



# SOCIETY OF ACTUARIES

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“Private Employer Defined Benefit Pension Plans”  
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Mr. Chairman, Mr. Ranking Member, thank you for the opportunity to testify today. My name is Dale Hall. I am the Managing Director of Research for the Society of Actuaries.

## **Introduction to the Society of Actuaries:**

The Society of Actuaries (“SOA”) is the world’s largest professional society serving the actuarial profession. We are an educational, research and professional organization of more than 24,000 actuaries, dedicated to serving our members, students, the profession and the public. We conduct a wide range of research to provide technical information resources for the profession, to advance the capabilities of the profession, to inform public policy development, and to promote public understanding and the public interest. This research includes many studies of historical experience and techniques for projections into the future. Experience studies have been at the core of SOA research activities since its formation in 1949, and were additionally a main activity of our predecessor organizations for many decades prior to that date. Core principles for all SOA research projects are objectivity, quality, relevance and quantification. The SOA does not take advocacy positions on specific policy proposals.

The SOA additionally offers a wide range of educational opportunities, including basic education in the fundamental principles of actuarial science, advanced education, professional development and continuing education for practicing actuaries. Our Fellow of the Society of Actuaries (“FSA”)

designation is recognized around the world as one of the premiere designations in the actuarial profession. Through a rigorous education and examination process, an FSA has demonstrated a knowledge of the business environments within which financial decisions concerning pensions, life insurance, health insurance, and investments are made, including the application of mathematical concepts and other techniques to the various areas of actuarial practice. FSAs further demonstrate an in-depth knowledge of the application of appropriate techniques to a specific area of actuarial practice by choosing an education specialty track. Many FSAs who work in the defined benefit pension practice area choose the SOA's Retirement Benefits Track and receive specific education on the funding, regulation, accounting, investment and risk management of retirement plans.

### **The Evolution of Mortality Tables:**

As we begin this discussion, it would be helpful to understand that retirement plan mortality studies generally include two parts. The first is a "mortality table," which contains data on the actual death rates of a given population, broken down into subgroups. The second part of a mortality study is an "improvement scale," which is an experience-based estimate on the expected improvements in longevity of the population in question over time.

The SOA has long been the primary source for mortality and mortality improvement studies on United States voluntarily-established, private-sector defined benefit plans. The SOA Retirement Plans Experience Committee is an appointed group of actuaries with broad knowledge of retirement plan mortality and mortality improvement, and is responsible for the ongoing reporting of mortality and other

experience of pension benefits provided directly by employers with services provided by actuarial consulting firms.

SOA studies on retirement mortality and mortality improvement date back to the early 1950's, and continued through the late 20th century when the SOA's Retirement Plans Experience Committee released the SOA's 1994 Uninsured Pensioner Mortality Table, commonly referred to as "UP-94". The phrase "uninsured" in this context means that the plan benefits are not guaranteed by an insurance company. Similarly, the SOA's Projection Scale AA was also developed and released shortly thereafter to allow the UP-94 mortality table to be projected into the future to provide for expected mortality improvement. These tables and improvement scales assisted the actuarial profession with up to date studies to consider for valuation of retirement plan liabilities.

When the Retirement Protection Act of 1994 ("RPA") was enacted, it included the authority for the Secretary of the Treasury to establish, the mortality assumptions to be used when calculating the Current Liability for pension plans. The SOA, through its Retirement Plans Experience Committee, conducted a study of uninsured pension plan mortality in response to the RPA in order to ensure that the Treasury Department would have current and thorough information available when it considered updating a mandatory mortality table. The result of this study was the publishing of the SOA's RP-2000 Mortality Tables in 2000. Mortality improvement was also studied at that time and reaffirmed the continued use of Scale AA.

## **The Current Development of a New Mortality Study:**

As part of its periodic review of retirement plan mortality assumptions, the SOA's Retirement Plans Experience Committee initiated a pension mortality study in 2009, with a primary focus being a comprehensive review of recent mortality experience of uninsured private retirement plans in the United States. A request was sent out to retirement plans and their administrators in 2009, and plan experience was collected for study from calendar years 2004-2008. The result of the study was the draft release of the RP-2014 Mortality Tables in February 2014. The draft table is based on data that represents approximately 10.5 million life-years and 220,000 deaths. It can be found at:

<https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-tables.aspx>

The RP-2014 Mortality Tables consist of aggregate tables of mortality rates for males and females, with categories of Active Employees (Ages 18-80), Healthy Annuitants (Ages 50-120), and Disabled Retirees (Ages 18 – 120). Subtables are also included in the report for a breakdown of mortality by Blue Collar occupations, White Collar occupations, Bottom Quartile income, Top Quartile income, and an extension for juvenile ages 0 -17. Income amounts are based on salary for Active Employees and benefit amounts for Healthy Annuitants.

Mortality improvement was also a focus of the recent study, in order to provide a mortality improvement model for mortality assumptions for retirement programs in the United States. As data was reviewed during the study, the rates of mortality improvement in the US were seen to differ from those originally predicted by Scale AA. In response, the SOA released an interim Mortality Improvement Scale BB in 2012 to help plans respond to the evolving trends while the new mortality study was being developed. The study culminated with the draft release of the MP-2014 Mortality Improvement Scale in February 2014, which can be found at:

<https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-imp-scale.aspx>

The MP-2014 report provides a model for mortality improvement rates that would be applied to RP-2014 for future years. The report includes two-dimensional rate tables for males and females that vary by attained age and calendar year. Ultimate rates extend forward in the tables for calendar years 2030 and beyond.

Both RP-2014 and MP-2014 were exposed for a 120 day comment period from February 2014 through May 2014. Currently, the SOA is working through a review and response to comments. Final tables and reports have not yet been published, however the SOA is working towards a target completion date of October 31, 2014.

The exposure draft for RP-2014 includes a section on estimating the financial impact on transitioning from currently used mortality tables and mortality improvement scales to the RP-2014 / MP-2014 basis. Table 1.1 of the exposure draft includes calculations of annuity values, under a constant interest rate assumption, at a variety of attained ages for males and females under four valuation bases that are commonly used, as well as the RP-2014 / MP-2014 basis. When comparing the change from the RP-2000 / Scale AA basis to the RP-2014 / MP-2014 basis, increases in the annuity values range from 2.5% to 17.4% in the table. As these sample annuity factors have been applied to a wide variety of plans, the SOA estimates the general increase in a plan liability calculation would increase 4 – 8% depending on the plan demographics.

### **Regulatory Uses of Mortality Tables:**

The Internal Revenue Service has continually looked to SOA tables as a basis for the updating of mortality tables to be used under § 430(h)(3)(A) of the Internal Revenue Code. Section 430, which was added by the Pension Protection Act of 2006, specifies the minimum funding requirements that apply to defined benefit plans that are not multiemployer plans. In addition, these mortality tables are used for determining minimum present values for lump sum distributions under § 417(e)(3) of the Code.

In recent years, the IRS has issued Notice 2008-85 to prescribe updated mortality tables for use in 2009 through 2013, and Notice 2013-49 to prescribe updated mortality tables for use in 2014 and 2015. Both

Notices provide tables that are based on the tables contained in the SOA's RP-2000 Mortality Tables Report, adjusted for mortality improvement using Projection Scale AA as recommended in that report.

Additionally, an important motivation for the current RP-2014 study is the requirement in IRC Section 430(h)(3) for the Secretary of the Treasury to review at least every 10 years "applicable mortality rates" for various plan funding requirements. Since the RP-2014 mortality tables are based on the mortality experience of uninsured private pension plans in the United States, they may be considered as potential replacements for the current mortality basis that is mandated for a number of Treasury Department and Pension Benefit Guaranty Corporation applications. The use of these tables therefore has important impact on the contributions that employers are required to make to plans and the actual benefits received by participants to the extent they are paid as lump sum distributions.

**Conclusion:**

The effort to develop this new mortality study has been a five-year undertaking that has involved many highly qualified actuaries. As mentioned earlier, the new tables will be based on data that represents about 10.5 million life-years of actual experience. Key decisions have been validated by independent committees, and the work has been peer-reviewed at multiple points in the process. The SOA has made a concerted effort to make this process open and transparent, and we have sought input and objective analysis from a broad range of experts. We have approached this project with a great deal of rigor because of the very important uses of these mortality tables and mortality improvement scales. We

believe that it is critically important for professional actuaries to have access to reliable and well-supported data so that they can provide meaningful projections to the broad range of stakeholders responsible for governing private pension plans.

I appreciate this opportunity to testify on behalf of the Society of Actuaries. I look forward to answering any questions you may have.