THE MATH OF

LongevityQuest

Translating Mortality Science into
a Meaningful Longevity Benchmark

An actuarial assessment of the myLQRank methodology

By Timothy Pfeifer, FSA, MAAA

MORTALITY DATA

Established actuarial sources

LIFE EXPECTANCY

Risk-calibrated projections

myLQRANK

Comparative percentile benchmark

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EXECUTIVE OVERVIEW

Making Longevity Understandable

An actuarial framework that connects individualized mortality estimates to a familiar percentile benchmark.

LongevityQuest has developed a method for helping individuals understand their estimated longevity relative to the broader population. With customer authorization, the process uses prescription and diagnostic testing information, relates those records to extensive historical health and mortality experience, and translates the result into a patented percentile-based ranking.

THE CORE IDEA

Individualized mortality assessment actuarial life expectancy population comparison myLQRank

A foundation in established actuarial practice

The source assessment describes methods incorporating work involving MIT and ExamOne, and a mortality-table adjustment based on Society of Actuaries (SOA) experience. It distinguishes between mortality estimates for evaluated insured lives and the broader U.S. population.

The author reviewed LongevityQuest's future life-expectancy calculation and characterized it as accurate and consistent with sound actuarial calculations. His assessment concerns the calculation methodology; it should not be interpreted as independent clinical validation of every input or output.

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ANALYTICAL ARCHITECTURE

From Records to Mortality

The methodology uses different reference frameworks for individualized risk and population benchmarking.

01

Authorized health records

Prescription and diagnostic testing information are assessed with the customer's consent.

02

Mortality risk calibration

Health information is related to historical experience and reflected through adjustments to an SOA mortality table.

03

Expected remaining lifetime

Age-specific future mortality rates are applied using actuarial life-expectancy calculations.

04

General population benchmark

CDC / NCHS U.S. Life Tables provide the population comparison used to place the estimate in context.

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ACTUARIAL FRAMEWORK

Two Mortality Perspectives

The calculation and the benchmark serve different purposes and should not be conflated.

INSURED-LIFE EXPERIENCE

An SOA-based mortality framework is adjusted to reflect the individual's assessed risk profile. This produces an estimate of future mortality rates and remaining life expectancy.

U.S. POPULATION EXPERIENCE

CDC / National Center for Health Statistics U.S. Life Tables supply the general population mortality experience against which the individual's estimate is compared.

Actuarial calculation

Expected remaining lifetime is derived by applying projected future mortality rates at the person's current age. Total modeled life expectancy is expressed as **current age + estimated remaining years**. The source paper notes that both SOA and CDC tables may be updated over time, with LongevityQuest intending to reflect updates.

INTERPRETIVE DISTINCTION

A modeled lifespan is an actuarial estimate, not a prediction of an individual's actual age at death.

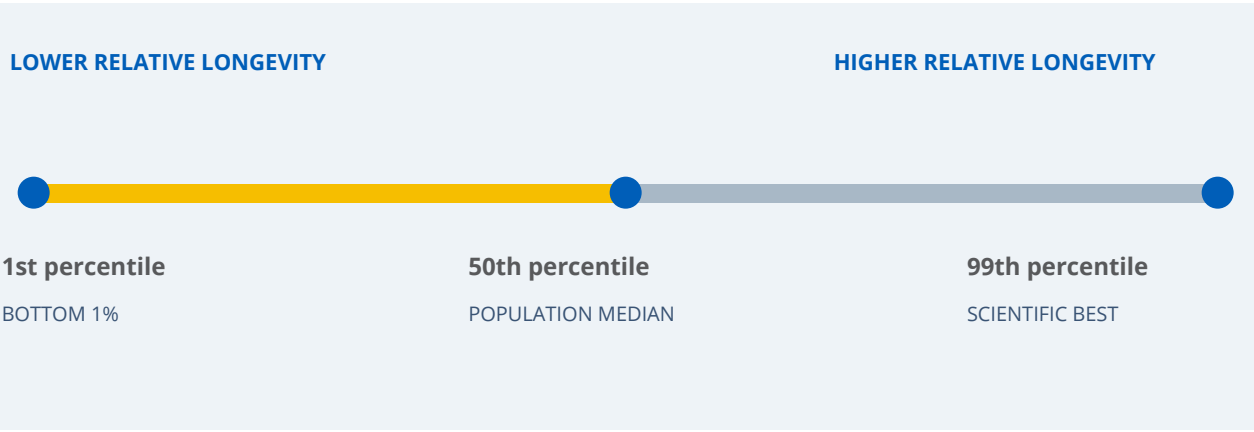
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PATENTED RANKING METHOD

Understanding myLQRank

A percentile presentation designed to make complex mortality estimates easier to interpret.

The final step compares modeled total life expectancy with a general-population reference and two modeled anchors. The source identifies U.S. Patent No. **10,580,077** in connection with the myLQRank methodology.



How to read the ranking

A rank communicates the individual's relative position on the modeled longevity scale. The source illustrates a 57th-percentile rank for a 36-year-old female, together with a comparison to a higher desired rank and a modeled longevity-impact potential. These illustrations are scenario outputs, not promises of additional lifespan.

The methodology is intended to make a complicated probability calculation understandable. It does not establish that a given change in rank will cause a corresponding change in health outcomes.

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INDEPENDENT ACTUARIAL PERSPECTIVE

Assessment and Scope

Timothy Pfeifer, FSA, MAAA, reviewed the calculation approach described in the source paper.

The original author concluded that LongevityQuest's techniques for deriving myLQRank are **clear, reasonable, and appropriate**, and that the approach can help individuals understand their relative health and longevity status. He specifically reported reviewing the calculation of future life expectancy and finding it consistent with sound actuarial methods.

WHAT THE REVIEW ADDRESSES

The translation of mortality-table experience into an estimated life expectancy, the use of population benchmarks, and the communication of a relative percentile ranking.

About the author

Timothy Pfeifer is the founder of Pfeifer Advisory and a Fellow of the Society of Actuaries and Member of the American Academy of Actuaries. His career includes senior consulting roles at Tillinghast and Milliman, extensive work with life insurers and financial-services organizations, and service on the SOA Board of Governors (1998–2001).

This paper is a professionally redesigned presentation of the February 2026 source assessment attributed to Mr. Pfeifer. Its editorial structure and visual explanations are new; the actuarial conclusions remain attributed to the original author.

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NOTES AND DISCLOSURES

Scientific Context & Limitations

Reference material and general-use qualifications.

Source basis

Timothy Pfeifer, FSA, MAAA, The Math of LongevityQuest: A Creative Way to Translate Health Complexity into an Understandable and Useful Tool (source document supplied by LongevityQuest, copyright 2026). Society of Actuaries mortality tables and CDC / NCHS U.S. Life Tables are described in that source; specific table vintages and supporting validation datasets are not identified there.

About LongevityQuest

LongevityQuest seeks to help people understand factors that may influence longevity through its myLQAnalysis reports, including a patented comparative rank and analysis of health-related risk factors. Visit mylongevityquest.com for more information.

IMPORTANT INFORMATION

The information provided is intended for general use, and is not designed to diagnose, prevent, treat or cure any condition or disease. Longevity Quest uses biomedical data and prescription/diagnostic test records to analyze and calculate expected longevity and related information. While such information might point to a potential medical issue, all such diagnoses should always be performed by a qualified health care provider. The information provided is for demonstration purposes only, and in no way does such information constitute a warranty, representation, recommendation, or validation regarding your physical health or wellbeing.

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