Why Mortality Improvement Scales Matter

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For the first time since the Society of Actuaries (SOA) began publishing annual mortality improvement scales for pension plans in 2014, it did not release an updated scale in 2022.

Citing the uncertainty caused by higher levels of deaths during the COVID-19 pandemic, the SOA's Retirement Plan Experience Committee (RPEC), which develops these scales, chose not to issue new tables in 2022. The 2021 mortality improvement scale MP-2021 remains the most recently published scale.

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For most pension valuations, the mortality assumption consists of base tables as of a certain date and improvement scales to adjust these base tables for use in different years. This adjustment reflects actual historical and anticipated future improvement in life expectancies.

Mortality improvement scales are tables of mortality improvement rates by age, sex, and year. In developing improvement scales, the RPEC combines historical rates of change with long-term assumptions about the rate of future mortality improvement in a mathematical model. The RPEC has incorporated additional historical data with each new MP scale, and MP-2021 included historical data through 2019.

The pandemic resulted in a higher incidence of deaths from almost all causes in 2020. However, these excess death rates varied significantly throughout the year as well as by region, race, and other variables. Moreover, the way the model is constructed means that these excess rates would result in this increased mortality being reflected in the expected mortality improvement rates for future years, at least in the short to medium term, resulting in additional expected declines in lifespans. So, the RPEC concluded that incorporating this 2020 data into the model would not be appropriate.

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Why does it matter that the SOA did not publish an improvement table in 2022?

In order to appropriately fund and manage public pension plans, actuaries project the future costs of the plans in annual valuations to determine the liability for future promised benefits. Assumptions about future mortality have a significant impact on these future costs, so it is important to use an appropriate mortality improvement scale to predict future costs and make informed decisions about the funding and management of these plans.

As a result, public pension plans periodically update their mortality improvement scale either annually or when they complete an experience study, typically every three to five years, to the most recent scale.

Without a MP-2022 scale, updating the mortality improvement assumption presents a challenge. However, the SOA developed and published tools that allow actuaries to create improvement scales, including reflecting the more recent historical data affected by the pandemic. The RPEC also noted that the MP-2021 scale still represents a reasonable scale to use to predict future improvements in mortality.

While there is no MP-2022, actuaries still have the tools and information necessary, in consultation with boards and staff, to continue to recommend appropriate mortality improvement assumptions. ◆

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