

# 16th Annual Survey of Emerging Risks Key Findings

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# 16th Annual Survey of Emerging Risks

## Key Findings

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# 16th Annual Survey of Emerging Risks

## Key Findings

### Introduction

The *16th Survey of Emerging Risks* follows trends about risks that go beyond the normal planning cycle, using the wisdom of crowds concept to apply foresight to potential future scenarios. It is sponsored by 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 showing how risk management practices are evolving. The survey results, especially the comments, give risk managers a way to network anonymously with peers and how they think about risk.

Respondents are asked to choose their top current risk, top five emerging risks, top emerging risk, and risk combinations, selecting from 23 risks allocated to five categories.<sup>1</sup> Results are trended since 2008. A user's guide was produced in 2022 that walks the reader through the data and shows how it can be used to incorporate foresight into risk analysis.<sup>2</sup> The survey goes on to ask questions about practices related to enterprise risk management, scenario planning, staffing challenges, and other current topics. Open-ended qualitative questions are often used to ask current thoughts about risk management practices directly from risk managers.

The survey, completed in November 2022, included 143 participants. The online survey was primarily North America-based (87%), with additional responses from Europe, Asia, the Caribbean/Bermuda, 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 in the third year of the COVID-19 pandemic, during the period following the Russian invasion of Ukraine but prior to the climate conference in Egypt (COP27). Lockdowns were prevalent in China and energy price and security concerns were high, especially in Europe. Inflation was at high levels in developed countries and central banks had begun to tighten monetary policy. Natural disasters, made worse by climate change, occurred on a regular basis around the world. The reader should remember that choices of one risk instead of another are relative—it does not necessarily mean that one risk has dissipated or increased, just that the chosen risk(s) are considered less or more important than the other choices.

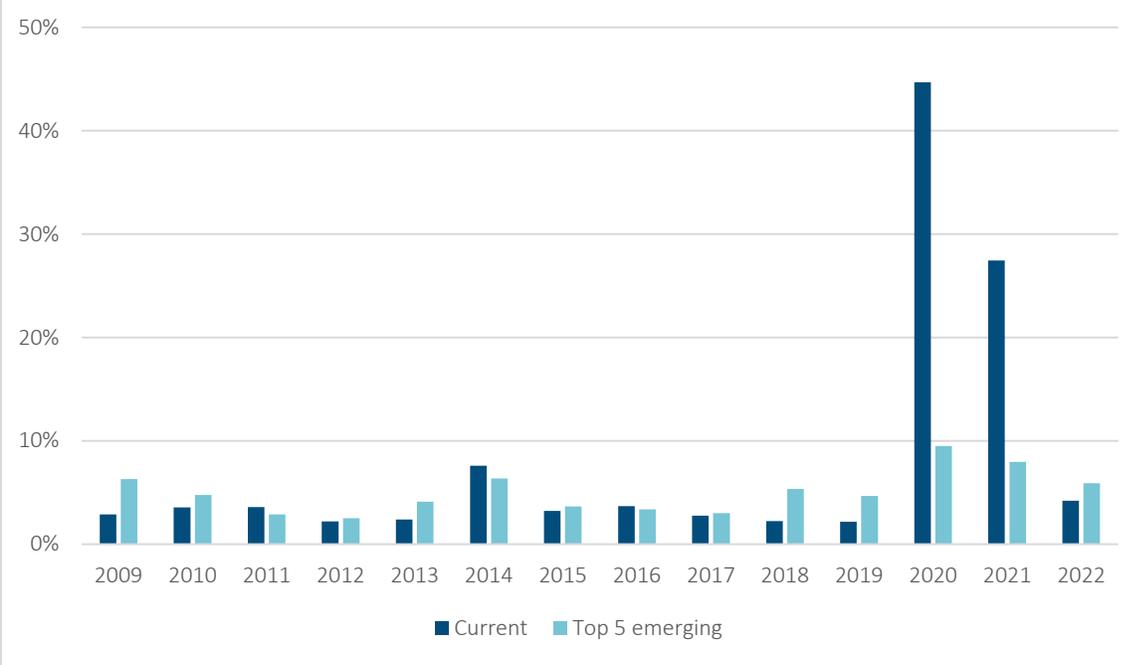
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<sup>1</sup> A glossary of risks and definitions are provided to respondents and are replicated in Appendix I.

<sup>2</sup> Rudolph, Max J. 15th Emerging Risk Survey. August 2022. <https://www.soa.org/resources/research-reports/2022/15th-survey-emerging-risks/>

In the previous survey, the Pandemics/infectious diseases risk fell back from record levels in the year 2020 as a current risk. As seen in Figure 1, the percentage of risk managers who selected this risk has reverted further from their highs back to more typical levels. It is no longer a top five risk for any of the questions tracked.

**Figure 1**  
**PANDEMICS/INFECTIOUS DISEASES – HISTORICAL RESULTS, 2009–2022**



This report presents the major quantitative findings from the survey. The full report covering the *16th Survey of Emerging Risks*, with complete updates and analysis of open-ended questions, will be released later in 2023.

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## Key Finding 1: Risk Manager Concerns Focus on Climate, Wars 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).

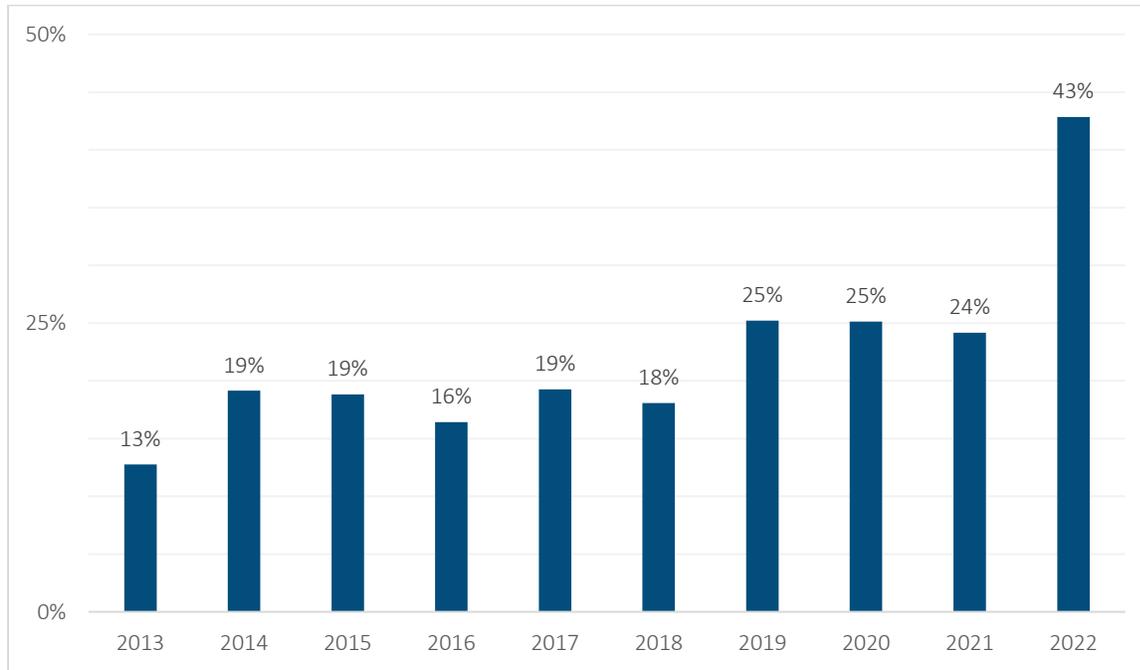
The 23 risks are presented to the participants, shown with definitions in Appendix I, and they can add an alternative risk except for the combination questions. These risks are grouped into five categories: economic, environmental, geopolitical, societal, and technological.

The year 2022 continued trends of inland flooding, high numbers of tropical storms and wildfires, an Ebola outbreak, and geopolitical concerns around the globe. Continuing their rebound were Financial volatility and Energy price shock, with Wars (including civil wars) spiking as a current risk. Climate change maintained its lead for both emerging risk survey questions (top five and top one), with Financial volatility leading as the top current risk (rising from 10% to 21%—second place is Climate change with 14%) and top combination risk, just edging out Climate change with each at 11%.

Ongoing conflicts in Ukraine and Africa, with concerns about Taiwan and increased tensions in developed countries, caused Wars (including civil wars) to spike as shown in Figure 2 for top five emerging risks. It had similar increases for top current and top emerging risk and is now found in the top five responses for all four questions.<sup>3</sup>

**Figure 2**

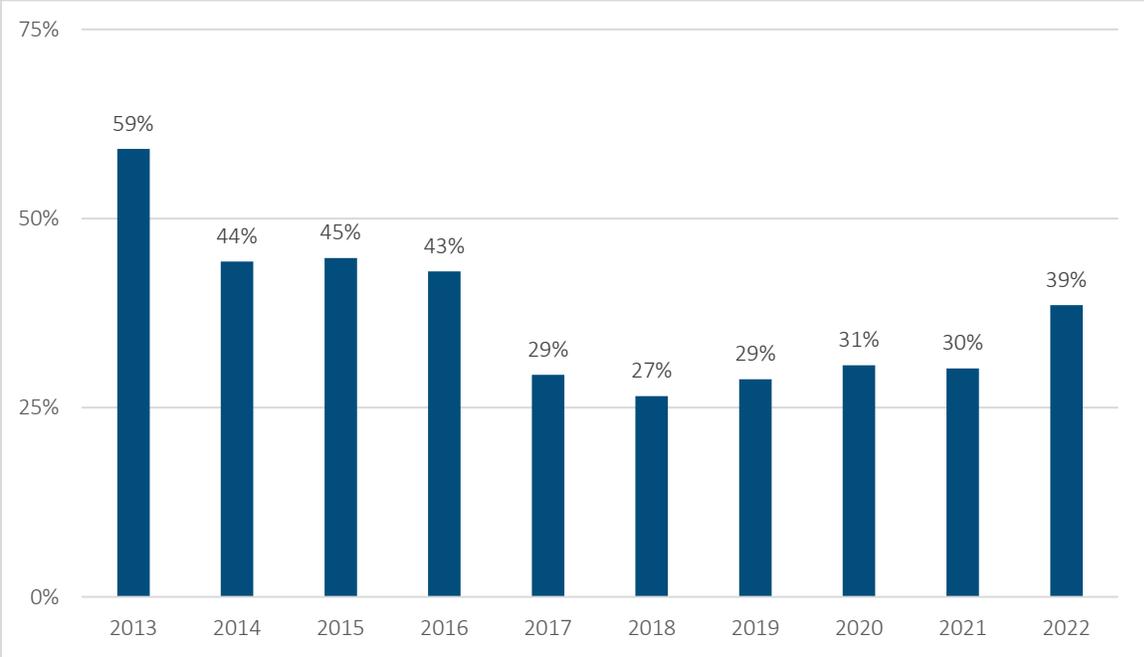
**WARS (INCLUDING CIVIL WARS) – TOP FIVE EMERGING RISKS, 2013–2022**



<sup>3</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%. All values are absolute, i.e., none of the data reflects a percentage change from a previous result.

Financial volatility risk continues its resurgence and can be found in the top five for all questions. Its recent rise in the top five emerging risks question, where it currently ranks fourth but saw even 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, 2013–2022**



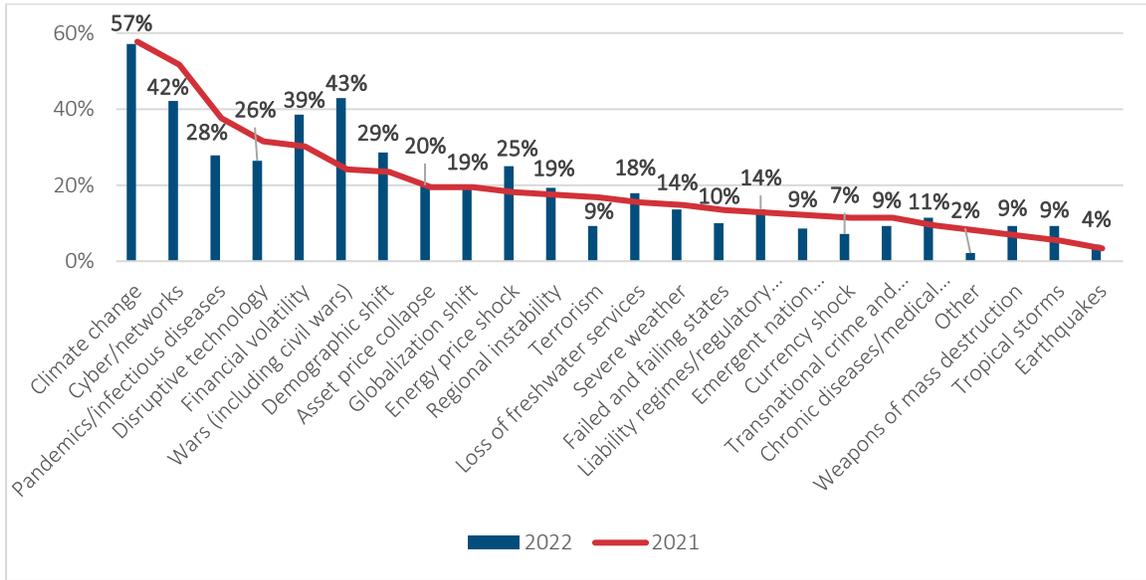
The top choices were disrupted for the top five emerging risks question (the survey’s primary metric) with two risks breaking into the top five (see Table 1).

**Table 1**  
**TOP FIVE EMERGING RISKS, 2019–2022**

	2022	2021	2020	2019
1	Climate change	Climate change	Climate change	Climate change
2	Wars (including civil wars)	Cyber/networks	Cyber/networks	Cyber/networks
3	Cyber/networks	Pandemics/infectious diseases	Pandemics/infectious diseases	Disruptive technology
4	Financial volatility	Disruptive technology	Disruptive technology	Demographic shift
5	Demographic shift	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 2022 results. Several risks saw increases, namely Energy price shock, Financial volatility, Wars (including civil wars), and Demographic shift. These were offset by decreases in Cyber/networks, Pandemics/infectious diseases, Disruptive technology, Terrorism, Failed and failing states, and Currency shock.

**Figure 4**  
**YEAR-OVER-YEAR EMERGING RISKS (UP TO FIVE RISKS CHOSEN PER SURVEY), 2021–22**



Among the other questions, the top five risks (including ties) chosen by respondents in the current survey are shown as follows in Tables 2–4:

**Table 2**  
**TOP CURRENT RISK**

Rank	Risk	Rate
1	Financial volatility	21%
2	Climate change	14%
3	Wars (including civil wars)	13%
4	Asset price collapse	8%
5	Energy price shock	8%
5	Cyber/networks	8%

**Table 3**  
**TOP EMERGING RISK**

Rank	Risk	Rate
1	Climate change	28%
2	Financial volatility	15%
3	Demographic shift	8%
4	Cyber/networks	7%
5	Asset price collapse	6%
5	Wars (including civil wars)	6%
5	Globalization shift	6%

**Table 4**  
**TOP RISK COMBINATIONS**

Rank	Risk	Rate
1	Financial volatility	11%
2	Climate change	11%
3	Wars (including civil wars)	10%
4	Asset price collapse	7%
5	Cyber/networks	6%

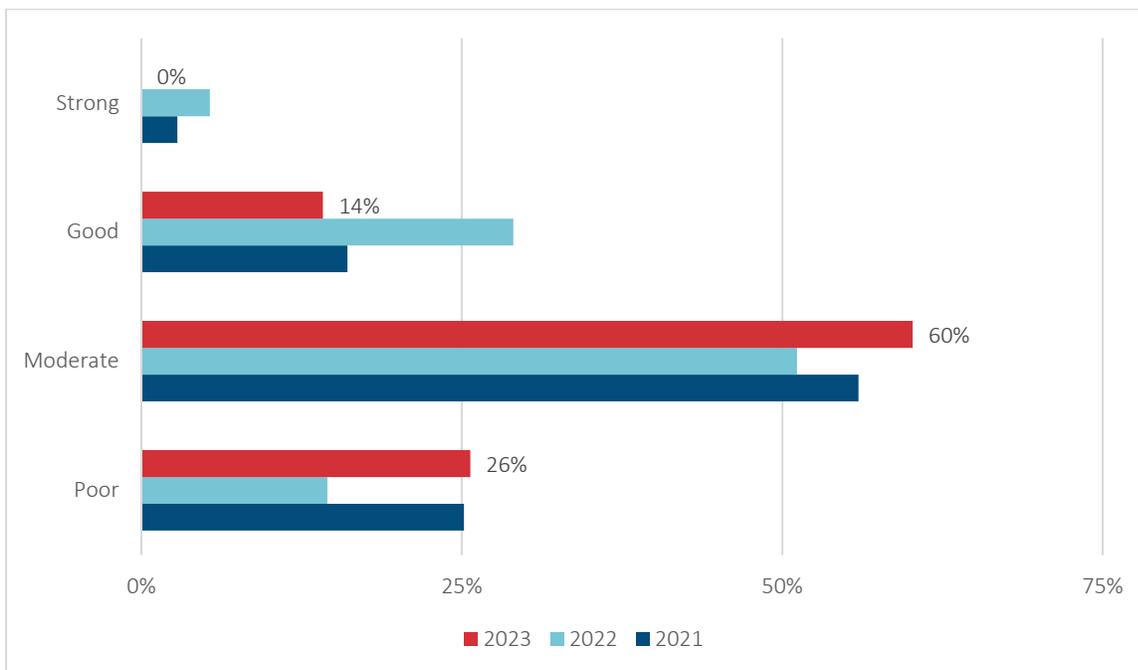
Respondents are asked to provide three combinations of two risks – Ranking shows which risks were chosen most.

## Key Finding 2: Global Economic Outlook – Deteriorating 2023 Expectations

The past several 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 next survey, conducted in fall 2020 and looking ahead to 2021, came when vaccines were being tested but had not yet been approved. During the previous survey, climate topics were in the news while the Delta variant was dominant in most global locations. The current survey period reflects recent high inflation, crypto volatility, a European war impacting gas supplies and prices, and active central banks, all set against extreme climate events that are becoming ever more common.

Global economic expectations are lower for 2023, with more respondents having negative views compared to the previous survey. Only 14% (versus 35% previously) of respondents expect the 2023 global economy to be good or strong (see Figure 5) and 26% have poor expectations. Similar results are seen elsewhere in the survey, with greater concerns about risks like Financial volatility and Energy price shock.

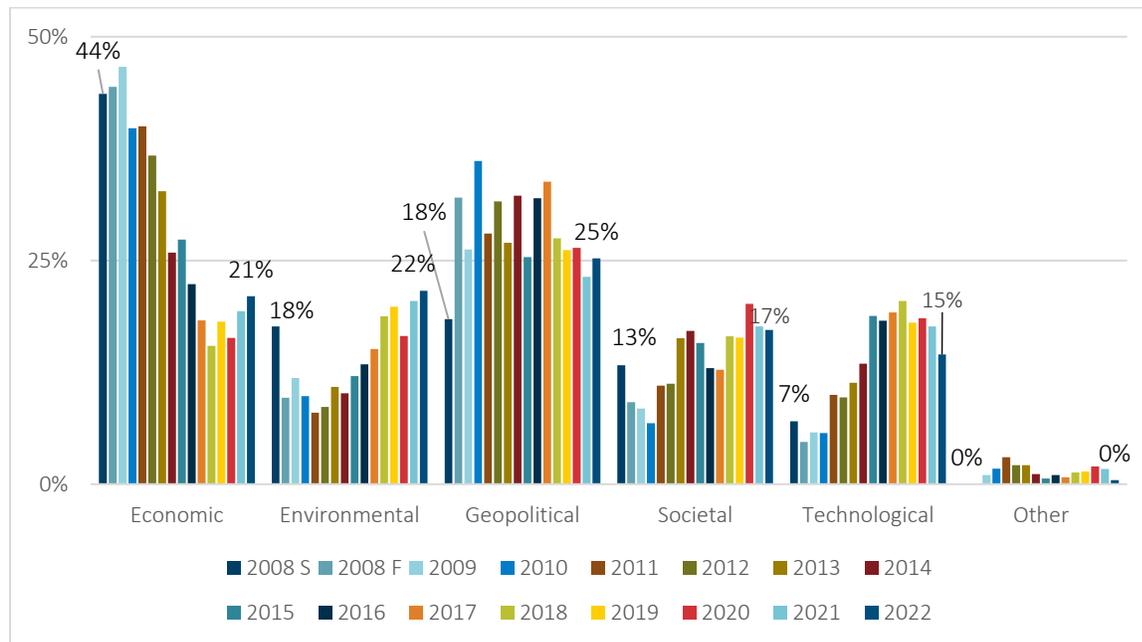
**Figure 5**  
GLOBAL ECONOMIC EXPECTATIONS



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

For the top five emerging risks in this year’s survey, the geopolitical, environmental, and economic categories rebounded at the expense of societal and technological risks. This has been typical for geopolitical risks in even numbered years as U.S. elections are scheduled just prior to the opening of the survey (see Figure 6).<sup>4</sup> Geopolitical remains the leading risk category. The environmental category risks increased and the societal category decreased as Pandemics/infectious diseases continued to retreat from 2020 highs. Responses in the technological category also fell. 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 the environmental category risks have trended up due to risks tied to Climate change and Loss of freshwater services.

**Figure 6**  
EMERGING RISKS BY CATEGORY (UP TO FIVE RISKS CHOSEN PER SURVEY)



<sup>4</sup> The current survey is the 16th iteration of the survey. The survey was completed twice in 2008 (spring, fall) and then annually.

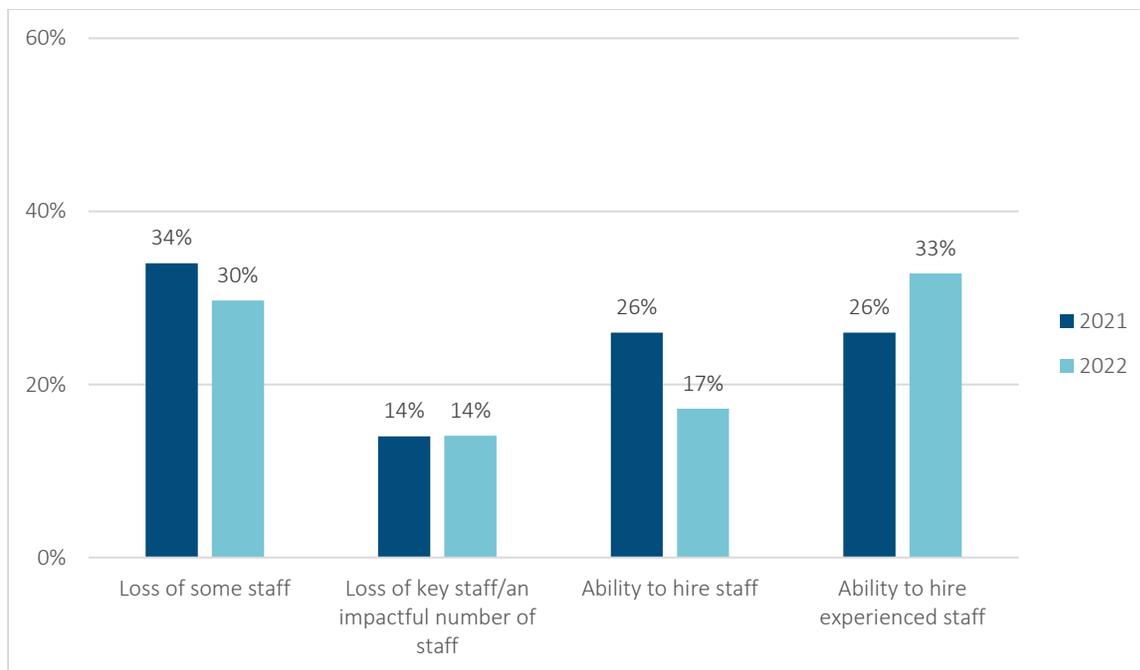
## Key Finding 4: Insurance Risk Management Teams are being Impacted by the Great Resignation

The Great Resignation and quiet quitting are phenomenon attributed to employees contemplating what type of balance they really want from a job. The survey asked employees at insurance companies how staffing issues have impacted their enterprise risk management team. The survey found that 56% of respondents have been impacted by the issue in some way, and some had been impacted by all four choices.

With no base from before the pandemic to work from, it's hard to say what is "normal." This could be a temporary high point, consistently stable level, or something else. Nearly one-third (30%) of those reporting an impact had lost staff, as shown in Figure 7. Respondents noted that it was easier to hire staff this year relative to last (17% versus 26% found it a challenge) while hiring experienced staff had become harder (33% versus 26%).

**Figure 7**

**THE GREAT RESIGNATION – IMPACT ON INSURER ERM FUNCTION, 2021–22**



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

### ECONOMIC RISKS

- Energy price shock—Price instability and extremes of energy prices.
- 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, soil degradation, ecosystem biodiversity (e.g., insects, shellfish), and human lives. Drivers of physical and transition risks include, but are not limited to, space weather, and human influence.
- Loss of freshwater services—Water shortages impact agriculture, businesses, and human lives. Drivers include, but are not limited to, climate change and human influence (e.g., pollution).
- 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 lead 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 is endemic. Non-state entities successfully penetrate the global economy.
- Globalization shift—Preference changes to imports and immigration. Changes include populism, democracy, socialism, communism, religiosity, political uncertainty. Countries retrench and become more nationalistic and protectionist or open up their economies to outsiders. Inequality, privacy and food insecurity challenge the concept of fairness and egalitarianism.
- Regional instability—Unstable regions 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 or treatments appear. Material changes to medical delivery or financing.
- Demographic shift—Evolving populations size and mix (e.g., age, size, race, migration, skills) 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, climate litigation) and speed of regulatory revisions. Material changes in tax policy.

## 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 supply chains, major infrastructure: power distribution, water supply, transportation, telecommunication, emergency services, or finance.
- Disruptive technology—Unintended consequences of technology leads to abrupt change (e.g., drones, self-driving cars, additive manufacturing, internet of things, nanoparticles). Models become more complex but less descriptive over long time horizons.