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# A View from the SOA's Staff Fellow for Retirement

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It's been nearly four years since the SOA released the RP-2014 mortality tables and MP-2014 mortality improvement scales. That was a significant development for pension actuaries working in the U.S., given the length of time that had transpired since the release of the RP-2000 tables. The dedicated volunteers who serve on the Retirement Plans Experience Committee (RPEC) along with SOA staff support have continued their hard work on mortality in the retirement space to be able to provide a consistent schedule of mortality studies and updates. I'd like to use this column to provide an update and outlook of what to expect in the remainder of 2018 and into 2019. *Note that this update is current as of early March and of course the timing is subject to change, but hopefully will be helpful for planning purposes.*

## PUBLIC PENSION PLAN MORTALITY STUDY

RPEC has been working on a public plan mortality study for several years now and the end is in sight. As I write this, the data analysis and multivariate analysis are complete, tables for specific subgroups are being developed and an exposure report is being drafted. The exposure draft is being targeted for release in late summer or early fall 2018 with a final report estimated to be released by the end of 2018.

At this point, RPEC plans to publish distinct tables for the following specific public sector job categories: teachers, public safety, and general employees. They also intend to publish tables by income (above- vs. below-median) within each of those job categories where sufficient data is available. This is being done because income level was shown to be the most significant predictor of mortality experience in the multivariate analysis.

Tables will not be published by geographic region as that was not shown to be a reliable predictor of mortality experience in the multivariate analysis because other factors (income level, job category distribution, etc.) may have been responsible for explaining differences in mortality between geographic regions. Furthermore, there is a concern that the data for some regions

might be concentrated in a couple specific states and/or urban areas, casting doubt over whether the data truly reflects mortality patterns for an entire region.

Look for announcements and a likely webcast when the exposure draft is released.

## PRIVATE PENSION PLAN MORTALITY STUDY

Believe it or not, the successor to RP-2014 is also in the works and moving along commendably. The SOA has a general goal of providing mortality table updates on approximately a 5-year cycle, assuming we can continue to collect the data as needed. For this project, multivariate analysis is currently being performed on the data and RPEC expects that barring unforeseen circumstances, the database has been finalized. An exposure draft is tentatively scheduled to be published in spring 2019 with a final report anticipated in late October 2019.

Currently, the data being used for this study is a bit larger than the final RP-2014 database and it includes multiemployer pension plan data. The non-multiemployer data is comparable in size to RP-2014, although the database overall is notably smaller than that for the public plan study referenced above. Fortunately, due to the hard work of the submitters and RPEC, a relatively small portion of the data has been rejected compared to the RP-2014 study.

For the multivariate analysis, RPEC will be looking at all predictive factors that were looked at in the RP-2014 analysis, such as income quartiles and collar type. Geography will not be considered, as it was determined that reliable geographic information could not be collected. There is also analysis investigating whether people who had a lump sum option either prior to or at retirement have statistically different mortality. Additionally, since industry codes were collected, it may be possible that, at least for some subset of codes, those could also be evaluated as significant predictors for mortality differences.

RPEC has also been considering what naming convention to use for both the upcoming public and private plan tables. The committee wishes to publish rates as of the central data year without improvement adjustments, but this will create an anomalous situation in which both tables would be labeled with a year that is actually earlier than the previous "RP-2014" tables

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(which had a midpoint of 2006, but were improved to 2014 using the MP-2014 scale). The committee also wants to clearly distinguish between public and private plan tables in the names. This is still a work in progress and suggestions are welcome.

### Mortality Improvement Updates

Finally, as has happened annually since MP-2014 was published, RPEC expects to publish Scale MP-2018 in late October. The relevant mortality rates are currently being collected, which includes the Social Security rates that are released in connection with the Trustees Report.

There will be three blocks of new data underlying Scale MP-2018:

- For 2014: Rates come directly from the 2018 Social Security Trustees Report, which is expected in Q2.

- For 2015: The Trustees Report will include rates for 2015, but between when the Trustee Report comes out and when the MP scale is released, the SOA may obtain updated information from the Centers for Medicare and Medicaid Services (CMS). If available, the 2015 rates will likely be adjusted to reflect that updated information.
- For 2016: An SSA-style approach is used to estimate rates for 2016 using data available from the CDC, Medicare and the Census Bureau.

At this point, RPEC does not anticipate changing the MP-2018 parameters from those used to develop MP-2017. There is a tool on the SOA website that permits users to change the parameters and the same type of tool will be available for MP-2018. RPEC is continuing to look at approaches that may smooth out the year-over-year volatility and is trying to anticipate the impact those approaches might have on the other metrics that are being used to evaluate mortality improvement models.

### CONCLUSION

So as can be seen, the SOA has significant work going on in the pension mortality space. We view this as an important way that we serve both our members and the public by providing up-to-date tables and projection scales for actuaries to consider using in promoting the benefit security of pension plan participants.

A special thanks to the volunteers on RPEC for the many hours they spend on these projects. It is, in my view, one of the more labor intensive areas of volunteer service at the SOA. If you have questions about any of this information, feel free to contact Patrick Nolan, SOA experience studies actuary who supports RPEC at [pnolan@soa.org](mailto:pnolan@soa.org). I'm also happy to take any general questions, but I'd like to make it clear that all the work is being done by RPEC volunteers and our SOA research staff who support RPEC. ■



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