

# 15th Annual Survey of Emerging Risks

## Key Findings





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### AUTHOR

Max J. Rudolph, FSA, CFA, CERA, MAAA  
Rudolph Financial Consulting, LLC

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## Key Findings

### Introduction

The *15th Survey of Emerging Risks* tracks risk-manager thoughts on the topic beyond the normal planning cycle, trending them over time and seeking strategic implications. It is sponsored by the Canadian Institute of Actuaries (CIA), the Casualty Actuarial Society (CAS), and the Society of Actuaries (SOA). Questions are both quantitative and qualitative, encouraging consistency from year to year by maintaining response options and allowing evolving risk management practices to be shared. The survey results, especially the comments, give risk managers a way to network anonymously with peers and share the new ways they are thinking about risk.

Respondents are asked to choose their top current risk, top five emerging risks, top emerging risk, and three sets of two-risk combinations, selecting from 23 risks that have been allocated to five categories (economic, environmental, geopolitical, societal, and technological).<sup>1</sup> The survey goes on to ask questions about practices related to leading risk indicators, enterprise risk management, and other current topics. Open-ended qualitative questions are often used to compile current thoughts about risk management practices directly from risk managers.

The survey, completed in November 2021, included 153 participants. The anonymous online survey was primarily North America-based (91%), with additional responses from Europe, Asia, South America, Africa, and the Middle East.

Surveys are tied to their specific time and circumstances, with recency bias (a belief that recent events are more likely to occur) always present. This survey occurred during the COVID-19 pandemic, but prior to discovery of the Omicron variant. A global climate summit occurred simultaneously in Glasgow. Stimulus programs have helped the economic recovery, aided by vaccines but challenged by an unwillingness by some to take them (among other recommendations by public health experts). Noticeable in the results is a renewed concern for economic risks, especially as a current risk, along with climate and cyber risks rebounding from lower 2020 levels as the Pandemics/infectious disease risk reverted from its highs in the previous survey.

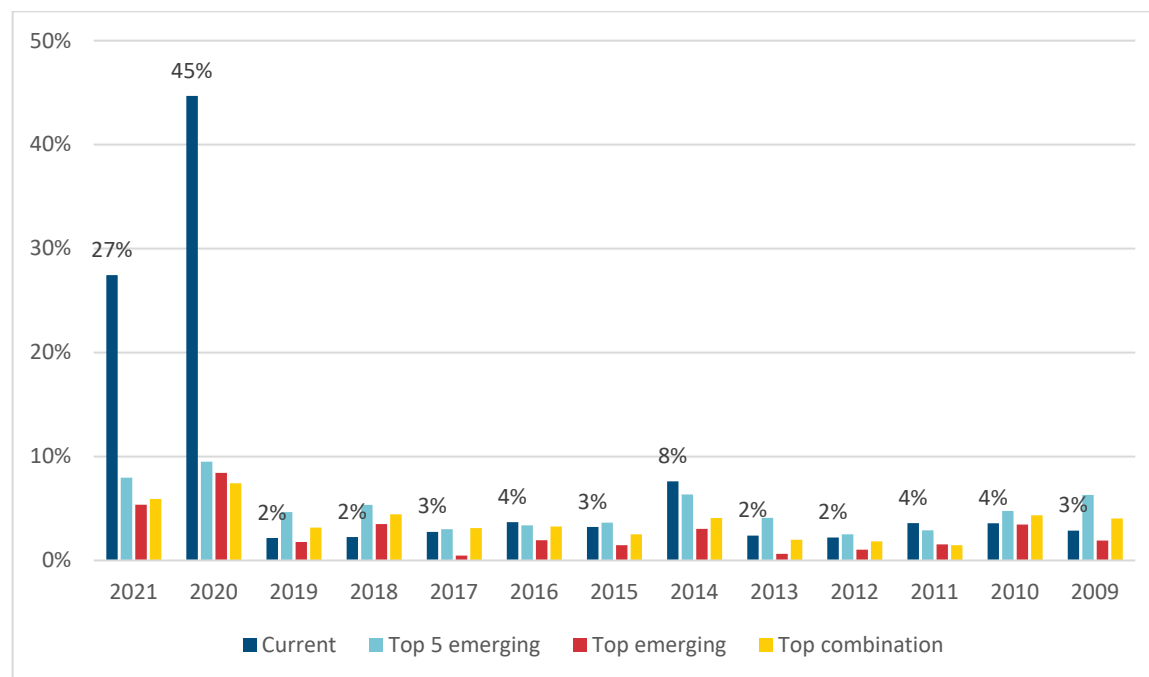
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<sup>1</sup> A glossary of risks and definitions are provided to respondents and are replicated in Appendix I.

In the previous survey, the Pandemics/infectious diseases risk took center stage. As seen in Figure 1, the results have reverted from their highs but are still elevated. It remains the top current risk and among the leaders for the top five emerging risks.

**Figure 1**

**PANDEMICS/INFECTIOUS DISEASES – HISTORICAL RESULTS, 2009–2021**



This report presents the major quantitative findings from the survey. The full report covering the *15th Survey of Emerging Risks*, with complete updates and analysis of open-ended questions, will be released later in the year.

## Key Finding 1: Risk Managers Focus Concerns on Climate, Cyber, and Financial Volatility Risks

Survey questions focus on four ways of looking at risk:

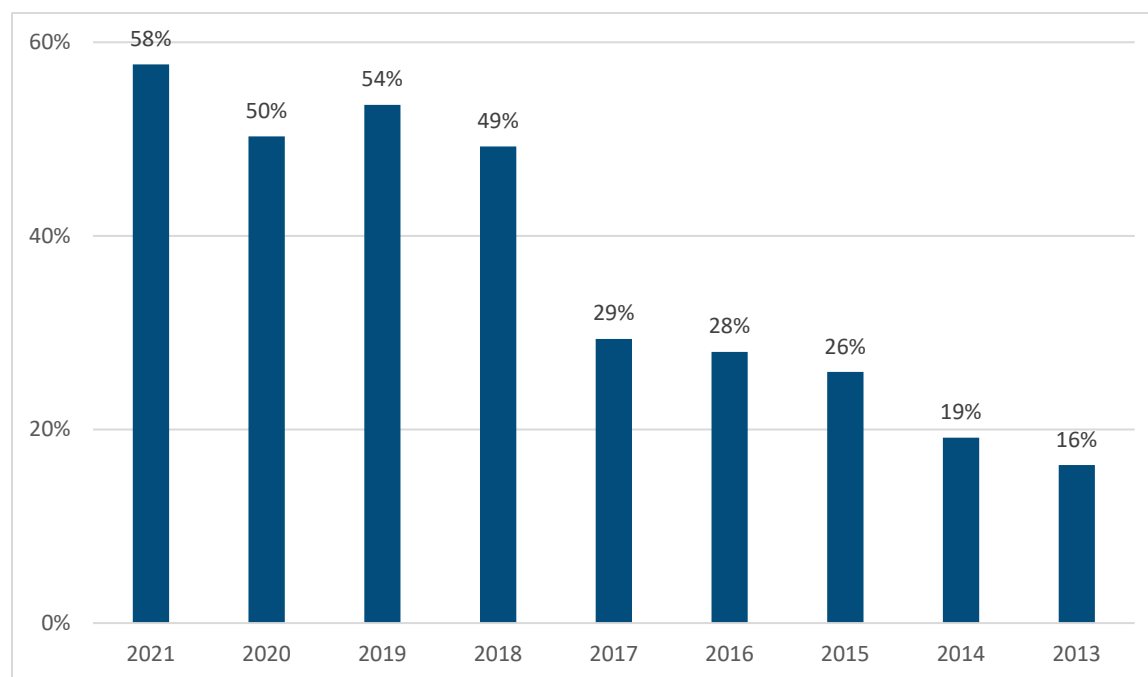
- Top current risk (participants vote for one);
- Top five emerging risks (vote for five);
- Top emerging risk (vote for one); and
- Top emerging risk combinations (vote for three combinations of two risks).

A set of 23 risks is presented to the participants, shown with definitions in Appendix I, and they can add an additional risk except for the combination questions. These are grouped into five categories: economic, environmental, geopolitical, societal, and technological.

The year 2021 continued trends of high numbers of tropical storms and wildfires, with political extremes continuing globally. These were overshadowed in the survey by the pandemic, market volatility, and signs of a changing climate. Climate change maintained its lead for three of the four survey questions, with Pandemics/infectious diseases preserving its lead for top current risk (falling from 45% to 27% – second place is Climate change with 16%). The Climate change risk continues to slowly rise, as shown for the top five emerging risks question in Figure 2 and is now selected by 58% of the respondents. It was also the highest response for top emerging risk (26%) and top combination risk (11% of all the risks chosen, in combination with another risk).<sup>2</sup>

**Figure 2**

**CLIMATE CHANGE – TOP FIVE EMERGING RISKS, 2013–2021**

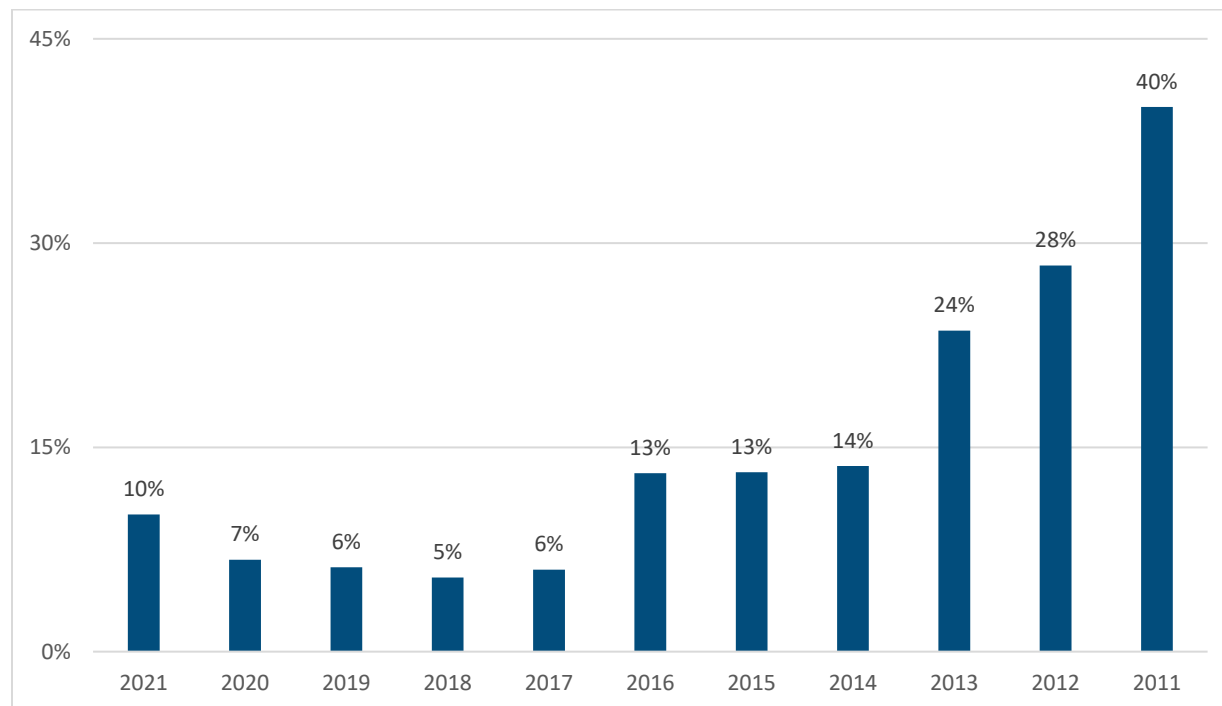


<sup>2</sup> Percentages for the top five emerging risks are based on the number of respondents, so they add up to more than 100%. Other results, except for rounding, total 100%.

Financial volatility risk continues its resurgence and can be found in the top five for all questions. Its recent rise for the top emerging risks question, where it currently ranks third but saw much higher results following the global financial crisis in the early years of the survey, can be seen in Figure 3.

**Figure 3**

**FINANCIAL VOLATILITY – TOP EMERGING RISK, 2011–2021**



Large decreases by the Pandemics/infectious diseases risk for the current question (while still maintaining the top rank) and Disruptive technology in the top emerging risk question (still fifth overall) led to a number of material increases for other risks. Notable is the Demographic shift risk, which recorded its highest result for the top emerging risk question in the survey's history (up from 4% in the previous survey to 7%), and surges for risks in the economic category. Energy price shock is up, from 4% of respondents in the last survey to 18% choosing it as one of their top five emerging risks questions, while Asset price collapse increased 3% for both the current (from 4% to 7%) and top emerging risk (from 2% to 5%) questions. For the top emerging risk question, only Globalization shift was down materially (from 5% to 2%) as populism and migration became a lesser concern.

The top two choices have been stable of late for the top five emerging risks question (the survey's primary metric) with the top five maintaining their rank order from the previous survey (see Table 1).

**Table 1**

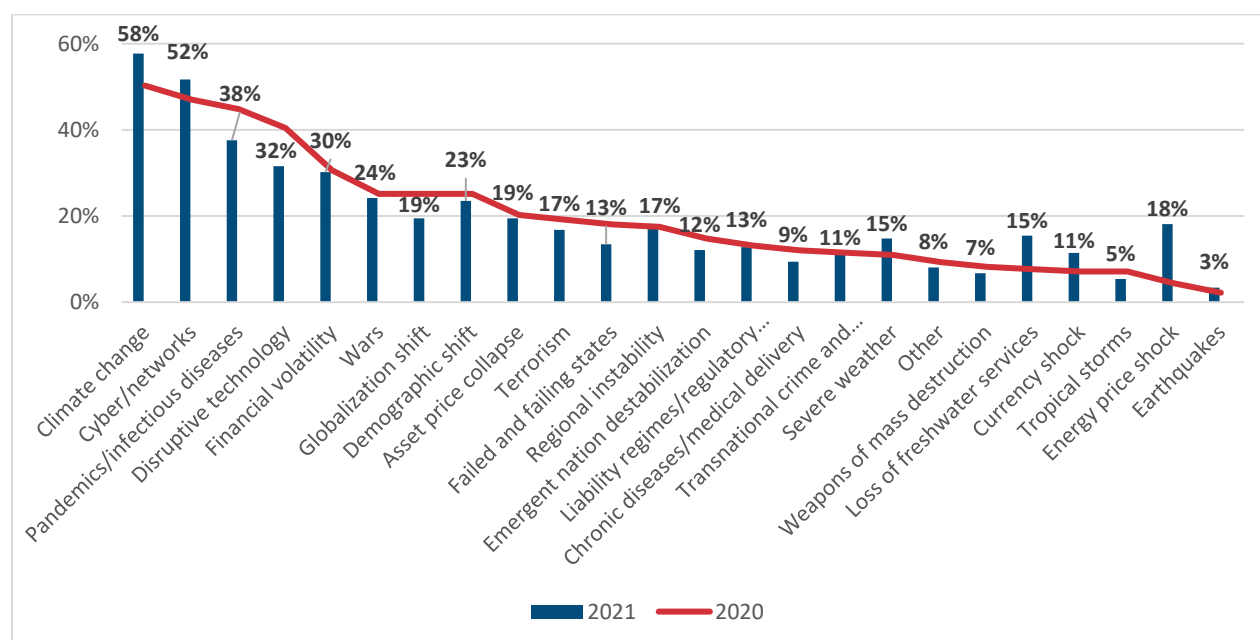
**TOP FIVE EMERGING RISKS, 2018–2021**

Year	2018	2019	2020	2021
1	Cyber/networks	Climate change	Climate change	Climate change
2	Climate change	Cyber/networks	Cyber/networks	Cyber/networks
3	Disruptive technology	Disruptive technology	Pandemics/ infectious diseases	Pandemics/ infectious diseases
4	Demographic shift	Demographic shift	Disruptive technology	Disruptive technology
5	Financial volatility	Financial volatility	Financial volatility	Financial volatility

Results for the top five emerging risks in Figure 4 have been sorted based on results in the previous survey. Labels reflect the 2021 results. Large increases were found for several risks that ranked poorly in the previous survey, namely Energy price shock, Loss of freshwater services, Natural catastrophe: severe weather, and Currency shock.

**Figure 4**

**YEAR-OVER-YEAR EMERGING RISKS (UP TO FIVE RISKS CHOSEN PER SURVEY)**





Among the other questions, the top five risks chosen in the current survey are as follows:

#### **Top Current Risk**

1. Pandemics/infectious diseases (27%)
2. Climate change (16%)
3. Financial volatility (10%)
4. Cyber/networks (8%)
5. Asset price collapse (7%)

#### **Top Emerging Risk**

1. Climate change (26%)
2. Cyber/networks (13%)
3. Financial volatility (10%)
4. Demographic shift (7%)
5. Disruptive technology (6%)

**Top Risk Combination (respondents are asked to provide three combinations of two risks – ranking shows which risks were chosen most)**

1. Climate change (11%)
2. Cyber/networks (9%)
3. Financial volatility (8%)
4. Wars (including civil wars) (7%)
5. Disruptive technology (6%)

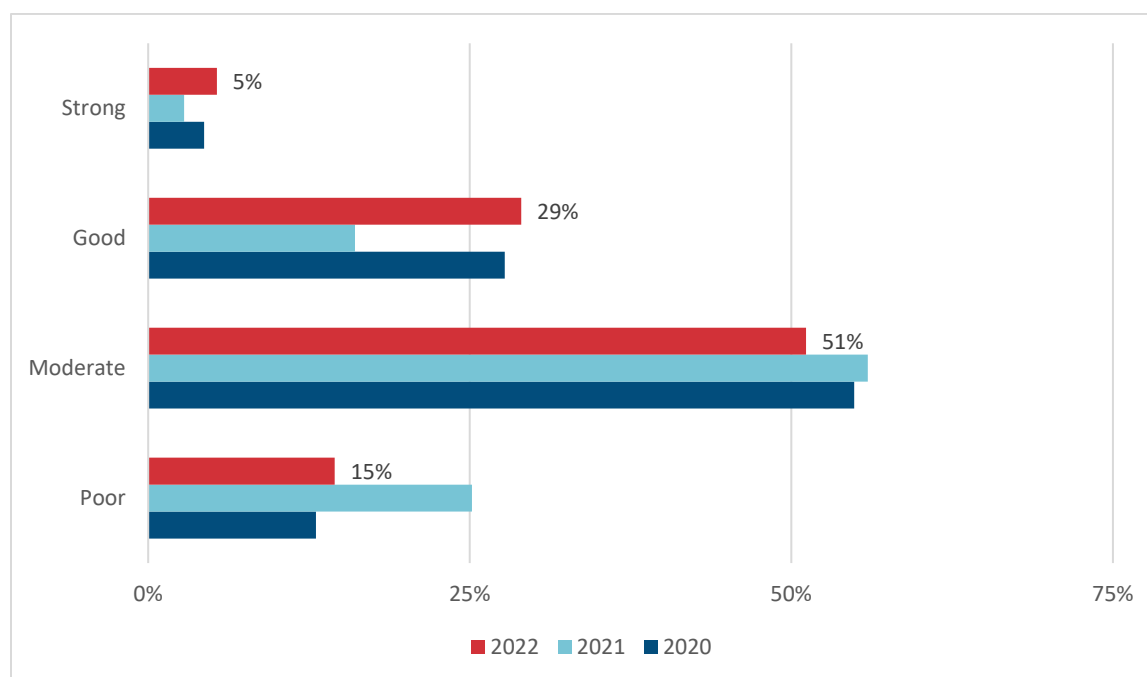
## Key Finding 2: Global Economic Outlook – Improving 2022 Expectations

The past three surveys have occurred in vastly different environments. When respondents were sharing their expectations for 2020, it was before anyone was aware of what would become the COVID-19 pandemic. The previous survey, conducted in fall 2020 and looking ahead to 2021, came when vaccines were being tested but had not yet been approved. During the current survey, climate topics were in the news while the Delta variant was dominant in most global locations.

Global economic expectations are higher for 2022, with more respondents having positive views compared to the previous survey. Nearly 35% of respondents expect 2022 to be good or strong (see Figure 5), and only 15% have poor expectations for the global economy. These results are similar to those considering economic expectations for 2020, with a more negative response during the intervening “COVID-19” year. This could reflect reduced pandemic uncertainty and continued economic growth.

**Figure 5**

### GLOBAL ECONOMIC EXPECTATIONS

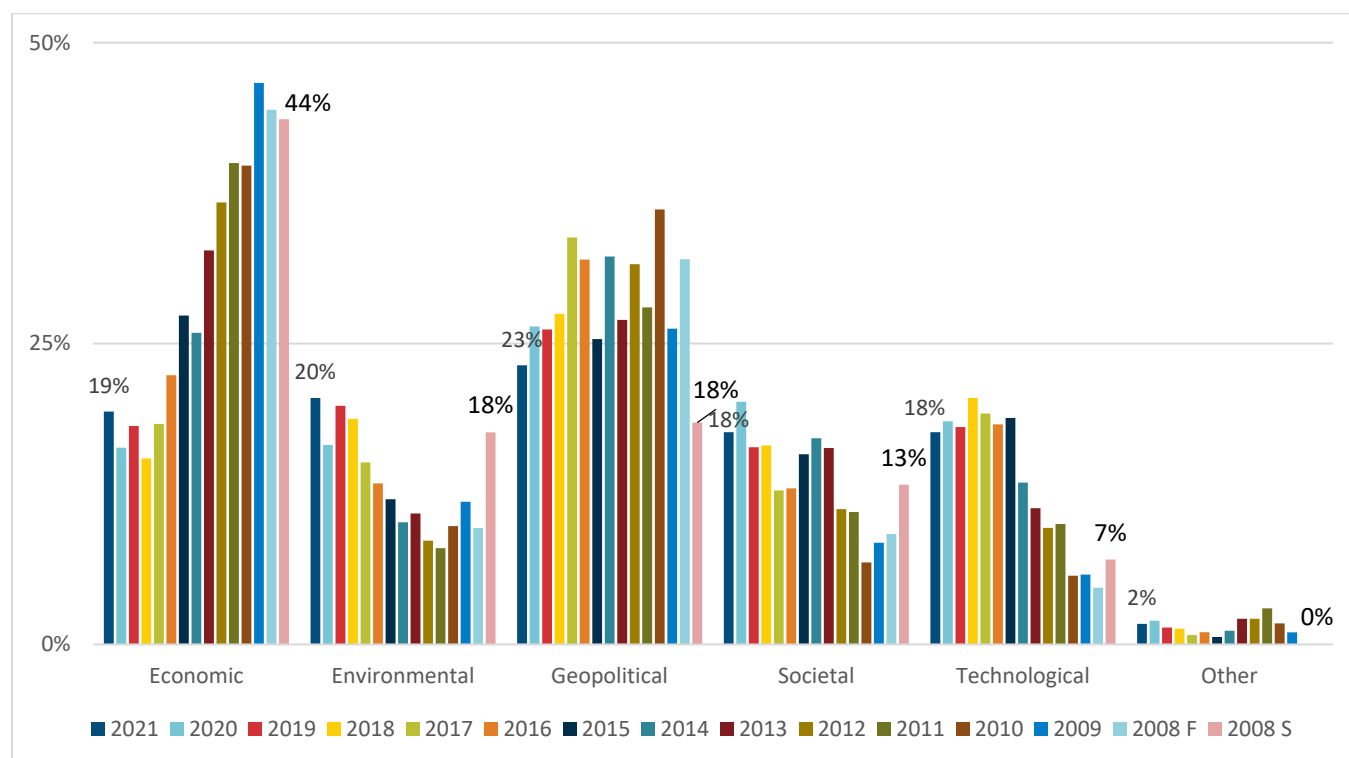


## Key Finding 3: Geopolitical Risks Still Lead in Total, but Economic and Environmental Risks are Trending Up

For the top five emerging risks in this year's survey, the geopolitical category fell to the lowest level since the initial survey in spring 2008 (see Figure 6).<sup>3</sup> But it still remains the leading risk category. The economic and environmental categories increased as Pandemics/infectious diseases retreated from 2020 highs. Risks in the technological category were also slightly lower. Including all the data points in one place helps to put survey trends into perspective. For example, the economic category peaked following the global financial crisis and has only recently bounced off its lows, while technological, societal, and environmental category risks have trended up.

Figure 6

### EMERGING RISKS BY CATEGORY (UP TO FIVE RISKS CHOSEN PER SURVEY)



<sup>3</sup> The current survey is the 15<sup>th</sup> iteration of the survey. The survey was completed twice in 2008 (spring, fall) and then annually.

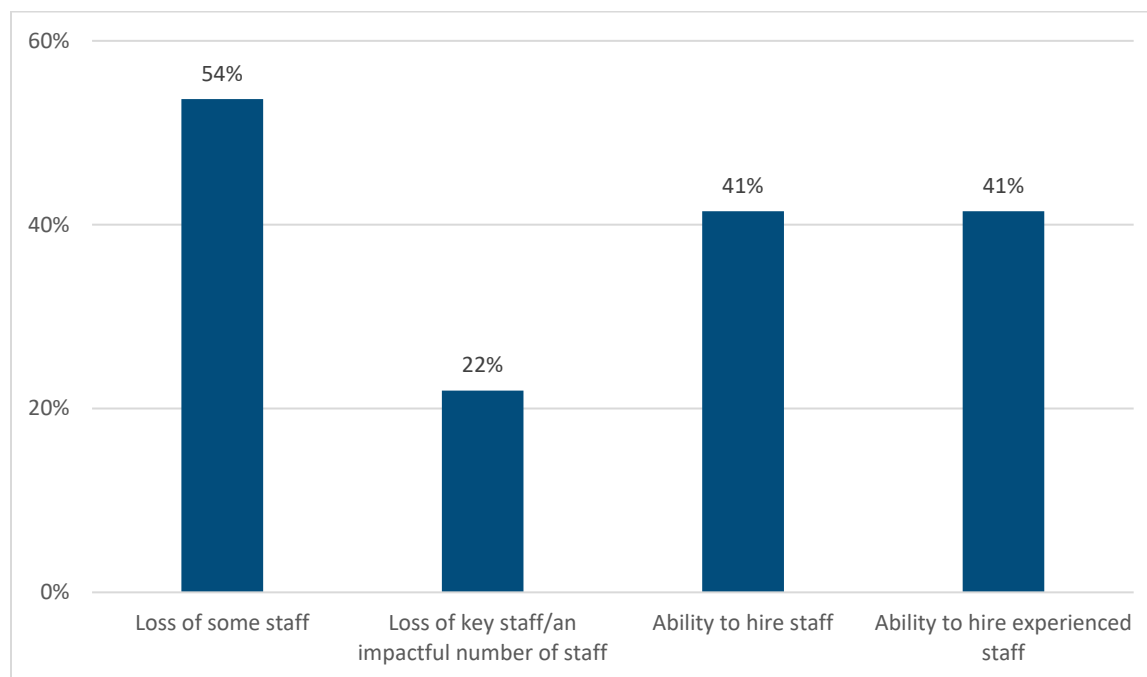
## Key Finding 4: Risk Managers at Insurers are being Impacted by the Great Resignation

“The Big Quit,” a phenomenon where more individuals than expected have voluntarily left their jobs in 2021, has been attributed to the pandemic and employees contemplating what they really want from a job. Also known as “The Great Resignation,” the survey asked employees at insurance companies how it has impacted the enterprise risk management function in their situation. The survey found that 63% of respondents have been impacted by the issue in some way, and nearly 10% had been impacted by all four choices.

With no previous base to work from, it’s not known what these results would have been in the past. This question could be asked periodically going forward to determine if this is a temporary high point, consistently stable level, or something else. Over 50% of those reporting an impact had lost staff, as shown in Figure 7, while for over 40% the ability to hire staff and hire experienced staff was impacted (multiple responses allowed). More than one in five had lost a key member or an impactful number of staff.

Figure 7

### 2021 THE GREAT RESIGNATION – IMPACT ON INSURERS



## Appendix I: Glossary of 23 Risks across Five Categories

### Economic Risks

- Energy price shock—Energy prices change abruptly.
- Currency shock—Material disruptions to currency equilibrium, including central bank devaluations (currency wars) and digital currencies.
- Emergent nation destabilization—Fast growing country’s economic growth slows, potentially as a result of protectionism, demographics, internal politics, or economic difficulties.
- Asset price collapse—The value of assets such as housing and equities collapses.
- Financial volatility—Price instability and extremes of sectors, including commodities, equities, or interest rates.

### Environmental Risks

- Climate change—Change in climate patterns generates both extreme events and gradual changes, impacting infrastructure, agricultural yields, ecosystem biodiversity (e.g., insects, shellfish), and human lives. (Drivers include, but are not limited to, space weather, and human influence.) Alternative divisions are physical risks and transition risks.
- Loss of freshwater services—Water shortages impact agriculture, businesses, and human lives (Drivers include, but are not limited to, climate change and human influence).
- Natural catastrophe: tropical storms—Hurricanes, typhoons, and cyclones lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Natural catastrophe: earthquakes—Strong seismic/volcanic activity lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Natural catastrophe: severe weather—Meteorological phenomena lead to disruption, catastrophic economic losses, and/or high human loss of life. Includes inland flooding, tornados, thunderstorms, drought, wildfires, high winds, snowstorms, and dust storms.

### Geopolitical Risks

- Terrorism—Attacks lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Weapons of mass destruction—nuclear, biological, radiological, or chemical technologies are held by unstable groups, leading to disruption, catastrophic economic losses, and/or high human loss of life.
- Wars (including civil wars)—Wars erupt between or within countries, leading to disruption, catastrophic economic losses, and/or high human loss of life.
- Failed and failing states—The trend of a widening gap between order and disorder or widening social rifts.
- Transnational crime and corruption—Corruption continues to be endemic, and non-state entities successfully penetrate the global economy.
- Globalization shift—Preference changes to imports and immigration. Populism, political uncertainty. Countries retrench and become more nationalistic and protectionist or open up their economies to outsiders. Inequality and food insecurity challenge the concept of fairness and egalitarianism.
- Regional instability—Certain unstable areas may cause widespread political and other crises.

### Societal Risks

- Pandemics/infectious diseases—A pandemic emerges with high mortality/incidence of diseases such as HIV/AIDS, Ebola, coronavirus, or influenza. Antimicrobial resistance becomes common.
- Chronic diseases/medical delivery—Diseases such as obesity, diabetes, cardiovascular, and substance abuse become widespread. Material change to medical delivery or financing.
- Demographic shift—Evolving populations (e.g., age, size, race, migration trends, skills shortages) drive changes in economic growth and levels of government intervention.
- Liability regimes/regulatory framework—Costs increase faster than GDP, with increases in the spread and size of litigiousness (e.g., social inflation) and speed of regulatory revisions.

## Technological Risks

- Cyber/networks—A major disruption of the availability, reliability and resilience of critical information infrastructure caused by cyber risks, terrorist attacks, or technical failure. Results are felt in major infrastructure: power distribution, water supply, transportation, telecommunication, emergency services, and finance.
- Disruptive technology— Unintended consequences of technology leads to abrupt change (e.g., drones, self-driving cars, additive manufacturing, the internet of things, nanoparticles). Models become more complex but less descriptive over long time horizons.



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