

# Longevity is More Than Just Life Expectancy

When it comes to retirement income planning, longevity is often referred to as a risk multiplier. Living longer than expected can magnify the impact of inflation, market volatility, and long-term care needs. Yet, longevity is one of the most misunderstood risks as it pertains to retirement income planning. Part of this misunderstanding stems from the confusion created by the phrase "life expectancy."

## UNDERSTANDING LIFE EXPECTANCY

Life expectancy is a term that requires a bit of precision. The Encyclopedia of Gerontology defines life expectancy as the average number of years a person in a population could expect to live after age X. Often, the life expectancy calculation that is cited is life expectancy at birth. In other words, defining X as age 0.<sup>(1)</sup>

Today, according to the Centers for Disease Control, US life expectancy at birth is 78.7 years. However, for purposes of retirement income planning, the use of this data point can be misleading. Why? Because mortality rates during different stages of life dramatically influence the life expectancy at birth data.

Conceptually, if you manage to live to age 65, you have survived several events, illnesses, and diseases that have claimed tens of thousands each year.<sup>(2)</sup> As a result, the life expectancy of a 65-year old will look very different than life expectancy at birth.

This has been the case throughout history. Research has shown that during the last 200 years, once adulthood has been reached, life expectancy increases dramatically. And if we go back even further, this was also the case during preindustrial times. Life expectancy in the Roman Empire was 25. However, if you managed to live to age 25, your life expectancy more than doubled to age 53.<sup>(3)</sup>

Therefore, for retirement income planning purposes, it is much more helpful to use life expectancy data that correlates to the age of the population that will be impacted by the issues you are attempting to solve. For example, age 65 may be much more appropriate when addressing retirement income planning.

To illustrate the difference between life expectancy at birth versus age 65, we can look to the Social Security Administration's life tables to see the difference. Per the Social Security life expectancy tables, life expectancy for a 65-year old man is 82.89. For 65-year old women, it is 85.45.<sup>(4)</sup> This data indicates a longer life expectancy than the 78.7 years at birth. But even this data can be misleading.



## **DATA POPULATIONS**

When looking at life expectancy data, it is essential to understand what populations are being used to compile the data. It is generally understood that the larger the data set, the more accurate the results. However, suppose the population used skews one direction or another or does not accurately reflect the population you are working with. In that case, the conclusions drawn from that data may not align with your client or target market.

For instance, the Social Security life expectancy tables compile the data from the Centers for Disease Control based on the data from the entire United States. This data includes all segments of the US population. It makes no distinction for education level, income, or access to health care. All of which are known contributors to life expectancy and mortality rates.

For example, in the US, the gap in life expectancy between the richest 1% and the poorest 1% is 14.6 years.<sup>(5)</sup> Such gaps in life expectancy occur at all levels of income. Simply put, higher income is associated with greater longevity.

The same can be said of education level. Data shows that in almost all race-sex groups, persons with a 4-year college education have a higher life expectancy than those with less than a 4-year college education.<sup>(6)</sup>

Therefore, care must be given when using global data sets in measuring the life expectancy of your client population. Does that data set accurately represent your client base? For many financial professionals, the answer will be no. A typical client of a financial professional will generally have statistically significant assets requiring a financial professional's need. Additionally, to accumulate those assets, a client generally will have had been employed and have had access to healthcare. As a result, widely available data sets may understate your clients' life expectancy and, if used, result in inaccurate retirement income planning scenarios.

#### LIFE EXPECTANCY PERCENTAGES

Another area of concern is relying on life expectancy in building retirement income plans. Remember, as typically reported, life expectancy is the average. With any average calculation, there will be those that fall above and below that average. Averages can also be skewed by extremes on either side of the average. As a result, the median or percentile group may be a more useful tool when building retirement income strategies.

To see why this may be useful, consider the 2012 Individual Annuity Mortality (IAM) Table. This table can be helpful for several reasons. First, the table provides us with the actual mortality experience of insurance companies pertaining to their annuity and life insurance blocks of business. This can be helpful as it can more accurately reflect the client base of financial professionals. Second, the tables are comprehensive so that data can be broken down into several different segments and percentiles.

Using the 2012 IAM Basic Mortality Table, consider the breakdown for 65-year olds:

	Men	Women
50 out of 100	89	90
25 out of 100	94	96
5 out of 100	100	102

As you can see, the median life expectancy for 65-year old men and women is age 89 and 90, respectively. In other words, half will live less, and half will live longer than 89 and 90. Compare this to the life expectancy at birth of 78.7. Or the Social Security life table of 82.89 for men. Starting points, averages, and data populations can all result in different results.



The 2012 IAM Basic Mortality Table becomes a useful tool when building out retirement income plans. If a retirement income plan is built to generate income only to age 89 or 90, the data shows that half of the time, the retirement income plan may fall short of providing a lifetime income solution.

Additionally, if a retirement income plan is to address longevity, a 25th percentile approach may be prudent. At the 25th percentile, you would plan for a life expectancy of 94 and 96 for men and women. A full 11 years longer than what the Social Security life table states.

Of course, when you have a married couple, statistical complications can arise. Specifically, it increases the odds that one member of the couple will live longer than the individual life expectancy data would indicate. Consider the 2012 IAM Basic Mortality Table for a 65-year old couple:

	Couple
50 out of 100	94
25 out of 100	98
5 out of 100	103

The median life expectancy of the 65-year old couple is 94. In other words, half of the married couples will have one member live beyond age 94. The 25th percentile pushes it to age 98.

# LONGEVITY RISK IN ACTION

It has been said that longevity risk is a risk multiplier. All of the risks generally associated with retirement income planning become magnified the longer someone is retired. It increases the odds that a retiree will experience a market correction. It increases the odds that a retiree will need long-term care. And even small increases in the costs of goods and services will add up over time.

Consider the impact of a 3% constant rate of inflation. By the time a 65-year old reaches 89, or about the 50th percentile, a retiree's income will need to have doubled to maintain purchasing power. And for those that live to the 5th percentile, their income will need to be nearly two and half times what it was when they initially retired to maintain that initial purchasing power.

Additionally, consider the 4% safe withdrawal rate. According to William Bengen's initial research around safe withdrawal rates, he attempted to solve for a 30-year retirement. Today, we know that a 30-year retirement for a 65-year old couple would leave approximately half of those retirees with several years left to generate retirement income.

When building out retirement income solutions, it becomes important to model out scenarios that account for the possibility of living longer than a client may anticipate. Failure to accurately model life expectancy can potentially leave clients with a false sense of security.



# LONGEVITY SOLUTIONS

Fixed index annuities (FIAs) may be one potential solution to address the risk of living longer than anticipated. FIAs are designed to be long-term vehicles that offer a myriad of design options. FIAs are subject to surrender charge schedules but do provide a wide variety of durations. The availability of income benefit riders, which may be offered either built-in or for an additional cost, can offer retirees the ability to receive lifetime income. Such lifetime income options can complement a retiree's other retirement assets to build a comprehensive retirement income plan.

<sup>(2)</sup> <u>https://www.cdc.gov/nchs/fastats/life-expectancy.htm</u>

<sup>(3)</sup> Frier, Bruce (2009). "Chapter 27: Demographics". The Cambridge Ancient History XI: The High Empire, A.D. 70–192. Cambridge University Press. pp. 788–789. ISBN 9781139054393

<sup>(4)</sup> <u>https://www.ssa.gov/oact/STATS/table4c6.html#ss</u>

<sup>(5)</sup>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4866586/#:~:text=First%2C%20higher%20income%20was%20associated.to%20 10.3%20years)%20for%20women

<sup>(6)</sup> <u>https://www.usnews.com/news/healthiest-communities/articles/2019-08-27/study-having-a-college-degree-increases-life-expectan-cy-among-us-adults</u>

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Fixed index annuities are designed to meet long-term needs for retirement income. Early withdrawals may result in loss of principal and credited interest due to surrender charges. Withdrawals are subject to ordinary income tax and, if taken prior to 59½, a 10% federal tax penalty. Guarantees are backed by the financial strength and claims-paying ability of the issuing insurance company.

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<sup>(1)</sup> https://www.sciencedirect.com/referencework/9780123708700/encyclopedia-of-gerontology