



Living to 100 and Beyond

By Timothy Harris, FSA, MAAA

Editor's Note: This article is extracted from Living to 100 and Beyond (Winsted, CT: Actex, 2009), the author's book about human longevity and its implications for individuals, businesses, and society. This article is reprinted with permission from Actex.

Increasing Human Longevity

With the exception of the Middle Ages, human life expectancy has been trending upward since the dawn of recorded history. Increases in life expectancy have followed improvements in hygiene, medical treatments, sanitation, and modifications of lifestyles (e.g., smoking cessation).

The good news is humans are living longer and the bad news is humans are living longer. Because few humans are in a hurry to leave this earth, the improvement in longevity has been well-received. These longer lives, however, come with complications for individuals, governments, and corporations.

Figure 1 shows the percent change from 1990 to 2000 in the U.S. population for different quinquennial age groups. The notable blips are, of course, the baby boomers moving through the 40–59 age range. Note, however, the increases in the percentage of individuals at the higher ages, including the almost 50-percent increase in the 90–94 age group.

Indeed, demographers have ceased focusing on centenarians (individuals reaching 100 years of age) and have begun to monitor super-centenarians (individuals reaching 110 years of age or more).¹ Because the numbers of individuals currently attaining 100 years of age are so numerous, they no longer are an oddity. In the United

Kingdom, the Queen sends a letter to individuals on their 100th birthday. Lately this task has been growing onerous because of the increasing number of individuals who now are attaining this milestone.

Male vs. Female Life Expectancy

In ancient Greece, a male's life expectancy exceeded a female's from birth to adulthood, according to data available from 3500 to 1150 BC and from 1200 to 150 BC.² A male's life expectancy was about three years greater than a female's at birth, eight years longer in the teen years (the common child-bearing years of the era), and two years longer as both sexes entered their fifties.

In today's developed societies, women's life expectancy now exceeds men's. The longer lifespan of the modern female has been attributed to women's improved status in society and medical

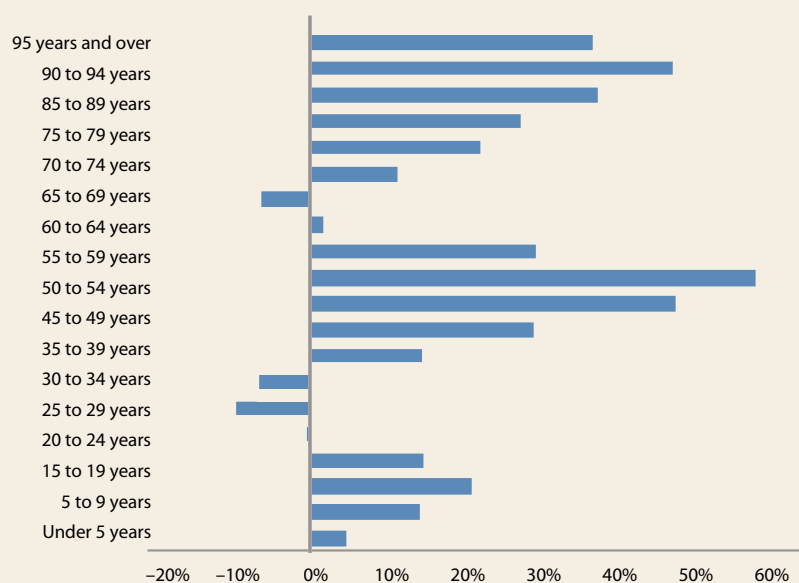
advances that have made pregnancy and childbirth safer. The modern male's shorter life expectancy is due in part to males' more-hazardous lifestyle, including a higher rate of accidental deaths in the teens and twenties and a higher rate of smoking and substance abuse throughout life.

So as we look at the proportion of males and females in the modern population by age group, we find an increasing percentage of female survivors as males die off. This is despite the fact that males account for about 5 percent more births than females.

However, males are starting to catch up: Males are adopting more-healthy lifestyles, while females are doing the opposite.

At the Symposium on Living to 100 and Beyond (January 2008), a U.S. Social Security actuary presented data about the change in the life expectan-

FIGURE 1: PERCENTAGE CHANGE BY AGE: 1990–2000



cies for men and women over the past century. (The monographs for this symposium can be found at: <http://www.soa.org/news-and-publications/publications/other-publications/monographs/pub-life-monographs.aspx>.)

Figures 2 and 3 show these life expectancies as measured at birth and at age 65. Note that for females at age 65, the line levels off and declines slightly from 1990 to 2000.

What Does This Longer Life Expectancy Mean For Potential Retirees?

The U.S. concept of retiring at age 65 comes from the German retirement system, which was the model for the U.S. program. Under Chancellor Otto von Bismarck, Germany set the retirement age at 70 in 1889 but then lowered it to age 65 in 1916.³ This was a time when the life expectancy at birth in developed countries was less than 50 years.

Once upon a time, retirement also was symbolized by a long working career with a single employer that culminated with a gold watch and a guaranteed (or so you'd presume) monthly pension—a defined benefit (DB) retirement plan.

In the very distant past, these monthly pensions sometimes were paid on a “pay as you go basis”; that is, the employer didn't establish a pot of money to cover future payments. Some employers were more fiscally responsible with funding these guarantees than others. It was not uncommon for a retiree to learn that the employer had been acquired or gone bankrupt and that a pension had changed or even vanished.

In 1974, the U.S. Congress enacted the Employment Retirement Income Security Act (ERISA). ERISA requires funding of the guarantees made by employers, requires that an enrolled actuary sign off on the funding, and established the Pension Benefit Guarantee Corporation (PBGC), which charges a premium to all employers to

FIGURE 2: U.S. LIFE EXPECTANCY AT BIRTH

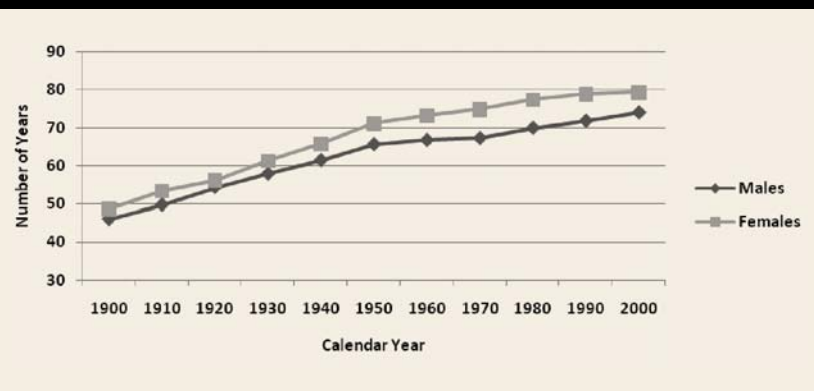
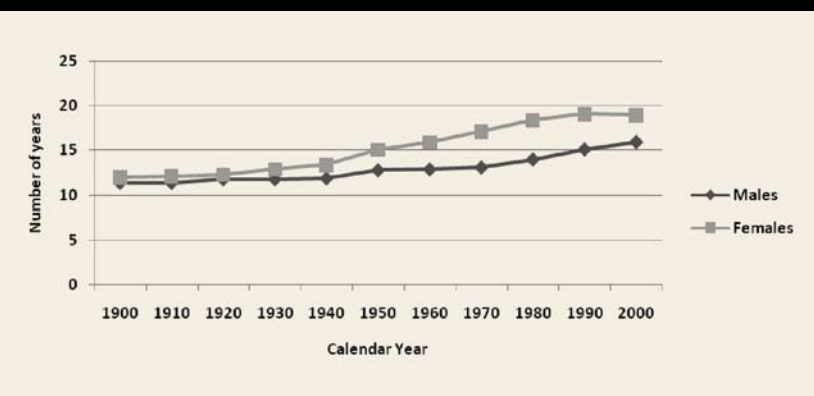


FIGURE 3: U.S. LIFE EXPECTANCY AT AGE 65



guarantee some level of benefit to retirees if an employer goes bankrupt.

ERISA and the PBGC have provided more security for employees, but they also have created a more-complicated environment for employers, who now face more government requirements and paperwork. In addition, the workforce has become much more mobile than in previous generations. The DB pension, however, is not designed for mobility, and it often has left the shorter-term employee with little or nothing in the way of retirement accrual when changing jobs. These factors have led to a gradual and continuing shift to defined contribution retirement plans, typically 401(k) plans.

The average 401(k) account for retirees at the point of retirement now is estimated to be under \$200,000. But this amount won't even cover projections of the anticipated average out-

of-pocket healthcare cost for a retired couple over their expected lifetimes, which is estimated at \$206,000 for a couple retiring in 2010 (according to the Center for Retirement Research at Boston College⁴) and \$225,000 for a couple retiring in 2008 (according to Fidelity Investments⁵). That leaves the average U.S. retiree with just Social Security to pay for food, housing, leisure, and any other expenses.

Planning for Retirement

Retirement planning needs to start at the beginning of an employee's working years. Planning at that time can be as simple as setting aside money as soon as possible in one of several available retirement savings vehicles. As an employee ages, he or she needs a more-detailed analysis of savings goals, available by using one of many available retirement planning systems. These



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analyses require estimates of retirement expenses. The planning system accumulates an employee's current assets and planned contributions until retirement, then applies the accumulated amount to expenses expected after retirement. The plan then may show an excess or a deficiency at the end of the projected life expectancy. In the case of a deficiency, the employee needs to return to the drawing board and increase periodic contributions to the retirement savings vehicle. Some systems display the percentage of the pre-retirement income that will be produced following retirement by the combination of Social Security, savings, 401(k), individual retirement accounts (IRAs), and any other income sources. Then it's up to the individual to determine if that percentage of pre-retirement income will be adequate for a comfortable retirement and make adjustments if necessary.

When can you or should you retire? "Full retirement" age is increasing under Social Security. For many years, it was 65. An individual could retire at 62 but would receive reduced benefits. Or an individual could retire at 70 and receive an increased benefit. Full retirement age for people born in 1960 or later, however, is 67.

When is the optimum time to retire? If one retires early, one can receive benefits early; but if one waits, the benefits will be greater. Timing becomes a question of an individual's health and how long one expects to live. For an individual in poor health, early retirement may be best. For an individual

in excellent health, however, deferred retirement may be best.

There are material financial issues to consider, too. If an individual retires but defers receipt of retirement benefits, another source of income will be needed to cover cost of living.

What does an individual stand to gain by retiring at or after full retirement age? According to the Social Security Administration's Retirement Planner, full retirement age is 66 for individuals born between 1943 and 1954, a period filled with baby boomers. This retiree gains an increase in benefits for each month retirement is delayed past age 66. It amounts to about 0.7 percent per month, or 4 percent every six months, or 8 percent every year.


Decision Making

So, will you be able to retire at the age you want? It depends. A better question is whether you will be able to stay retired. Anyone could decide to retire until the money ran out, then re-enter the labor force. But this is not something that an elderly retiree probably would want to include in a retirement plan.

The decisions about whether and when to retire are important and complicated. One should not go lightly into retirement. Retirement planning needs to start early in one's working years, perhaps even sooner. Indeed, retirement planning may well include the choice of a profession and the selection of an employer.

Then the financial planning starts and continues through the earning and savings years. As the targeted retire-

ment date approaches, the planning should grow in detail so the retiree might avoid selling a condo on the beach and moving back into the smoggy city, or some other unfavorable compromise.

All that planning needs to take into consideration how long you expect to live following retirement. Life expectancy at birth has increased greatly, but life expectancy at age 65 has increased much less over the past 100 years—about five years for males and eight years for females. However, five to eight years can seem like a lifetime when you've run out of money to support yourself. 

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Endnotes

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- ³ "Otto von Bismarck." Social Security Online History. Social Security Administration. March 20, 2008, available at <http://www.ssa.gov/history/ottob.html>.
- ⁴ A. Munnell, Medicare Costs and Retirement Security, *Issue in Brief 7-14*, Chestnut Hill, MA: Center for Retirement Research at Boston College, October 2007.
- ⁵ Fidelity Investments Estimates \$225,000 Needed to Cover Retiree Health Care Costs, *Business Wire* (March 5, 2008), available at http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20080305005617&newsLang=en.

