the early 1980s. Disability is pushed later in life, and some studies indicate that people are disabled for fewer years than older people were decades ago—a phenomenon called "compression of morbidity." A landmark study in 1994 showed older people increasingly doing better at daily tasks.²²

Vibrant Lives

With adjustment for varying degrees of physical change, older people tend to live lifestyles that in the past typified those of somewhat younger adults. They continue to work and volunteer. They take college classes and travel the world. They log miles on running paths and laps in swimming lanes. They date online and dance at rock concerts. They run for president.

Bristling at being defined by the single characteristic "old," they have abilities and desires as diverse as those of any other age group. Characteristics like personal interests, fitness levels, and wellness vary among all adults—and that includes older people.

As the baby boomers move into older and "oldest old" categories, the composition of the mature cohort will shift,²³ with ramifications for health care and caregiving. We envision a robust demand for inventions like the Japanese "carebots," robotic caregiving assistants; new digital health tools; and variations on affordable housing with a growing range of technologies and support services that facilitate independent living as an alternative to assisted living and nursing facilities.²⁴

Not Just Age

Older lives are not homogeneous even within age segments.

"There can be an 80-year-old who is vital and energetic, and a 50-year-old who is functionally impaired and dependent. So it's not about chronological age," notes Peter Nicholson, the chairman, president, and CEO of EasyCare Academy. Recent analysis finds a need, for instance, among more 59-year-olds for personal help with daily tasks like bathing and dressing.²⁵

"The trend, therefore, is toward a more active and healthier older population, and a less-healthy younger and middle-aged population, which includes the early baby boomers. Clearly, we are no longer a society with a functionally impaired older generation alongside a fit, active, younger population," concludes the MacArthur Foundation Research Network on an Aging Society.²⁶

Hopes and Dreams

Shifting definitions of and aspirations for "retirement" underscore that aging adults do not seek idle lives. They want to live in their own homes with access to transportation and services, entertainment and travel, and continued learning opportunities. They want to give back to their





communities, and they want to work—for a number of reasons, not all of them financial. In one study, half of American baby boomers said they would continue working even if they won the lottery.²⁷

Nielsen, a market research company, summarizes baby boom consumers this way: "The vast majority of them are not diminished or disabled by age and they are still consuming goods and services in line with their traditional pattern. Think about it—80 million consumers who wake up every day, who brush their teeth, shampoo their hair, wash their clothes, etc., as they have most every day of their lives." ²⁸

"We know what the products are—it's just that people are using them at a different age now. These are not whole new markets—these are existing markets that can shift," notes Andrew Scott, co-author of *The 100-Year Life*, and professor of economics at London Business School.

Purposeful Living

Most significantly, older people put a high premium on purpose in life, and with good reason, research finds. Those with rich social lives and meaningful interactions such as volunteerism and mentoring youth enjoy better mental health—put simply, a sunnier outlook. They see retirement as a life stage of social connection, community involvement, and some kind of work, according to Aegon's retirement survey of 15 developed nations.²⁹ Adults at every age, as well as employers, product manufacturers, and service deliverers should take note: research links purpose in life with healthy aging.³⁰

Health Marketplace

The longevity economy holds seemingly unlimited potential in an obvious category—medical products and convenient-living items. The health and biotechnology fields are exploding with new ways to address medical and genetic concerns, and the convenience sector is just as busy.

Research links purpose in life with healthy aging.

As a percentage of total spending, U.S. boomers are expected to spend 3.4 percent more on health care than their parents did,³¹ a potential that is stirring interest worldwide. In East and Southeast Asia, businesses are investing in long-term care services, a huge opportunity where government support for elder care is less robust than in more advanced economies.³² Annual expenditures for elder health care in the Asia-Pacific area, the fastestaging region in the world, will reach \$2.5 trillion by 2030, a five-fold increase over 2015, according to the Marsh & McLennan's Asia Pacific Risk Center.³³

Caregiving alone holds enormous need and opportunity, including new ways to assist unpaid family caregivers who enable loved ones to age in their own homes. Government statistics indicate that seven in 10 Americans 65 and older will need daily-living assistance at some point in their lives.³⁴ Research

suggests, however, that the ranks of caregivers will be sorely strained in the coming years. Marsh & McLennan projects that Asia-Pacific countries will be short 18.2 million professional long-term-care workers, with roughly half of those required in China alone, by 2030.

The United States by 2030 will be short an estimated 151,000 paid, direct caregivers and 3.8 million unpaid family caregivers, a progressively worsening scenario that Paul Osterman, professor at MIT's Sloan School of Management, described in a *Reuters* interview as "an absolute train wreck waiting to happen." Innovative business interventions to support and enhance caregiving can improve millions of lives.

More than an Apple a Day

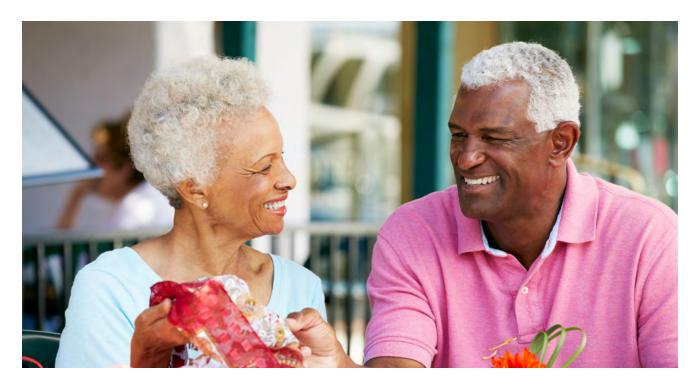
While pharmaceuticals, care, and medicine are clearly fertile business domains, Pinchas Cohen, dean of the USC Davis School of Gerontology, posits that prevention innovations are the next opportunity for disruption. "Prevention holds the prospect of upending the status quo, which is based on lifestyles that are sedentary and with poor diet choices. We need to disrupt the illness-care industry with prevention, wellness strategies, healthy long-term lifestyles, and integrated systems that encourage us to be healthy," he asserts.

The potpourri of aging-disability items—pill reminder systems, "grab" bars, audio-enhancing devices, and the like—certainly are needed, but they represent only a sliver of the wide-open terrain ready to be filled with healthy living products.

In categories other than the massive health market, older consumers' purchases are growing faster—especially in hobbies and non-essentials. Morgan Stanley analysts advise businesses to expect relative outperformance of health care but also in housing and entertainment, as the U.S. matures in the coming years.³⁶ Even those broad categories do not fully tell the story of the many ways companies can capitalize on the new demography to drive economic growth.

Working, Playing, Spending

U.S spending data reveals that the fastest-expanding purchase categories since 1990 include entertainment, up an average 10 percent a year, and pets and hobbies, up 5 percent annually. Other expanding purchase categories include exercise, photography equipment, boats and recreational vehicles, and electronic video games.³⁷ This discretionary spending dovetails with what Nielsen research identifies as a baby boomer preference for active pursuits and a tendency to "work hard and play hard, all their lives. Playing hard—after the work is done—means spending money ... and lots of it."³⁸



Nielsen surveys and other analyses show that in the U.S.:

- Older adults dominate 119 of 123 consumer packaged-goods categories.³⁹
- Those over 50 spend more per capita at grocery stores than any other age group and purchase half of all alcoholic beverages.⁴⁰

On the global front, Aegon finds that:41

- The most widely held retirement aspirations are traveling and spending time with friends and family.
- Retirement aspirations include not just leisure but also work, social connection, and community participation. A noteworthy 26 percent mention some form of paid work as a retirement goal.

These trends flash a green light for product developers and marketers who for years have been laser-focused on the young: the golden years hold golden possibilities for businesses. Will they capitalize on the opportunity?

The answer relies in no small part on shedding disproven assumptions about older consumers. It's in recognizing, for example, that mature adults are avid users of technology and represent a fast-growing market segment for smartphones, social media, and the internet.

It also means understanding that they are less eager to amass possessions than earlier generations, and are more focused on enjoying experiences.⁴²



Packing Their Bags

Older adults prize travel, which tops the list when AARP asks its members about their aspirations. This is good news for all manner of websites, apps, tours, and products that tap into that desire, and a chance for the travel industry to deepen customer loyalty and patronage by adopting age-friendly strategies:

- Adults over 50 spend almost half of all vacation dollars and account for 80 percent of luxury travel.⁴³
- For American baby boomers who have a bucket list, as about half do, more than eight in 10 put domestic and international travel on the list.⁴⁴

Expanding on the tours and trips already marketed to older consumers and developing new offerings ranging from adventure, family, and educational vacations to luggage and comfort options can produce financial returns as older adults check off their bucket lists. Failure to deepen connections to this market, on the other hand, leaves money on the table.

Adults over 50 spend almost half of all vacation dollars and account for 80 percent of luxury travel.

Living at Home

Technology is deeply wired into older adults' daily lives, as it is for everyone. Home modifications—such as tech-enabled lighting, windows, kitchens, and monitors—have special relevance. These features appeal for one overriding reason: the overwhelming majority of older people, nearly 90 percent of those 65 and older, want to age in their own homes, 45 and tech solutions can help them do so.

Developers and companies will do well to consider this coveted living preference which the National Association of Homebuilders promotes with an awards program honoring excellence in housing design, marketing, and lifestyles for the mature adult.

"Senior-living" providers rely increasingly on technology solutions to serve their growing clientele. The overwhelming majority use electronic medical records; and fall-detection, tele-health, and tele-monitoring technologies are becoming common.⁴⁶

Surveying the demographic trends, prominent venture capitalists are beginning to explore the home-care space, including on-demand caregiving solutions, like Honor's model which enables online platforms and mobile apps to summon in-home assistance ranging from feeding and cleaning to caring for complex medical conditions.⁴⁷

The cost of housing is also an urgent concern for older people, as well as for younger generations who struggle in real estate markets where home prices have increased 250 percent since 1980. Millennials are tapping their bank accounts to the tune of nearly 8 percent more for housing than the boomer generation spent at the same age;⁴⁸ and housing costs fuel preretirees' anxiety about saving enough for a secure retirement. Innovation in affordable housing will be a welcome development in this arena.

Way to Go

Transportation is a high priority for older adults—a key to their ability to see physicians, shop, take classes, visit friends and family, and volunteer at the library or hospital. Public transit, ride-calling apps, van shuttles, and pickup systems all can tailor services to these needs.

Significantly, personal automobiles have always been important to boomers, and they remain active consumers:

- U.S. consumers age 50-plus spend \$90 billion a year on cars.49
- Adults age 55-plus purchase more new cars than other age groups, and the average age of new car buyers has risen along with the aging of the baby boom generation. The share of new vehicles bought by 55-plus adults rose by 15 percentage points from 2000 to 2015.⁵⁰
- The number of drivers 55 to 74 years old has increased substantially.⁵¹

"The findings suggest that marketing efforts that focus on drivers 55 to 64 years old should have the highest probability of success per driver," says Michael Sivak, professor at the University of Michigan Transportation Research Institute.⁵²

Some automakers are already working to court this market. General Motors recruits people 60-plus to test its infotainment systems. Ford's "thirdage suit," which outfits designers with thick gloves, tinted goggles, and movement constraints, helps the company design vehicles with ease of access and convenient reading panels and controls.

For people who no longer get behind the wheel, or for city dwellers who've never driven, public transportation becomes increasingly important. But nearly 16 million Americans 65 and older are estimated to live in communities where public transportation is poor or nonexistent.⁵³ Their inability to get around opens significant business prospects.

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The ballooning popularity of ride-sharing services, for example, helps keep people mobile. Both Lyft and Uber have programs to shuttle riders to appointments and errands without having to use phone apps—a service also provided by startups like GoGoGrandparent.

Joseph Coughlin, director of the MIT AgeLab and author of *The Longevity Economy: Unlocking the World's Fastest-Growing, Most Misunderstood Market*, points out that the makers of autonomous cars also will be smart to keep older consumers in mind as driverless vehicles shift from the testing grounds to wide availability and acceptance. "Our aging society's coming mobility gap could be closed by the convergence of population aging and autonomous vehicles," he states. "Opportunities for innovation are enormous—and smart, creative companies should be fighting over the fastest-growing, yet most misunderstood, market."

Saving Up

Financial services are another fertile sector in the longevity economy, with the prospect of a demography-driven golden age: older adults control the majority of wealth and dominate as investors. Those 50 and over own nearly three-quarters of all financial assets, making them a prime target for investment opportunities and financial services.⁵⁴

High-touch custom services for older private clients will continue to proliferate. New technologies—whether in fintech, robo advising, or social media—are changing the ways wealth management firms engage retail clients.

AARP surveys find that significant numbers of 50-plus Americans would pay for their financial institutions to proactively fight financial fraud and scams, common forms of elder abuse.⁵⁵ Banks and credit unions are "uniquely positioned" to protect older consumers, notes former Consumer Financial Protection Bureau Director Richard Cordray.⁵⁶

OLDER ADULTS DOMINATE

110

OF

123

CONSUMER PACKAGED-GOODS CATEGORIES.

Also in the financial security space are companies using algorithms to monitor and flag possible abuse for clients—unusual activity, for example, like a 3 a.m. ATM withdrawal, something unlikely for an 80-year-old account holder.

The financial plans of Gen X, the cohort behind the baby boomers, elicit particular interest from Wall Street. As this generation escalates savings and investment for retirement, "89 percent of wealth management companies say they are targeting Generation X," while fewer plan to target millennials or boomers, according to Baxter Consulting Group.⁵⁷

Marketing Missteps

Despite the new demography's potential, no sector has missed the longevity boat more than marketing and media. Paltry marketing budgets aimed at older consumers reinforce the perception that these consumers lack value.

Although baby boomers spend half of all consumer packaged-goods dollars for things like food, beverages, cosmetics, and cleaning products, marketing is youth focused and tends to stop courting customers at the "cutoff" age of 49, Nielsen reports. Yet campaigns targeting boomers are twice as likely to be successful as those targeting millennials, according to University of Michigan researchers. 59

"While the millennials are sharing stuff, boomers are buying stuff," Robert Pasikoff, president of Brand Keys Inc., told *The New York Times*. ⁶⁰ "If you are a brand, you are in business to make money; and a tweet or share or laugh online doesn't translate into actual bottom-line dollars." Boomers, on the other hand, "are an audience that's worth pursuing in virtually every category," he said. ⁶¹

Older adults are "the most marketing friendly generation in U.S. history," Nielsen adds. "They are healthy and growing, not broken and dying." But with occasional exceptions, advertising, marketing, and media have reinforced narratives with narrow portrayals of cluelessness and crankiness—the shuffling grandparent, the gruff neighbor—superficial typecasts that have become ingrained in our collective psyche. Aging is seen as unattractive and uninteresting, its challenges emphasized to the exclusion of older adulthood's passions, complexity, and aspirations—characteristics that do not suddenly disappear when people reach a certain calendar date. Older people face diminished expectations because they are seen as one-dimensional, and that one dimension is "old."

Efforts that do reach beyond the stereotype often blunder in implementation. One CEO, T-Mobile's John Legere, took on that topic with an in-your-face commercial to promote a T-Mobile service for adults age 55-plus. ⁶³ He mocked competitors for what he called their belittling, patronizing treatment of older adults in marketing that emphasizes large-size phone buttons and assumes that boomers are tech idiots. "Degrading at the highest level," Legere calls it. "The carriers assume boomers are a bunch of old people stuck in the past who can't figure out how the internet works. Newsflash, carriers: boomers invented the internet." ⁶⁴



Older adults do not want to be patronized, but they do want their needs acknowledged, and companies must find ways to do this while emphasizing the positive and reality-based aspects of aging.

Keeping it Subtle

Jimmy Buffett's Margaritaville adult-housing venture, for example, adopted a more subtle approach. Its website avoids explicit references to age while inviting people to a "home in paradise" with photos of vital, mature adults socializing while engaged in sports and dining. "Escape to the place where fun and relaxation meet. Escape to island-inspired living as you grow older but not up," the website cajoles.⁶⁵

Similarly, Dannon's Activia yogurt has refrained from hitting older consumers over the head, instead marketing its product around the ageless issue of "digestive health." And Dove saw its market share increase in its five major beauty categories after it launched an ad campaign, "Beauty Has No Age Limit," with an emphasis on different types of beauty and self-acceptance. 66

More broadly, says gerontologist Katy Fike, founding partner of Generator Ventures and co-founder of the global innovation network Aging 2.0, "There's not enough nuance and understanding of older people's needs and desires. We're often selling poorly conceived solutions to problems that people don't want to admit they have. Even if you understand the problem well, execution is a big challenge in this space, whether around design, usability, marketing, or accessibility."

Words and Meaning

Cultural blockades are buried in everyday lexicon, which is laced with pejoratives: over the hill, yesterday's news, geezer, old bag, and far more unflattering nomenclature. It is not socially acceptable to denigrate other marginalized populations, including ethnic minorities or the disabled, but that does not extend to older people, where it's open season. Ageist attitudes are so culturally entrenched that people seldom recognize them.⁶⁷

This negative narrative needs updating not only to serve social justice but because it makes pragmatic business sense. Effective media and marketing will reflect reality: 21st century older adults who are multidimensional and primed to spend money and time in meaningful ways, and who wish to be respected and valued for their accomplishments and potential.⁶⁸

Marketing analysts advise appealing to older adults' aspirations and interests—avoiding strategies that confront them with words like "elderly" or that make them feel less-valued and unworthy by the standards of youth. A classic advertising study found 82 percent of women want advertisers to recognize that they do not want to look 18 forever.⁶⁹

"It's time to be old out loud," Sheila Nevins, the president of HBO Documentary Films, told *The New York Times* in 2017 as she discussed Hollywood's ageism and narrow, subjective standards of desirability, especially for women. One of the industry's most successful executives, she felt for many years that she had to hide her age at work. Now, she says, "I'm trying to own it."

"It's time to be old out loud." — Sheila Nevins

Such ownership should be reflected in messaging and imagery portraying a diverse life stage, its realistic challenges and possibilities. But businesses and governments persist in "muddling through on a vision created nearly 100 years ago," says MIT's Coughlin.

Anti-ageism activist Ashton Applewhite suggests progress is hindered at least partly by a profit motive. "You can't make money off satisfaction, but shame and fear create markets. Who says wrinkles are ugly? The multi-billion-dollar skin care industry. Who says perimenopause and low T and mild cognitive impairment are medical conditions? The trillion-dollar pharmaceutical industry," she told a TED conference in 2017. "The more clearly we see these forces at work, the easier it is to come up with alternative, more positive, and more accurate narratives. Aging is not a problem to be fixed or a disease to be cured. It is a natural, powerful, lifelong process that unites us all."

Applewhite's critique merits consideration. But we see great potential for convergence between the interests of older adults and the interests of the industries that serve them. Forward-thinking business leaders can emphasize "new visions, new imagination," about aging, says Coughlin.

"The technology that we should be looking for is not one device at a time, but a new story," he says. "The new frontier in which we are all the pioneers is longevity, to live longer and better. This is not just a social need, but an amazing business opportunity as well. This is the longevity economy."

Integration, not Alienation

The new longevity frontier is more than a cache of years tacked on at the end of life: it is an integral part of life's continuum. The answer is not age segregation, but recognition of shared interests across generations. Businesses that embrace these concepts will reap broader rewards. When Sherwin Williams enlarged the font on its paint cans, for example, it created a solution for customers of all ages who squint at labels. When drug stores rearrange aisles and shelving for the convenience of older customers, shoppers of all ages benefit from the layout.

Just as NASA's innovations found uses in the civilian world, so can solutions tailored for older people resonate through creation of new standards across markets—becoming "a source of new ideas and trends, of new business models and new technologies, and of entrepreneurship and investment," as Oxford Economics states in the AARP report "The Longevity Economy: Generating Economic Growth and New Opportunities for Business."⁷²

Recipe for Success

As companies and investors across the world search for growth, the business opportunity of our time is hiding in plain sight, a recipe for 21st century success. By capitalizing on the demographic shift, through innovation and response to older adults' needs and aspirations, businesses can deliver superior returns for their stakeholders and a better future for all.

"Businesses have a golden opportunity to tap into the longevity economy through technology and other solutions, ranging from new ways to communicate to financial management strategies, to health and day-to-day living products and services. Each generation will design its own path through the longevity economy. We all need to recognize that when aging is viewed as a win, we all win."

— Joan Ruff



Digital Adapters

Technology products are a crucial part of older lives, despite cultural biases that silo all things digital into youth-focused frames. Contrary to the tired assumptions bolstering those biases:

- Two-thirds of people 50 to 64 use social media, and just over one-third of those 65-plus do, providing ad targeting opportunities.⁷³
- In the U.S., older adults account for four in 10 wireless service customers.⁷⁴
- Among those 50 and older, 99 percent report owning a tablet, laptop, or a desktop device.⁷⁵
- Half of older Americans have broadband at home.⁷⁶
- When it comes to online shopping, people over 50 in the U.S. are purchasing to the tune of \$7 billion a year.⁷⁷

The technology profile of mature adults is not uniform: the digitally-savvy diverge from the third of older internet users reporting little to no confidence in their own abilities with online devices. Over-65 ownership of smartphones is 42 percentage points lower than among those 18 to 64,⁷⁸ marking a clear area of opportunity.

As digital access connects this massive market to essential support, information, and community, developing even more age-friendly technologies may be the most compelling impact investment in the decades ahead.

MYTH—BUSTER

FALSE

Older adults don't use technology.

Four in 10 adults 65 and older own smartphones, more than double the share that did in 2013.

Nearly seven in 10 use the internet.⁷⁹

FALSE

Older minds can't learn new tasks.

Despite losses in speed and efficiency of processing new information, learning continues through the most advanced ages. Trends also show that cognitive decline is lessening in the modern era.80

CHAPTER 2

A GROWING NATURAL RESOURCE: LONGEVITY AND HUMAN CAPITAL

"In the long run, your human capital is your main base of competition."

- Bill Gates, Co-Chair and Trustee, Bill & Melinda Gates Foundation

Population aging has no more dramatic manifestation than in the changing demographics of the labor force. It's no secret that more older adults are working, and for more years than ever before. Americans are at their jobs well past the ages when their parents had settled into the world of retirement.⁸¹ Current trends indicate that it will become increasingly unusual for "retirees" not to work.

The workforce itself is transforming as workers 55 and older, who have driven nearly all the labor force growth in recent years, shift from being the smallest segment of U.S. labor to the largest. By 2024, one in four American workers will be 55-plus, the government estimates, more than double the figure in 1994 when this age group represented 12 percent.⁸²

The shift owes its weight to the massive baby boom generation, born between 1946 and 1964. As they have aged, they have worked, forming the backbone of the workforce. Despite ageism and disincentives that deter many who want work, older Americans now maintain their jobs significantly later in life than earlier generations did, in a trend that extends worldwide.

- More Americans 65 and older are working than at any time since the turn of the century and spending more time on the job than did their peers in earlier years.⁸³
- About half of retirees follow nontraditional retirement paths. Many do not exit the labor force permanently, but move to temporary or part-time work.⁸⁴
- A significant majority of U.S. boomers plan to work past age 65 or to not retire at all.85
- Among pre-retirees age 50-plus, nearly three in four say they want to keep working after they retire.⁸⁶

- Globally, 57 percent of pre-retirees and retirees envision some form of work in retirement years. But 39 percent of those already retired left the workforce sooner than planned, with 29 percent of them doing so due to ill-health.⁸⁷
- The proportion of people in the working-age population worldwide who are 50 or older will grow from 20 percent in 2010 to 30 percent by 2050.88
- In Japan, with the world's highest life expectancy and dwindling birth rates, more than half of men age 65-plus work, whether part- or full-time or in encore careers.⁸⁹
- China's workforce-age population has grown by more than 100 percent since 1970. Over the next 40 years it will shrink by about 19 percent.⁹⁰

Older people work for a combination of reasons, including income, social connection, and a chance to use their lifetimes of knowledge and experience. Should we view this development as positive or negative—and for whom?

For too long, the answer has been obscured by outdated views of aging.

Workforce in Flux

As the number of older people employed has steadily grown, the overall U.S. labor force participation has declined in recent years, the Bureau of Labor Statistics indicates. ⁹¹ Nearly one in five Americans 65 or older is working—almost nine million people, ⁹² nearly twice the number of teens who work.

That said, companies face a "brain drain" as their most experienced and knowledgeable workers retire. "Without proper foresight and preparation, these two challenges will combine to create an unprecedented and potentially crippling talent crisis in the coming decade," the Baxter Consulting Group predicts in its 2017 report, "Managing the New Multi-Generational Workforce." 93

A Growing Need

When the McKinsey Global Institute surveyed corporate executives worldwide about their strategic goals and projections, it uncovered troubling findings about that looming workforce shortage, a trend already heavily impacting Japan, where small and midsize companies have been hiring disproportionate numbers of older workers to fill gaps. ⁹⁴ Fewer than four in 10 of the executives surveyed told McKinsey they felt very or extremely confident that their companies would have the talent to carry out their strategic goals in the coming five years, a concern in both developed and developing markets. ⁹⁵

BY 2024, ONE IN FOUR **AMERICAN WORKERS WILL** BE 55-PLUS, **MORE THAN** DOUBLE THE FIGURE IN 1994.

Even with millions of unemployed people across the globe, businesses report trouble finding the specific experience, education, and skills they need. In 2011, with the jobless rate at more than 9 percent, McKinsey reported that nearly a third of U.S. companies had jobs they could not fill for more than six months. In Japan, it was eight in 10 companies. And by 2020, the United States may have 1.5 million too few workers with college or graduate degrees, and nearly six million too many high school dropouts. McKinsey researchers project France could be short 2.2 million baccalaureate holders. 96

"Because a high-quality workforce is the most important determinant of business success, these challenges have a direct influence on organizations' competitiveness both today and in the future," the Society for Human Resource Management concluded in a 2016 report, "The New Talent Landscape." ⁹⁷

Growth in the traditional working age population has slowed significantly in the U.S., the U.K., France, and Canada. In some countries, the labor pool is shrinking. In Germany, the workforce aged 15 to 64 is projected to drop from 54 million people in 2011 to 41 million by 2050.98 After massive workforce growth in the last few decades, China faces a dramatic labor force reduction in the decades to come.99

Acute shortages are expected in specific job categories, posing a strong rationale to embrace and encourage the extended working lives of older people. 100

Nearly one in five Americans 65 or older is working—almost nine million people, nearly twice the number of teens who work.

The greatest anticipated shortfalls? Management, research and development, and strategy, the executives told McKinsey. Similarly, human resources professionals from U.S. and multinational companies report growing applicant deficits in basic computer and writing skills, as well as reading comprehension, math, critical thinking, problem-solving, workplace professionalism, and work ethics.¹⁰¹

McKinsey analysts had some advice: "Developed and developing economies alike must become more innovative at sourcing talented employees, whether by tapping global labor markets or making better use of older workers." 102



Shifting Winds

Old business patterns will not hold as the world population ages. In the past 25 years, what the Berkeley Forum on Aging and the Global Economy calls "demographic tailwinds" have accounted for half of gains in global economic growth. Population aging and slower labor force growth will diminish those positive conditions in the coming years, the Berkeley group predicted in a 2017 study, with varying impacts among nations tied to birth and aging rates.

Overall, the Berkeley team projected, shifting demography will put a 20 percent dent in global economic potential between 2015 and 2040. The possibility of a partial offset exists in greater capital generation based on older adults' accumulated savings and the extent to which retirees spend and invest—but that is an uncertain projection, given adults' stress about being able to save enough for retirement. 103

To mitigate the tailwind slowing, Berkeley AGE Director William Dow suggests:

- Policies to raise employment rates, including incentives to keep older workers from retiring
- Education investment to maximize future productivity
- Preparation for pension, health care, and long-term care challenges

"Business and industry leaders can prepare by developing new work-force, capital-risk and market strategies, as well as new products and services for an aging marketplace," Dow concludes.¹⁰⁴



Solution at Hand

How are companies planning to meet their future labor needs? Mentioned most frequently in McKinsey's survey are plans to tap candidates in emerging markets and new talent in developed nations. Companies in North America also are looking to retrained individuals and those who have delayed retirement. 105

The case for mature workers from the underused worker pool, which also consists of women and youth, ¹⁰⁶ is clear. Older people stand out for their combination of experience, interest, and ability to fill skill gaps. They are a human capital resource that is ready to contribute to companies, younger colleagues, and a vibrant economic future. Even in scaled back or part-time roles, this older workforce can add in meaningful ways, diminishing shortfalls in pensions and retirement savings while meeting the broader challenges of unprecedented population aging.

The real issue—despite hand-wringing over a perceived economic drain from the ballooning older population—is in how to make the most of this human capital resource.

Labor Force Transformed

Older employees can help mitigate slippage in overall workforce size¹⁰⁷ and it will be increasingly imperative that companies enlist their full potential. A de facto shift has begun. In the United States, the portion of the 65-plus cohort that is working grew from less than 13 percent in 2000 to 19 percent in 2016.¹⁰⁸ And the 65-plus group also is increasing as a percentage of the overall workforce, from 19 percent in 2015 to a projected 29 percent in 2060—approaching the share of younger age segments.¹⁰⁹

Motivated Workers

They work because they can—that's true. But longevity and health are just part of what's behind the working-in-retirement trend; it's driven also by money and evolving attitudes, in particular aging adults' desire for purpose, engagement, and stimulation.

Income is a strong motivator. The miracle of longevity, when viewed through the lens of savings needed to secure a comfortable future, doesn't always appear rosy. In 2014, a 65-year-old American could expect to live another 19.3 years, until about age 84—three years longer than a counterpart in 1980, meaning three years of additional income needed.¹¹⁰

Faced with supporting those additional years of life, many people worry about financial security, their concerns amplified by the erosion of traditional retirement income sources like pensions and defined benefit plans, as well as the risks of Social Security reforms down the road.

Nest-egg strains already were apparent even before the late 2000s brought the housing and financial market losses of the Great Recession; only about one-third of baby boomers had adequate retirement savings as the downturn hit, according to the McKinsey Global Institute. 111 Retirement preparation looks shaky on a global scale as well—just 39 percent of workers describe themselves as habitual savers, while about one quarter are occasional savers, according to the 2017 Aegon Retirement Readiness Survey. 112

Thus, when looking at the practicality of work-free retirement, people 55-plus increasingly choose to stay on the job. 113 These realities argue for maximizing adults' work potential as they age.

More than Money

It's not just about money: other priorities also drive continued work and engagement. 114 Staying mentally active ranks high among older workers' motivations, tying for first place with income as a reason that pre-retirees plan to work in retirement, a study by Merrill Lynch and Age Wave found. 115 Among retirees currently working, "staying mentally active" was mentioned twice as often as money as the top motivator. Physical activity, social connections, and a strong sense of self-worth also are important drivers, according to the study, "Work in Retirement: Myths and Motivations, Career Reinventions and the New Retirement Workscape."

Older workers generally fall into four categories, the study states: those who need a financial cushion; the driven achievers who often own or run businesses; volunteers and nonprofit workers; and those who work for the social connection.

In addressing some of those motivations, companies can have a profound impact by encouraging volunteerism, through flex scheduling and other adjustments that help older adults fulfill the "generative" urge to help future generations. Americans over 55 volunteered 3.3 billion hours in 2016, for an economic contribution worth \$78 billion, according to the federal Corporation for National and Community Service¹¹⁶—doing good for others while benefitting their own physical and mental health.

Missing Out

Yet far too little has been done to promote positive and productive job experiences for older people, let alone prevent discrimination. Companies should, of course, continue progressive workforce strategies for all employees, but they clearly must invest much more effort in attracting, retaining, and engaging older workers. Only a third of U.S. companies have even attempted to assess the brain drain left by retiring boomers and their replacement needs. 117 Most have no plans to recruit or retain veteran employees, nor has the aging workforce prompted them to make general policy and practice changes, according to the Society for Human Resources Management. 118



More Americans 65 and older are working than at any time since the turn of the century and spending more time on the job than did their peers in earlier years.¹¹⁹

About half of retirees follow nontraditional retirement paths. Many do not exit the labor force permanently, but move to temporary or part-time work.¹²⁰

A significant majority of U.S. boomers plan to work past age 65 or to not retire at all.¹²¹

Among pre-retirees age 50-plus, nearly three in four say they want to keep working after they retire. 122

Globally, 57 percent of pre-retirees and retirees envision some form of work in retirement years.

The proportion of people in the working-age population worldwide who are 50 or older will grow from 20 percent in 2010 to 30 percent by 2050. 123

In Japan, with the world's highest life expectancy and dwindling birth rates, more than half of men age 65-plus work, whether part- or full-time or in encore careers.¹²⁴

As Michael Hodin, CEO of the Global Coalition on Aging notes, "We know that over half of workers report they want to work longer and differently, which tells us the megatrend of the aging of society is beginning to have huge impact on 21st century life. The question remains: are institutions of society, including employers, ready to deal with these transformative changes?" The answer shows much room for improvement.

They Need Not Apply

Despite labor needs, positive evidence, and mature adults' desire to work, the umbrella of ageism continues to impede opportunities. Older workers are overlooked and too often ushered out the door before they are ready to go. Mandatory retirement ages, and disincentives such as lack of training, promotion opportunities, transitional arrangements, and flexible schedules also play a role.

Company strategies to welcome and encourage other marginalized groups do not extend to older workers, notes Patricia Milligan, senior partner and global leader for Mercer's Multinational Client Group. "At the most respected multinational companies, the single class not represented from a diversity and inclusion perspective is older workers. LGBT, racial and ethnic diversity, women, people with physical disabilities, veterans—you can find an affinity group in a corporation for everything, except an older worker," she says.

"The last frontier of diversity and inclusion is aging. At the most respected multinational companies, the single class not represented from a diversity and inclusion perspective is older workers. LGBT, racial and ethnic diversity, women, people with physical disabilities, veterans—you can find an affinity group in a corporation for everything, except an older worker." — Patricia Milligan

The unfounded bias is widespread in the developed world. Nearly two-thirds of U.S. workers ages 45 to 74 say they have seen or personally faced discrimination based on age, according to AARP.¹²⁵ Discriminatory practices flourish in hiring, promotion, and training; and older workers find themselves on the frontlines when it's time for layoffs.

The problem was dramatically depicted in a Federal Reserve Bank of San Francisco study involving 40,000 made-up resumes for lower skilled jobs in 2015. ¹²⁶ Employer responses provided compelling evidence that older applicants, especially older women, suffer consistent age discrimination, a particularly disturbing finding since women live longer on average than men and can end up financially strapped. Too often, changing this dynamic is not



a priority: in a Boston College Center on Aging and Work survey, a quarter of companies admitted hesitance to hire older workers.¹²⁷

Regardless of ability, older people are judged as less productive, lacking in agility, unable to learn, and too costly for companies, says Mercer's Milligan: "But it is not acceptable to actually say that in a public domain. We hear it when we interview executives."

Somewhat ironically, the technology industry, built on the creativity of boomers, is particularly tone-deaf to this discrimination. Tech workers reaching age 45 report seeing a drop in jobs and salaries they are offered. 128

Cultural Walls

This mindset mirrors societal attitudes, notes Lynn Goldman, dean of the Milken Institute School of Public Health at The George Washington University. "Some of it is basically a social construct—like the ridiculous idea that in one day you're a different person because you're one day over the age of 60," she notes. "That's a societal, not a biological, concept and has nothing with do with disease processes. Aging involves many, many, many complex processes, most of which we don't yet even understand."

A global research study by McCann Worldgroup's McCann Truth Central involving 24,000 respondents in numerous countries finds that traditional age stereotypes are rife throughout culture at large, from media to politics to advertising. Only a quarter of respondents told McCann they believe the fashion industry understands the aging population, and less than a third said media or news organizations do.¹²⁹

Approaches to older adults "were designed for a different society," the MacArthur Foundation concludes. "They're based on a set of policies, like the formal and informal rules regarding work, retirement, and Social Security that limit opportunities for the elderly to be productive."

It is time for 21st century businesses to confront stereotypes that veil the market and human capital opportunities of population aging.

That failure leaves money on the table, says the London Business School's Scott. "Whatever our working practices used to be, older workers are now valuable to firms. It's not just about experience. This is a group who are now fitter and healthier for longer. Old practices based on old assumptions are no longer valid," he asserts.

The bias takes its toll. "Many, many people at age 50, really talented individuals, won't even put themselves out there anymore to change jobs because they're afraid they won't be considered and they don't want to leave their current organizations, rock the boat, or jeopardize their careers," says Dana Ardi, managing director and founder of the management consulting firm Corporate Anthropology Advisors. "They don't feel they have options."

The Older Worker

In the face of pervasive stereotypes, what do we know about the capabilities of older adults? Why should an employer hire them, invest in them, and retain them?

First, science discounts the dominant misperception that age is simply synonymous with frailty. To be sure, physical strength ebbs as we age but at the same time, older adults' health and functional status have improved steadily since the early 1980s. 130 In the developed world, they are better educated and healthier than ever before. Positive-aging advocates dub older adults the world's only increasing natural resource. 131

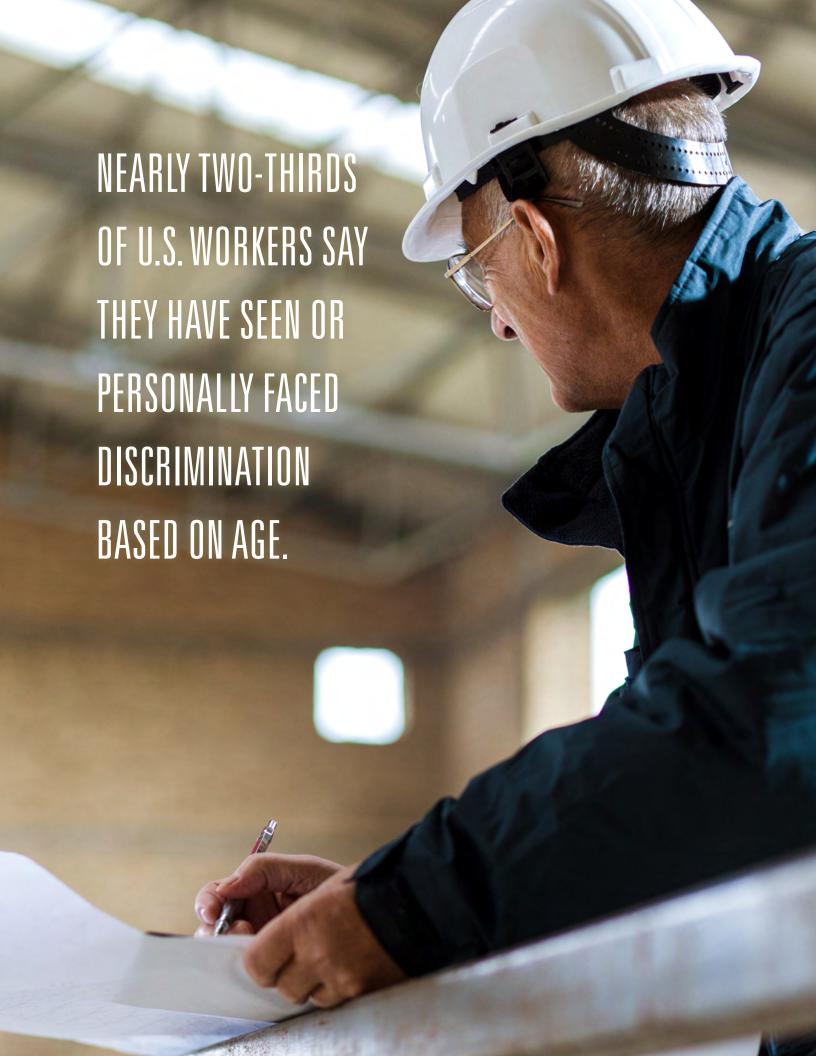
Importantly, lifestyle can have as much to do with individual vitality as with age—a vigorous swimmer at 70 may well outshine an out-of-shape 30-year-old. The point at which workers are physically unable to work has shifted further up the age range. 132

Normal human aging does involve physiological changes, and aging is a principal risk factor for disease. Organ function is not as robust. Certain types of memory decline. But the impact on ability to function is quite modest according to research that upends common exaggeration about diminished age-related function. Productivity decline is most likely in physically demanding work—the labor dependency from which economies in recent decades have shifted away.

"Absent significant brain disease, the gains that come with age can functionally offset the declines that typically occur."

— Laura Carstensen

Key aspects of performance do not suffer age-related decline. Procedural memory, governing tasks such as computer usage, is mostly exempt from declines of age. Nor does aging necessarily affect people's ability to learn or solve problems in daily life. 133 Verbal ability and procedural and semantic memory are well preserved. Barring dementia, knowledge continues to build, and experience compensates for processing declines, especially in areas of expertise. 134





Mental decline, which actually starts in our 20s,¹³⁵ has lessened over the last century as physical health, education, and living conditions have improved. A growing body of research indicates that exercise, diet, new mental challenges, and strong social ties can reduce the risk.¹³⁶ Particularly striking evidence finds that the magic pill of physical activity can strengthen the brain against dementia.¹³⁷

Laura Carstensen, director of the Stanford Center on Longevity, and her colleagues have shown that some cognitive abilities improve in later life, including emotional balance, and the ability to view problems from multiple viewpoints and focus on what is important. It's clear that many adapt to aging and lead full, productive lives, an adaptation that builds on their perspective, experience, social values, emotional regulation, and wisdom—abilities that increase with age.

"Overall, absent significant brain disease, the gains that come with age can functionally offset the declines that typically occur," says Carstensen. 138

Productivity

Traditional performance measures, however, tend not to capture the worth of older workers. Metrics may well show outperformance by younger colleagues, but these assessments—and resume-sorting tools like superficial algorithms and LinkedIn profiles—fall short. They often miss important qualities and overlook key advantages that mature adults offer, in particular their contribution to intergenerational teams, Mercer's Milligan notes.

A study by Mercer's Workforce Sciences Institute observed that where older workers did not perform as well on individual achievement metrics, their impact on teams was not considered.

"They reduce turnover, they create stability, and they create high-performing units in levels we've never seen in youth alone. We need to be talking about the role of the older worker to drive growth and innovation through those multi-generations. We're not doing that at all," says Milligan.

There is scant evidence that an aging workforce hurts productivity.

- Researcher Gary Burtless, using Current Population Survey data with hourly wages as a standard benchmark of worker productivity, found that, over a quarter century, the aging workforce has not dragged down average worker productivity. Better educated Americans over 60—the educated are more likely to work longer—and delayed retirement in this group boosted earnings of older workers compared with younger ones.¹³⁹
- In repetitive work, productivity does appear to fall with age, but in knowledge-based jobs age seems to make no difference. In jobs requiring social skills (financial advisors, for example), productivity increases with age, according to research by Axel Börsch-Supan of the Max Planck Institute in Munich.¹⁴⁰

- A study based on the European Company Survey found that older workers in Britain are often deprived of formal performance appraisals and face discrimination in training, often leading to low morale and impeding their ability to contribute. The higher the proportion of over-50s, the less likely it was that the company had formal training and appraisal systems.¹⁴¹
- A study published in the *Journal of Applied Psychology* reported that older executive job applicants scored modestly lower than younger ones in mental abilities, with the largest drop-offs among those older than 60. But the older applicants scored higher in "crystallized intelligence" tests that measure experience-based knowledge such as verbal capability and emotional IQ, measures which tend not to be used in cognitive tests that narrow candidate pools.¹⁴²
- A 17-year study found that sustained, low-complexity jobs are detrimental to cognitive functioning and regional gray matter volume—findings that seem to make the case for maintaining higher levels of mental challenge throughout life. This study of production workers linked recurrent novelty of work tasks to better processing speed, working memory, and gray-matter volume in brain regions associated with learning and age-related decline. 143
- Government research found similar or lower injury and illness rates among older workers compared with young counterparts. Absence due to injury was longer for the older workers.¹⁴⁴
- Work ethic marks the main difference between generations, according to the Pew Research Center. Younger workers are more likely to seek money and the next promotion, while their elders are more motivated by mission.

Not Just Age

Too often missed is that age is not the only cause of functional capacity deficits. Among the most significant determinants of decline are socioeconomic factors.

As measured by the public health researcher David Rehkopf, people with at least a high school education generally have a high potential to work productively between the ages of 55 and 74. The opposite trend, depressed levels of ability to work, is seen in those lacking high school diplomas.

Educational attainment and experience are key, Oxford Economics concurs, stating, "Older, better-educated, more experienced workers are typically more productive and earn higher hourly wages than their younger, less educated, and less experienced counterparts." ¹⁴⁶

This evidence counters conventional wisdom that predicts inevitable reduced productivity from older workers, which, Oxford Economics concludes, "simply does not fit those workers who choose to or are permitted to remain in paid employment at more advanced ages." 147



Intergenerational Bonus

Evidence also supports the benefits of intergenerational workforces. Agediverse work teams can be ideal for training, knowledge transfer, and leadership development. Job shadowing and mentorship give younger colleagues the benefit of institutional knowledge and wisdom while building supportive relationships between workers of different generations.

Age diversity's cross-pollination of ideas and perspectives fuels innovation, and age-diverse teams have the edge over same-age workers in problemsolving, idea generation, and productivity, research finds.¹⁴⁸

Mature workers' knowledge is especially vital in light of findings that more than half of human resources professionals lament the deficits in job applicants' basic skills and knowledge—notably in English, math, reading, and basic computer literacy, as well as in critical thinking, professionalism, work ethic, leadership, and teamwork.¹⁴⁹

While older workers are a reservoir of company values, culture, and know-how about relationships and how things work, they also have much to gain from reverse mentorship, such as insight from younger colleagues on new ways of thinking or cutting-edge technology changes. Yet, "generational learning silos that hinder the intergenerational transfer of knowledge" are all too common, the Baxter Consulting Group notes, and can result in cultural breakdown and hinder companies' innovation and agility. 150

Unfortunately, only a minority of companies train supervisors to manage multigenerational workforces, more commonly in professional, scientific, and technical spheres than in areas like manufacturing and construction, according to the Center on Aging and Work at Boston College.¹⁵¹

Room for All

Another barrier to employment of older adults is the dated 'lump of labor' hypothesis that pits old against young. This belief holds that if older workers don't exit, job opportunities shrivel for the young. Ample evidence has disproven this notion, dating to the now-fizzled concern that women emancipated from the home in World War II would take jobs from men after the war. The workforce has proved itself primed to absorb new people, not replace one group with another. Economies are elastic, and creating intergenerational workforces is not a zero-sum game.

Still, the persistence of the 'lump of labor' theory impedes older workers, states John Rowe, health policy professor at the Columbia University Mailman School of Public Health and former chairman and CEO of Aetna. "The fallacy has been proven throughout the European Union and throughout the United States that there is no reciprocity between old age and youth employment rates. Strong economies raise all the ships and vice versa," he states.

Strategies for Strength

Companies can do much more to attract and retain the massive human capital force that is waiting to be deployed. Among people over 50 who are not working or looking for work, more than half say they would take the right opportunity if it came along, the RAND Corp. found. The percentage is even higher among older college graduates. 152

Will companies respond? The demographic shift compels disruption of traditional human capital strategies and biases and demands new thinking about recruitment, training, retention, and meeting skill needs. In creating opportunity, connecting the generations, and thinking differently about the value of older workers, companies themselves will prosper in the years ahead.

"The unprecedented change in the length and nature of a lifetime requires every institution in society to evolve and adapt, centrally including the workplace." — Ruth Finkelstein



Generativity

Meaningful work can help aging adults fulfill what is known as the "generative" urge—a desire to create a better future by passing on wisdom and helping successor generations. A phenomenon described by the influential psychoanalyst Erik Erikson, generativity is linked to purpose in life and fulfilled through activities like volunteerism, family interaction, civic engagement, and meaningful intergenerational employment.¹⁵³

Harvard Medical School professor George Vaillant recorded a quantitative upside to generativity: older people who engaged in activities such as mentoring youth were three times as likely as their peers to be happy.¹⁵⁴

"The real fountain of youth is the fountain with youth. The goal isn't to be young, but it's to be there for those who actually are young. And the secret to happiness isn't living longer—it's not recapturing our youth, but it's connecting with the next generation," states Marc Freedman, founder and CEO of Encore.org.

MYTH—BUSTER

FALSE

Older workers are not productive.

Hiring managers give older employees high marks for loyalty, reliability, and productivity. The oldest age segments of the workforce are more likely to be engaged than younger workers. 156

FALSE

Older people can't learn new skills.

67 percent of older adults use the internet, up
55 percentage points in just under two decades. 157

CHAPTER 3

HEALTH AND WEALTH

"One size no longer fits all: In a very short time, the very definition of work has evolved. For some, work continues to be full time or part time, beginning and ending with the punch of a time clock. For others, work is freelance, multiple part-time gigs, flexible or online. The future of work seems to know no bounds, and employer-provided benefits are rapidly changing to keep pace."

- Aflac Workforces Report Employee Overview 2017

Employees who thrive propel workplace productivity, improve financial performance, and enhance corporate culture. Two essential factors can ensure that workers thrive as they age: health and wealth—crucial, interrelated imperatives that determine well-being throughout the course of our lives. Employers play a critical role in both.

Making effective use of an older workforce has a clear upside with a boomerang bonus that redounds to individuals, to companies, and to the broader society in a positive, self-reinforcing cycle: mental and physical activity improves vitality, which in turn drives better performance at work and in other arenas, bolstering new business opportunities, consumption, and economic growth.

Companies are integral to employees' health and wealth, and to easing their transitions to purposeful, secure retirement—with wide ramifications. Engagement and social connection help older adults avoid the decline linked to isolation and inactivity, decline that can consign them to the costly reality of early institutional care. By working, they not only help their employers and colleagues but also help to offset the growing pressure on social programs serving the aging population. Working can delay their need for financial and health services and supports, and keep them on the tax-paying side of the ledger, not to mention reducing demands on family members who often are drawn out of the workforce to meet caregiving needs.

How can companies encourage these positive outcomes for the benefit of their stakeholders, their communities, and the economy at large?

Being Well

As global aging speeds ahead, "health spans"—the years when one is generally healthy and free of disease—must extend in tandem with life spans if older people are to thrive. Work can impact this equation. Even as few as 100 hours of work per year, paid or volunteer, can have a protective effect on older workers' health, according to a longitudinal U.S. study published in the *Journal of Health and Social Behavior*. Significantly, for companies that rely on employees for sharp decision making, the impact is not just physical: work and volunteerism also are linked to cognitive performance and overall mental well-being. Scientists have discovered that purpose—a rewarding job could fall into this category—can slow cognitive decline and even delay the onset of Alzheimer's symptoms. 159

Businesses can help improve employees' health outlooks by making work meaningful and relevant, by ensuring that older workers, like all employees, are valued and comfortable, and by providing them resources for healthy and productive lives.

Horizons of Health

Wellness is more than a physical concept. Mercer, in its report "Employee Well-Being: A New Way to Define Organizational Success," makes the case for a "culture of well-being, mindfulness, and resiliency as a preventive strategy that enables workers to adapt to change and stress while maintaining a high level of performance." ¹⁶⁰ Stress at work not only threatens employee health but undermines happiness that can improve bottom-line results:

- Work-related stress is estimated to cost U.S. employers more than \$300 billion a year in health-care costs, missed work, and stress-related turnover. 161
- Employees scoring low on "life satisfaction" were found to stay home an average of 1.25 more days per month, translating to a decrease in productivity of 15 days per year; when people work with a positive mindset, productivity, creativity, and engagement improve.¹⁶²
- Thriving employees, with overall well-being, have 41 percent lower health costs compared to those who are struggling, according to Gallup's research on the economic impact of well-being.¹⁶³
- Researchers analyzing 225 academic studies found that happy employees have, on average, 31 percent higher productivity and 37 percent higher sales, while their creativity is three times higher.¹⁶⁴

Thirst for Wellness

To elevate wellness, the business sector has work to do, as described by the Aegon Center for Longevity and Retirement's 2017 multinational Retirement Readiness Survey.¹⁶⁵





The survey found pre-retirement health behaviors are disconnected from retirement planning even though healthy workers anticipate retirement more positively than those with less robust health.

Attention to wellness isn't just a priority for later in life. Physical decline is directly connected to behaviors and exposures across the life course—including diet, physical activity, and health risks such as smoking, alcohol, and exposure to toxic substances.

A life course approach to prevention and wellness underpins what Linda Fried, dean and DeLamar professor of public health at Columbia University's Mailman School of Public Health, calls the new demographic dividend. "If we want to, as a society, experience the assets of human capital, we need to actually transform our investment in prevention and health promotion for everybody," she says.

The Aegon survey, which looked at 14,400 workers and 1,600 retired people in 15 developed nations, found a keen interest in workplace wellness efforts:¹⁶⁶

- Sixty-eight percent of adults describe their health as "good" or "excellent," but 82 percent say their health in older age is a concern. Yet, only 43 percent say they think about long-term health when making lifestyle choices.
- Thirty-nine percent of retirees say they left the workforce sooner than they planned, 29 percent due to ill-health.
- More than nine in 10 workers say they would be interested in health and wellness offerings at work, such as healthy food, gym discounts, or preventative screenings.
- Just 24 percent say their employers offer the option to move from fulltime to part-time work to help them phase into retirement.
- Only 15 percent have employers who offer training or education to help keep their skills up to date.

These results highlight the need to support wellness both in work and retirement. They depict "a disconnect between our intentions and actions," says the Global Coalition on Aging's Hodin. "Such findings hold important insights for individuals, employers, retirement specialists, and policymakers alike about how to help ensure that more of us are prepared to enjoy a retirement in line with our goals."

Getting Physical

By encouraging wellness, companies empower employees to take charge of their health and set the stage for improved company performance. Yet even employers who see the wellness-productivity-profit connection do not always act to support a healthy workforce. Workplaces can contribute to poor health and detrimental choices: desk jobs are tailor-made for the health risks that accompany physical inactivity; vending machines provide a ready source of poor food choices; stress on the job can lead to illness and encourage smoking and poor diets; one-size-fits-all office equipment invites ergonomic failure.

At the same time, work sites present profound opportunities to promote health and wellness—and returns on such investments.

An increasing number of companies are implementing workplace designs and motivating programs that can reduce employee health costs. Xerox, for example, launched an ergonomic training program aimed at reducing musculoskeletal disorders—which account for about half of its work-related injuries and illnesses—and workers' compensation claims in its aging workforce.¹⁶⁷

"If we want to, as a society, experience the assets of human capital, we need to actually transform our investment in prevention and health promotion for everybody." — Linda Fried

Among U.S. employers, seven in 10 offer employee wellness programs of some sort, efforts that have proven their worth: health-care costs rose at a 15 percent slower rate among participants when employers consistently offered a wellness program, a four-year study found.¹⁶⁸

The Community Preventive Services Task Force at the U.S. Centers for Disease Control and Prevention (CDC) also has shown that well-designed programs influence employee behaviors such as smoking, diet, physical activity, and alcohol consumption.

Experts caution that successful programs must involve more than just the company-sponsored fun run or posters tacked up in the break room. Well-designed programs must be engaging, holistic, and sustainable—focused on everyday lifestyle, a healthy workplace and community, nutrition and exercise information, and stress-management efforts.

Magic Pill

If there's one health strategy that stands out, consistently and irrefutably propounded by the medical and scientific community, it is regular exercise. The CDC calls it "one of the most important things you can do for your health," and former CDC director Dr. Thomas Frieden dubbed it "a wonder drug." ¹⁷⁰ For businesses, the advantages of promoting exercise could not be more apparent.

WORKPLACE WORKOUT

Many companies that are interested fear they are too small to support a comprehensive wellness program or that it would be too costly. ¹⁶⁹ In fact, positive steps can be implemented easily and at low cost—tobacco-free offices, encouraging use of stairs rather than elevators, and providing alternatives to junk-food vending, for example. Broader focus can create a wellness culture by incorporating wellness goals into company objectives and ensuring that senior executives and the company environment encourage those goals.

Best practices that experts recommend include:

- Ergonomic adjustments to desks and chairs, flooring, and lighting
- Exercise programs onsite or discounts for gyms
- Encouragement and incentives for walking and bike commutes, and workplace showers
- Healthy food at work
- Walking meetings and other incorporation of physical activity in the work day
- Financial incentives for focus on health and wellness
- Preventative screenings, vaccinations, and health assessments
- Company-sponsored runs, bike rides, and other challenges
- Monitoring devices for indicators like weight loss, cholesterol levels, and blood pressure
- A wellness coach to encourage and support health goals
- Mental health programs
- Stress management programs and counseling
- Work-life balance assistance in eldercare, childcare, tuition reimbursement, and flexible scheduling
- Health education materials, including nutrition information
- Programs for substance abuse and smoking cessation
- Opportunities to win prizes for achieving health goals

Global and national health organizations affirm the science: physical activity reduces risk for conditions including heart disease, diabetes, obesity, high blood pressure, depression, certain kinds of cancer, and premature death.¹⁷¹ Physical activity can increase energy levels, reduce risk of injury, and help with pain management. Yet fewer than half of U.S. adults get the recommended weekly minimum of 150 minutes of moderate physical activity, or vigorous physical activity for 75 minutes each week.¹⁷²

Companies can help by encouraging physical activity breaks and providing options even as simple as the ping pong tables that are installed at some offices. Some promote walking and biking commutes by offering bus and train passes and free use of bikes—it's common in California's Silicon Valley to see Google's colorful bikes parked at apartment buildings.

Physical activity benefits employees while providing measurable upsides for companies:

- A U.S. study found physically active adults have lower annual health-care expenditures than insufficiently active adults; and weak physical activity levels are associated with 11 percent of total health-care expenditures.¹⁷³
- Employees who get at least 75 minutes of vigorous physical exercise per week miss on average 4.1 fewer days of work per year.¹⁷⁴
- A 2012 meta-analysis of 62 studies found that participants in workplace health promotion programs had about 25 percent lower medical and absenteeism expenditures than non-participants.¹⁷⁵

Penny Wise

Unfortunately, many companies have been cutting back on benefits and asking employees to shoulder a greater share of the cost.¹⁷⁶ Near-term company savings from these reductions can create longer-term costs and risks to productivity, talent retention, and competitiveness.

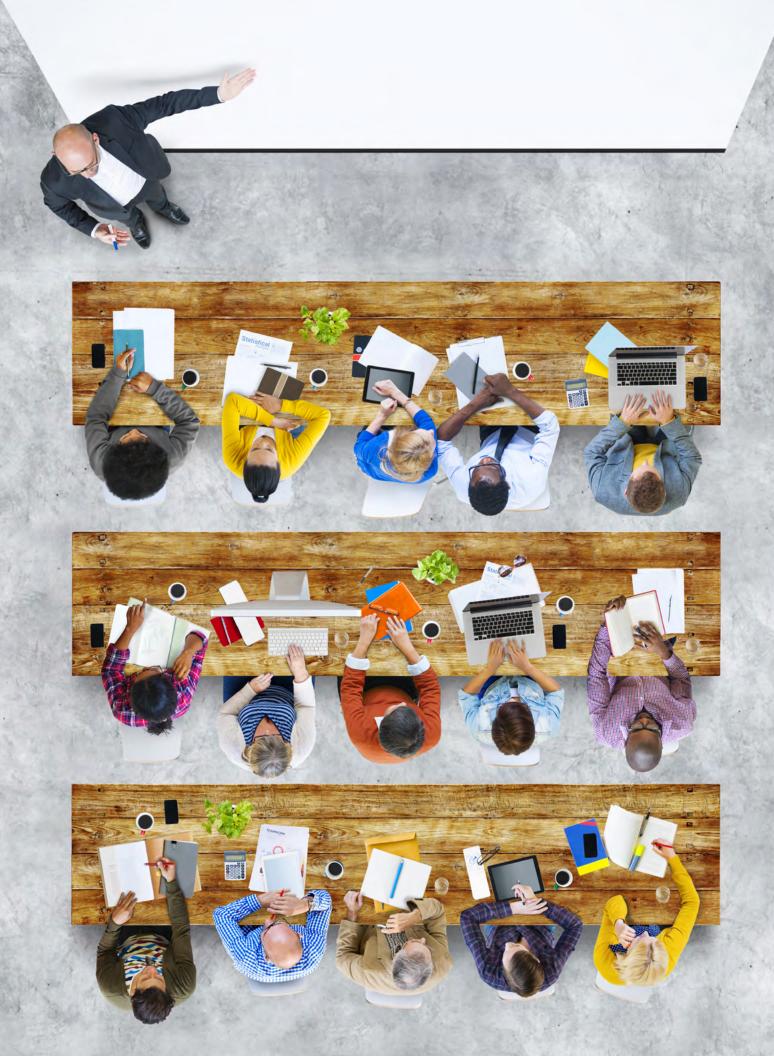
A growing number of employers do not provide health insurance, a Kaiser Family Foundation study found: fewer than half of corporations, 45 percent, offered insurance in 2016 compared to 50 percent in 2012.¹⁷⁷



In this climate, opportunities for voluntary insurance at work—to include things outside of "core" benefits—can at least provide workers access to purchase options such as dental care, life insurance, short-term disability, hospital intensive care, vision, and even pet insurance. Surveys indicate employees have a keen interest in purchasing voluntary insurance through their work. 178

Coverage options for employees of differing ages and needs are important. Paid time off for maternity/paternity leave and childcare is prized by younger workers, and is included in many benefit packages, while mature adults often need similar consideration for care of elderly parents or ill relatives. Eldercare counseling and resources increasingly are vital to helping aging employees remain productive and feel supported.

Employers weighing costs and benefits can find ample research. For example, a Rutgers study found those given family leave were less likely to need government assistance and were more likely to return to work. Paid sick leave is a public health strategy associated with a reduction in risk of workplace injury and complications, as well as shorter recovery time.¹⁷⁹



Lifelong Learning

Employee education also is a beneficial investment for employers, as it plays a role in well-being and is a key part of "the prescription that can lead to healthier, longer lives," observes Philip Pizzo, founding director of the Stanford Distinguished Careers Institute. AARP surveys find that aging adults place a high priority on keeping their minds active, and education is an important quality-of-life determinant. When employers facilitate lifelong learning in and out of the workplace they can foster an engaged workforce.

However, companies often overlook older workers in training and education, signaling that they are valued less than young colleagues. Employers also have been cutting back on desired benefits such as help with college expenses, ¹⁸⁰ an important concern for parents.

Sound Footing

Among the most tangible ways to support and retain older workers is through modifications that make the job site more pleasant for all employees. Especially where retirements are linked to labor shortages, some businesses are implementing adaptations like changing assembly tools to reduce reaching, moving supplies to avoid back and knee strain, and ergonomic adjustments for comfort in truck cabs.¹⁸¹

Well-lit floors to reduce slippage, lighting to ease eye strain, and individually adjusted furniture and computers don't just safeguard employee health; they also signal to older workers that employers value them.

Price of Longevity

The second, related wellness component—financial security—is intertwined with both health and longevity, a reality that is tragically played out in the health and life-span disparities between high- and low-income populations. In the new longevity era, a secure retirement requires careful financial planning, especially as people increasingly worry about their ability to pay for extra years of life. Those concerns, and the need for health coverage, are the key motivation for a majority of people working during traditional retirement years, according to the Transamerica Center for Retirement Studies. 182

As is the case with physical health, employees' financial wellness affects productivity and performance at work. A 2016 study by the International Foundation of Employee Benefit Plans revealed that a significant majority of more than 400 U.S. and Canadian employers surveyed believe personal financial issues affect employees' job performance, and can lead to stress, an inability to focus, absenteeism, and tardiness. Money, work, and the economy are cited as significant factors in the American Psychological Association's "Stress in America" survey—presenting a clear rationale for companies to help employees with solutions. 184

Sink or Save

The availability of workplace financial arrangements that once reassured preretirees—namely pensions and defined benefit plans—has sharply dropped.
The proportion of private sector employees participating in traditional
pension plans fell from 38 percent in 1979 to 13 percent in 2014, according
to the nonprofit Employee Benefit Research Institute. Defined contribution
programs and other substitutes have not filled the financial gap. As Robert R.
Johnson, president and CEO of The American College of Financial Services,
observes, "The decline of the defined benefit pension plan in favor of defined
contribution plans has put more of the onus on the individual to accumulate
funds for retirement. No longer can people rely on an employer to provide
for their retirement; individuals now must navigate increasingly complex
financial waters to ensure their long-term financial well-being."

At the same time that traditional retirement benefits are fading, Social Security benefits are changing. This essential retirement support pays an average monthly benefit of approximately \$1,300, which leaves many retirees in need of additional income.¹⁸⁵

In this environment, personal savings and investment are critically important, but there, too, aging adults come up short. Lack of savings is at the top of the worry list, affecting families across income and demographic groups. Most households have very little savings and few assets to get them through an unexpected expense.¹⁸⁶

- The median amount of savings among households near retirement age is just \$14,500, according to the National Institute on Retirement Security.
- A 2016 Economic Policy Institute report found that nearly half of American families have no retirement savings at all, and just as income and wealth inequality have grown in recent years, so has retirement inequality.¹⁸⁷
- Only a third of the workers in nations surveyed by Aegon's 2017 retirement survey have a backup plan to sustain them if they must stop working before their planned retirement age.
- Pew Charitable Trusts reports that 41 percent of households do not have enough liquid savings to cover a \$2,000 expense. 188
- Half of older adults are worried about outliving their retirement savings. They're also worried about out-of-pocket medical costs that aren't covered by health insurance, and about their families' financial security in the event of their premature death, according to MetLife's 14th Annual Employee Benefit Trends Study.¹⁸⁹



Employer policies can ease the stress by supporting retirement transitions—providing income for part-time work—and by creating savings plans and enhancing financial literacy through education, counseling, and other resources. But a distressing majority of workers say that their employers have no such offerings, Aegon's retirement survey reports.

Half of American workers have employers who do not even offer retirement savings plans. Crucial for building financial security for later years, such plans are most notably missing at smaller companies and among minority workers, according to AARP research. Minorities account for about 41 percent of the 55 million employees without a workplace retirement plan. 190

The importance of savings plans at work is evident: only a small fraction of those without employer-sponsored plans have saved \$25,000 or more, compared to a substantial majority of those who do have that option. ¹⁹¹ While many employers have moved to 401(k)-type alternatives, they often do not include automatic enrollment, and nearly a third of workers let those savings opportunities slip away. Automatic enrollment systems have far greater uptake. ¹⁹²

To strengthen employees' retirement stability, experts suggest, employers can:

- Establish a retirement savings plan with voluntary payroll-deduction contributions by employees
- Implement automatic enrollment
- Provide matching contributions to encourage participation
- Offer for-purchase plans for life, disability, and critical illness insurance
- Create an age-friendly workplace that invests in training opportunities for older workers and values their experience

Right Direction

Financial wellness training and tools are becoming more common—even expected—as companies face recruiting challenges and skills shortages. Increasingly they are seen as must-have benefits for competitive employers. Among Society for Human Resource Management members surveyed in 2017, just under half offer some sort of financial advice to employees, ranging from resource materials and online tools to help from financial counselors. Two thirds of U.S. and Canadian employers offer such education, another survey found, and most employers say personal financial issues affect their workers' job performance. 194

As to what constitutes financial wellness advice, be it managing day-today finances or estate-planning strategies, a firm definition has not been established in the emerging industry.

Components may include:

- 401(k) education on savings rates and asset selection
- Dissuading participants from taking loans or withdrawals from their retirement funds
- Offering alternatives to payday borrowing
- Instruction on basic budgeting
- Advice to new managers on building wealth

Just as with physical wellness offerings, financial wellness can be part of the overall benefits package, an approach that nearly six in 10 U.S. and Canadian corporate executives favor, although far fewer actually implement it, according to Charles Schwab.¹⁹⁵

Demand also is driving a new generation of online services, with software and human advisors providing advice on building, safeguarding, and spending retirement nest eggs. Not just relevant to mature workers, these programs are especially valued by millennials, who are nervous about their economic futures and their children's future college expenses. "Such findings demonstrate that making assumptions about the expectations of any generation is very last century," MetLife's 14th Annual U.S. Employee Benefit Trends Study observes. The report also notes that purchasing voluntary benefits is more popular with these young adults. 196

In the new longevity era, a secure retirement requires careful financial planning, especially as people increasingly worry about their ability to pay for extra years of life.

A New Phase

Even while seeking to work later in life, today's older adults do not necessarily want to punch the clock at 40-plus hours a week. Phased retirement options are important aspects of employee satisfaction, related to both health and wealth.

Age-friendly companies support a variety of phased retirement options, including flexible or part-time work, mentorship and consulting roles, support for Encore Fellowships, ¹⁹⁷ and "gap years" to pursue volunteerism or educational opportunities.

The phased-retirement concept is picking up, even if sometimes informally, in the manufacturing sector, which is under pressure due to boomer

retirements. ¹⁹⁸ In one example, Steelcase offers reduced and part-time arrangements that give workers an alternative to quitting outright or continuing full-time. Facing a large number of retiring boomers, Steelcase began the phased-retirement plan in 2012. ¹⁹⁹

Overall, however, just a fraction of companies have embraced phased retirement, instead letting their most experienced workers walk out the door for good.²⁰⁰

Falling Short

Employers are aware of their aging employees' financial needs. A 2017 Transamerica Center for Retirement Studies survey reports that:²⁰¹

- 69 percent of employers believe that most of their employees could work until 65 and still not save enough to meet their retirement needs.
- 77 percent say many of their employees plan to work full- or part-time after they retire, and 81 percent say they are supportive of people working past 65.
- Almost half of employers recognize that their employees envision a phased transition including reduced hours or working in different capacities.

Despite this recognition, companies fall disturbingly short of fulfilling their role in helping workers save and prepare for retirement; few have programs to support aging employees' transitions. Transamerica's survey found that only 39 percent of employers offer flexible schedules, and even fewer facilitate shifts from full-time to part-time work or less demanding jobs.

"It is imperative that policymakers and the retirement industry work together to make it as easy, affordable, and worry free for employers to offer retirement plans, employee benefits, and flexible retirement options ultimately to enable workers to achieve a financially secure retirement." — Catherine Collinson

Even information about employee tax incentives, Social Security, Medicare, and other options often is lacking in the workplace. Nearly half of employers surveyed by Transamerica are not aware of the Saver's Credit, a credit for taxpayers who save in a qualified retirement plan or IRA. Those who know about it often fail to promote it to employees, a failing that is especially pronounced among smaller companies.





Home Front

Former U.S. First Lady Rosalynn Carter observed: "There are four kinds of people in the world: those who have been caregivers; those who currently are caregivers; those who will be caregivers; and those who will need caregivers." ²⁰²

Millions of workers shoulder caregiving duties: a huge, often stressful, responsibility outside of the workplace that dramatically affects their lives. Enabling loved ones to live in their own homes, this unpaid work by 40 million Americans, which AARP translates to a value of some \$470 billion a year, affects both health and financial wellness, as well as work.

Companies are starting to take note of these unsung roles and the need to support caregivers through flexible work policies. A promising, but still emerging, trend finds more companies are offering paid or unpaid caregiving leave beyond the requirements of the Family and Medical Leave Act, a carrot that can boost their competitive advantage in recruitment and retention.

In one example, Pfizer offers its U.S. employees geriatric care consultation, mental health counseling, 10 days a year of subsidized backup caregiving, and five days of paid caregiver leave.²⁰³

United Healthcare's Solutions for Caregivers program features in-person, telephone, and online resources to help caregivers save money and support loved ones more effectively. The program is available to large employers with self-funded health plans, at no additional charge for employees to use the online services.²⁰⁴

Such support can help companies realize increased productivity and decreased absenteeism, a 2016 survey from the Northeast Business Group on Health and AARP found. More than four in five benefits managers surveyed, from 129 mostly large U.S. employers, said caregiving was an increasingly important issue for their companies.²⁰⁵

The not-so-good news is that change is coming too slowly, says the ReACT Coalition's 2017 report, "Supporting Working Caregivers: Case Studies of Promising Practices." The research suggests that employers, while increasingly interested in supporting working caregivers, need help finding affordable options that are easy to implement.²⁰⁶

With time off for caregiving often affecting workers' retirement income, benefits, and career prospects, employers can do much more to support these employees, particularly as their workforces age.

New Vision

Workers of all ages value benefits that can maximize health and wealth—and help ensure a secure future. The needs are obvious, the returns apparent. Steps forward, however, are still sluggish.

"The reality is that some employers feel less responsible than others for helping their employees," states Catherine Collinson, CEO and president of Transamerica Institute and Transamerica Center for Retirement Studies. Her organization's research finds 64 percent of employers feel that responsibility, but to varying degrees, while almost one in five are "indifferent" and another 18 percent do not feel responsible at all.²⁰⁷

"We need to do what's necessary to match health expectancy and wealth expectancy with life expectancy—to live longer well, and be able to afford it." — Peter Mullin

"It is imperative that policymakers and the retirement industry work together to make it as easy, affordable, and worry free for employers to offer retirement plans, employee benefits, and flexible retirement options ultimately to enable workers to achieve a financially secure retirement," Collinson says.

By adopting a strategic vision for longer work lives and career transitions, companies can benefit from the new demographic dividend realized through older adults' generative social capital and the economic opportunity and societal savings that accrue from a healthy older population, gerontologist Linda Fried notes.²⁰⁸ This vision sees an active life stage in which older people remain socially connected, involved in their communities, and working in some capacity. To realize this new norm, culture change is imperative.

Enlightened businesses can lead the way by example. "We need to do what's necessary to match health expectancy and wealth expectancy with life expectancy—to live longer well, and be able to afford it," the M Center's Peter Mullin states.



Insurance Avenues

Companies increasingly intertwine wellness programs with their health coverage plans. And with good reason: nine in 10 employees say health and wellness benefits are an important factor in choosing an employer.²⁰⁹ Evidence shows that incentives like health plan premium discounts and cost-sharing such as copayments, deductibles, or coinsurance motivate workers to participate.

Health insurance through employers is generally the front line of defense when illness or injury does strike, and companies can do much more to shore up this crucial protection. Aflac surveys of thousands of workers in the United States reveal that while they consider health benefits very important, many are uneasy with their coverage; those satisfied with their benefit packages are dramatically more likely to be satisfied with their jobs and career choices. Six in 10 employees say they'd take slightly less pay for a job with more robust benefits.

"For companies of all sizes, the message is clear: to hire and retain top employees, they must get smarter about their benefits plans. The days of 'take it or leave it' benefits packages are gone," Aflac concludes.²¹²

Although the variety of benefits has grown overall, however, core benefits, such as health care, retirement planning, and employee assistance programs are offered to employees at the same level as in 1996, according to the Society for Human Resource Management.²¹³

The mixed trends for older workers show room for improvement. Elder care support is still insufficient, and while there are more full-time flexible work options, there are fewer possibilities for career breaks or reduced schedules, as well as a decline in institutionalized phased retirement programs at the same time that more employers offer phased options on an informal basis.²¹⁴

MYTH-BUSTER

FALSE

Older workers are more sickly.

Government research on employer reports found similar or lower injury and illness rates among older workers compared with young counterparts. Absence due to injury was longer for the older workers.²¹⁵

FALSE

Older workers are a burden.

Working can delay people's need for financial and health services and supports, allowing them to contribute to society and their communities.

CHAPTER 4

ADVANCING AGENDAS

"It's vital that individuals and businesses recognize the tremendous potential of this longevity revolution. Our aging population could generate the most significant opportunity of our lifetime." ²¹⁶

- Andy Sieg, Head of Merrill Lynch Wealth Management

Longevity planning, while a logical and crucial part of strategy for 21st century businesses, is not a concept that most have embraced. The Boston Consulting Group calculates that fewer than half of companies factor longevity into their strategic planning for any given business function.²¹⁷ Forty-five percent consider it in human resources planning, but less than a third integrate older people into their sales and marketing plans. Few have strategies to deal with potential skill gaps as the workforce ages.

"Although many organizations are aware that they will face challenges related to global aging in the coming years, they either do not perceive the potential magnitude of the problem or are too consumed by shorter-term imperatives to act. As a result, far too few companies are taking sufficient steps to prepare for the impact of demographic realities," Boston Consulting Group observes in its 2011 report "Global Aging: How Companies Can Adapt to the New Reality." ²¹⁸

This failing is remarkable in light of the reality that population aging will materially impact markets and workforces across the world. Forward-looking companies can embrace this megatrend with bold approaches to serve the aging boomers today, the Gen Xers, now in their late 30s to early 50s, in the immediate future, and eventually the millennials, the tech-savvy generation that outnumbers even the boomers.

The culture shift needed to make the most of population aging can produce enormous economic and social benefits, with growth opportunities across all industries as businesses explore older adults' needs and aspirations, innovate for them, market to them, and employ them. Failure to plan for an older world will strain growth and productivity, structural systems like pensions and health care, and economic stability.

"Every company should articulate and adopt a longevity strategy," states Paul Irving, chairman of the Milken Institute Center for the Future of Aging and distinguished scholar in residence at the University of Southern California Davis School of Gerontology. In a recent speech for the National Association of Corporate Directors, he recommended that every company:

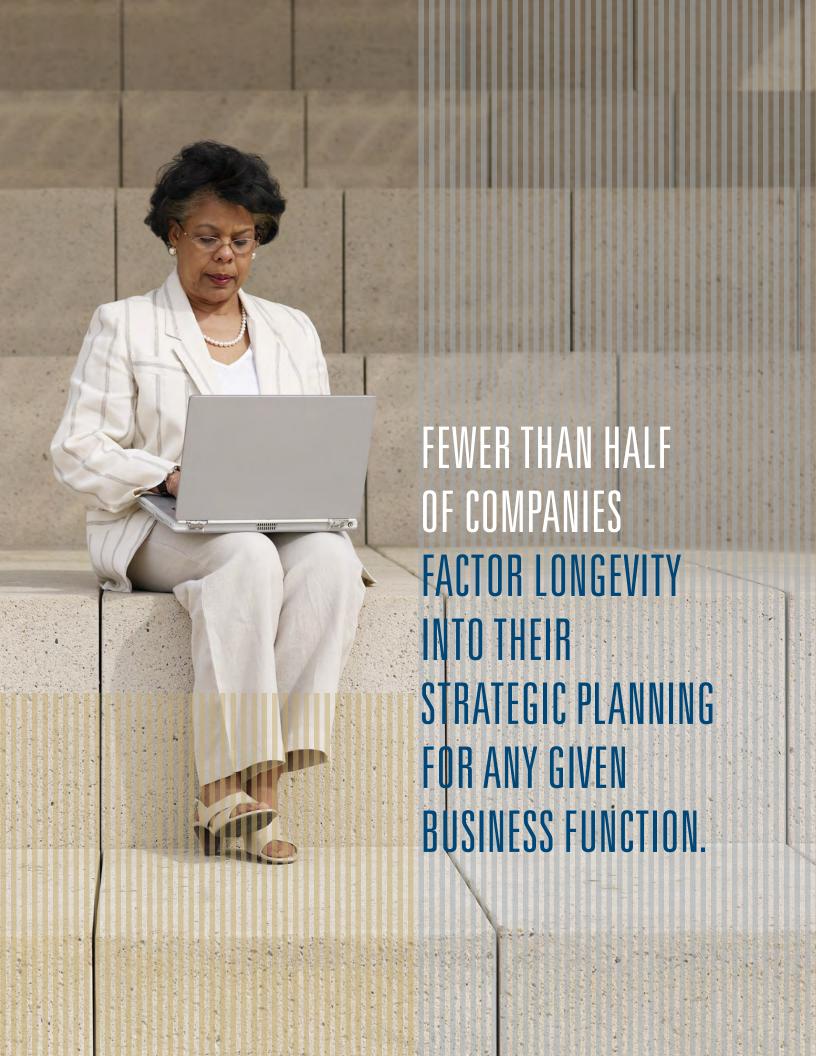
- Inform its board, management, and employees about the opportunities and risks of changing demography in markets and workforces
- Respond to the longevity economy's growing potential with innovative products and services
- Develop and implement employment policies and practices that recognize the demographic shift and capitalize on the experience and talents of older workers and intergenerational workforces

"The bottom line is that the major demographic shifts to come do not call for gloom and doom, but simply for a different, fresh, and fully informed perspective," the Boston Consulting Group concurs in its "Global Aging" report.²¹⁹

There is reason to believe that awareness is changing, despite the slow pace of action. While fewer than half of companies are engaged in strategic planning for longevity, most executives are aware of the demographic shift: 39 percent see it as an opportunity, while 11 percent say it is a challenge, and 32 percent consider it a risk, the Boston Consulting Group finds.²²⁰

At the Milken Institute's Global Conference—attended by thousands of business leaders from around the world—a panel discussion on aging and business drew only a handful of attendees in 2013. By 2017, when the conference featured a similar panel, business leaders packed the room to hear experts talk about the new world of aging and its economic challenges and opportunities.

"Things are changing. There is a growing thirst on the part of enlightened executives and savvy investors who are beginning to see the potential all around them," says Irving.





Proactive companies are taking steps to leverage areas of growth potential, modify benefit structures, and analyze workforce productivity and needs. Among those exploring innovative options and opportunities:

- Bank of America Merrill Lynch, with the USC Leonard Davis School of Gerontology, developed a longevity training program for its financial advisors and institutional clients that provides insights on research and older people's experience, priorities, and needs, as well as the implications across the generations.
- Intel's Context Aware Computing project focuses on proactive uses of personal internet devices with software that enables connected devices to flag health concerns, using context like time of day, the patient's care plan, and recent vital signs.²²¹
- Japan's Kobe Steel enables workers at mandatory retirement age to be rehired by member companies of the Kobe Steel Group; the whole group then benefits from the abilities of veteran workers and transfer of their skills to younger colleagues.²²²
- Home Depot hires thousands of retired construction workers, making the most of their expertise on the sales floor.
- The CVS "Snowbird" program allows older employees to travel and work seasonally at different CVS pharmacy regions.
- The National Institutes of Health, with half of its workforce over 50, actively recruits at 50-plus job fairs and offers benefits like flexible schedules, telecommuting, and exercise classes.
- BMW has installed age-friendly adjustments in its plants after a production line experiment led to positive results in efficiency, worker health, and absenteeism. Features include ergonomic adjustments to seating and workbenches, wooden flooring for better cushioning, custom shoes and easy-to-read computer screens. Onsite personal trainers and exercise rooms are part of the package.

Investing in the Future

Perhaps no industry can achieve more by reorienting to an aging world than the investment sector. Capital resources will accelerate ideas to enhance older lives and improve the results of businesses of all types.

Investors have been slow to appreciate the opportunities of the longevity economy, despite older adults' impact on stocks, bonds, real estate, and other asset classes. "Too many venture capitalists are missing the boat on a massive market that's growing very quickly, that is under-competed in," says Seth Sternberg, founder and CEO of Honor home services.

While health care and financial services are viewed as the areas of lowest risk, immense opportunity lies beyond those industries. Even the social investing movement, an ostensible support source for age-related companies, has yet to put a concentrated focus on the aging theme.

Older entrepreneurs seeking capital to launch businesses still face marginalization. "People looking for venture capital are much less likely to get it if they are older," says Jenn Pryce, president and CEO of the Calvert Foundation, a nonprofit that specializes in global impact investing. "But if we can get impact capital directed to those types of businesses and show their potential success and growth, we can attract more investment."

Bank of America Merrill Lynch analysts foresee several sectors poised to benefit in longevity markets. Among them: housing, health, and managed care—which are flourishing—drug stores, travel and leisure, beauty and cosmetics, fashion, retail, and technology.²²³

Interest in the venture capital, private equity, and hedge fund sectors is nascent. There are encouraging signs. Family offices, sovereign wealth funds, and public pension funds are seeking new ideas and beginning to express interest in aging as an investment theme. We envision a time when longevity-focused index funds and ETFs, mutual funds, and other investment vehicles proliferate to the universe of investors who themselves have a direct and very personal stake in the outcomes.

CONCLUSION

CHANGING CULTURE

That it's time for a new business normal is obvious in a world of backward-looking policies and practices, uninformed biases, and unproductive norms. Risk and opportunity in an aging world will depend on the strategic decisions that companies make today. The future is replete with potential, but business leaders must plan for it with fresh thinking linked to demographic awareness.

The needed culture change will require cooperation and collaboration among entities that don't always share an affinity. Initiatives already supporting business efforts in the longevity economy can help build the momentum. Among them, the Global Coalition on Aging is promoting awareness with its challenge to adopt a suite of age-friendly business principles. Columbia University's Robert N. Butler Columbia Aging Center has hosted the Age Smart Employer awards, honoring New York companies and nonprofits that employ best practices to hire, retain, and engage older workers. WorkingNation has an awareness campaign to educate Americans about the threats of structural unemployment, advocating for lifelong skills development to keep pace with the fast-changing technology landscape.

"Every company should articulate and adopt a longevity strategy." — Paul Irving

AARP encourages age-friendly businesses with its research, programs, and Best Employers International awards that promote opportunities for extending working lives. It spotlights innovative company practices that support workers of all ages, and honors non-U.S. organizations that value and meet the needs of experienced workers. Another AARP initiative—the Employer Pledge Program—is a national effort directing job seekers to employers who are hiring experienced workers. Participating organizations sign a pledge committing to a level playing field across age groups in recruitment and hiring and workplace practices that value experienced workers.

These and other efforts that are raising awareness about the value of older adults need to be emulated and expanded.



In a world torn by policy and political divides, the leadership mantle is increasingly defaulting to the business community. That business leadership recently has been in evidence in matters as broad as race relations and immigration; and the same initiative can be exercised to advance a new vision of aging. Companies can ally with nonprofits, academic institutions, and government to move the ball forward. Corporate leaders can speak out and advocate for the interests of older employees and customers, calling their colleagues and peers to action. Businesses can work together to promote best practices and create new associations and partnerships to elevate and share ideas, standards, and opportunities.

It is time for 21st century businesses to confront stereotypes that veil the market and human capital opportunities of population aging. They must embrace the promise and possibilities of a new mature world, align policies and practices with the interests of demographically changing customers and employees, and become advocates for public health and financial security.

By thinking differently and strategically, and acting decisively, businesses can serve the long-term interests of their own stakeholders, and at the same time improve lives, strengthen communities and nations, and grow economies for an era of longevity-powered prosperity.

ENDNOTES

- U.N. Department of Economic and Social Affairs Population Division (U.N. DESA), "World Population Prospects, The 2017 Revision: Key Findings and Advance Tables," 2017, https://esa.un.org/unpd/wpp/Publications/Files/WPP2017 KeyFindings.pdf.
- 2. Ibid.
- Administration on Aging, Administration for Community Living, "A Profile of Older Americans: 2016," U.S. Department of Health and Human Services.
- Ann C. Foster, "A closer look at spending patterns of older Americans," Bureau of Labor Statistics --Beyond the Numbers, March 3, 2016, https://www.bls.gov/opub/btn/volume-5/spending-patterns-of-older-americans.html.
- Administration on Aging, "A Profile of Older Americans."
- 6. Ibid.
- Jan Willem Kuenen, et al., "Global Aging, How Companies Can Adapt to the New Reality," The Boston Consulting Group, 2011.
- Nikkei Asian Review, "Aging Asia's trillion-dollar business opportunity: Enterprising companies see a bright future in the region's swelling elderly population," July 26, 2017.
- Marsh & McLennan Companies Asia Pacific Risk Center, "Advancing Into The Golden Years, Cost Of Health Care For Asia Pacific's Elderly," 2016.
- 10. U.N. DESA, "World Population Prospects."
- 11. Ibid.
- 12. Ibid.
- Sarbjit Nahal and Beijia Ma, "The Silver Dollar Longevity Revolution Primer," Bank of America Merrill Lynch, June 6, 2014.
- Oxford Economics for AARP, "The Longevity Economy: Generating Economic Growth and New Opportunities for Business," AARP, October 2013.

- Oxford Economics, "The Longevity Economy: How People Over 50 Are Driving Economic and Social Value in the U.S.," AARP, September 2016, http://www.aarp.org/content/dam/aarp/home-and-family/personal-technology/2016/09/2016-Longevity-Economy-AARP.pdf.
- 16. Kuenen, et al., "Global Aging."
- Richard Dobbs, et al., McKinsey Global Institute, "Urban World: The Global Consumers To Watch," McKinsey Global Institute, April 2016.
- Morgan Stanley, "Wealth Management: Generations Change How Spending is Trending," Wealth Management, August 26, 2016, http://www.morganstanley.com/ideas/millennial-boomer-spending.
- Schumpeter, "The grey market: Older consumers will reshape the business landscape," The Economist, April 7, 2016.
- World Health Organization, "Are you ready? What you need to know about ageing," 2012, http://www.who.int/world-health-day/2012/toolkit/background/en/.
- 21. Factors like household income and educational attainment also affect technology adoption within this population. Nearly nine in 10 older adults who have household income of \$75,000 or more a year have home broadband, compared to fewer than three in 10 of those with household incomes below \$30,000. Monica Anderson, "Tech Adoption Climbs Among Older Adults," Pew Research Center, May 17, 2017.
- MacArthur Foundation Research Network on an Aging Society, "Facts and Fictions About an Aging America," Contexts, Fall 2009.
- U.S. Census Bureau, "The Next Four Decades, the Older Population in the United States 2010 to 2050," U.S. Department of Commerce, May 2010.

- 24. Manufacturers sold 4,416 elderly assistance robots worldwide in 2014, with dramatic year over year increases anticipated, according to the International Federation of Robotics in Frankfurt. International Federation of Robotics, "World Robotics Survey: Service robots are conquering the world," Sept. 30, 2015, https://ifr.org/ifr-press-releases/news/world-robotics-survey-service-robots-are-conquering-the-world.
- 25. MacArthur Foundation Research, "Facts and Fictions."
- 26. Ibid.
- AdAge Insights White Paper, "50 and Over, What's Next?" AARP, April 2011.
- 28. Nielsen and BoomAgers, "Introducing Boomers: Marketing's Most Valuable Generation," The Nielsen Company and BoomAgers, 2012.
- 29. Aegon Center for Longevity and Retirement, "Successful Retirement - Healthy Aging and Financial Security: Aegon Retirement Readiness Survey 2017." Aegon's 2017 survey was conducted in Australia, Brazil, Canada, China, France, Germany, Hungary, India, Japan, the Netherlands, Poland, Spain, Turkey, the United Kingdom, and the United States.
- 30. Dawn C. Carr, Linda P. Fried, and John W. Rowe, "Productivity and Engagement in an Aging America—The Role of Volunteerism," Daedalus 144 (2015), Columbia University Academic Commons; Patricia Boyle, et al., "Effect of Purpose in Life on the Relation Between Alzheimer Disease Pathologic Changes on Cognitive Function in Advanced Age," Archives of General Psychiatry 69 (2012); Corporation for National and Community Service, "The Health Benefits of Volunteering for Older Americans a Review of Recent Research," May 2012.
- 31. Morgan Stanley, "Wealth Management."
- 32. Nikkei Asian Review, "Aging Asia's trillion-dollar business."
- 33. Marsh & McLennan Companies, "Advancing Into The Golden Years."

- 34. Lauran Neergard and Jennifer Agiesta, "Long-term Care Needs: Two-Thirds of Americans Over 40 Are In Denial," Associated Press, April 24, 2013, AP-NORC Center for Public Affairs Research, http://www.apnorc.org/news-media/Pages/News+Media/long-term-care-needs-two-thirds-of-americans-over-40-are-in-denial.aspx.
- Mark Miller, "The Future of U.S. Caregiving: High Demand, Scarce Workers," Reuters, August 3, 2017.
- 36. Morgan Stanley, "Wealth Management."
- Pamela Villarreal, "How Are Seniors Spending Their Money?" National Center for Policy Analysis, January 22, 2014. Data is for adults 65 to 74, http://www.ncpa.org/pub/ib135#sthash.YeHCr0le.dpuf.
- 38. Nielsen and BoomAgers, "Introducing Boomers."
- 39. Ibid.
- 40. Ken Dychtwald, "The Longevity Market Emerges," in *The Upside of Aging: How Long Life is Changing the World of Health, Work, Innovation, Policy and Purpose*, ed. Paul Irving (Hoboken: Wiley, 2014).
- 41. Aegon Center for Longevity and Retirement, "Successful Retirement."
- 42. Kuenen et al., "Global Aging."
- 43. Sari Harrar, "Wealth: What to Expect in Your 50s," *AARPThe Magazine*, June/July 2017.
- 44. Vicki Gelfeld, "AARPTravel Research: 2017Travel Bucket Lists," AARP, February 2017, http://www.aarp.org/content/dam/aarp/research/surveys_statistics/life-leisure/2017/aarp-travel-research-travel-bucket-lists.pdf.
- 45. Rodney Harrell, Jana Lynot, et al., "What Is Livable? Community Preferences of Older Adults," AARP Public Policy Institute, 2014.
- 46. Baxter Consulting Group, "Senior living communities ramp up technology," 2016, https://www.baxterconsultinggroup.com/senior-living-ramps-up-tech.
- 47. Constance Gustke, "Top VCs target \$7 trillion senior-care market: Marc Andreessen and Mitch Kapor are betting on the booming longevity economy," CNBC online, October 12, 2015, http://www.cnbc.com/2015/10/12/top-vcs-target-7-trillion-senior-care-market.html.

- 48. Morgan Stanley, "Generations Change."
- 49. Nielsen and BoomAgers, "Introducing Boomers."
- 50. Christopher Kurz, Geng Li, and Daniel Vine, "The Young and the Carless? The Demographics of New Vehicle Purchases," Feds Notes, Board of Governors of the Federal Reserve System, June 24, 2016, https://www.federalreserve.gov/econresdata/notes/feds-notes/2016/the-young-and-the-carless-the-demographics-of-new-vehicle-purchases-20160624.html.
- 51. University of Michigan Transportation Research Institute, "Older drivers more likely to buy new vehicles," June 5, 2013, http://www.umtri.umich.edu/what-were-doing/news/older-drivers-more-likely-buy-new-vehicles.
- 52. Ibid.
- Transportation for America, "Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation," May 2017, http://t4america.org/maps-tools/seniorsmobilitycrisis2011.
- 54. Dychtwald, "A Longevity Market Emerges."
- 55. Jilenne Gunther, "AARP's BankSafe Initiative: A Comprehensive Approach to Better Serving and Protecting Consumers," AARP Public Policy Institute, February 2016.
- 56. Consumer Financial Protection Bureau, "CFPB Issues Advisory and Report for Financial Institutions on Preventing Elder Financial Abuse," March 23, 2016, https://www.consumerfinance.gov/about-us/newsroom/cfpb-issues-advisory-and-report-for-financial-institutions-on-preventing-elder-financial-abuse/.
- Baxter Consulting Group, "Demography and TechnologyTransform Wealth Management,"
 2017, https://www.baxterconsultinggroup.com/demography-technology-wealth-manage.
- 58. Nielsen and BoomAgers, "Introducing Boomers."

- 59. Forbes, "MarketersThrow out the Baby Boomers With the Bathwater," April 11, 2016, https://www.forbes.com/sites/avidan/2016/04/11/marketers-throw-out-the-baby-boomers-with-the-bathwater/#5c16e0d33de9.
- Janet Morrissey, "Baby Boomers to Advertisers: Don't Forget About Us," New York Times, October 15, 2017.
- 61. Ibid.
- 62. Nielsen and BoomAgers, "Introducing Boomers."
- 63. Morrissey, "Baby Boomers," 2017.
- 64. Ibid.
- 65. Latitude Margaritaville website, https://www.latitudemargaritaville. com/?galleryId=39&autostart=1.
- 66. Kuenan et al, "Global Aging."
- 67. Becca Levy and Mahzarin Banaji, "Implicit Ageism," in *Ageism: Stereotyping and Prejudice Against Older Persons*, by Todd Nelson (MIT Press, 2001).
- 68. Ann Fishman (founder, Generational Targeted Marketing), interview by Aliza Gans, "4Tips for Marketing to Baby Boomers in the Digital Age," The Content Strategist, July 16, 2014, https://contently.com/strategist/2014/07/16/4-tips-formarketing-to-baby-boomers-in-the-digital-age/.
- Marti Barletta, Marketing to Women: How to Understand, Reach, and Increase Your Share of the World's Largest Market Segment (Chicago: Deerborn Trade Publishing, 2003).
- 70. Brooks Barnes, "It's Time to Be Old Out Loud," *New York Times*, May 14, 2017.
- 71. Ashton Applewhite at Ted2017, transcript, Ted website, https://www.ted.com/talks/ashton_applewhite_let_s_end_ageism/transcript.
- 72. Oxford Economics for AARP, "The Longevity Economy: Generating Economic Growth and New Opportunities for Business," AARP, October 2013.
- 73. Pew Research Center, Social Media Fact Sheet, January 12, 2017, http://www.pewinternet.org/fact-sheet/social-media/.

- 74. Nielsen and BoomAgers, "Introducing Boomers."
- AARP, "Financial Innovation Frontiers," AARP report, April 2017.
- Monica Anderson and Andrew Perrin, "Tech Adoption Climbs Among Older Adults," Pew Research Center, May 17, 2017, http://www.pewinternet.org/2017/05/17/tech-adoption-climbs-among-older-adults/.
- 77. Nielsen and BoomAgers, "Introducing Boomers."
- 78. Anderson and Perrin, "Tech Adoption."
- 79. Ibid
- 80. Laura Carstensen, "Our Aging Population It May Just Save Us All," in Paul Irving, *The Upside of Aging: How Long Life is Changing the World of Health, Work, Innovation, Policy and Purpose* (Hoboken: Wiley, 2014).
- 81. Drew DeSilver, "More older Americans are working, and working more, than they used to," Pew Research Center, June 20, 2016.
- 82. Teri Morisi, "Why More People Ages 55+ are Working," U.S. Department of Labor Blog, November 18, 2016.
- 83. DeSilver, "More Older Americans."
- 84. Morisi, "Why More People."
- 85. Catherine Collinson, "Perspectives on Retirement: Baby Boomers, Generation X, and Millennials, 17th Annual Transamerica Retirement Survey of Workers," Transamerica Center for Retirement Studies, August 2016.
- Merrill Lynch in partnership with Age Wave, "Work in Retirement: Myths and Motivations," Merrill Lynch Bank of America Corp., 2016.
- 87. Aegon Center for Longevity and Retirement, "Successful Retirement."
- 88. Kuenen et al., "Global Aging."

- 89. Jonathan Soble, "The Pilot in Cockpit? He might be a Retiree," *New York Times*, July 28, 2017.
- 90. Kuenen et al., "Global Aging."
- 91. MitraToossi, "A look at the future of the U.A. labor force to 2060," Bureau of Labor Statistics, September 2016, https://www.bls.gov/spotlight/2016/a-look-at-the-future-of-the-us-labor-force-to-2060/pdf/a-look-at-the-future-of-the-us-labor-force-to-2060.pdf
- 92. DeSilver, "More older Americans," 2016.
- 93. Baxter Consulting Group, "The Longevity Report, Business Insights in an Aging World: Managing the New Multi-generational Work force," Baxter Consulting Group, 2017.
- Rainer Strack, Jens Baier, and Philipp Zimmermann, "Turning the Challenge of an Older Workforce into a Managed Opportunity," Boston Consulting Group, August 2011.
- 95. McKinsey Global Institute, "Five Forces Reshaping the Global Economy: McKinsey Global Survey Results," May 2010, http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/five-forces-reshaping-the-global-economy-mckinsey-global-survey-results.
- 96. James Manyika, Susan Lund, Byron Auguste and Sreenivas Ramaswamy, "Help Wanted, The Future of Work in Advanced Economies," McKinsey Global Institute, March 2012, http://www.mckinsey.com/global-themes/employment-and-growth/future-of-work-in-advanced-economies.
- 97. Society for Human Resource Management ("SHRM"), "The NewTalent Landscape: Recruiting Difficulty and Skills Shortages," June 2016, https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM New Talent Landscape Recruiting Difficulty Skills.pdf.
- 98. Kuenen et al., "Global Aging."
- 99. Ibid.
- 100. Manyika, et al., "Help wanted."

- 101. SHRM, "The New Talent Landscape."
- 102. McKinsey Global Institute, "Five Forces," 2010.
- 103. Employee Benefit Research Institute, "The 2017 Retirement Confidence Survey," EBRI Issue Brief 431, March 2017.
- 104. David Baxter, Gretchen Donehower, William H. Dow and Ronald D. Lee, "Population Aging and the Global Economy: Weakening Demographic Tailwinds Reduce Economic Growth," Berkeley Forum on Aging and the Global Economy, University of California at Berkeley (June 2017): 10.
- 105. McKinsey Global Institute, "Five Forces," 2010.
- 106. Manyika, et al., "Help wanted."
- 107. Oxford Economics for AARP, "The Longevity Economy: Generating."
- 108. Bruce Drake, "Number of Older Americans in the Work force is on the Rise," Pew Research Center, January 7, 2014.
- 109. David Neumark, lan Burn, and Patrick Button, "Age Discrimination and Hiring of Older Workers," Federal Reserve Bank of San Francisco, FRBSF Economic Letter, Feb. 27, 2017, http://www.frbsf.org/economic-research/files/el2017-06.pdf.
- 110. Morisi, "Why More People Ages 55+ are Working."
- 111. Manyika, et al., "Help wanted."
- 112. Aegon, "Healthy lifestyle positive for retirement planning," Aegon website news release, June 6, 2017, Center for Longevity and Retirement, https://www.aegon.com/en/Home/Investors/News-releases/2017/retirement-readiness-survey-2017/
- 113. Federal Reserve Economic Data, St. Louis Fed website, "Civilian Labor Force Participation Rate: 55 years and over (LNS11324230)," Sept. 1, 2017, https://fred.stlouisfed.org/series/LNS11324230.

- 114. The Society for Human Resource Management found that among boomers who remain on the job, 72% do so because of money, 58% do so because they enjoy their work and it occupies their time, and 45% do so because of health care benefits. Society for Human Resource Management, "Executive Summary: Preparing for an Aging Workforce," SHRM, December 2014, https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/14-765%20Executive%20 Briefing%20Aging%20Workforce%20v4.pdf.
- 115. Merrill Lynch in partnership with Age Wave, "Work in Retirement," https://mlaem.fs.ml.com/content/dam/ML/Articles/pdf/ml work-in-retirement-myths-motivations.pdf.
- 116. Corporation for National and Community Service, "Older Americans Provide Services Valued at \$78 Billion to U.S. Economy: Seventh-annual Senior Corps Week - May 15-19 - honors RSVP, Foster Grandparent, and Senior Companion volunteers," May 16, 2017, PR NewswireNews provided by Corporation for National and Community Service, https://www.prnewswire.com/news-releases/older-americans-provide-services-valued-at-78-billion-to-us-economy-300458344.html.
- 117. Baxter Consulting Group, "The Longevity Report, Business Insights in an Aging World: Managing the New Multi-generational Work force," Baxter Consulting Group, 2017.
- 118. Society for Human Resource Management, "Preparing for an Aging Workforce."
- 119. Ibid.
- 120. Morisi, "Why More People."
- 121. Collinson, "Perspectives on Retirement," 2016.

- 122. Merrill Lynch in partnership with Age Wave, "Work in Retirement: Myths and Motivations," Merrill Lynch Bank of America Corp., 2016.
- 123. Kuenen et al., "Global Aging."
- 124. Soble, "The Pilot in Cockpit?"
- 125. Rebecca Perron, "Staying Ahead of the Curve 2013, AARP Multicultural Work and Career Study Perceptions of Age Discrimination in the Workplace – ages 45-74," AARP Research, February 2013, last updated July 2014.
- 126. David Neumark, Ian Burn, and Patrick Button, "Age Discrimination and Hiring of Older Workers," FRBSF Economic Letter, Feb. 27, 2017, https://www.frbsf.org/economic-research/files/el2017-06.pdf.
- 127. Center on Aging and Work, "Recruitment and Retention of Older Workers," National Study Report 2007, Boston College, http://www.bc.edu/research/agingandwork/archive_pubs/FS21.html.
- 128. Hannah Kuchler, "Silicon Valley ageism: 'They were, like, wow, you use Twitter?' "Financial Times, July 30, 2017.
- 129. McCann Truth Central, "Truth About Age," McCann Worldgroup, 2017.
- 130. MacArthur Foundation Research, "Facts and Fictions."
- Linda Fried, "Investing in Health to Create a Third Demographic Dividend," *Gerontologist*, March 18, 2016, https://academic.oup.com/gerontologist/article/56/Suppl_2/S167/2605367.
- 132. The Economist, "Retirement is out, new portfolio careers are in," Economist Special Report, "The New Old: Footloose and Fancy-free," July 6, 2017.
- 133. Carstensen, "Our Aging Population."
- 134. Ibid.
- 135. Fariss Samarrai, "Cognitive Decline Begins in late 20s." UVA Today, University of Virginia, March 18, 2009, https://news.virginia.edu/content/cognitive-decline-begins-late-20s-uva-study-suggests.

- 136. Harvard Women's Health Watch, "How can you prevent cognitive decline? Try this combination strategy," Harvard Health Publications, Harvard Medical School, July 2016, https://www.health.harvard.edu/mind-and-mood/how-can-you-prevent-cognitive-decline-try-this-combination-strategy; Victor W. Henderson, "Three Midlife Strategies to Prevent Cognitive Impairment Due to Alzheimer's Disease," Climacteric: The Journal of the International Menopause Society, December 2014.
- 137. Emilie Reas, "Exercise Counteracts Genetic Risk for Alzheimer's," *Scientific American*, Sept. 1, 2014.
- 138. Carstensen, "Our Aging Population."
- 139. Gary Burtless, "The Impact of Population
 Aging and Delayed Retirement on Work Force
 Productivity," Working Paper 2013-11, Chestnut Hill,
 Mass.: Center for Retirement Research at Boston
 College, May 2013, http://crr.bc.edu/wp-content/uploads/2013/05/wp_2013-111.pdf; Gary Burtless, "Is
 an Aging Workforce Less Productive?" Brookings
 Blog, June 10, 2013, https://www.brookings.edu/blog/up-front/2013/06/10/is-an-aging-workforce-less-productive/.
- 140. The Economist, "Retirement is out."
- 141. British Sociological Association, "Companies with fewer staff aged over 50 have higher productivity," Sept. 8, 2016, https://www.britsoc.co.uk/about/latest-news/2016/september/companies-with-fewer-staff-aged-over-50-have-higher-productivity/.
- 142. "Study: Older Workers Bring Valuable Knowledge to the Job," *Journal of Applied Psychology* website, April 2, 2015, www.apa.org/news/press/releases/2015/04/older-workers.aspx.
- 143. Jan Oltmans, Benn Godde, et al., "Don't Lose Your Brain at Work – The Role of Recurrent Novelty at Work in Cognitive and Brain Aging," Frontiers in Psychology, February 6, 2017.

- 144. Morbidity and Mortality Weekly Report, "Nonfatal Occupational Injuries and Illnesses Among Older Workers --- United States, 2009," Weekly, April 29, 2011, https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6016a3.htm.
- 145. Lisa F. Berkman, Axel Boersch-Supan & Mauricio Avendano, "Labor-Force Participation, Policies & Practices in an Aging America: Adaptation Essential for a healthy & Resilient Population," *Daedalus*, Spring 2015.
- 146. Oxford Economics, "The Longevity Economy: Generating."
- 147. Ibid.
- 148. Linda Fried, "Making Age Positive," *The Atlantic*, June 1, 2014.
- 149. Society for Human Resource Management, "The New Talent," 2016.
- 150. Baxter Consulting Group, "The Longevity Report."
- 151. Center on Aging and Work, "Three Things Employers Need To Know About Intergenerational Relations," Boston College, 2015.
- 152. Nicole Maestas, Kathleen J. Mullen, David Powell, et al., "The American Working Conditions Survey Finds That More Than Half of Retirees Would Return to Work." RAND Corporation, online report, 2017, https://www.rand.org/pubs/research_briefs/RB9973.html.
- 153. Erik Erikson, "Growth and crises of the 'health personality'," in M.J.E. Senn (ed.), *Symposium on the healthy personality* (Oxford, England: Josiah Macy, Jr. Foundation, 1950).
- 154. George Vaillant, Triumphs of Experience: The Men of the Harvard Grant Study (Cambridge, Mass.: The Belknap Press of Harvard University Press, 2012).
- 155. Nathaniel Reade, "The Surprising Truth About Older Workers," *AARPThe Magazine*, September, 2015.
- 156. Aon Hewitt for AARP, "A business case for workers 50+," AARP, 2015.
- 157. Anderson and Perrin, "Tech Adoption."

- 158. M.C. Luoh and A.R. Herzog, "Individual Consequences of Volunteer and Paid Work in Old Age: Health and Mortality," *Journal of Health and Social Behavior* 43 (2002), https://www.ncbi.nlm.nih.gov/pubmed?term=12664678.
- 159. Patricia Boyle, et al., "Effect of Purpose in Life on the Relation Between Alzheimer Disease Pathologic Changes on Cognitive Function in Advanced Age," Archives of General Psychiatry 69 (2012).
- 160. Mercer, "Employee Well-Being: A New Way to Define Organizational Success," 2015, http://www.neebc.org/assets/White-Papers/employee-well-being-a-new-way-to-define-organizational-success-mercer-10-2015.pdf.
- 161. Mercer, "Employee Well-Being."
- 162. Shawn Achor, "Positive Intelligence," *Harvard Business Review*, January–February 2012.
- 163. Tom Rath and Jim Harter, "The Economics of Well-Being," Gallup Consulting, Gallup Inc., 2010-2011.
- 164. Achor, "Positive Intelligence."
- 165. Aegon Center for Longevity and Retirement, "Healthy Aging and Financial Security: Aegon Retirement Readiness Survey," 2017, https://www.Aegon.com/en/Home/Research/Aegon-retirement-readiness-survey-2017/.
- 166. Ibid.
- 167. Jill Jusko, "Operations: Ergonomic Design for an Aging Workforce," *Industry Week*, July 29, 2013.
- 168. Society for Human Resource Management, "Designing and Managing Wellness Programs," June 15, 2015.
- 169. Institute for Health and Productivity Studies, Johns Hopkins Bloomberg School of Public Health In collaboration with Transamerica Center for Health Studies, "From Evidence to Practice: Workplace Wellness that Works," September 2015.
- 170. CDC Online Newsroom, Press Briefing Transcript. "CDC Vital Signs: Walking Among Adults — United States, 2005 and 2010 Telebriefing," August 7, 2012, http://www.cdc.gov/media/releases/2012/t0807 walking.html.

- 171. Ibid; Institute for Health and Productivity Studies, Johns Hopkins Bloomberg School of Public Health in collaboration with Transamerica Center for Health Studies, "From Evidence to Practice: Workplace Wellness that Works," September 2015.
- 172. Physical Activity Guidelines Advisory Committee, "Physical activity guidelines advisory committee report, 2008," U.S. Dep. Health Human Services (2008), https://health.gov/paguidelines/report/pdf/committeereport.pdf.
- 173. Institute for Health and Productivity Studies, Johns Hopkins Bloomberg School of Public Health in collaboration with Transamerica Center for Health Studies, "From Evidence to Practice: Workplace Wellness that Works," September, 2015.
- 174. Ibid.
- 175. Larry S. Chapman, "Meta-Evaluation of Worksite Health Promotion Economic Return Studies," The Art of Health Promotion, March-April 2012, http://www.chapmaninstitute.com/articles/05 TAHP 26 4 Meta Evaluation 2012.pdf.
- 176. Aflac, "Aflac Workforces Report 2016, Executive Summary," June 2016, https://www.aflac.com/docs/awr/pdf/2016-overview/execsumm2016.20pp-v8.pdf.
- 177. Kaiser Family Foundation website, "Percent of Private Sector Establishments That Offer Health Insurance to Employees," 2106, <a href="http://www.kff.org/other/state-indicator/percent-of-firms-offering-cove-rage/?activeTab=graph¤tTimeframe=0&start-Timeframe=4&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D.
- 178. Joanne Sammer, "HR Gets Strategic about Voluntary Benefits," HR Today, Society for Human Resource Management, May 22, 2014, https://www.shrm.org/hr-today/news/hr-magazine/pages/0614-voluntary-benefits.aspx.
- 179. Institute for Health and Productivity Studies, "From Evidence."

- 180. Stephen Miller, "Benefits Survey Tracks Most, Least Popular Perks," SHRM, June 18, 2017; Emily Brandon, "Workplace Benefits That Are Disappearing: If you're getting one of these benefits, take advantage of it while you still can," U.S. News & World Report, July 28, 2014.
- 181. Dee DePass, "More Minnesota factories convincing employees to work past 65," *Minnesota Star-Tribune*, July 8, 2017.
- 182. Collinson, "Perspectives on Retirement," 2016.
- 183. International Foundation of Employee Benefit Plans, "Financial Education for Today's Work force: 2016 Survey Results," 2016.
- 184. American Psychological Association, "Stress in America 2017 Snapshot, Coping with Change," Feb. 17, 2017.
- 185. David John and Gary Koenig, "Workplace Retirement Plans Will Help Workers Build Economic Security," AARP Public Policy Institute, October 2014, http://www.aarp.org/content/dam/aarp/ppi/2014-10/aarp-workplace-retirement-plans-build-economic-security.pdf.
- 186. Pew Charitable Trusts, "What Resources Do Families Have for Financial Emergencies? The role of emergency savings in family financial security," November 18, 2015.
- 187. Monique Morrissey, "The State of American Retirement: How 401(k)s have failed most American workers," Economic Policy Institute, March 3, 2016.
- 188. Pew Charitable Trusts, "Pew Finds American Families III-Equipped for Financial Emergencies," Nov. 18, 2015, http://www.pewtrusts.org/en/about/news-room/press-releases/2015/11/18/pew-finds-american-families-iII-equipped-for-financial-emergencies.

- 189. MetLife, "New Expectations: Meeting the Needs of Four Generations," MetLife's 14th Annual Employee Benefit Trends Study, 2016, https://workforce. metlife.com/multigenerational-workplace.
- 190. John and Koenig, "Workplace Retirement."
- 191. Employee Benefit Research Institute and Greenwald & Associates, "2014 Retirement Confidence Survey: "2014 RCS Fact Sheet #6," EBRI, http://ebri.org/pdf/surveys/rcs/2014/RCS14.FS-6. Prep-Ret.Final.pdf.
- 192. U.S. Department of Labor and IRS, "Automatic Enrollment 401(K) Plans For Small Businesses," https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/automatic-enrollment-401k-plans-for-small-businesses.pdf.
- 193. Stephen Miller, "Employers Sharply Increased Financial Well-Being Benefits in 2017: Navigating financial wellness options is necessary to create effective programs," Society for Human Resource Management, June 2, 2017, https://www.shrm.gorg/resourcesandtools/hr-topics/benefits/pages/navigate-financial-wellness-options.aspx.
- 194. International Foundation of Employee Benefit Plans, "Financial Education for Today's Work force: 2016 Survey Results," IFEBP, 2016.
- 195. Charles Schwab, "Workplace financial wellness: Insights on definition, design, and what's driving decisions," Charles Schwab Corporation, 2017, http://corporateservices.schwab.com/public/file/P-10419818.
- 196. MetLife, "New Expectations: Meeting the Needs of Four Generations," 2016, https://work force.metlife.com/multigenerational-workplace.
- 197. Encore.org website, http://encore.org/fellowships/.
- 198. DePass, "More Minnesota factories."

- 199. Carol Hymowitz, "American Firms Want to Keep Older Workers a Bit Longer: With phased retirement, you get the same gold watch, just a little later," *Bloomberg BusinessWeek*, Dec. 16, 2016.
- 200. Jena McGregor, "Retirement deferred: Workers and companies grapple with a new reality," *Washington Post*, July 19, 2017.
- 201. Catherine Collinson, "All About Retirement: An Employer Survey: 17th Annual Transamerica Retirement Survey," Transamerica Center for Retirement Studies, Aug. 2017.
- 202. Sherri Snelling, "Rosalynn Carter: A Pioneering Caregiving Advocate Says More Must Be Done The former first lady reflects on her decades in the field," Next Avenue, Aug. 6, 2012.
- 203. AARP website, "ReActToolkit," Sept. 18, 2013, http://www.aarp.org/react/info-09-2013/react-pfizer-case-study.html.
- 204. United Health Care website, "United Healthcare's 'Solutions for Caregivers' Provides Comprehensive Resources to Help People Care for Aging or Disabled Family Members," Jan. 7, 2016.
- 205. Northeast Business Group on Health and AARP, "Caregiving and the Workplace: Employer Benchmarking Survey," July 2017, http://nebgh.org/wp-content/uploads/2017/07/NEBGH-AARPCaregivingSurvey 2017.pdf.
- 206. ReACT Coalition, "Supporting Working Caregivers: Case Studies of Promising Practices," ReACT Coalition and AARP, 2017, http://respectcaregivers.org/wp-content/uploads/2017/05/AARP-ReAct-MASTER-web.pdf.
- 207. Collinson, "All About Retirement."
- 208. Linda Fried, "Investing in Health to Create a Third Demographic Dividend," *Gerontologist*, April 2016.
- 209. Aegon Center for Longevity and Retirement, "Successful Retirement - Healthy Aging and Financial Security: Aegon Retirement Readiness Survey 2017."

- 210. Aflac, "Aflac Workforces Report, Employee Overview 2017," 2017, https://www.aflac.com/docs/awr/pdf/2017-overview/2017-aflac-workforces-report-employee-overview.pdf.
- 211. Aflac, "Aflac Workforces Report 2016, Executive Summary," June 2016, https://www.aflac.com/docs/awr/pdf/2016-overview/execsumm2016.20pp-v8.pdf.
- 212. Ibid.
- 213. Society for Human Resource Management, "SHRM: 20-Year Employee Benefits Trends in the United States Now and Then," June 20, 2016, https://www.shrm.org/about-shrm/press-room/press-releases/Pages/2016-Employee-Benefits-Survey-News-Release.aspx.
- 214. Cali Williams Yost, "The Good, Bad and Very Bad Benefits News for Older Workers," NextAvenue, June 27, 2016, http://www.nextavenue.org/good-bad-bad-benefits-news-older-workers/.
- 215. U.S. Centers for Disease Control and Prevention, "Nonfatal Occupational Injuries and Illnesses Among Older Workers—United States, 2009," Weekly, April 29, 2011, https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6016a3.htm.
- 216. Andy Sieg "Longevity is the economic opportunity of our lifetime," *MarketWatch*, February 16, 2017.
- 217. Kuenen et al., "Global Aging."
- 218. Ibid.
- 219. Ibid.
- 220. Ibid.
- 221. Gary M. Kaye, "Intel Helps Older Americans Age Smarter: The quiet revolution that could benefit all of us," AARP website, May 23, 2012, http://www.aarp.org/home-family/personal-technology/info-05-2012/intel-computers-innovations-seniors.html.
- 222. Strack, Baier, and Zimmermann, "Turning the Challenge."
- 223. Sarbjit Nahal and Beijia Ma, "The Silver Dollar Longevity Revolution Primer," Bank of America Merrill Lynch, June 6, 2014.

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THANK YOU TO OUR SUPPORTERS

The Milken Institute Center for the Future of Aging gratefully acknowledges the support of the following organizations.

























The Summit on Business and the Future of Aging and this report were made possible through a grant by the M Center of Excellence at The American College of Financial Services. Our thanks to the M Center for its vision, support, and engaged collaboration.

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