



LIMRA, Reinsurance Group of America (RGA), the Society of Actuaries (SOA) Research Institute, and TAI have collaborated on an ongoing effort to analyze the impact of COVID-19 on the individual life insurance industry's mortality experience and share the emerging results with the insurance industry and the public. The Individual Life COVID-19 Project Work Group (Work Group) was formed as a collaboration of LIMRA, RGA, the SOA Research Institute, and TAI to design, implement, and create the study and to produce and distribute a variety of analyses.

This report is the latest public release from this collaboration and contains the results of the study of excess mortality for individual life insurance to include the second quarter of 2022. Data from 29 companies representing approximately 69% of the industry face amount in force have been included in the analysis in this report. A total of 3.3 million death claims from 2015 through June 30th, 2022 make up the basis of the analysis.

Highlights of 2nd quarter 2022 actual to expected relative mortality ratios (A/E):

- Across all fully underwritten policies, the second quarter 2022 A/E's (97%) continue a downward trend since the Delta wave in 3Q 2021 (117%)
- While experience for simplified issue (111%), guaranteed issue (117%), and conversions (118%), did improve in the second quarter, the A/E ratios are still notably higher than the pre-pandemic trend.
- When filtered by experience factor, most fully underwritten A/E ratios were at or near 100%, indicating a return towards the pre-pandemic trends. A couple exclusions include:
 - The A/E for Preferred policies was 104%, which is still considerably lower than the 118% from prior quarter
 - The A/E for the South Central region was 102%, considerably lower than the 115% from the prior quarter
- It is important to note that even though the results for 2Q 2022 indicate a return to the pre-pandemic trend, the second quarter results last year were the lowest of all quarters in that year, so we will continue to monitor the experience quarterly for the remainder of the year.

Other Information

A list of companies whose data was included in this work can be found in the Information tab.

Additionally, this report includes a comparison of the mortality impact of COVID-19 on insured lives versus the general population.

Please see the Information tab and the hover box indicators in each of the tabs for more detail on the methodology and analysis approaches.

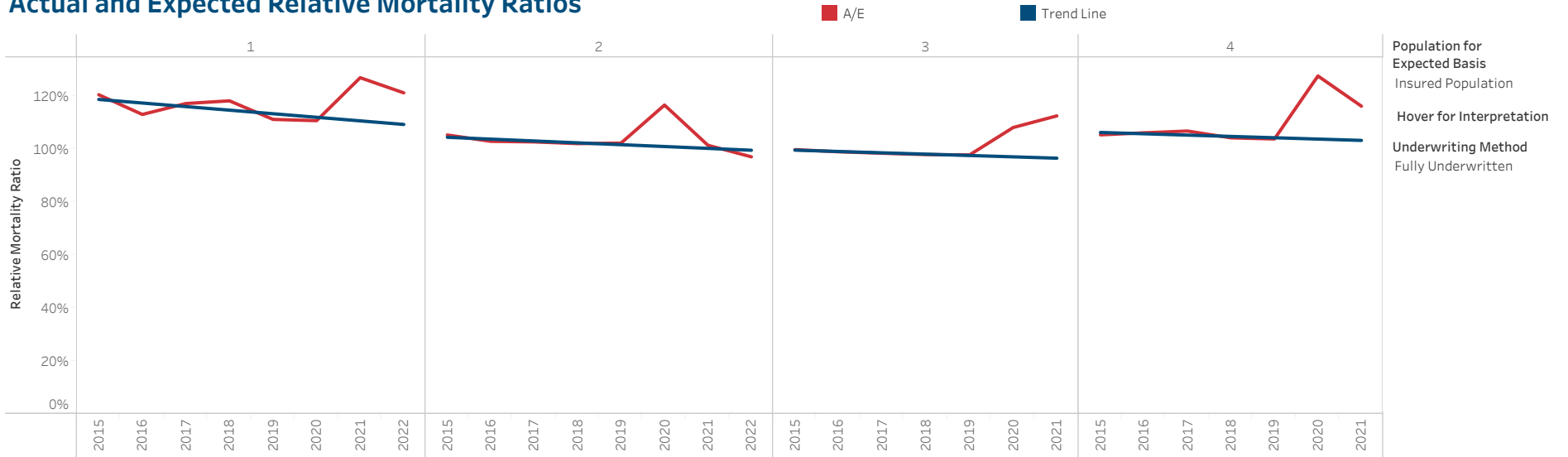
This dashboard provides the user the ability to interact with data from the report.

For questions regarding the dashboard please contact:

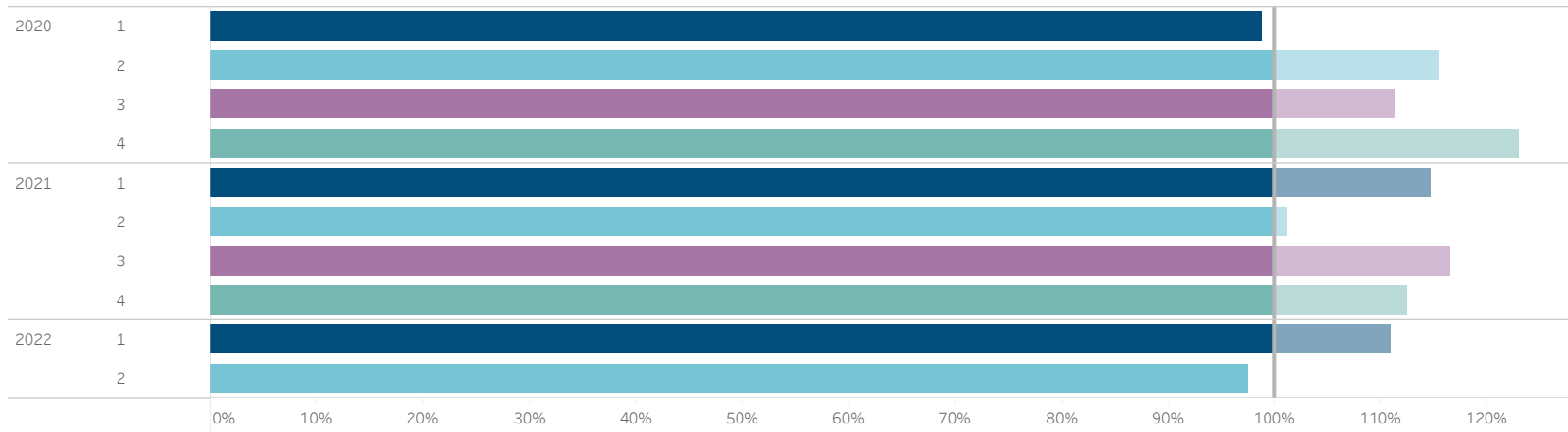
Jason McKinley
RGA
jmckinley@rgare.com

Marianne Purushotham
LIMRA
mpurushotham@limra.com

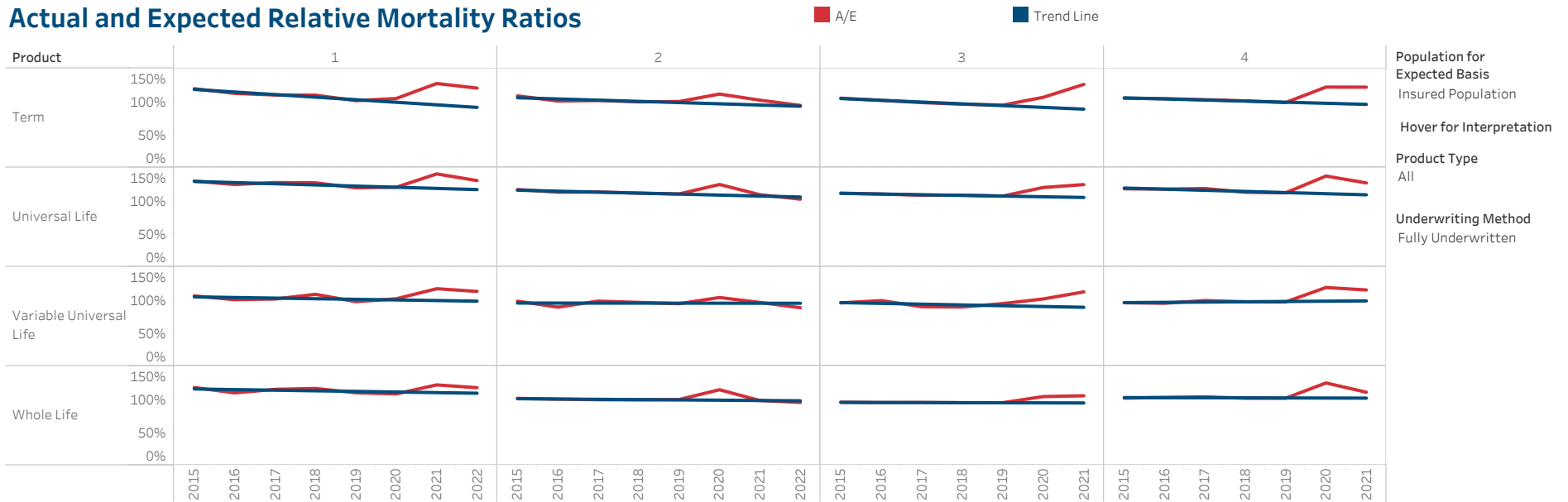
Actual and Expected Relative Mortality Ratios



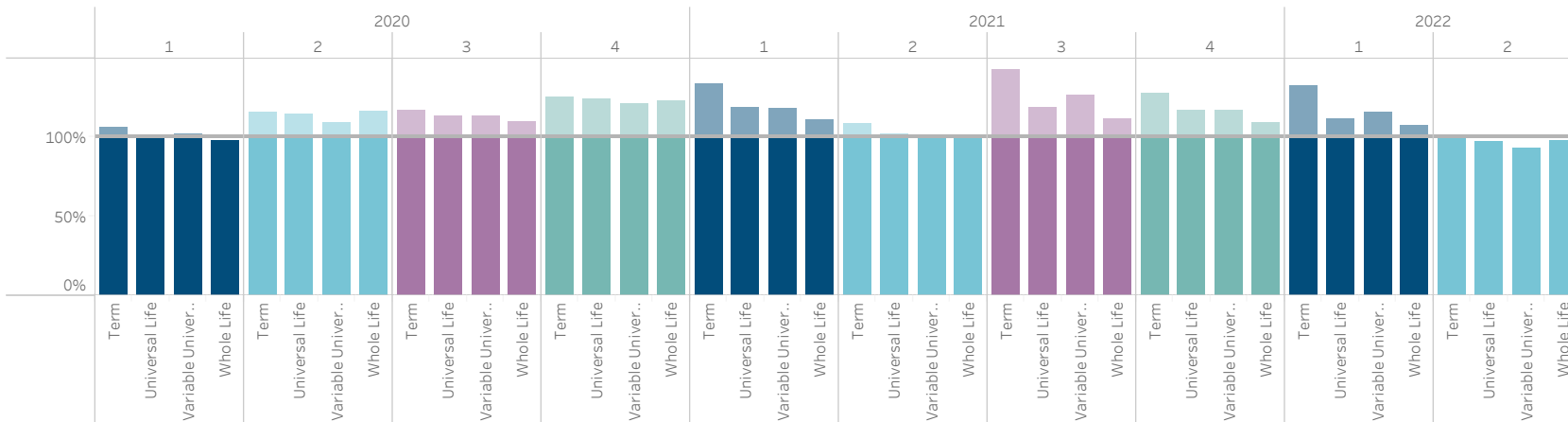
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios



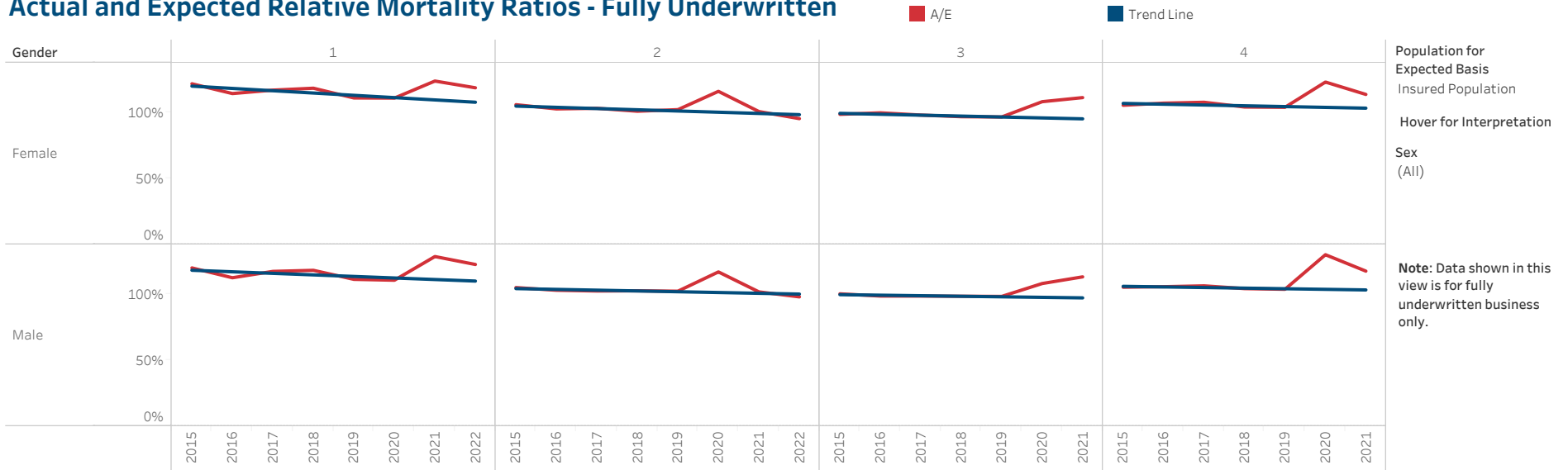
Actual and Expected Relative Mortality Ratios



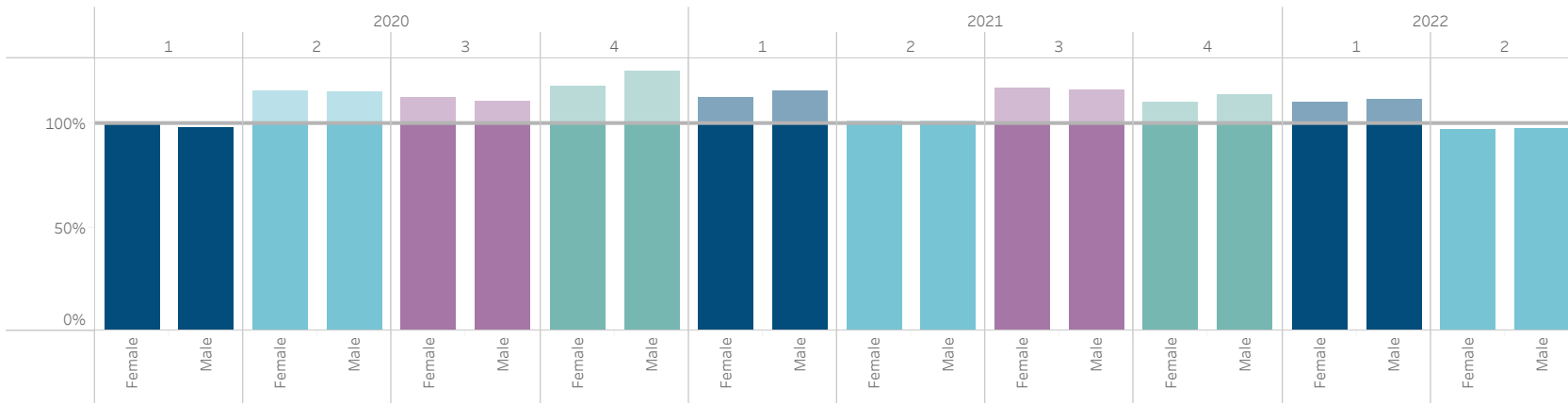
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios



Actual and Expected Relative Mortality Ratios - Fully Underwritten



2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



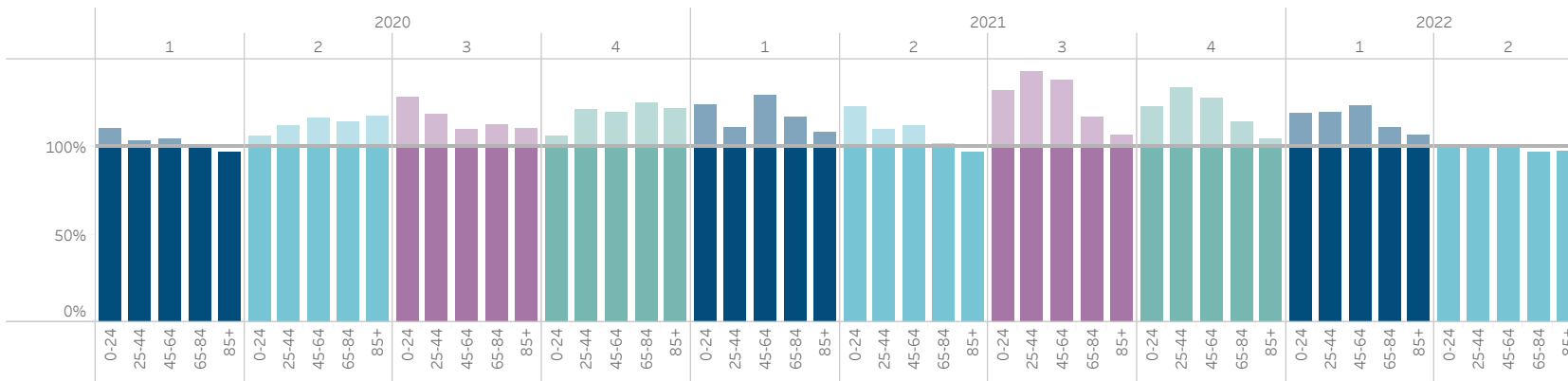
Actual and Expected Relative Mortality Ratios - Fully Underwritten

A/E

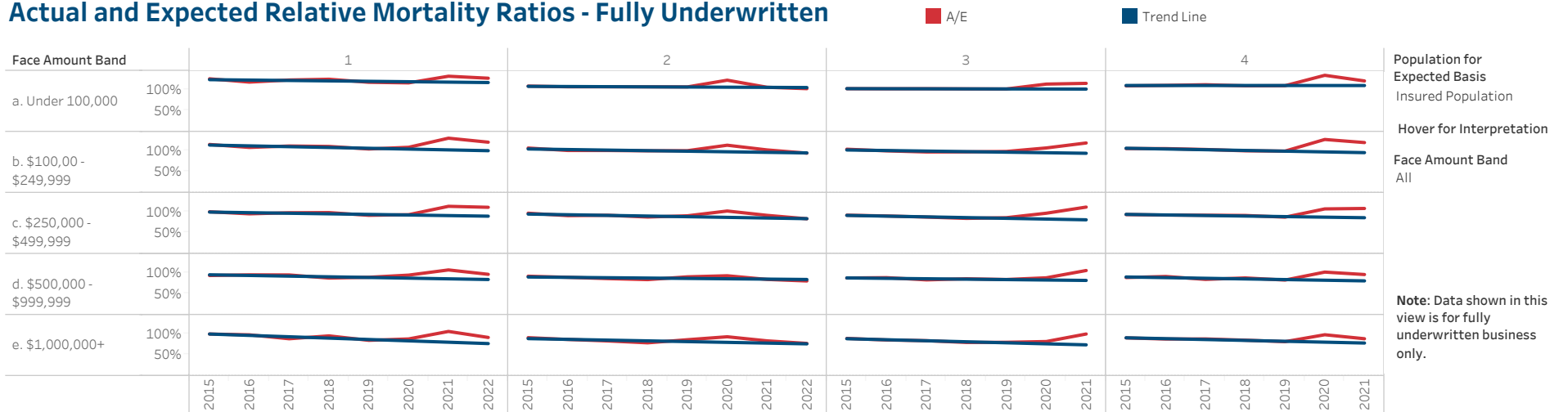
Trend Line



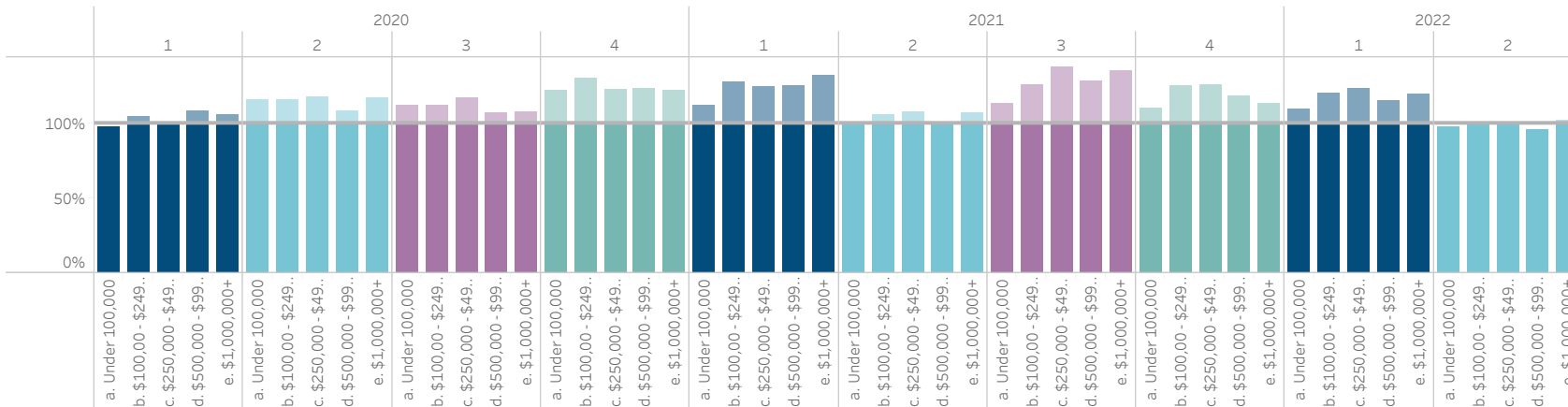
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



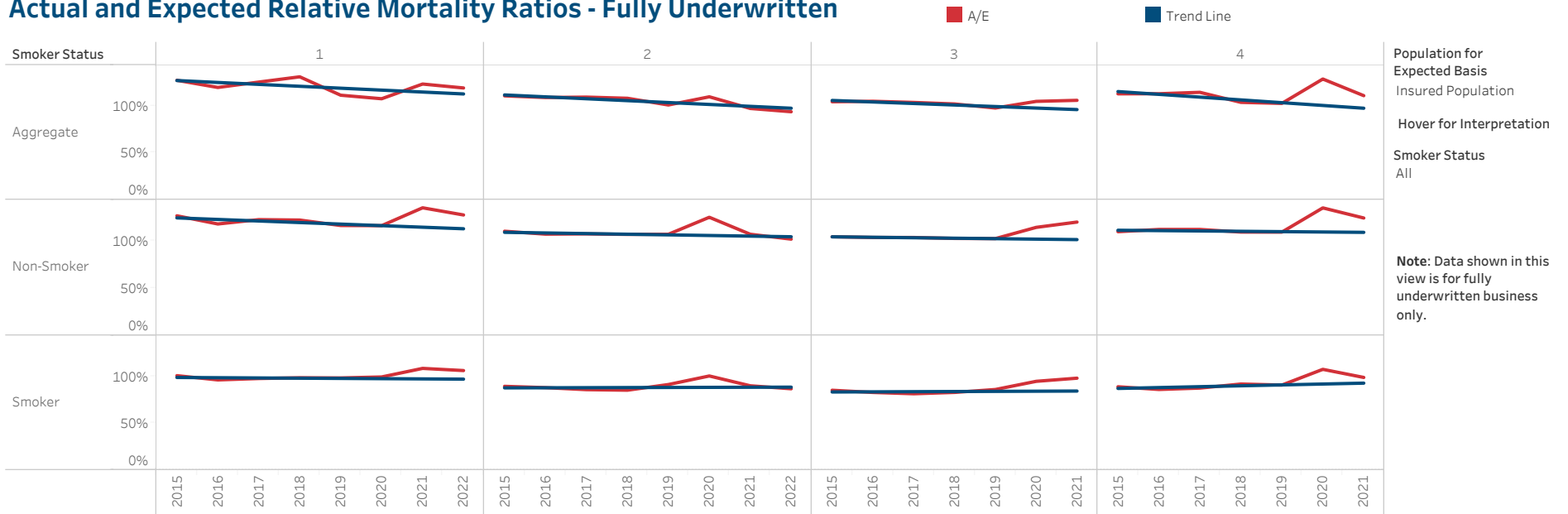
Actual and Expected Relative Mortality Ratios - Fully Underwritten



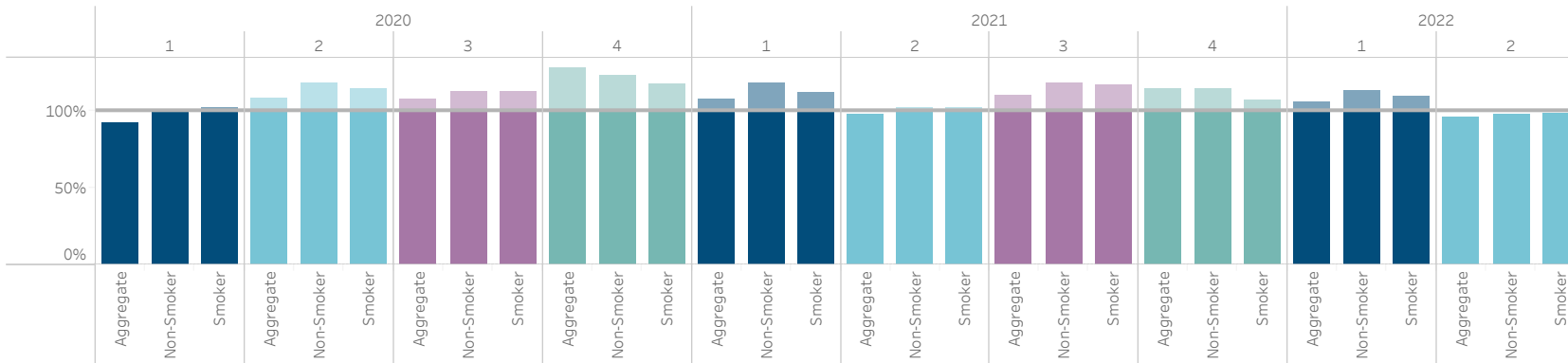
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



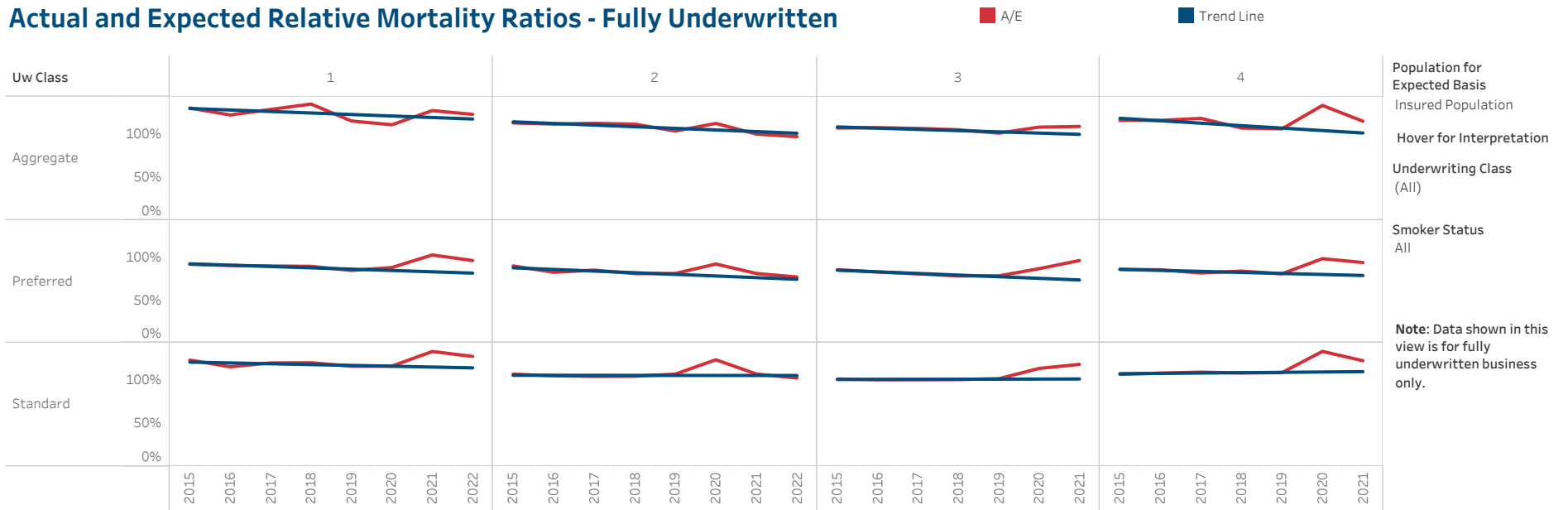
Actual and Expected Relative Mortality Ratios - Fully Underwritten



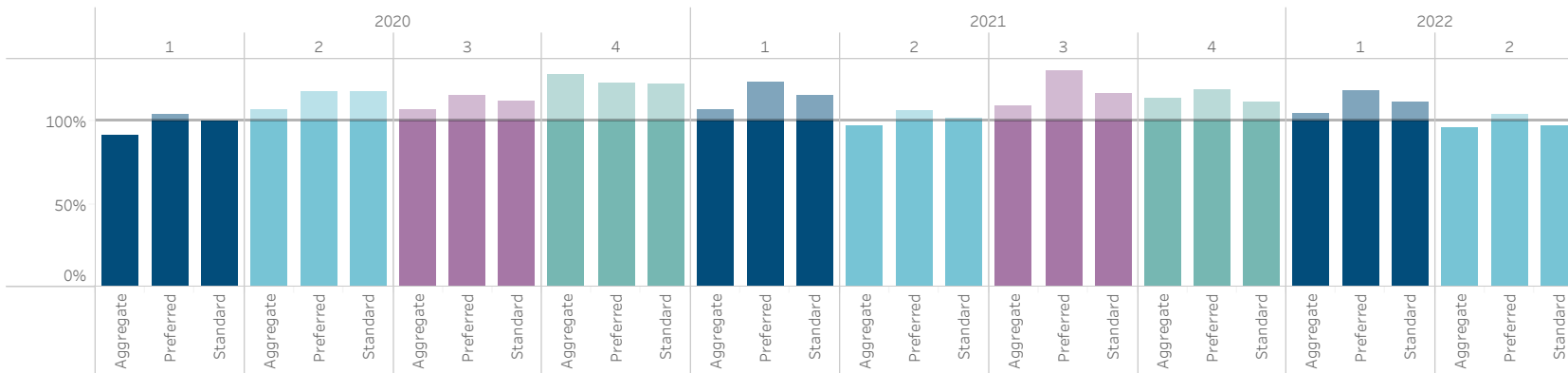
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



Actual and Expected Relative Mortality Ratios - Fully Underwritten



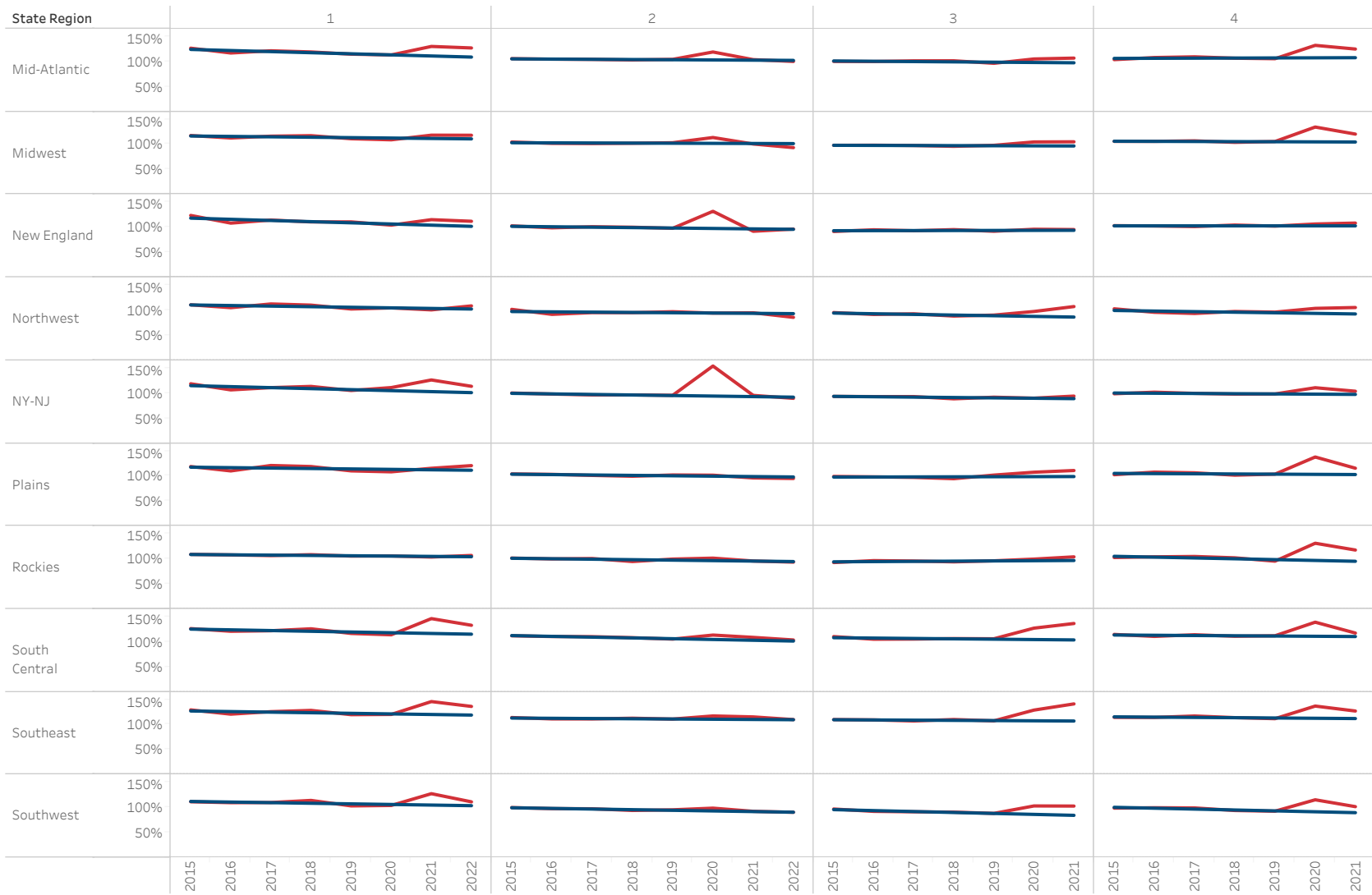
2020 - 2022 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



Actual and Expected Relative Mortality Ratios - Fully Underwritten

A/E

Trend Line



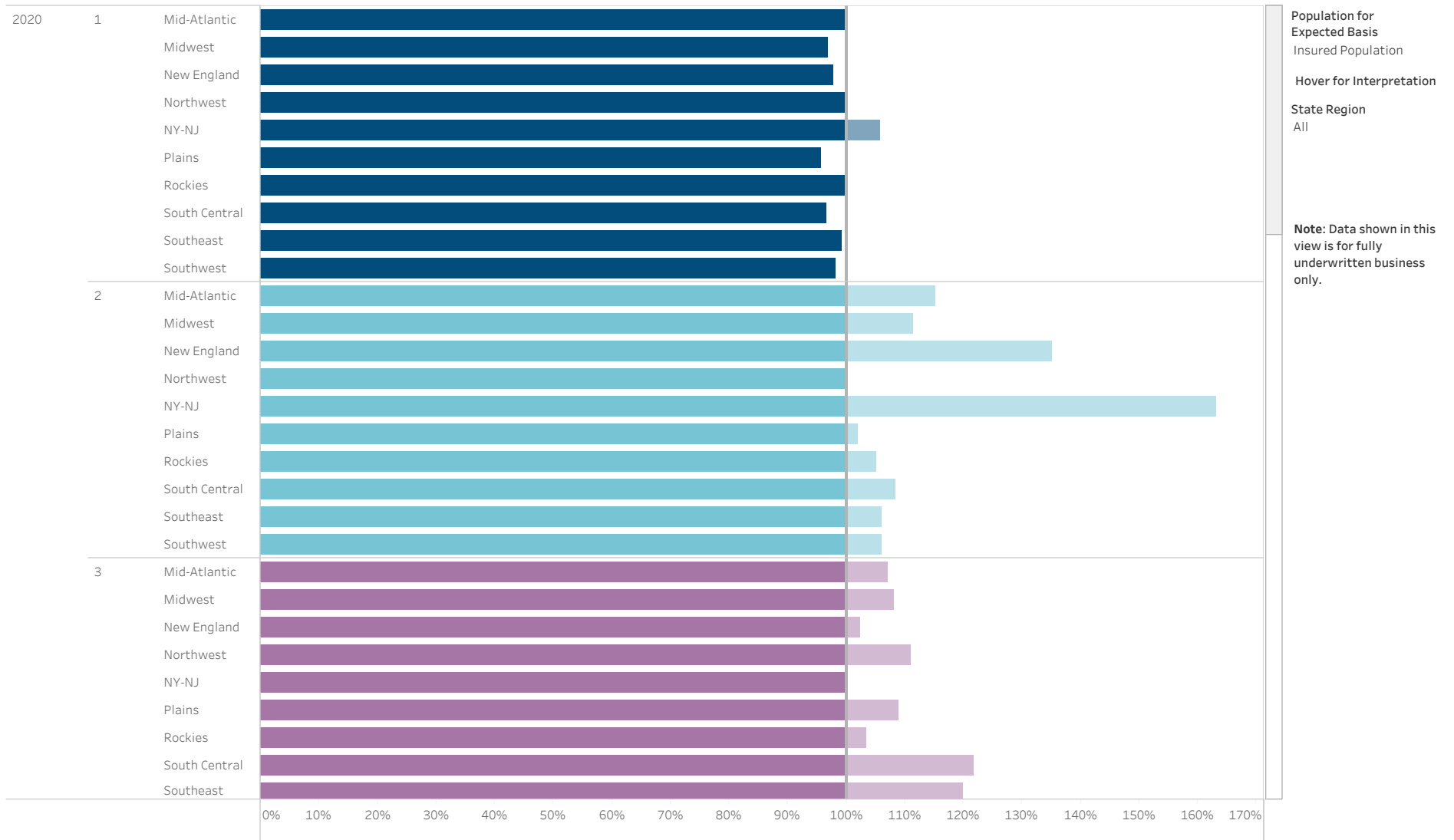
Population for Expected Basis
Insured Population

Hover for Interpretation

Region
All

Note: Data shown in this view is for fully underwritten business only.

2020 & 2021 Ratio of Actual to Expected Relative Mortality Ratios - Fully Underwritten



2015 - 2022 Claims and Exposure by Quarter and Sex

Sex	Year	1		2		3		4		Sex (All)
		Claims	Exposures	Claims	Exposures	Claims	Exposures	Claims	Exposures	
Female	2015	38,134	4,375,787	34,906	4,436,685	32,359	4,493,943	35,450	4,503,936	
	2016	37,438	4,468,892	34,257	4,492,303	33,828	4,557,890	37,649	4,573,893	
	2017	39,556	4,492,677	35,424	4,563,575	34,186	4,630,160	38,468	4,645,193	
	2018	40,769	4,558,777	35,855	4,630,793	35,013	4,699,185	38,217	4,713,127	
	2019	40,104	4,622,358	37,368	4,687,120	36,176	4,747,251	39,139	4,754,970	
	2020	41,371	4,711,324	44,114	4,737,795	42,391	4,816,527	48,854	4,839,763	
	2021	48,478	4,760,204	40,103	4,846,628	45,749	4,925,920	47,461	4,949,989	
	2022	48,513	4,858,296	39,066	4,930,853					
Male	2015	76,251	5,625,724	68,351	5,681,109	65,169	5,735,047	71,672	5,727,894	
	2016	72,086	5,660,527	66,224	5,666,631	64,614	5,730,524	71,800	5,731,998	
	2017	74,216	5,609,262	65,661	5,675,244	63,954	5,740,012	71,849	5,740,658	
	2018	74,254	5,613,931	65,207	5,680,729	63,538	5,746,381	70,468	5,746,532	
	2019	71,126	5,617,880	66,441	5,677,503	64,206	5,734,057	67,869	5,727,299	
	2020	71,260	5,657,303	75,749	5,668,569	71,410	5,741,933	85,575	5,751,198	
	2021	83,022	5,635,027	66,798	5,714,549	75,565	5,789,766	78,345	5,800,476	
	2022	79,713	5,675,518	64,473	5,742,082					

2015 - 2022 Claims and Exposures by Quarter and Attained Age

Attained Age	Year	1		2		3		4		Attained Age All
		Claims	Exposures	Claims	Exposures	Claims	Exposures	Claims	Exposures	
0-24	2015	366	938,160	395	946,999	404	953,377	406	948,899	
	2016	423	938,072	404	939,564	419	948,267	407	946,105	
	2017	427	926,867	413	938,295	391	947,349	423	944,946	
	2018	365	923,952	393	935,005	402	944,937	381	943,046	
	2019	364	920,282	424	928,455	397	934,869	436	930,180	
	2020	403	918,068	436	918,914	474	931,836	456	934,409	
	2021	466	917,988	517	935,587	559	950,123	540	953,251	
	2022	478	934,790	486	947,957					
25-44	2015	2,161	2,590,935	2,238	2,617,274	2,164	2,640,697	2,276	2,635,610	
	2016	2,356	2,605,807	2,251	2,611,510	2,443	2,641,718	2,431	2,643,066	
	2017	2,364	2,591,659	2,437	2,630,108	2,337	2,666,532	2,452	2,672,402	
	2018	2,362	2,622,408	2,398	2,665,419	2,491	2,706,116	2,498	2,715,006	
	2019	2,447	2,665,341	2,542	2,705,544	2,470	2,742,845	2,462	2,749,042	
	2020	2,692	2,727,967	2,944	2,748,779	3,070	2,798,162	3,187	2,816,468	
	2021	3,131	2,776,692	3,080	2,832,561	3,940	2,884,114	3,585	2,906,126	
	2022	3,397	2,856,524	2,938	2,900,396					
45-64	2015	15,283	4,111,158	14,873	4,154,672	14,317	4,196,997	14,647	4,194,474	
	2016	15,202	4,148,222	14,433	4,154,781	14,142	4,202,102	14,610	4,203,077	
	2017	14,862	4,111,989	14,154	4,157,746	14,229	4,200,908	14,652	4,196,855	
	2018	15,131	4,099,913	14,032	4,142,889	13,926	4,183,617	14,533	4,176,176	
	2019	14,596	4,076,327	14,263	4,113,438	13,998	4,147,442	14,329	4,135,756	
	2020	14,917	4,077,451	16,277	4,078,888	15,787	4,124,896	17,394	4,124,835	
	2021	18,313	4,036,269	15,680	4,084,032	19,273	4,128,315	18,575	4,126,089	
	2022	17,207	4,029,971	13,811	4,070,160					
65-84	2015	49,809	2,041,023	46,085	2,076,098	44,096	2,111,662	46,731	2,126,345	
	2016	48,877	2,116,383	45,081	2,132,611	44,797	2,172,392	48,072	2,189,597	
	2017	51,105	2,156,784	46,231	2,195,850	45,100	2,235,330	49,100	2,251,869	
	2018	52,120	2,216,691	46,745	2,256,473	46,209	2,296,201	49,578	2,310,919	
	2019	51,583	2,272,961	48,454	2,309,823	47,085	2,346,162	49,875	2,357,645	
	2020	53,254	2,340,210	56,355	2,355,956	55,063	2,397,579	65,173	2,411,033	
	2021	64,911	2,370,138	51,901	2,412,048	59,281	2,452,792	61,661	2,465,212	
	2022	63,345	2,421,314	50,497	2,460,491					
85+	2015	46,766	320,234	39,666	322,751	36,547	326,257	43,062	326,502	
	2016	42,666	320,935	38,312	320,467	36,641	323,935	43,929	324,046	
	2017	45,014	314,640	37,850	316,821	36,083	320,053	43,690	319,778	
	2018	45,045	309,744	37,494	311,735	35,523	314,695	41,695	314,512	
	2019	42,240	305,328	38,126	307,363	36,432	309,992	39,906	309,647	
	2020	41,365	304,931	43,851	303,826	39,407	305,986	48,219	304,215	
	2021	44,679	294,144	35,723	296,949	38,261	300,342	41,445	299,787	
	2022	43,799	291,216	35,807	293,933					

Methodology

The analyses included in this dashboard were based on reported claims submitted by participating companies through December 2022. Death occurring after June 2022 were omitted from the analyses to minimize distortions due to reporting lags. Any deaths prior to June 2022 that were not yet shared by company contributors at the time of this report may impact the analysis, but the authors feel the impact will likely be minimal.

The primary goal of this dashboard is to communicate industry mortality experience starting with the pandemic through the date noted above, and to share the level of excess mortality observed each quarter since the pandemic started. The expected mortality trend is based on the five calendar years prior to the pandemic (2015 – 2019) and is a very important assumption in any pandemic-related excess mortality result.

Starting with 2020 results, Expected Relative Mortality Ratios were developed independently for each relevant sub-segment of the experience. For example, separate 2020 Expected Mortality Ratios were developed for each quarter and face amount group and then compared against the 2020 Actual Mortality Ratios. Additional subsets of trends can be viewed by sex, attained age group, underwriting class, smoker status, product type, geographic region, and underwriting method. The inclusion of these graphs allows the user to assess for themselves the appropriateness of the trend line any of the excess mortality results.

After examining various subsegments of business, it was felt that the development of a trend line was more appropriate than using an average of the Actual Relative Mortality Ratios over a period of time, such as 2015-2019, or a single year ratio, such as 2019. The use of recent trends captures emerging trends in factors such as mortality improvement or mix of business.

Only single life, base policies are included for the purposes of this analysis. Various categories of policies were excluded from our analysis:

- Joint life policies
- Policy riders
- Policies with residences outside of the U.S.
- Policies issued prior to 1950

Certain views may be excluded if the expected claim count is fewer than 50.

Definitions | [Hover for description](#)

Actual Relative Mortality Ratio

Actual to Expected Relative Mortality Ratio

Excess Mortality

Expected Relative Mortality Ratio

Relative Mortality Tables

Trend line

Participating Companies

AI&G Life

Allstate

Ameritas Life Insurance Corp.

Amica Life

Baltimore Life

CNO Financial Group

Equitable

Global Atlantic Financial Group

Guaranty Federal Mutual Life