

COVID-19: Impact on the Insurance Industry

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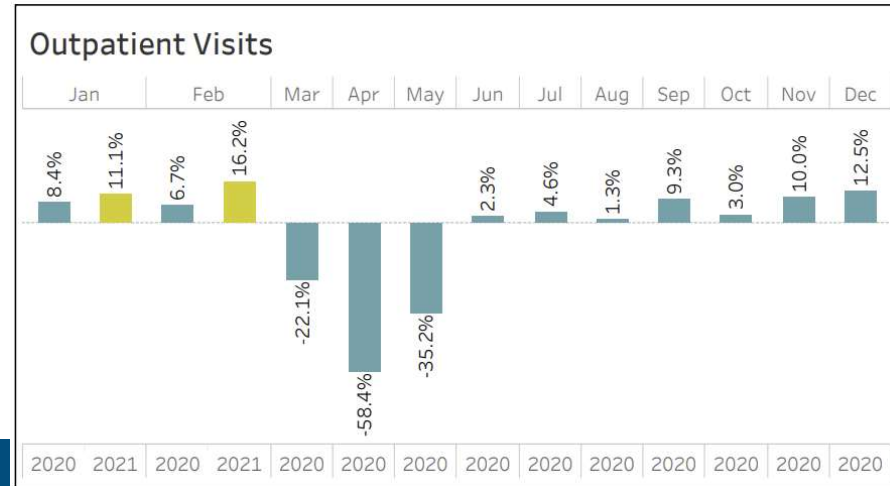
“A very good place to start”: Full Population Trends

- Population mortality trends by age group and cause and sex
- 2020 provisional mortality by cause
 - Over 3.3 Million deaths in U.S. in 2020
 - Heart Disease: 690,000 deaths
 - Cancer: 598,000 deaths
 - COVID-19: 345,000 deaths
 - 16% increase in mortality over 2019
- Population changes in mobility, behavior and culture
- How to view 2020 – 2021 experience?

<https://www.soa.org/resources/research-reports/2021/excess-deaths-gen-population/>
<https://www.cdc.gov/mmwr/volumes/70/wr/mm7014e1.htm>
<https://www.stratadecision.com/National-Patient-and-Procedure-Volume-Tracker/>

Actual to Expected Deaths: Mar 22 2020 to Jan 30 2021

Age	Total	COVID	Exc Covid
LT 15	94.1%	0.6%	93.5%
15-34	121.6%	4.8%	116.8%
35-64	127.3%	14.6%	112.7%
GE 65	122.1%	20.4%	101.7%
All Ages	122.2%	19.2%	103.0%



Insurance Industry Impact

- Life Insurance Mortality Trends
 - Early questions in 2020? Like / Not Like Influenza or other Respiratory Diseases?
- Long-Term Care Contingency Trends
 - Impact on mortality / Nursing Home Care / Home Health Care?
- Health Care Cost Trends
 - Deferred and Returning Care / Change in Health Care Trends?
- Personal Auto / Commercial Business Claim Trends
- Operational Impact: Underwriting / Distribution / Customer Service

Group Life COVID-19 Mortality Survey

- Survey of claims experience of 20 of top 21 U.S. Group Term Life insurers during the COVID-19 pandemic
- Data through October 2020 (report to be updated in June)
- Measured overall excess mortality and portion of excess mortality due to COVID
- Analyzed results by geographic region, industry, and against the U.S. population as a whole
 - <https://www.soa.org/resources/experience-studies/2020/group-life-covid-mort-survey/>

Group Life COVID-19 Mortality Survey

- Survey Highlights

- Q2 & Q3 2020 incurred incidence compared to corresponding quarters of 2017-2019
 - By count: 12.9% increase
 - By amount: 23.8% increase
 - 16,740 COVID claims, totaling \$662 million
- Q2 & Q3 2020 reported incidence compared to corresponding quarters of 2017-2019
 - By count: 8.5% increase
 - By amount: 20.1% increase
 - 14,513 COVID claims, totaling \$564 million

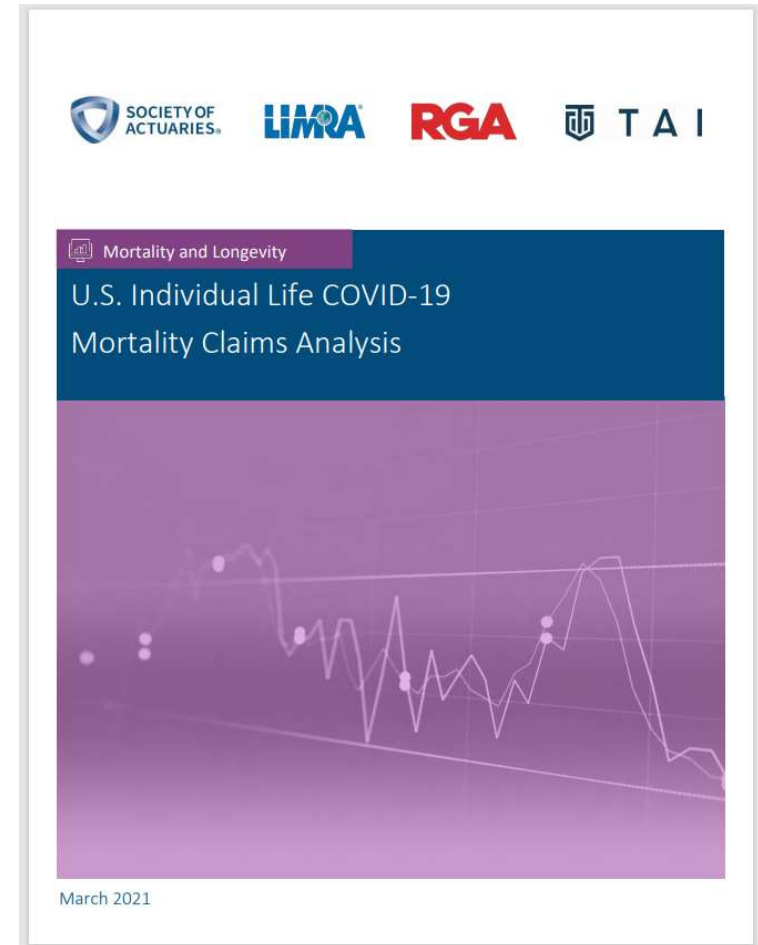
Group Life COVID-19 Mortality Survey

- Survey Highlights

- 8% of all reported Group Life claims with death dates in April-August 2020 were determined to have a cause of death of COVID-19
- Blue Collar group has seen the smallest increase in mortality (monthly 3% - 10%). White Collar and Grey Collar have had higher increases (monthly 10% - 30%)
- Regional patterns have changed over time
 - Northeast region affected greatest in Q2
 - Southeast region affected greatest in Q3
- Percentage of Group Life excess deaths approximately 50% - 70% of the percentage of U.S. population excess deaths

Individual Life COVID-19 Mortality Claims Analysis

- Data
 - 27 companies' experience
 - 55% industry
 - 2.5 million claims from 2015 through Q2 2020; 239k in 2020, 11.6k COVID claims
- Analyses
 - 2020 Q1 & Q2 actual claims vs average of 2015-2019 experience
 - Attained age, sex, region, underwriting class, smoker status, face amount, cause of death
 - 2020 Q1 & Q2 actual claims vs U.S. population
 - Attained age, sex, region, cause of death
- <https://www.soa.org/resources/experience-studies/2021/us-individual-life-covid-19/>



Individual Life Mortality Claims Analysis – Some Highlights

- Overall Actual to Expected
 - Similar ratios in 2020 Q1
 - Individual life lower in 2020 Q2

Actual to Expected	Individual Life	U.S. Population (excess death)
2020 Q1	93-99%	97-101%
2020 Q2	110-113%	118-123%

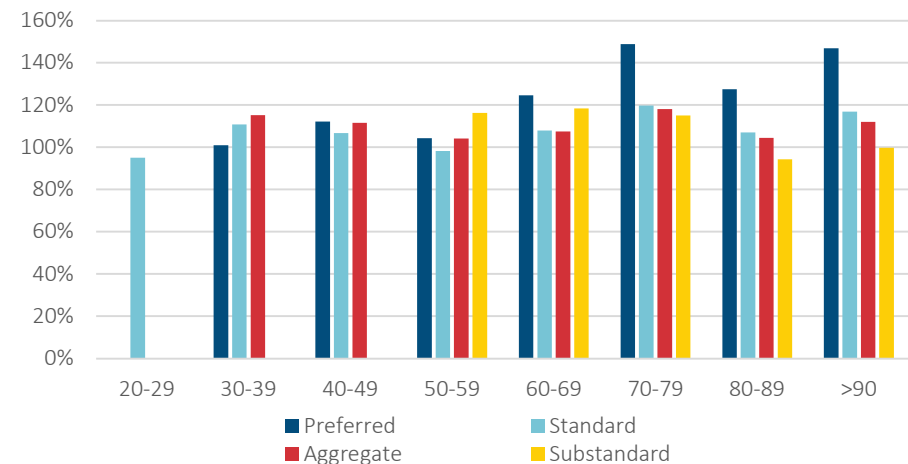
- Average Age @ Death
 - Individual life is older
 - COVID vs non-COVID greater in population

Average Age @ Death	Individual Life	U.S. Population
COVID claims	79.5	76.1
Non-COVID claims	78.9	73.1

Underwriting Class Actual to Expected

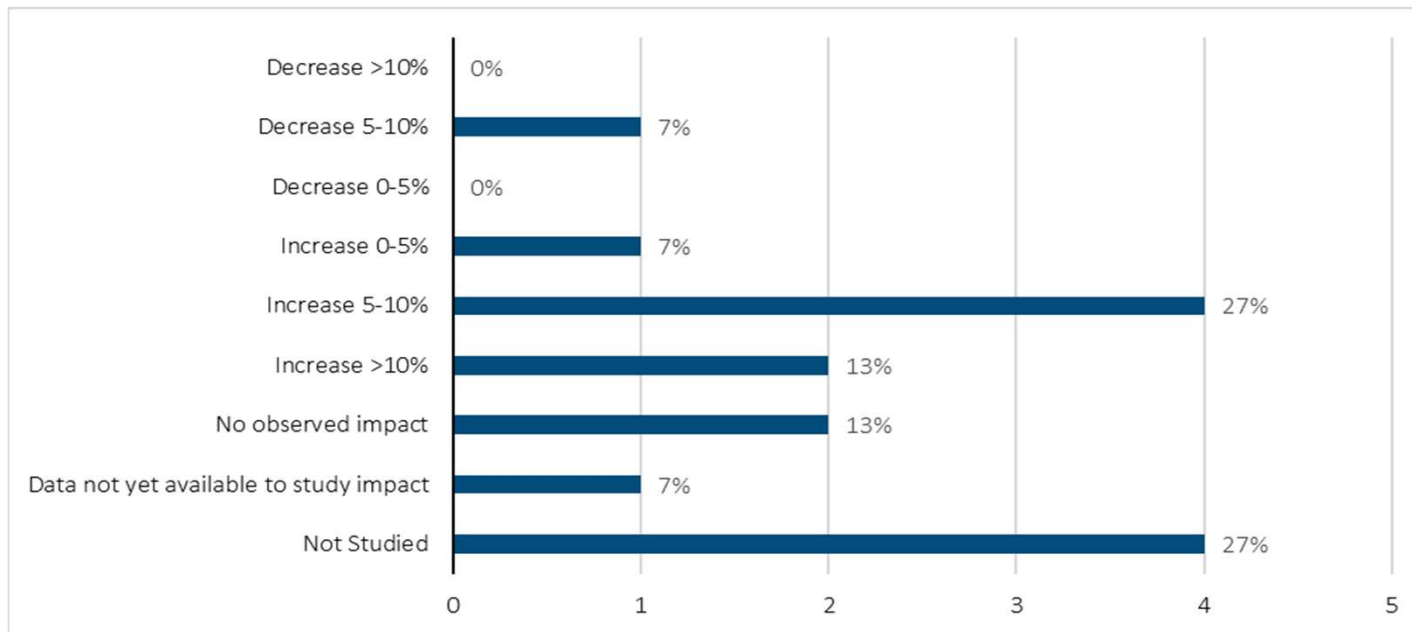
- Preferred A/E > other classes at older ages

2020 Q2 ALL-CAUSE CLAIMS RELATIVE TO 2015-2019 Q2 AVERAGE CLAIMS BY UNDERWRITING CLASS



Long-Term Care: Active Life Mortality

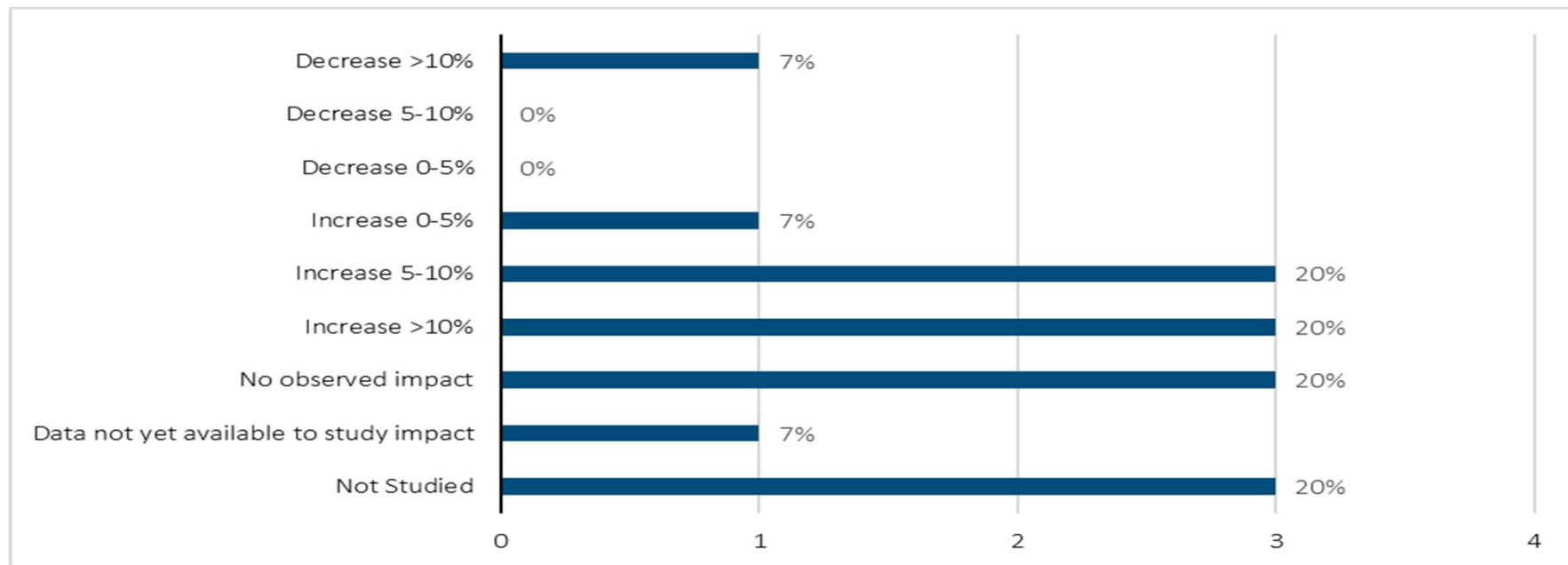
IMPACT ON AGGREGATE ACTIVE LIFE EXPERIENCE— NUMBER OF RESPONDING COMPANIES



- <https://www.soa.org/resources/experience-studies/2021/covid-impact-ltc-2020-survey/>

Long-Term Care: Disabled Life Mortality

IMPACT ON AGGREGATE DISABLED LIFE EXPERIENCE— NUMBER OF RESPONDING COMPANIES

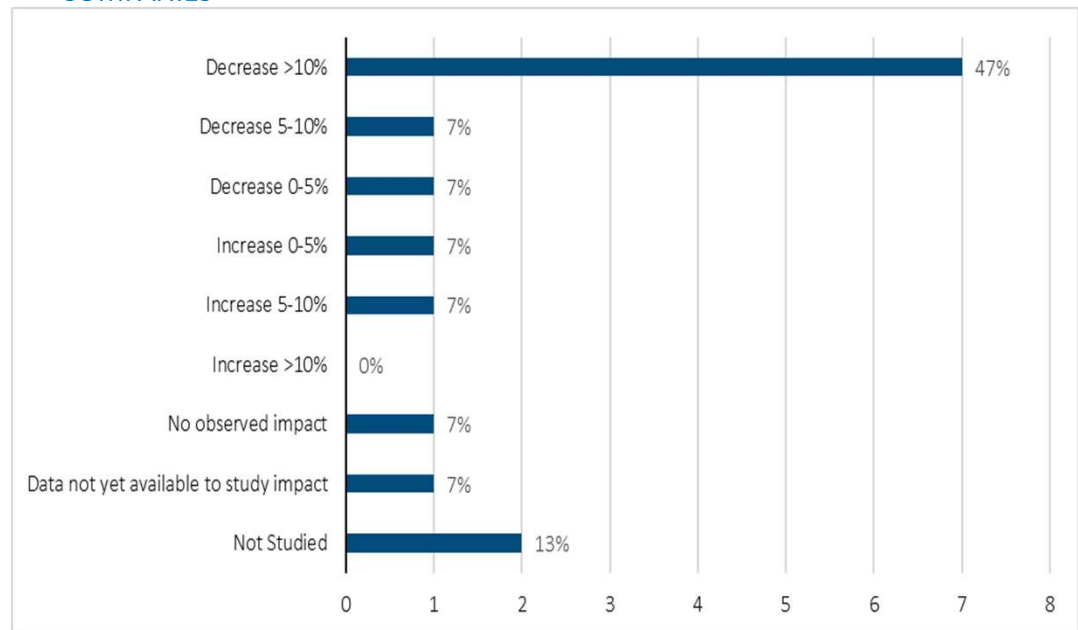


- <https://www.soa.org/resources/experience-studies/2021/covid-impact-ltc-2020-survey/>

Long-Term Care: Claim Incidence

- The biggest impact on morbidity observed by companies thus far has been related to claim incidence.
- Seven companies (58%) reported seeing a shift in claim situs toward a home health care setting. This was true for both existing claims and new claims but especially so for new claims.
- Some companies indicated that claim incidence levels decreased initially but started to regress toward pre-COVID levels by September 2020.

IMPACT ON AGGREGATE CLAIM INCIDENCE – NUMBER OF RESPONDING COMPANIES



Mobility Trends

- Google Community Mobility Reports at <https://www.google.com/covid19/mobility/>
- Auto Insurance Trends and Premium Refunds
- Investments backing long-term liabilities, such as commercial mortgages
- Business Interruption insurance evolution

Retail & recreation

-17%

compared to baseline



Workplaces

-34%

compared to baseline



Parks

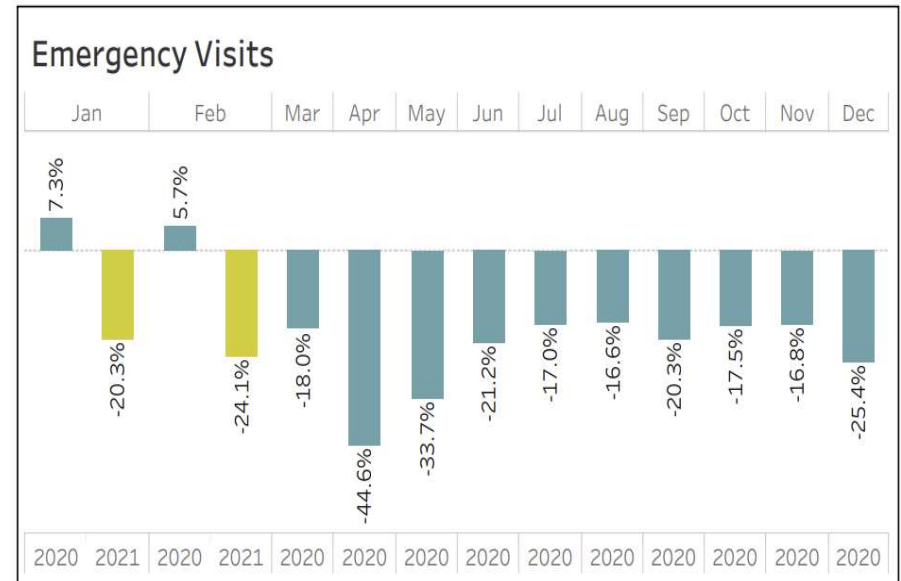
+35%

compared to baseline



Healthcare Trends

- What trends are temporary and what trends are permanent?
- Emergency Room Visits
- Telehealth Visits
- COVID-19 Treatment cost and severity dynamic over time



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Healthcare Trends

- 2022 Health Care Cost Model
- Scenarios to consider for changes (or stabilization) of health care cost trends in 2022 and forward
- <https://www.soa.org/resources/research-reports/2020/covid-19-cost-model/>

To Run Forecast, Select Assumptions and then Press RUN

Run

Input Color Codes

50% A yellow cell indicates an input parameter

50% A green cell indicates a parameter that is

1. Line of Business and Number of Plan Members

Large Group	Line of business
1	Number of persons in plan. Alternatively, enter "1" if you wish for outputs to appear on a per member basis.

2. Rating Area

Virginia	Rating area: state
1	Rating area: number
1.054	Rating factor for selected area

3. Forecasting Period

2020	1st year of projection
2023	Project until December of this year

4. Portion of Unit Cost Borne by Insurer

0%	Vaccines (if included in scenario)
0%	Diagnostic Testing (if included in scenario)
0%	Antibody Testing (if included in scenario)

5. Monthly Adjustment Factors

Yes	Include monthly changes in membership
Yes	Include monthly changes in morbidity
Yes	Include seasonality adjustments

6. Annual Increase of Baseline Costs in the Absence of the Outbreak

	2020	2021	2022	2023
Inpatient	3.0%	3.0%	3.0%	3.0%
Outpatient	5.0%	5.0%	5.0%	5.0%

Cumulative end-of-month coronavirus cases based on Johns Hopkins Univ

For the selected rating area					
	2020-01	2020-02	2020-03	2020-04	2020-05
Reported	0.00%	0.00%	0.00%	0.04%	0
Unreported	0.00%	0.00%	0.00%	0.14%	0
Total	0.00%	0.00%	0.00%	0.18%	0

For the country as a whole					
	2020-01	2020-02	2020-03	2020-04	2020-05
Reported	0.00%	0.00%	0.06%	0.34%	0
Unreported	0.00%	0.00%	0.18%	1.06%	1
Total	0.00%	0.00%	0.24%	1.40%	2

This button copies the selected rating area's historical infection rate data.

Copy the Rating Area's Historical Infection Rate

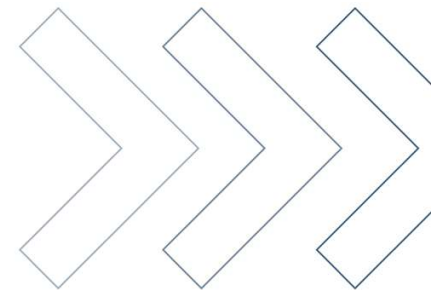
These default trend values for each line of business are included as:

	Individual				
	2020	2021	2022	2023	2020
Inpatient	5.0%	5.0%	5.0%	5.0%	5.0%
Outpatient	6.0%	6.0%	6.0%	6.0%	6.0%

Contents	Run Forecast	Forecast	Forecast - % of Baseline	Forecast - Annual % Increase	Forecast - Detailed	F ... (+)
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Business Interruption & Public/Private Insurance Solutions

- General Insurance / Property / Casualty Research Investigation
 - <https://www.soa.org/research/topics/research-emerging-topics/#general>
- Evolving Trends in Commercial Liability Insurance
- Business Interruption Insurance
- Geneva Association: An Investigation into the Insurability of Pandemic Risk
 - <https://www.genevaassociation.org/research-topics/socio-economic-resilience/investigation-insurability-pandemic-risk-research-report>



Business Interruption Insurance
Compendium

Questions

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