



死亡率改善模型

精算师在不同的应用和实践领域会使用不同的死亡率预测方法。SOA 的长寿风险咨询小组开发出 了一个统一的框架,作为从业人员预测死亡率改善的一致的基础,其中包括死亡率改善模型,MIM-2021-v2,以及其他工具和用户指南,他们的定义如下:

- 一份描述 MIM-2021-v2 的报告: 该报告总结了 MIM-2021-v2 的演变并提供了 MIM-2021-v2 的简要介绍;此外,该报告还介绍了在模型中应用死亡率假设的注意事项并概述了咨询小组目前正在考虑的有关模型未来改进的问题。
- 有关死亡率改善的一致框架的现状报告: 该报告向从业人员介绍了咨询小组就这些项目进行 的后续研究和分析。
- 3. MIM-2021-v2 应用工具和用户指南(Excel 形式的工具): 供从业人员在此框架下为具体的 应用构建死亡率改善模型。
- 4. MIM-2021-v2 数据分析工具和用户指南(Excel 形式的工具): 供从业人员分析该应用工具 中的历史数据集。

长寿风险咨询小组正计划随着新数据的发布以及有改进可能时每年更新该框架。MIM-2021-v2 是 自 2021 年 4 月首次发布以来的第一次修订,这个版本使用了与最初的 MIM-2021 版本相同的基础, 仍有更新包括新一年的美国人口死亡率历史数据,以及更多的用户灵活性和功能,以复制养老规划经 验委员会(RPEC)的死亡率改善量表(MP-2021)和使用工具(O2-2021)的测量。

完整报告(英文版)请详见 <u>https://www.soa.org/resources/research-</u> reports/2021/mortality-improvement-model/#1

About The Society of Actuaries Research Institute

Serving as the research arm of the Society of Actuaries (SOA), the SOA Research Institute provides objective, datadriven research bringing together tried and true practices and future-focused approaches to address societal challenges and your business needs. The Institute provides trusted knowledge, extensive experience and new technologies to help effectively identify, predict and manage risks.

Representing the thousands of actuaries who help conduct critical research, the SOA Research Institute provides clarity and solutions on risks and societal challenges. The Institute connects actuaries, academics, employers, the insurance industry, regulators, research partners, foundations and research institutions, sponsors and non-governmental organizations, building an effective network which provides support, knowledge and expertise regarding the management of risk to benefit the industry and the public.

Managed by experienced actuaries and research experts from a broad range of industries, the SOA Research Institute creates, funds, develops and distributes research to elevate actuaries as leaders in measuring and managing risk. These efforts include studies, essay collections, webcasts, research papers, survey reports, and original research on topics impacting society.

Harnessing its peer-reviewed research, leading-edge technologies, new data tools and innovative practices, the Institute seeks to understand the underlying causes of risk and the possible outcomes. The Institute develops objective research spanning a variety of topics with its <u>strategic research programs</u>: aging and retirement; actuarial innovation and technology; mortality and longevity; diversity, equity and inclusion; health care cost trends; and catastrophe and climate risk. The Institute has a large volume of <u>topical research available</u>, including an expanding collection of international and market-specific research, experience studies, models and timely research.

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