



Public Entity Insurance Marketplace, Trends, Industry Issues and Outlook

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ACCEL Board Meeting

Alliant Insurance Services
www.alliant.com



(THIS INFORMATION HAS BEEN CONSOLIDATED FROM VARIOUS INDUSTRY SOURCES)



Market Overview



Financial Performance



Underwriting Trends



Loss Trends & Market Disruptors
















Toward the Future



Insurance Market & Financial Performance

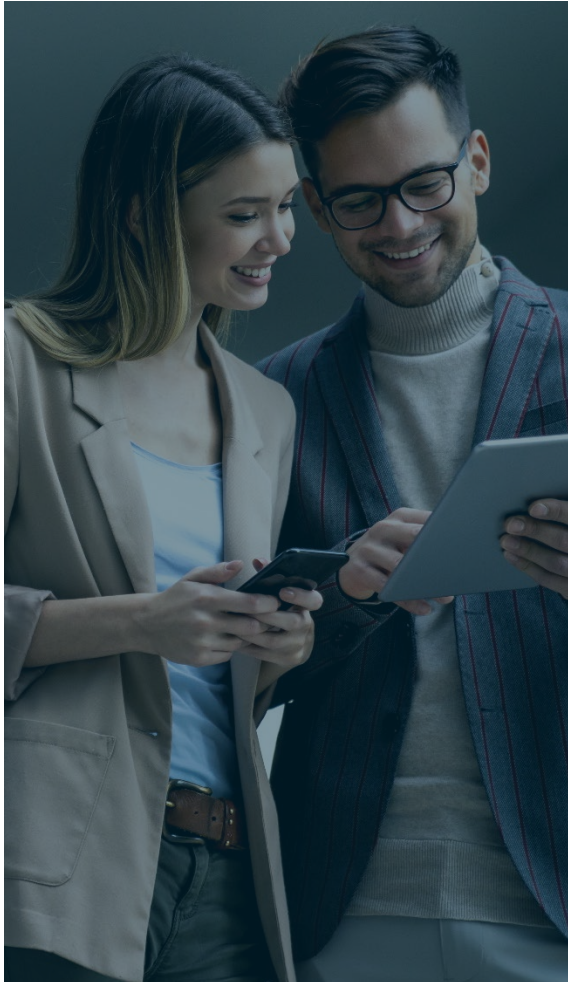
Market Pressures...

“While the industry balance sheet is strong enough to meet the commitments to insureds, it is facing emerging challenges from the significant and increasing impact of catastrophic weather events, cyber risk and significant price and social inflation/lawsuit abuse,” Robert Gordon, senior vice president of policy, research, and international for APCIA, said in a statement.

 Pandemics & Epidemics	 Great Resignation & Quiet Quitting	 Aging Infrastructure	 Geo Political	
 Climate Change	 Inflation	 Mass Shootings	 Natural Disasters	
 Supply Chain & Labor Shortage	 Social Inflation & Nuclear Verdicts	 Cyber Attacks	 Ukraine War	 Legislation

Market Conditions

Impactful issues for insureds:



Property



Excess Liability



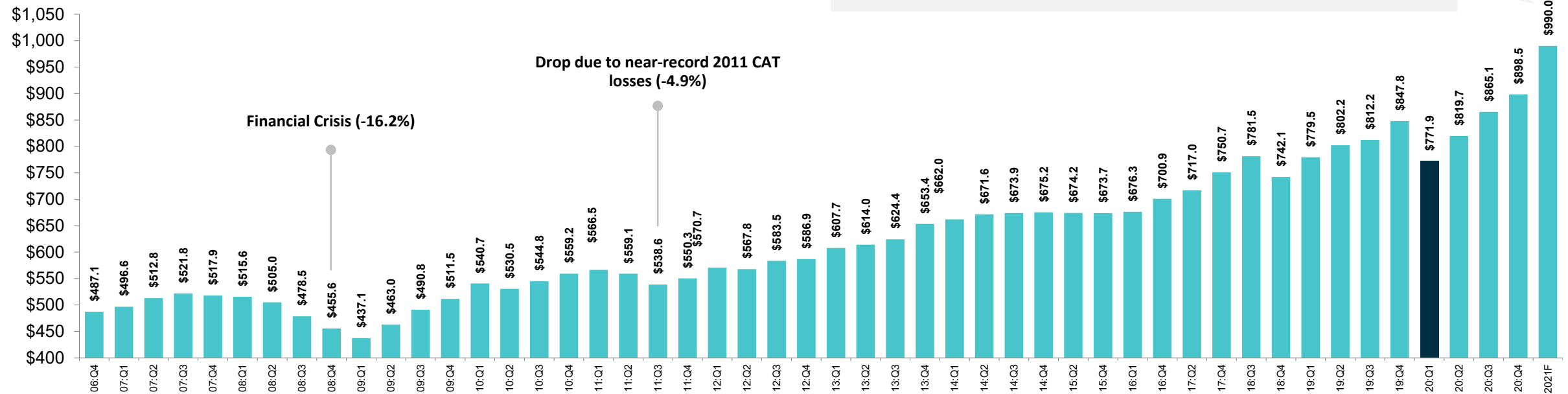
Cyber

- **Liability capacity pull back** and withdrawals have been significant over the past two years
- **Property capacity reductions:**
 - 15% to 30% reduction in capacity from incumbents
 - Coastal and wildfire capacity continues to be especially difficult
- **Cyber capacity is shrinking** and particularly acute for certain industries (Public Entity)
- Insurers produced **negligible profit in 2021** – \$112b in Global Insured CAT losses in 2021 – **4th Worst Loss Year on Record.**
- Excess Workers Compensation **remains stable, but retained layer may be experiencing increased claims volume.**
- Historically **low interest rates** have hampered carrier investment returns.
- An **increased pattern of major property catastrophes** such as hurricanes, typhoons, wildfires, etc. over the past 5 years. Is this the new normal?
- Consistent **increases in attritional property losses** (fires, water damage, tornados, hail, wildfires).
- **Increased inflation** has added to the issue of **valuation across all property classes.**
- **Social inflation & Litigation Financing** driving up liability verdicts and settlements.
- **Ransomware cyber losses** are systemic - \$6 Trillion Impact in 2021 – **Expecting \$10 Trillion by 2025** – 2019 was \$2 Trillion

Policyholder Surplus (Capacity), 2006:Q4–2020:Q4E and 2021F*

The P/C insurance industry entered the COVID-19 pandemic from a position of strength and was able to withstand the 9.0% surplus decline in Q1 2020 (far less than during the Financial Crisis). 2020 ended with record surplus. 2021 will likely set another new record, reaching \$1 trillion for the first time.

(\$ Billions)

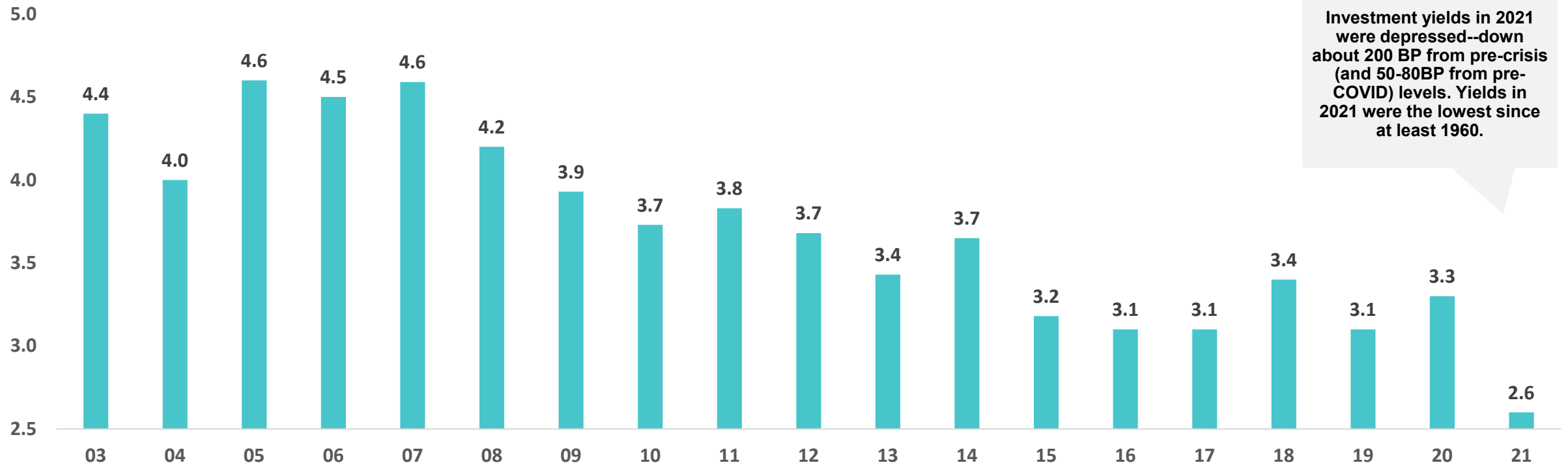


2010: Q1 data includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business

Policyholder Surplus is the industry's financial cushion against large insured events, periods of economic stress and financial market volatility. It is also a source of capital to underwrite new risks.

Sources: NAIC data sourced through S&P Global Intelligence; Insurance Information Institute.

Net Investment Yield on Property/Casualty Insurance Invested Assets, 2007–2021

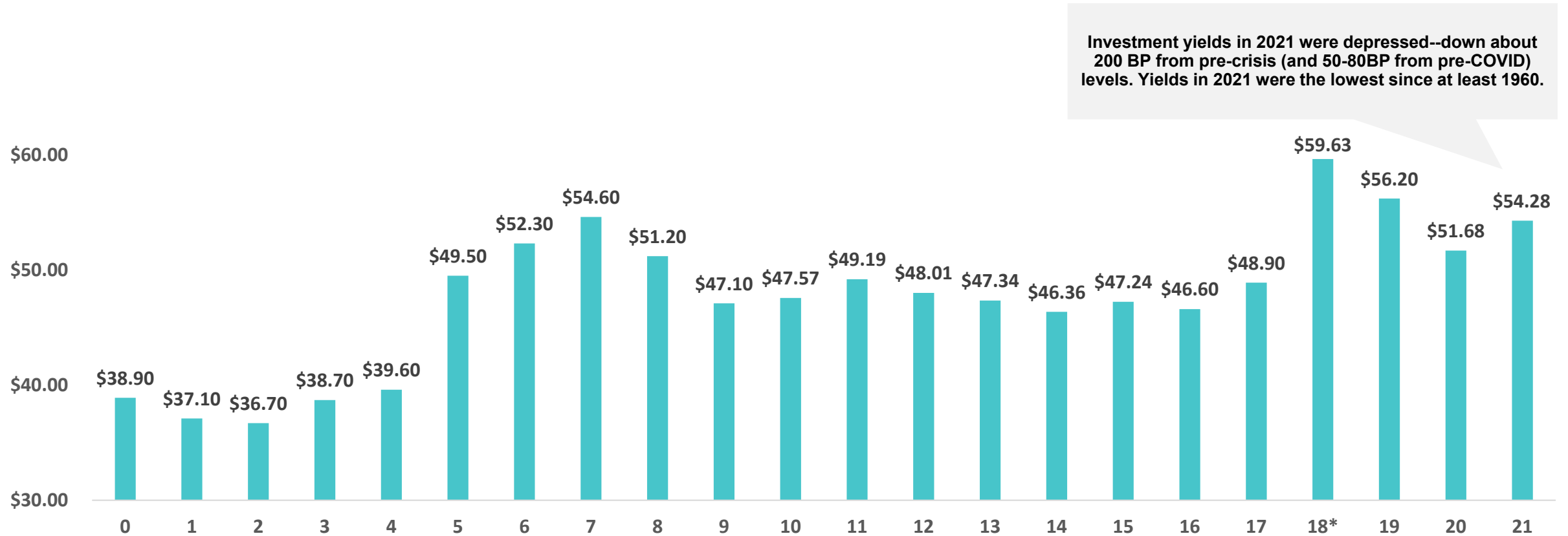


Investment yields in 2021 were depressed--down about 200 BP from pre-crisis (and 50-80BP from pre-COVID) levels. Yields in 2021 were the lowest since at least 1960.

Average: 1960-2019 = 4.9% | Low: 2.8% (1961) | High: 8.2% (1984/85)

Sources: NAIC data, sourced from S&P Global Market Intelligence; 2017-19 figures are from ISO. 2020-21 data from the APCA. Risk and Uncertainty Management Center, Univ. of South Carolina.

Property/Casualty Insurance Industry Investment Income: 2000–2021

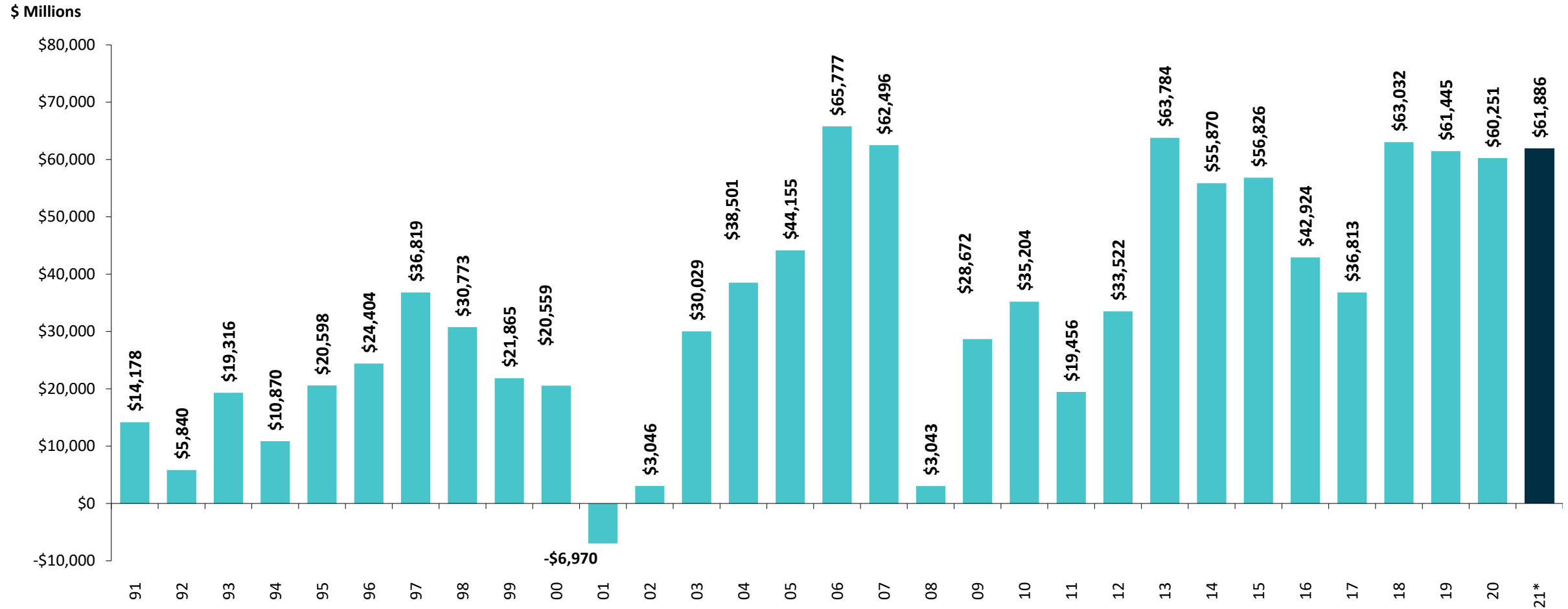


Due to persistently low interest rates, investment income remained below pre-crisis levels for a decade. Lower interest rates during COVID drove investment income down once again. Fed rate hikes in 2022 could reverse this trend.

*2021 figure is actual as of 12/31/21. 2018-19 figures are distorted by provisions of the TCJA of 2017. Increase reflects such items as dividends from foreign subsidiaries.

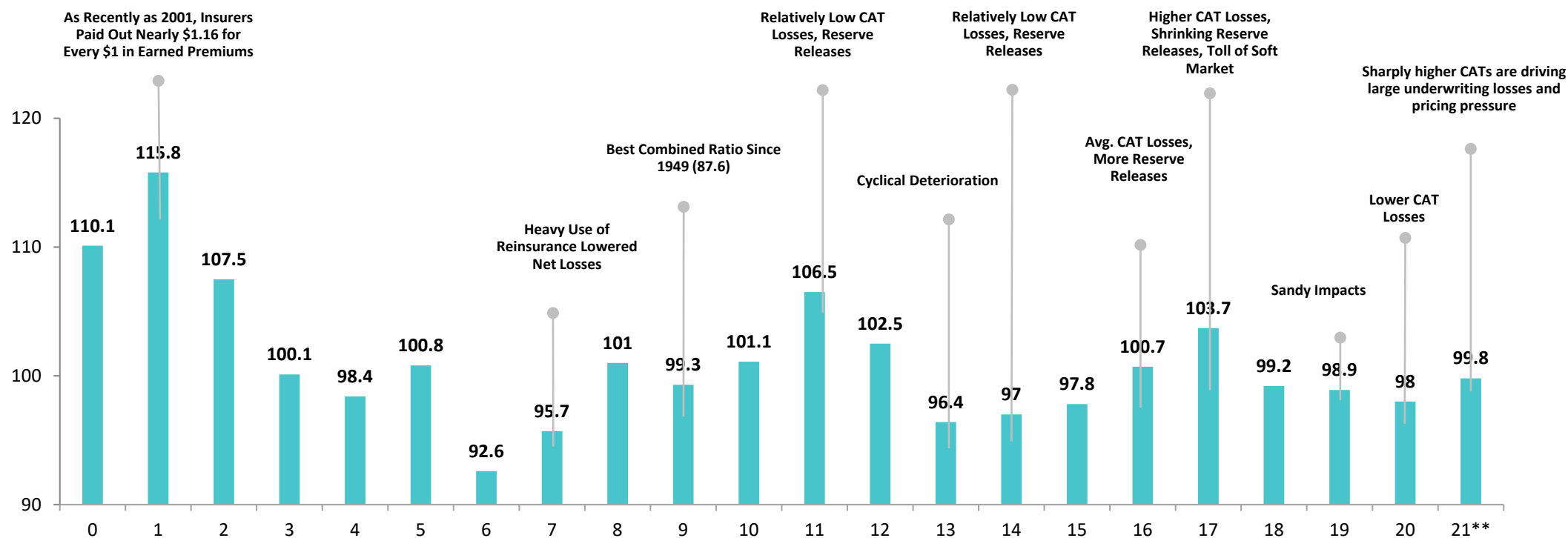
1 Investment gains consist primarily of interest and stock dividends. Sources: ISO; University of South Carolina, Center for Risk and Uncertainty Management.

P/C Industry Net Income After Taxes, 1991–2021*



*ROE figures are GAAP; 1Return on avg. surplus. Excludes Mortgage & Financial Guaranty insurers for years (2009-2014). Sources: A.M. Best, ISO, APCA.

P/C Insurance Industry Combined Ratio, 2001-2021F**



COVID-19 has had no discernable net impact on pre-COVID expectations for the combined ratio in 2020; -7.5 pts. due to CATs vs. 4.1 in 2019 (about twice avg.)

Pre-COVID 2020 Combined Ratio Est. 99.1 (A.M. Best) Actual = 98

*Excludes Mortgage & Financial Guaranty insurers 2008–2014.
 **2021 forecast from A.M. Best Review and Preview (Feb. 2021).
 Sources: A.M. Best, ISO (2014-2019).



Underwriting Trends

Market Trends

By Product Line

Product Line	Pricing	Capacity	Retentions	Coverage
PROPERTY				
Challenged Exposures	↑	↔	↑	↓
Non-Challenged Exposures	↔	↔	↔	↓
Builder's Risk	↑	↔	↑	↓
CASUALTY				
General Liability	↑	↔	↑	↓
Excess Liability	↑	↓	↔	↔
Automobile Liability	↑	↓	↑	↔
Workers' Compensation	↔	↔	↔	↔
Umbrella Liability	↑	↓	↔	↔
MANAGEMENT & PROFESSIONAL				
Cyber	↑	↓	↑	↓
Employment Practice Liability	↑	↓	↑	↔
Fiduciary	↑	↓	↑	↓
Fidelity/Crime	↑	↔	↑	↔

Arrow Key

What direction are pricing, capacity, limits, deductibles and coverages moving?

- ↑ Increasing
- ↔ Stabilizing / No change
- ↓ Decreasing

Color Key

As a buyer, is that movement positive, neutral, or something that could present a challenge during my renewal?

- Positive change
- Neutral / No change
- Potential Challenge

Property

Rate Trends	“Low End”	“High End”
Challenged Exposures	10%	>15%+
Non-Challenged Exposures	Flat	10%
Standalone Earthquake	Flat	10%
Builder’s Risk	Flat	10%



Capacity

There remains an abundance of general property capacity, including new capacity, however, much of this is not available to all industries and/or exposures. Insurers are often willing to increase line size and deploy additional capacity on insureds in desirable industries with good risk profiles. They are carefully managing their capacity on accounts in with notable losses and on risks that have significant secondary CAT peril exposure (wildfire, hail, tornado, etc.). Capacity for large Builders Risk projects has been cut in certain territories. **We are carefully watching trends and feedback on reinsurance treaties and their impact on CAT capacity for 2023.**



Coverage

Valuations are part of almost every property renewal discussion given concerns about supply chain and inflation. Where insureds are unwilling or unable to substantiate replacement cost valuations, insurers are taking corrective actions in the form of: prescriptive policy language (scheduled limits provisions), internal valuation adjustments which can drive rate, or reductions in capacity. Insurers continue to scrutinize manuscript policy language, especially as relates to time element coverage extensions with no known or ambiguous physical damage triggers



Retentions

Pushes by insurers for retention increases has stabilized this quarter following multiple quarters of insurers imposing industry and peril specific minimum retentions (i.e \$100,000 or \$250,000 AOP’s for frame residential, 2% for tornado/hail exposed areas, etc.) Exceptions to this stabilization are on accounts with poor loss activity where insurers feel that more corrective action is necessary to create a path to account profitability



Pricing

Rate increases are still the norm; albeit not at the levels seen in earlier quarters. Insureds with good risk profiles and in desirable industry classes can often obtain flat to low single digit rate increases, and even the occasional rate decrease, given there is often an abundance of well-priced capacity willing to offer terms. Insureds with significant loss activity or that have a significant amount of secondary CAT peril exposure, however, are often still experiencing high single digit to double digit rate increases, although very rarely at the levels seen in earlier quarters. **Expect continued pressure on pricing as it relates to cat exposures**

Casualty

Rate Trends	“Low End”	“High End”
General Liability	5%	15%
Automobile Liability	5%	25%
Excess Workers’ Compensation	Flat	10% <i>(retained layer increases 10%+)</i>
Umbrella Liability	10%	<20%
Excess Liability	10%	<25%



Capacity

- Capacity still constrained for difficult risks; capacity is readily available for less complex risks.
- Many insurers have indicated a focus on growth in 2022 with potential to open capacity for difficult risks, albeit with significant rate impacts which reflect the risk
- New insurer capacity continues to emerge, but not with lower rates AND very limited appetites
- Auto liability capacity will continue to be limited, possibly seeing more insurers exit the marketplace
- Reinsurance market remains capitalized



Coverage

- Increased focus on clarifying or excluding chemicals, energy, communicable disease (COVID-19), abuse & molestation and wildfires.
- ESG concerns appear to be on the rise and could impact insurer underwriting decisions
- While still early the impact of COVID-19 and the war in Ukraine will likely have insurers review coverage definitions continuing a trend to narrowing/limiting coverage



Retentions

- 2022 will see less retention adjustment and umbrella/excess attachment points will continue to shift as insurers seek out most profitable layers for deployment of capacity
- Retentions are consistent - stable



Pricing

- Primary marketplace is competitive – slow increases driven mainly by loss severity
- Umbrella and excess and market remains challenging – rate and growth in client are major price factors
- Auto liability remains unprofitable, continued rate pressure in 2022
- Workers’ Compensation continues to be profitable consistent and stable

Management Professional

Rate Trends	“Low End”	“High End”
Cyber	5%	200%
Employment Practices Liability	5%	20%
Fiduciary	10%	20%
Fidelity/Crime	5%	15%

Cyber



Capacity

Insurers have been extremely conservative with capacity, with most only offering \$5M limits. Total capacity available in the marketplace is likely below \$400 million and could continue to shrink. Energy sector being watched more closely, and avoided by some markets, given the conflict in the Ukraine.



Coverage

Coverage generally intact for most classes of business with mature information security programs and strong controls. However, leading Primary insurers are pushing for 50% coinsurance provisions and sublimits or other coverage restrictions for ransomware losses where companies are less secure. Dependent Business Interruption and Dependent System Failure coverage is slowly being lowered or removed entirely



Retentions

Continued pressure on primary retentions and waiting periods for business interruption losses



Pricing

Short-tail nature of Cyber risk results in rapid pricing feedback, with abrupt pricing correction due to uptick in severity of claims. Insurers have consistently secured primary increases of 80% - 250% on Q1 and Q2 2022 renewals, depending on controls and what increases they had in 2021. Still very dependent on strength of controls, with minimum standards being tightened. Excess insurers are following Primary increases and pushing for higher percentage increases on certain attachment points, with ILF's still well over 80%.

Management Professional

Employment Practices Liability



Capacity

Capacity remains stable in the United States and Bermuda following past cutbacks



Coverage

Coverage remains intact with an eye on flood of pandemic-related claim activity.



Retentions

- Continued pressure on retentions, especially in California
- Continuing to see separate retentions for California claims and for “highly compensated” employees



Pricing

- Premium increases from 5% to 20%.
- Excess EPL markets are following primary increases

Fiduciary Liability



Capacity

Insurers are pulling back on deployed capacity. Expect layer sizes to shrink as they have in D&O
Expect trimming of layers larger than \$10 million



Coverage

Coverage is broad; carriers continue to monitor excessive fee case development



Retentions

- Retentions of six to seven figures for class, mass and/or fee claims are continuing to be applied.



Pricing

- Given continued adverse claims trends, expect 10%-20% increases in renewal premiums

Management Professional

Fidelity & Crime



Capacity

- Insurers are closely monitoring aggregate exposure to social engineering fraud
- London continues to correct pricing and deductibles



Coverage

Insurers continue to underwrite social engineering and will only consider offering broader coverage and/or higher sub-limits (for additional premium) where the controls and procedures presented are best in class.



Retentions

- In certain instances, insurers are looking to increase deductibles
- London still looking to correct deductibles they think are below what should be market standard



Pricing

- Expect Primary premium increases from 5% to 15%, with insurers looking to “right size” premiums, both on a primary and excess basis.



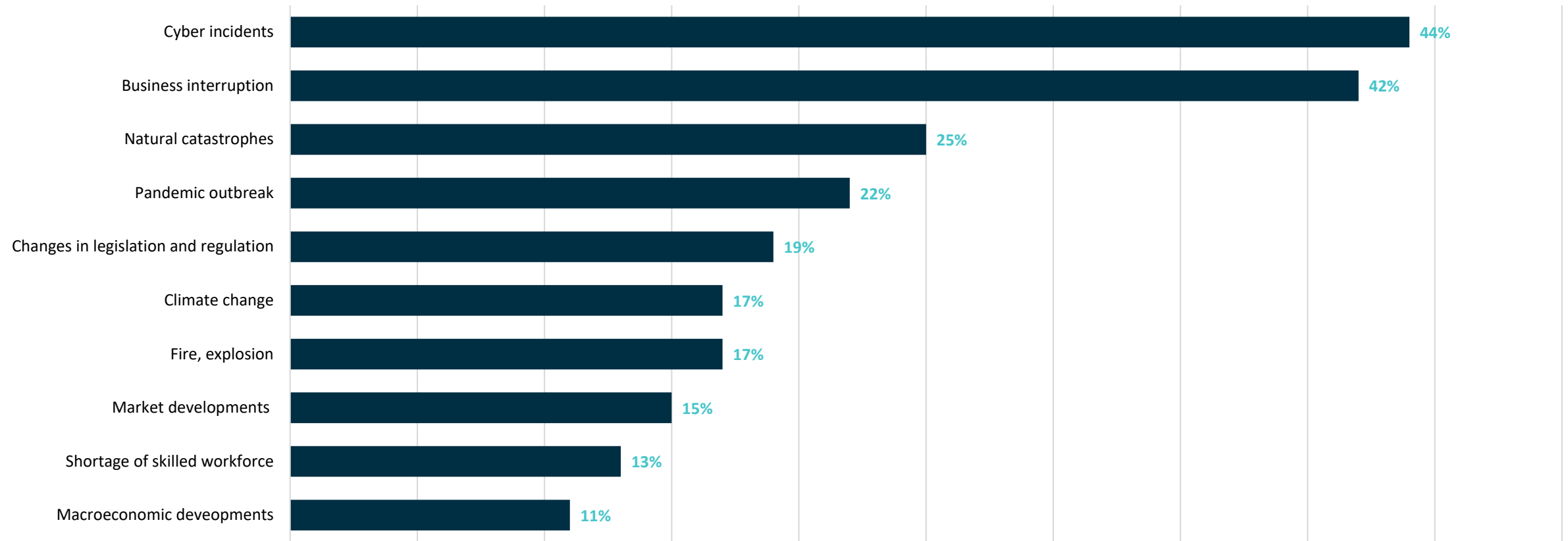
Loss Trends & Market Disruptors

What are Risk Manager's Concerns?

The most important global business risks for 2022

Alliance Risk Barometer 2022

Based on the insight of 2,650 risk management experts from 89 countries and territories (% of responses). Figures do not add up to 100% as up to three risks could be selected



Exposure Concerns: From our Clients



Common Client Concerns:



Employment

Retirements, wage growth, coasting, recruitment and succession



Cyber Liability

Constant threat, significant investment needs, coverage costs



Property Insurance

Valuation, cost of construction, availability of high limit program, wildfire threatened locations



Economy

Inflation, the “R” word, allocation of funds



Liability

Jury verdicts, litigation management, retentions and availability of coverage in challenging markets for loss leaders



Digital/Technological Transformation

Public Safety Drones, increased cyber exposure, new uncharted

Recent CAT Losses



Drought



50% of the Lower 48 States are in drought



299.9 Million acres of crops in U.S. are experiencing drought conditions this week.



120.2 Million people in the U.S. are affected by drought this week.



Flooding



2021 – More than **50** severe flood events



\$80b Economic Loss – only \$20b insured



2022 – KY Floods **37** deaths



Hurricanes



Record-breaking **21** named storms in 2021



\$45B+ in insured losses (US) IDA = **\$30b Alone**



Hurricane Ian = **\$?**



Wildfires



2021 wildfires



Burned over **7,000,000** acres



\$15B in insured loss



2022 To Date = **5.7m** acres



Tornado/Convective Storm



2021 **1376** tornadoes in the US compared to 1075 in 2020



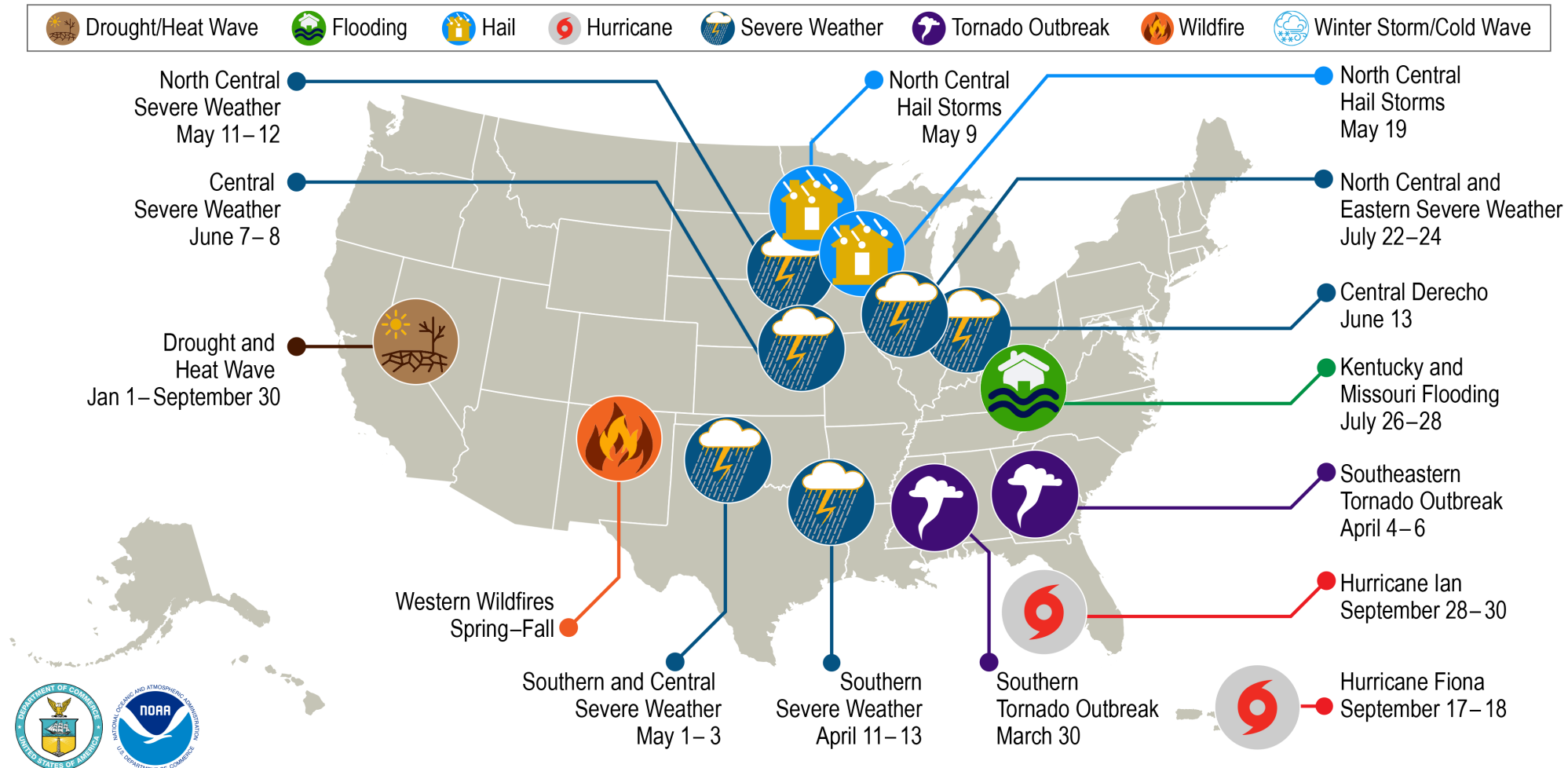
Over **100** deaths associated



Estimated **\$10B+** insured losses

Major U.S Losses in 2022

U.S. 2022 Billion-Dollar Weather and Climate Disasters



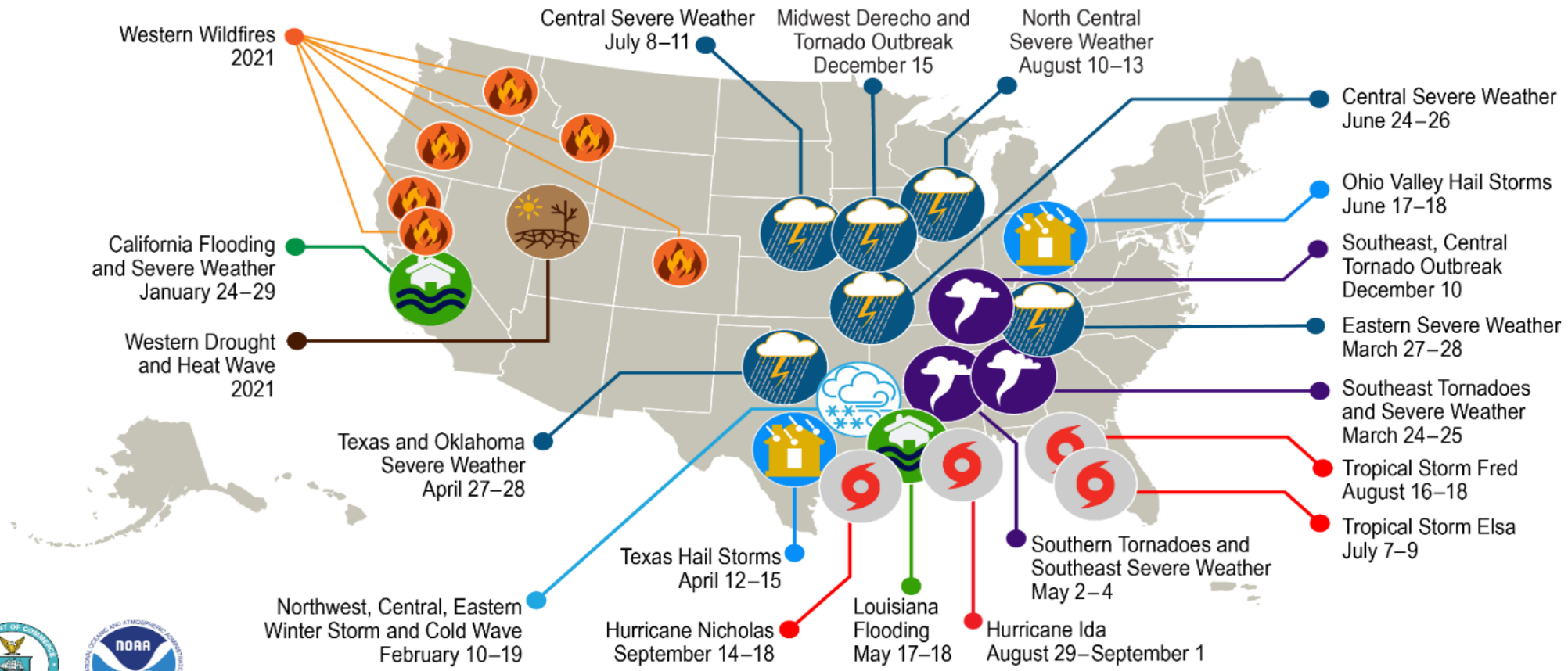
This map denotes the approximate location for each of the 15 separate billion-dollar weather and climate disasters that impacted the United States January – September of 2022.



Major U.S Losses in 2021

U.S. 2021 Billion-Dollar Weather and Climate Disasters

Drought/Heat Wave
 Flooding
 Hail
 Hurricane
 Tornado Outbreak
 Severe Weather
 Wildfire
 Winter Storm/Cold Wave



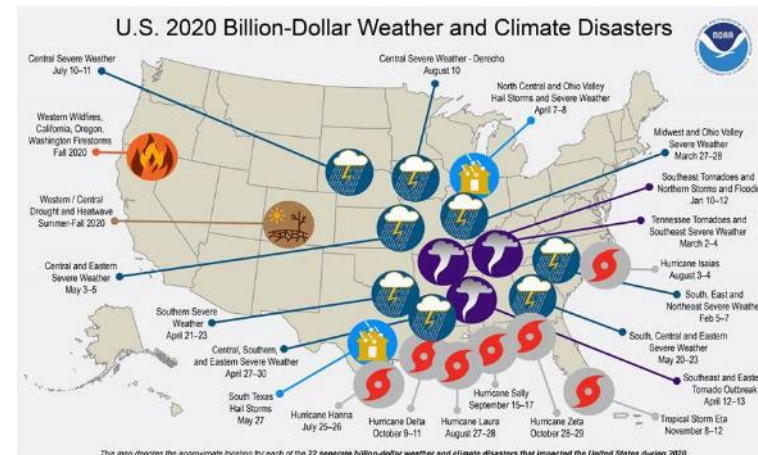
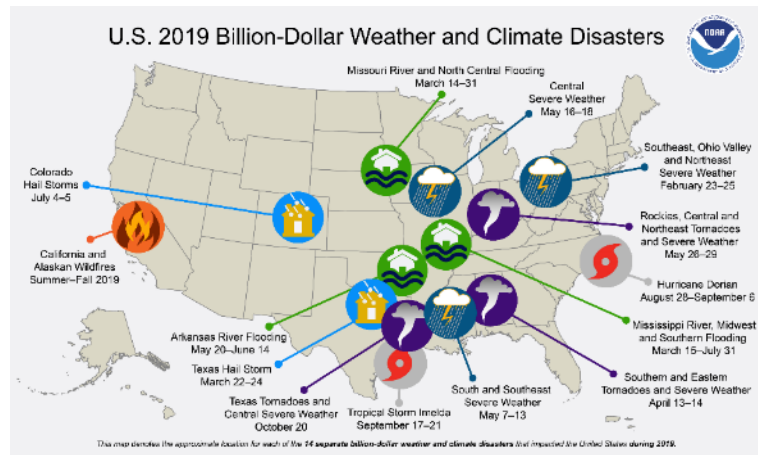
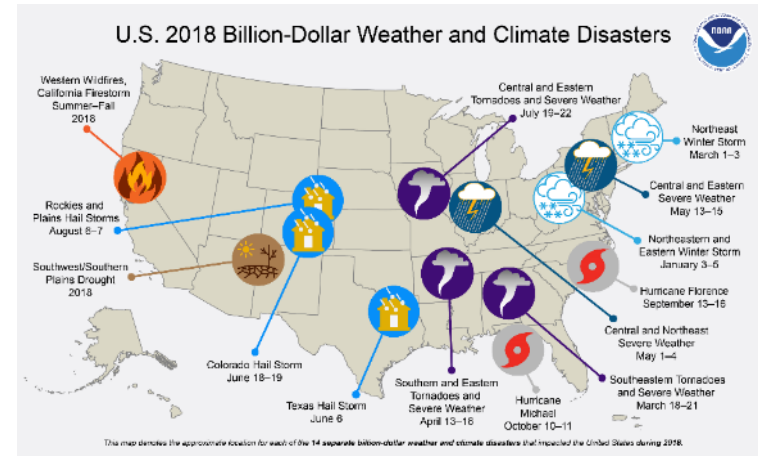
This map denotes the approximate location for each of the 20 separate billion-dollar weather and climate disasters that impacted the United States in 2021



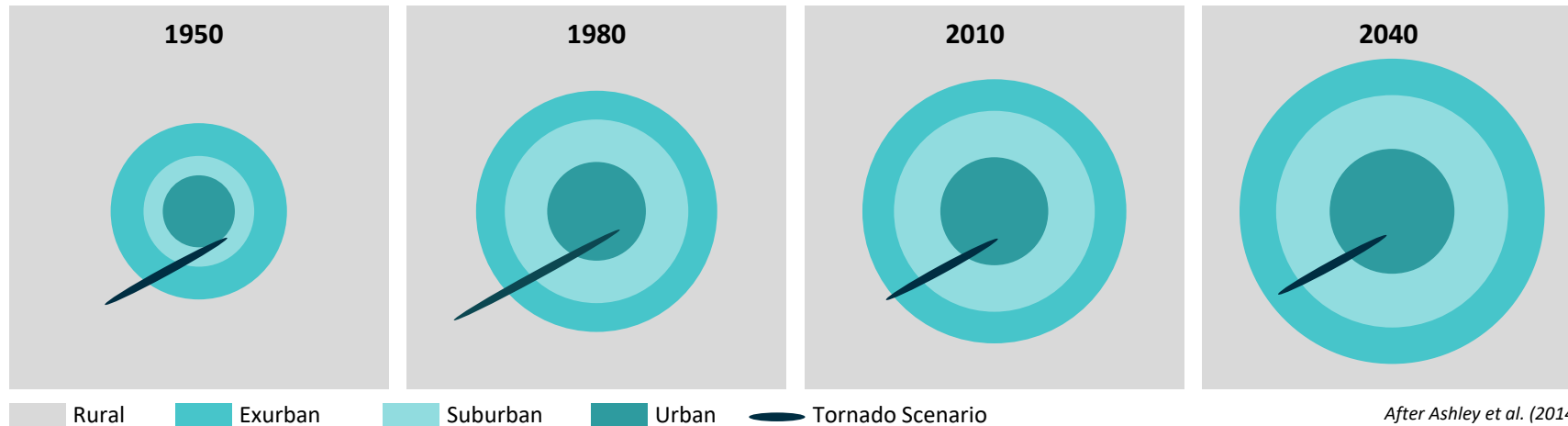
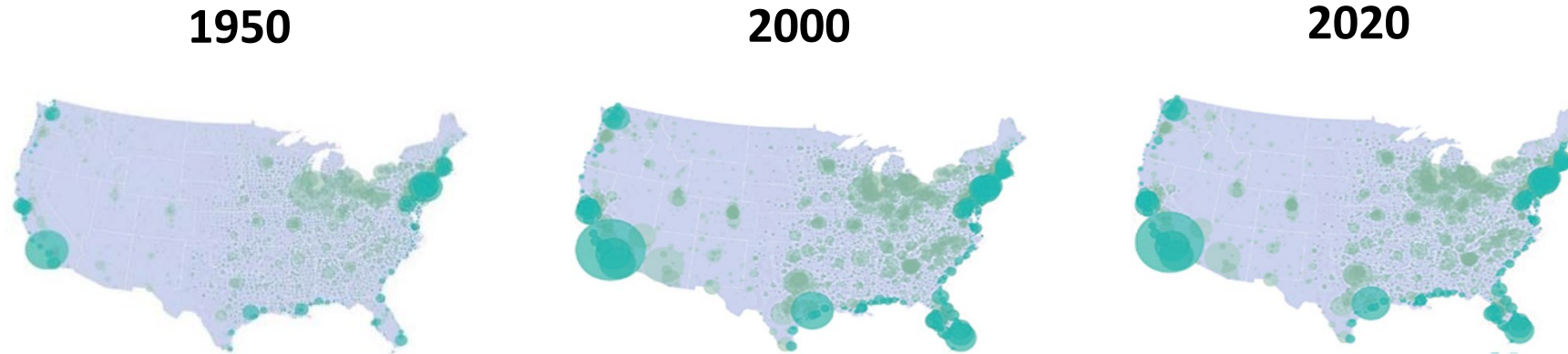
Source: NOAA



Four Year CAT History: 66 \$Billion+ Events

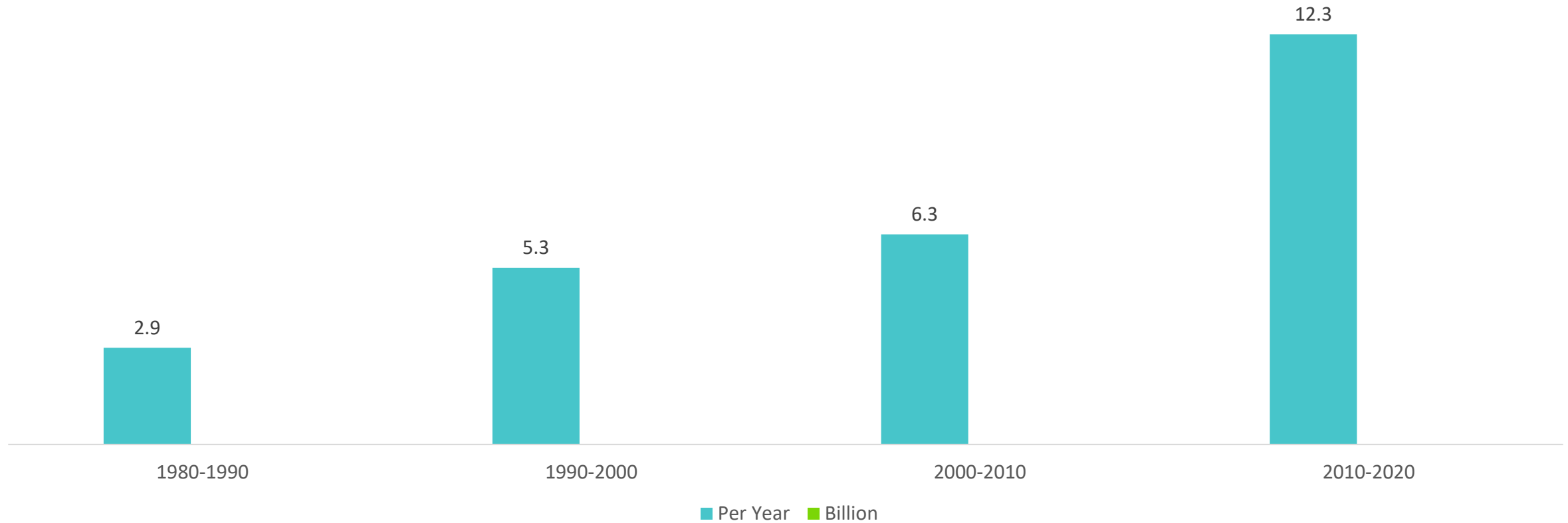


Population Growth and Bullseye Effect



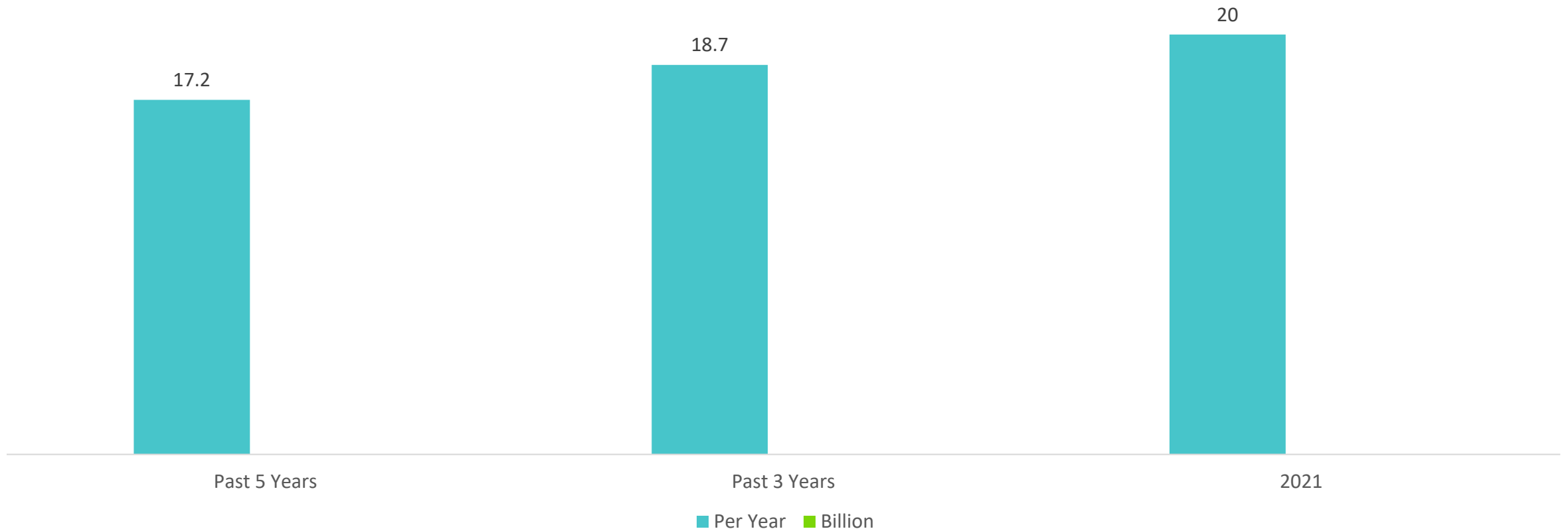
Average # of Events

Average # of \$1B+ Events (NOAA source)



Average # of Events

Average # of \$1B+ Events (NOAA source)



The Newest CAT Peril: Wildfire



Climatic changes are resulting in larger and hotter wildfires occurring each summer and later into fall.

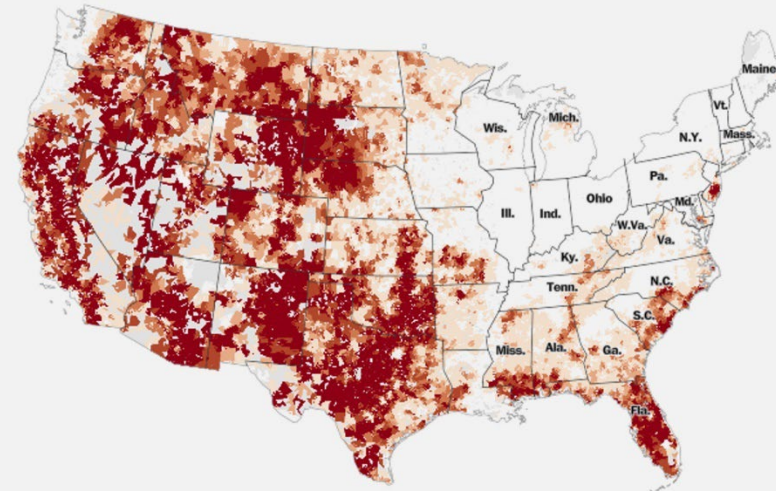
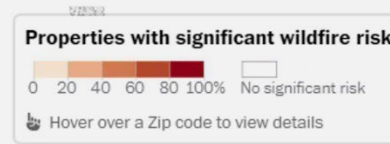


Beyond the physical damage and destruction of wildfires, intense smoke significantly impacts the health and economy of communities:

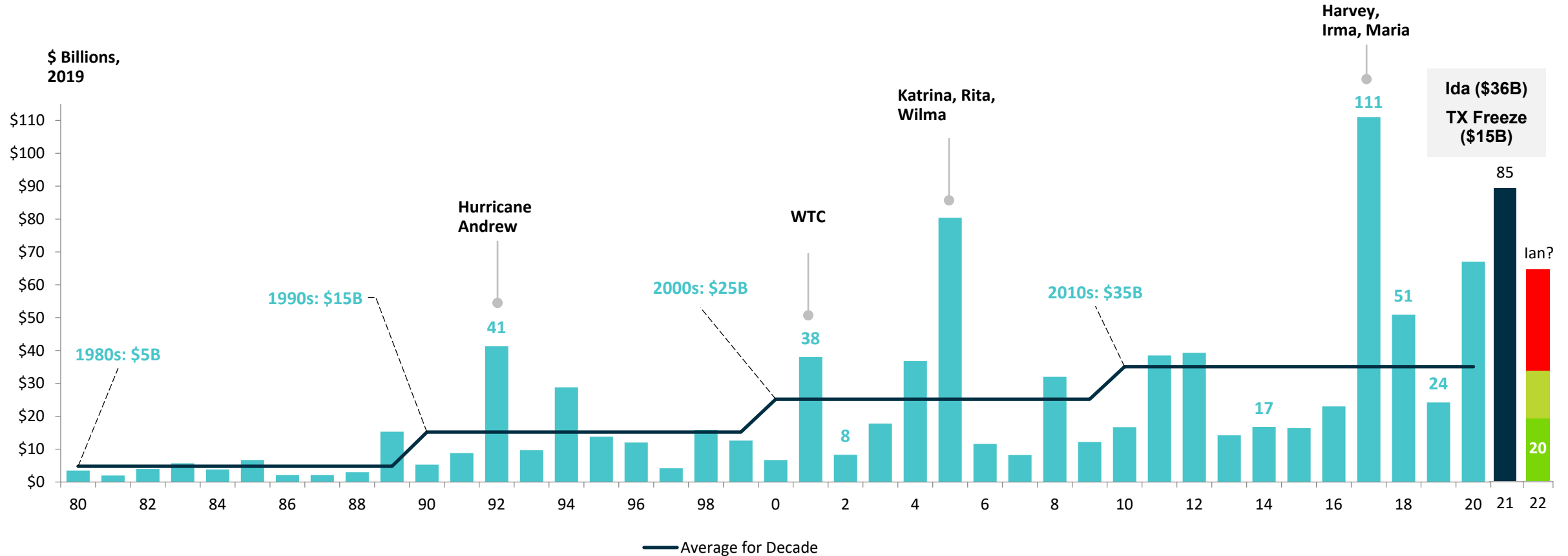
- Reduced travel and tourism leading to loss of sales and occupancy taxes.
- Reduced school attendance and outdoor activities.
- Smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases.



Continued investment & development of high-risk areas.



U.S. Inflation-Adjusted Insured CAT Losses



Insured Cat Losses Are Increasing At An Alarming Rate – Nearly 700% Since 80's
Average Insured Loss per Year* | 1980-2021: \$23.8 Billion | 2012-2021: \$44.1 Billion

Sources: NAIC data sourced through S&P Global Intelligence; Insurance Information Institute.

Casualty Market Major Disruptors




Auto Liability


Workers
Compensation


General Liability &
Excess Liability

- Cost of Vehicles/Technology
- Fatality Trends
- Distractive Driving – Cell Phones
- Frequency and Severity Trajectory

- Opioids
- Tele Medicine
- Aging Workforce
- Medical Cost Inflation
- Cancer & PTSD Presumption
- Workplace Violence
- COVID
- Out of State Exposure

- Increase in Catastrophic Losses
- Punitive Damage Awards
- Organized Plaintiff Bar
- Personal Injury Trends
- Traumatic Brain Injury
- Aging Infrastructure
- Sexual Misconduct
- Excessive Force

Increasing Impact on Liability Market



Reduced Capacity
reinsurer withdrawals have been significant over the past two years



Litigation Financing
continues to drive large claims and 68% of firms are using it in 2021



Plaintiff Attorney Strategies
specialization and strategies have evolved to get larger verdicts and settlements.



Hyper Social Inflation
“A Texas jury awarded \$300 billion to the family of a teen and her grandmother, who were killed in a 2017 crash with a drunk driver.” This type of verdict is meant to send a message to others.



Labor Shortage
everyone is doing more with less



Reviver Legislation Amendments
A rise in Sexual Abuse and Molestation claims and settlements



Law Enforcement
Increased focus on policing policy and procedures as well as pressure on Qualified Immunity



Auto Liability
Frequency & Severity of losses has returned to pre COVID figures



Underwriter Scrutiny
reinsurers are seeking to grow prudently and are maintaining a disciplined, conservative underwriter approach.

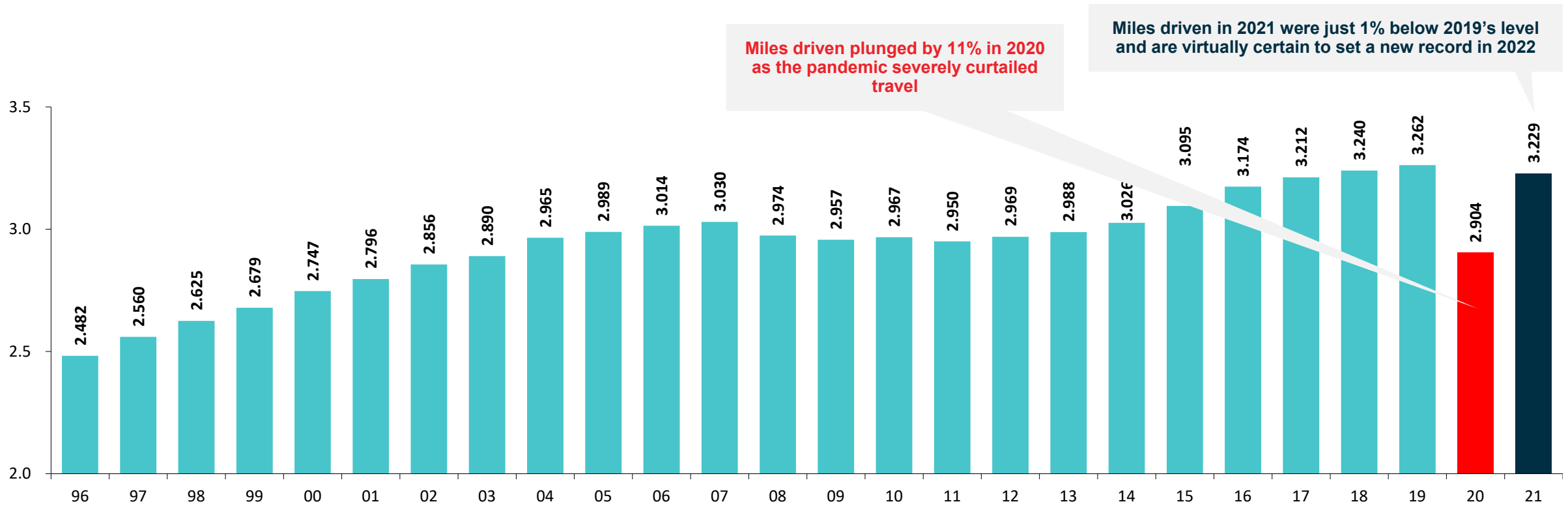


Inflation
Rising cost are increasing the size of claims



Exclusions
continued restrictions surrounding sexual abuse, Wildfire Exclusions, COVID, cyber, opioids and man made chemicals (PFAS – new focus)

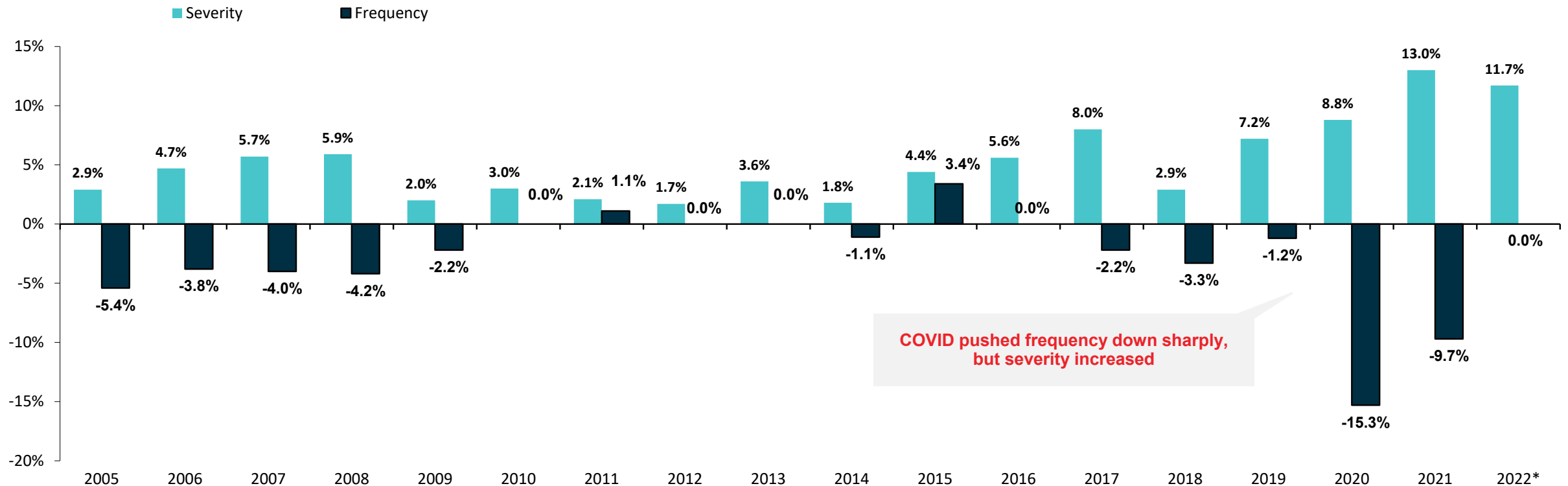
Travel in Trillions of Vehicle Miles in U.S.: 1996–2021



Miles driven in 2022 will likely set a new record, but could still be held back by soaring gas prices that could induce vehicle owners to scale back on their driving

Auto Liability Bodily Injury Severity Trend Is Up, Frequency Plunge in 2020/21 Due to COVID Has Ended and Is Reversing

Annual Change, 2005 through 2022*



Frequency decline has ended. Q1 2022 BI frequency was +9.5% and Q4 2021 was +3.5%

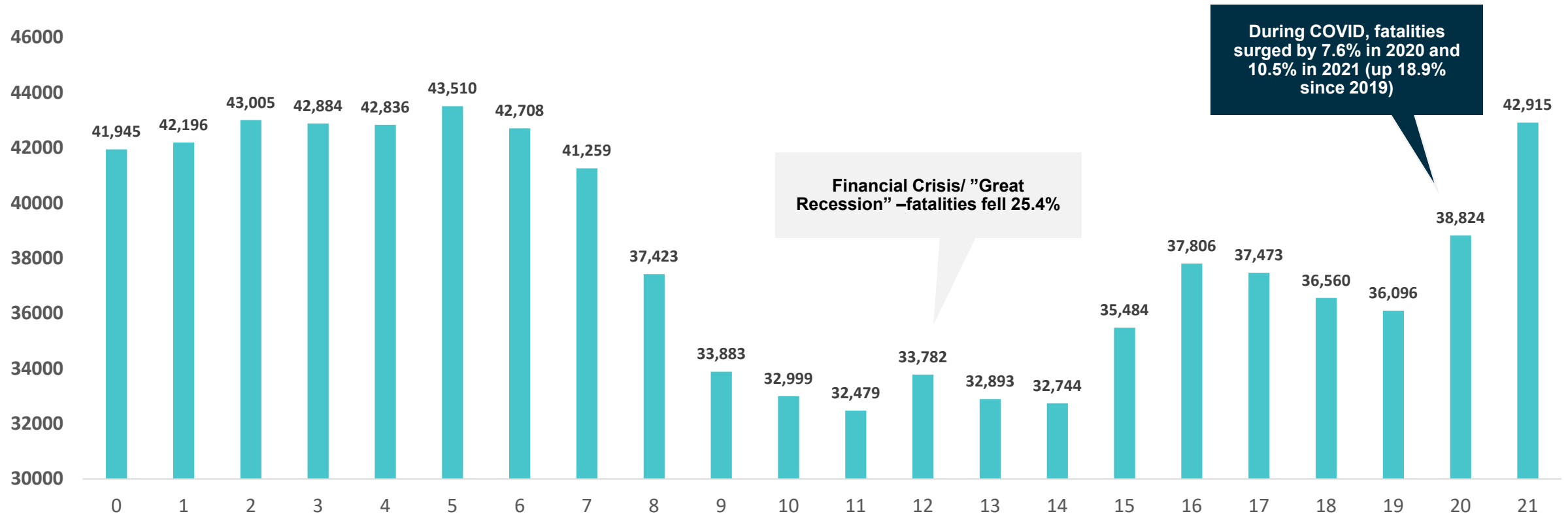
*2022 figure is for the 4 quarters ending 2022:Q1.

Source: ISO/PCI *Fast Track* data; Center for Risk and Uncertainty Management, Univ. of South Carolina.

eSlide – P6466 – The Financial Crisis and the Future of the P/C

Traffic Fatalities in the U.S., 2000-2021

(Millions of Units)



Extraordinary Increase in Poor Driving Behaviors in 2020 and 2021 Contributed to Sharply Higher Auto Fatalities

Source: Insurance Institute for Highway Safety and Highway Loss Data Institute: <https://www.iihs.org/iihs/topics/t/general-statistics/fatalityfacts/overview-of-fatality-facts> and NHTSA (2021): <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities#:~:text=NHTSA%20projects%20that%20an%20estimated,Fatality%20Analysis%20Reporting%20System's%20history> Risk and Uncertainty Management Center, University of South Carolina.

Public Transit

Motor vehicle maintenance and repair costs continue to increase in 2021 with supply chain disruptions, chip shortages and labor crunch.



12%

estimated year-over-year increase in fatality rate per mile for 2021²



Zero Emissions Vehicles

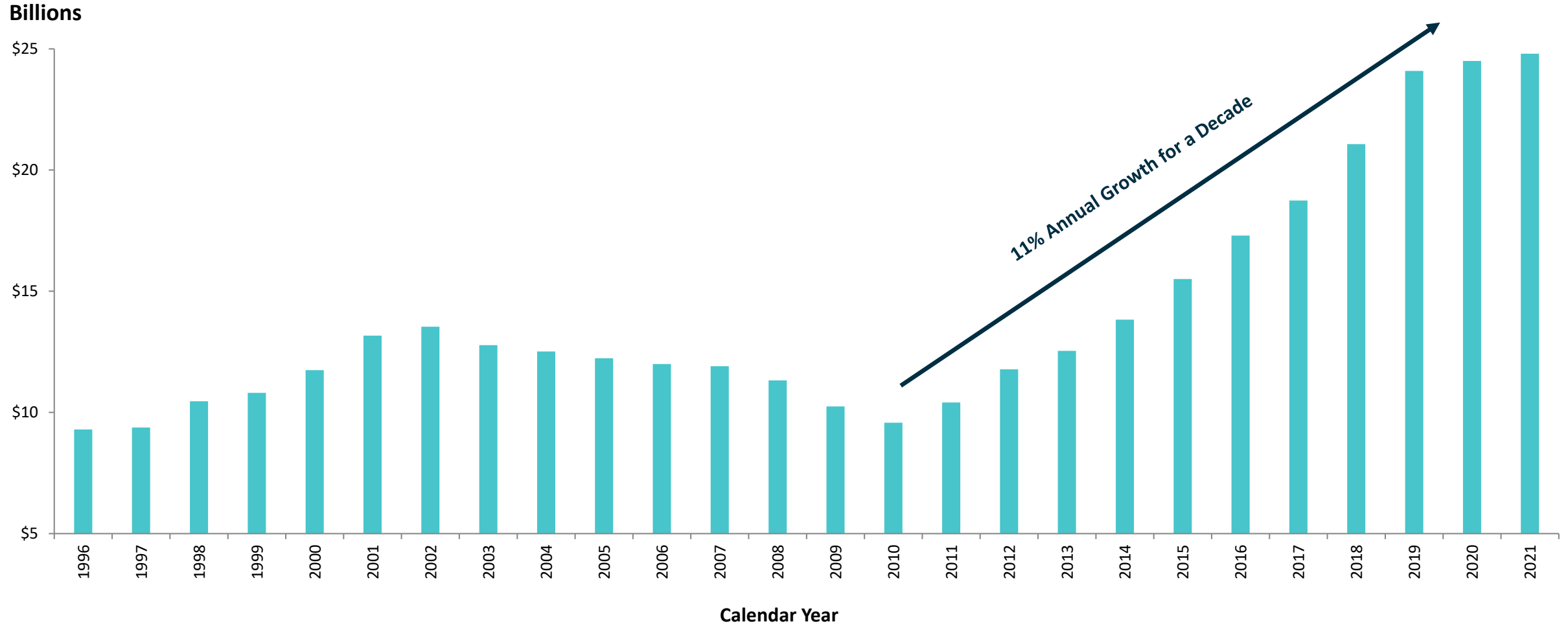


160,000

estimated number of commercial driver positions that will go unfilled by 2030⁴

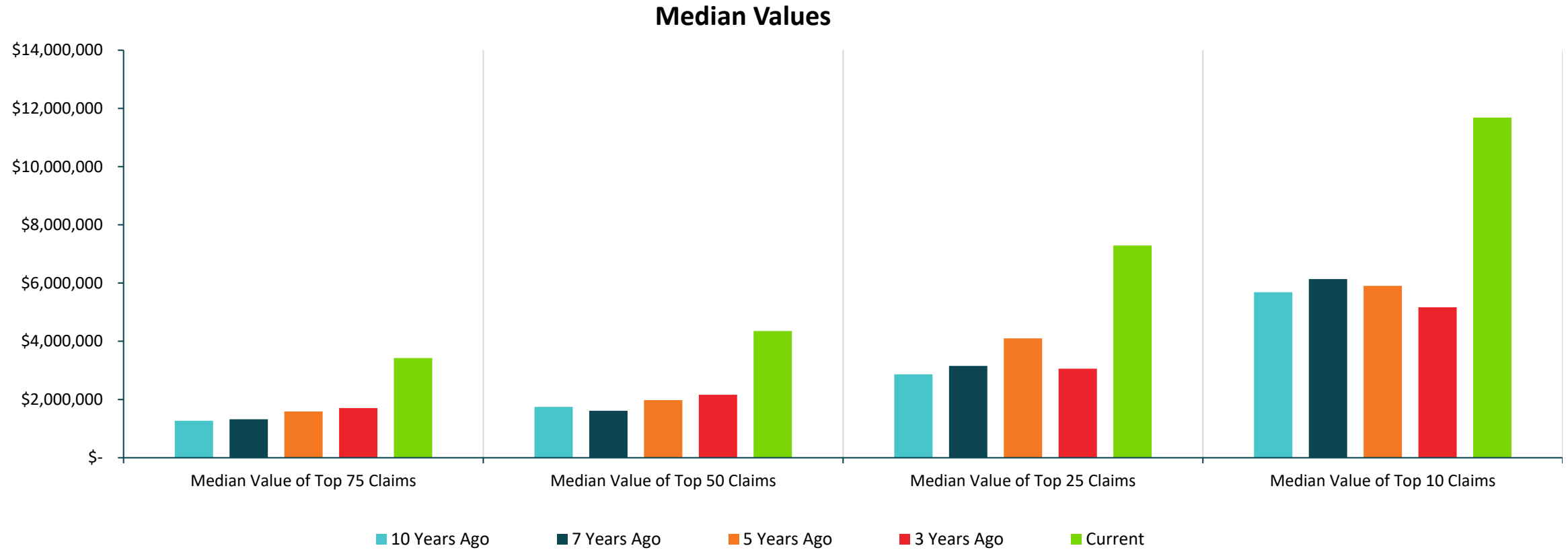


Upward Trend in Liability Claims



Sources: NAIC data sourced from S&P Market Intelligence; Insurance Information Institute.

Median Value Large Liability Losses



Social Inflation: Many Interrelated Causes, Difficult to Manage

INSURANCE CLAIM COSTS



-  Increasing Propensity to Sue
-  Size of Jury Awards
-  Courts/Juries Favoring Plaintiffs
-  Growing Distrust of Large Corps.
-  Litigation Financing
-  Aggressive Plaintiff Bar Ads
-  Changes in Regulatory and Legal Environment

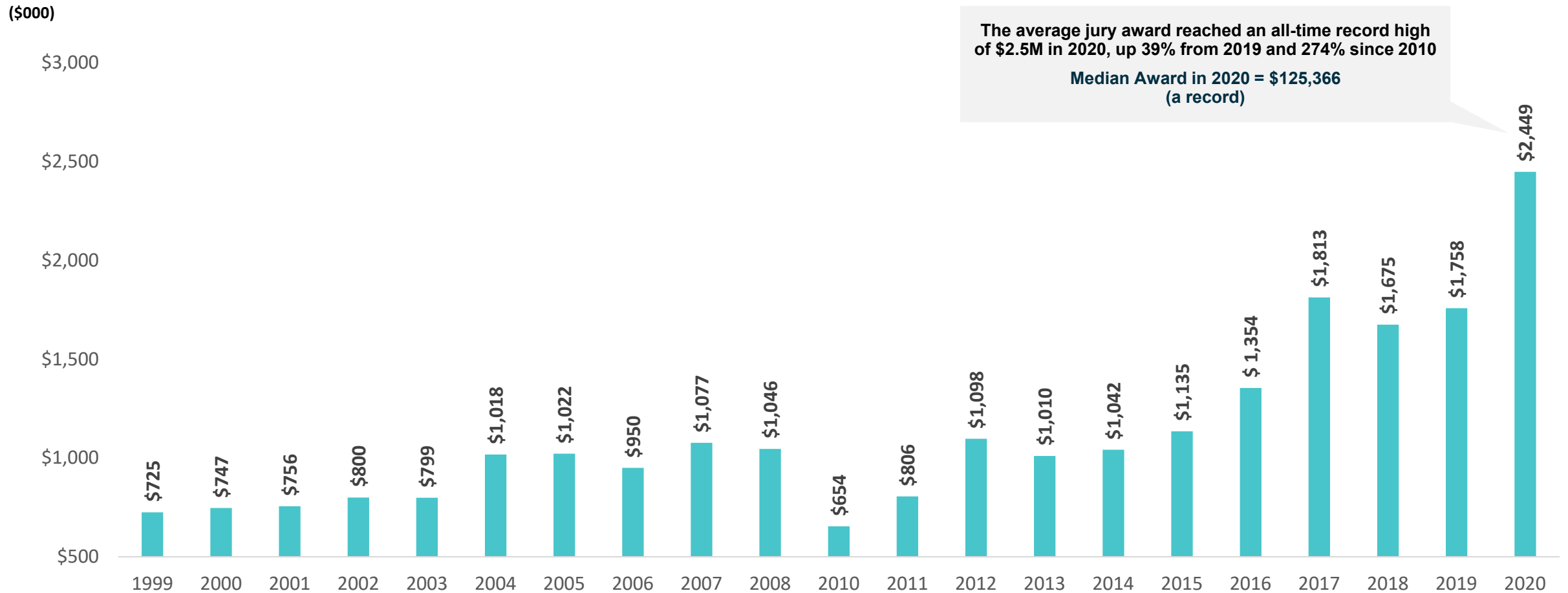
TOP VERDICT CATEGORIES

Dollar Value of Top 100 verdicts by cause of action, in millions.

2020		2021		
1	Intellectual Property	\$14,858	1 Worker/Workplace Negligence	\$301,929
2	Products Liability	\$3,117	2 Intellectual Property	\$3,675
3	Worker/Workplace Negligence	\$706	3 Motor Vehicle	\$2,046
4	Construction	\$285	4 Transportation	\$730
5	Motor Vehicle	\$261	5 Products Liability	\$651
6	Medical Malpractice	\$199	6 Employment	\$489
7	Intentional Torts	\$138	7 Business Law	\$410
8	Legal Profession	\$108	8 Intentional Torts	\$364
9	Fraud	\$94	9 Insurance	\$251
10	Dangerous Condition of Public Property	\$76	10 Government	\$167

Source: Risk and Uncertainty Management Center, Univ. of South Carolina, adapted from Verisk "Social Inflation" presentation (2020); VerdictSearch. Figures are rounded to the nearest \$1 million.

Average Jury Awards, 1999 – 2020 (latest available)




Source: Jury Verdict Research; *Current Award Trends in Personal Injury* (61st Edition), Thomson Reuters; Risk and Uncertainty Management Center, Univ. of South Carolina.

Liability Claim Values: Unfavorable Jurisdictions

In its recently released annual report, the ATRA identified 8 jurisdictions on its 2021 hellholes list – which, in order, include:

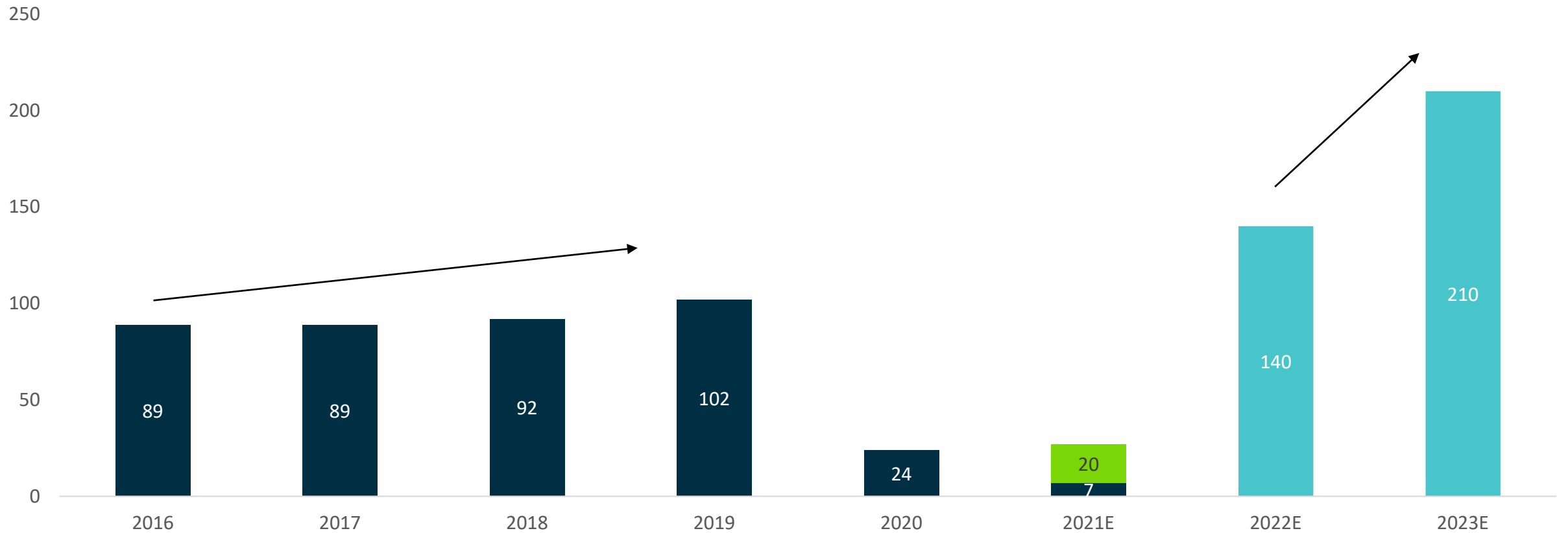
1. California (with the plaintiffs' bar taking advantage of unique California laws like the Private Attorney General Act);
2. New York City (particularly regarding Americans With Disabilities Act accessibility claims and an activist attorney general battling climate change with energy companies),
3. Georgia;
4. Philadelphia, which fell from the number 1 spot last year (especially in the Philadelphia Court of Common Pleas and the Supreme Court of Pennsylvania),
5. Illinois (especially Cook, St. Clair, and Madison counties and regarding asbestos litigation and Illinois Biometric Information Privacy Act class actions),
6. Louisiana (including deceptive lawsuit advertising practices and coastal litigation),
7. St. Louis, Missouri, and
8. South Carolina (particularly in asbestos litigation).



No. 1
California

The Court Backlog

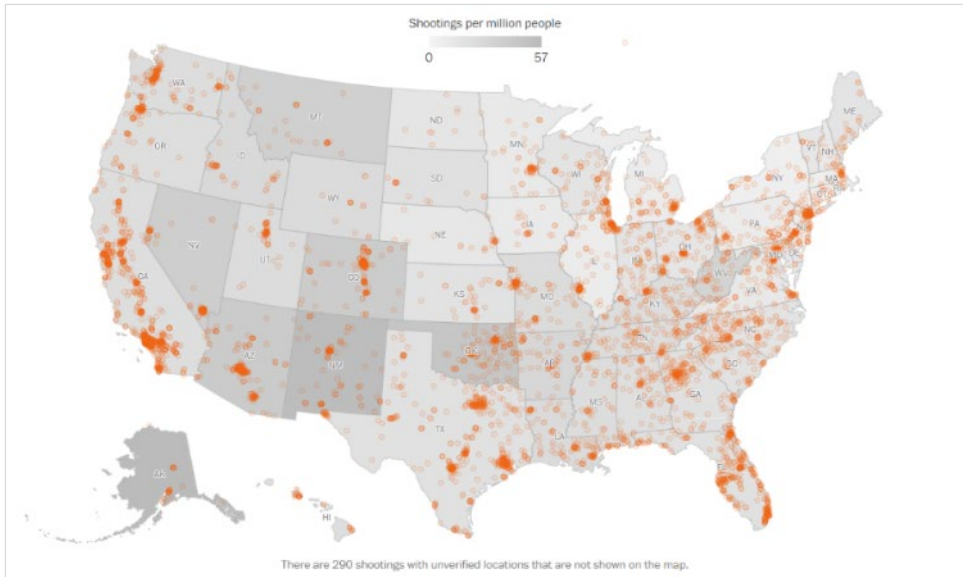
Court cases with verdicts above \$20mn



Source: Verdict Search, Inside P&C

Evolving Law Enforcement Environment

Officer Involved Shootings



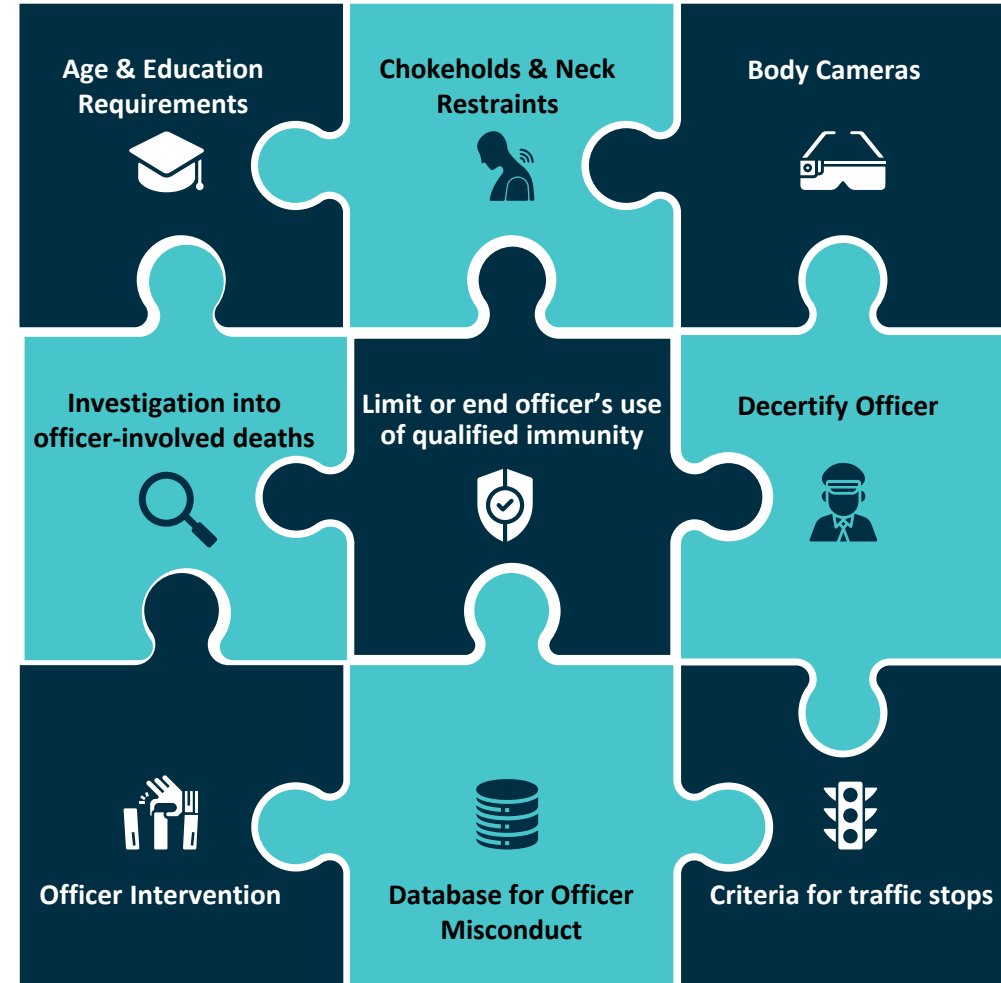
According to
MappingPoliceViolence.org

1,126 in 2020

and

1,134 people in 2021.

Policing Reform



State of the Cyber Market

- **Cyber Liability insurance providers are requiring clients to have better controls around cyber exposure. Implementation of MFA is now a requirement for most insurance carriers.**
- **Cyber liability pricing is beginning to smooth out in terms of pricing. We are now seeing carriers base pricing on underwriting a specific risk, rather than a broad-brush approach to pricing which was needed in the past to achieve carrier profitability in this coverage line.**
- **We are still seeing increases over expiring for clients with losses, poor cyber hygiene, or higher exposures. We are seeing increases on average, anywhere from 15-50% depending on the particulars of a given risk.**
- **Clients with unfavorable controls will see modifications to their program. Carriers will exclude cyber extortion, impose co-insurance, or exclude coverages like computer hardware replacement, and reputational loss.**



Europe May Surpass the United States as the Most Targeted Region for Ransomware

Ransomware continues to have a significant impact on businesses across the globe. While reports show that the U.S. is the country most targeted by ransomware attacks worldwide,¹ small indicators show that ransomware activity is decreasing in the United States and growing in other regions.² In Europe, the number of victims is increasing, and if that increase continues, Europe will likely become the most targeted region in 2023. The United States has been very outspoken on policies, sanctions and the potential of a response in the cyber domain concerning ransomware and other attacks. However, it is hard to conclude if the more aggressive stance on ransomware actually deters attacks.



More Attacks by Non-Organized Attackers and Non-Nation State Attackers

In 2023 we expect to see more intrusions conducted by non-organized attackers and non-nation state attackers. More of the threat actors operating out of North America and Europe will likely be younger, and conducting intrusion operations not because they're interested in making money specifically, or because governments have tasked them with doing it, but because they want to be able to brag to their friends or boast online that they've hacked into and brought embarrassment to prominent organizations. While they will be happy to achieve financial gain, that may not necessarily be their lead motivation.



More Extortion, Less Ransomware

Historically, cyber criminals have used ransomware to monetize access into a victim's network. Due to several high-profile and visible breaches last year, organizations see mitigating brand damage as a much more compelling reason to pay a ransom than regaining access to encrypted systems. Over the next year, we will continue to see criminals rely on extortion, but actual ransomware deployments may decline. Ransomware-as-a-service (RaaS) providers will modernize their software to focus on data exfiltration and "leak sites" for public shaming.

Source: Mandiant Cyber Security Forecast Report 2023

The Big Four 2023



Iranian Escalation

Mandiant expects that Iranian cyber espionage groups will continue to conduct widespread intelligence collection activity, particularly against government and Middle Eastern targets, as well as telecommunications, transportation and other entities. We anticipate Iranian threat actors' continued willingness to use disruptive and destructive cyber attacks to remain elevated, absent a significant change to Iran's current international isolation.



Chinese Cyber Assertiveness

Chinese cyber espionage poses a high-frequency and high-magnitude threat to organizations globally, both in the public and private sectors. Key drivers of Chinese cyber threat activity will include territorial integrity and internal stability, regional hegemony, and expanding global political and economic influence. Cyber espionage and information operations activity in support of China's national security and economic interests will continue to escalate. In 2022, a pro-People's Republic of China (PRC) information operations campaign directly targeted commercial entities in an industry of strategic significance to Beijing.³ We consider this broader targeting of private sector entities to be notable, and we may see global competitors to Chinese firms in other industries targeted by such information operations.



North Korea Desires Revenue and Intelligence

We assess with high confidence that North Korea will continue to pursue operations that support the regime with both revenue streams and strategic intelligence. International political and economic isolation along with public health challenges will likely inform North Korean cyber espionage against diplomatic, military, financial and pharmaceutical targets. We expect activity to be focused primarily on South Korea, Japan and the United States, with operations also noted in Europe, the Middle East and North Africa, and South Asia.

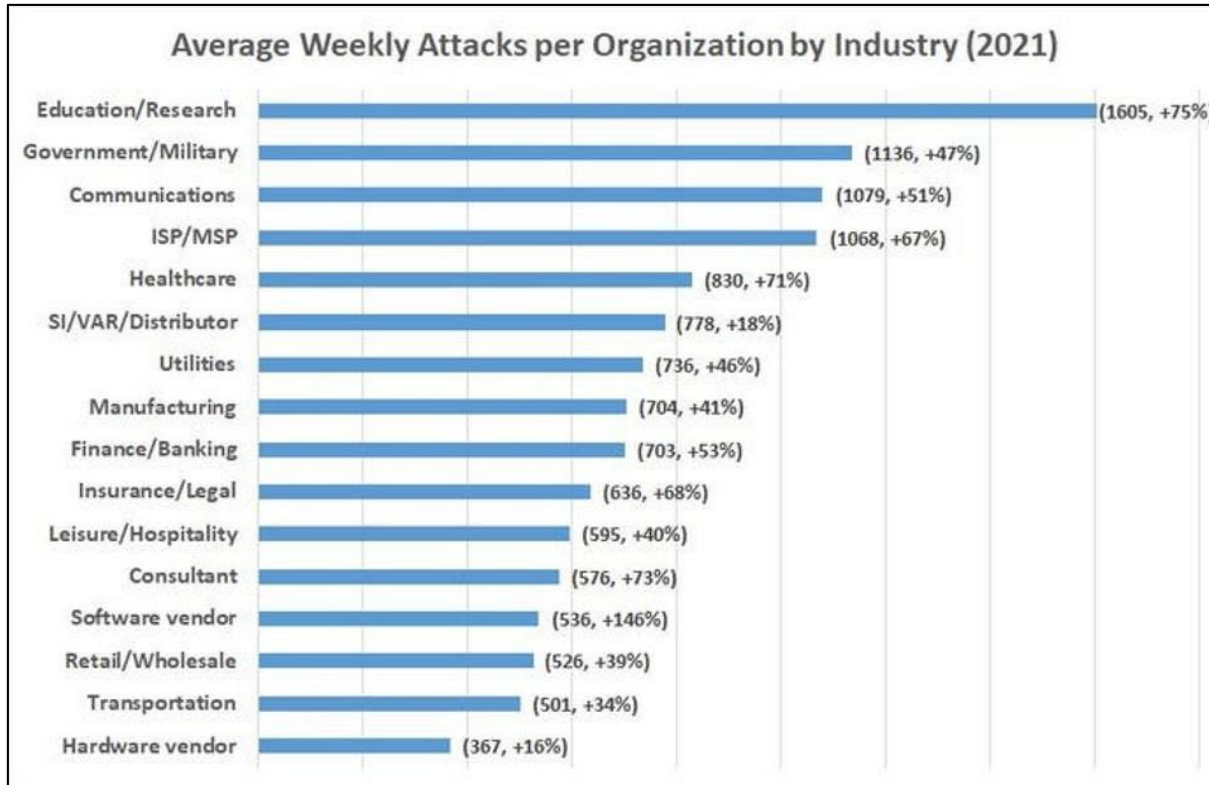


Russia Cyber and the Invasion of Ukraine

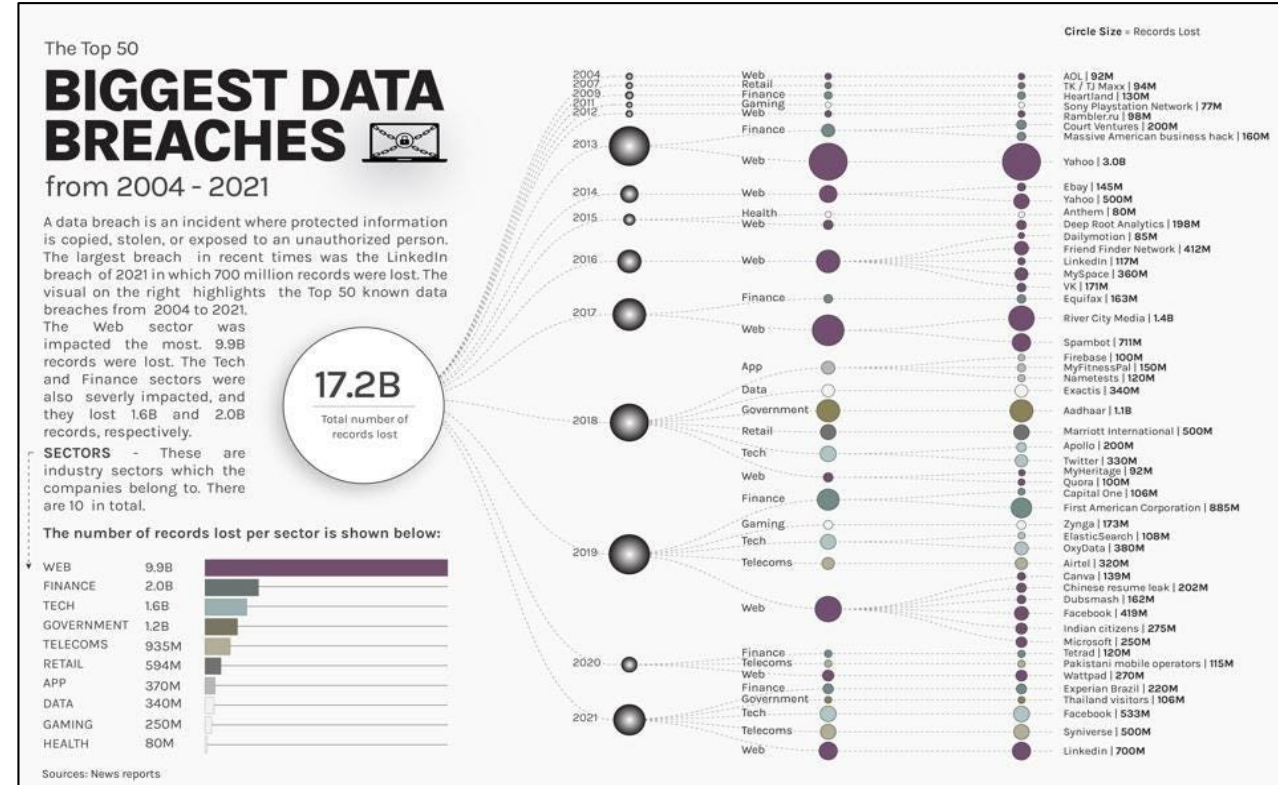
Russia's invasion of Ukraine created unprecedented circumstances for cyber threat activity. This likely is the first instance in which a major cyber power has conducted disruptive attacks, cyber espionage and information operations concurrently with widespread, kinetic military operations. Mandiant anticipates future disruptive attacks in Ukraine and suggests that they are likely to be accompanied by concurrent information operations. We expect that Russia's willingness to use disruptive tactics as well as false or coopted hacktivist fronts—to claim credit for data leaks and data destruction—to increasingly expand outside of Ukraine and its immediate neighbors.

Cyber Trends in the News

Average Weekly Attacks by Industry



Largest Data Breach 2004-2021



** Information below provided by Forbes www.forbes.com

Cyber Insurance Wording Changes

Biometric Exclusion: Coverage may be excluded for any claim or circumstance arising out of the processing, storage, or compromise of biometric data. This includes but is not limited to fingerprints, iris scans, facial images, voice and/or other biometry used to for automatic recognition of individuals based on their biological or behavioural characteristic

Co-Insurance: Generally, on ransomware related coverages which have historically paid out large claim amounts, such as cyber extortion and business interruption as a result of a security breach. Also utilized to obtain the coverage in excess layers, or for entities with poorer controls / looking to reduce premium

End of Life Software, Patching (or Lack Of) and Government Required Shutdown: Reduced coverage for utilizing end of life software or for not patching within recommended timeframes. Exclusion of any government-mandated restriction of operations, closure, or shutdown, entity or person operating a computer system or any computer system that is not under a targeted cyber attack

Software Vulnerability Exclusions: Insurers were excluding SolarWinds, Microsoft Exchange, Kaseya claims at the following renewal to reduce exposure

Systemic Versus Targeted Coverage Differentiation: Markets in London have been making this distinction for a few years with regards to cyber coverage in property insurance placements. In the 2021, a large U.S. insurer created the first widespread wording for standalone cyber

New War Wording Not a result of the current Ukraine crisis. The original war wording was released by Lloyds in 1938 and is in need of an update. Carriers are looking to create clarity around war exclusions and to be consistent across the marketplace.

Spotlight: Cyber Liability

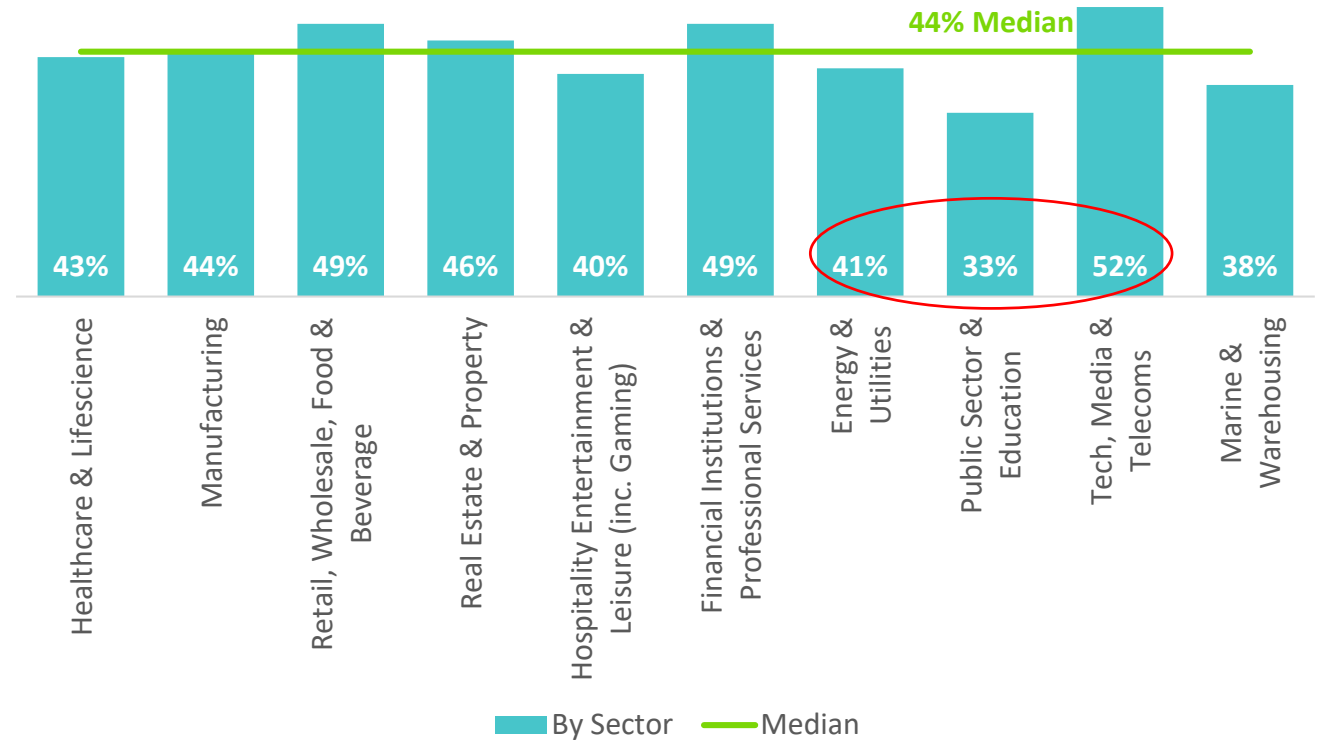
Marketplace stabilizing after several years of dramatic claims development.

Security standards across the marketplace:

- Multi-factor authentication
- Well managed end point detection
- Well managed RDP connections – VPN, MFA, etc.
- Back Ups
- Planning and Training (and Frequency)
- Reasonable patching schedule/plan
- Plan or adequate measures in place to protect end of life software
- IT Security Budgets
- Email Security
- Identity Access Management
- Service Account Management



Sector view on resilience to cyber risk



Percentage of US and UK companies feeling 'very prepared' to anticipate and respond to cyber risk in 2021. Median line indicates the mid-point of the data set across all industries surveyed.

The Ransomware Epidemic

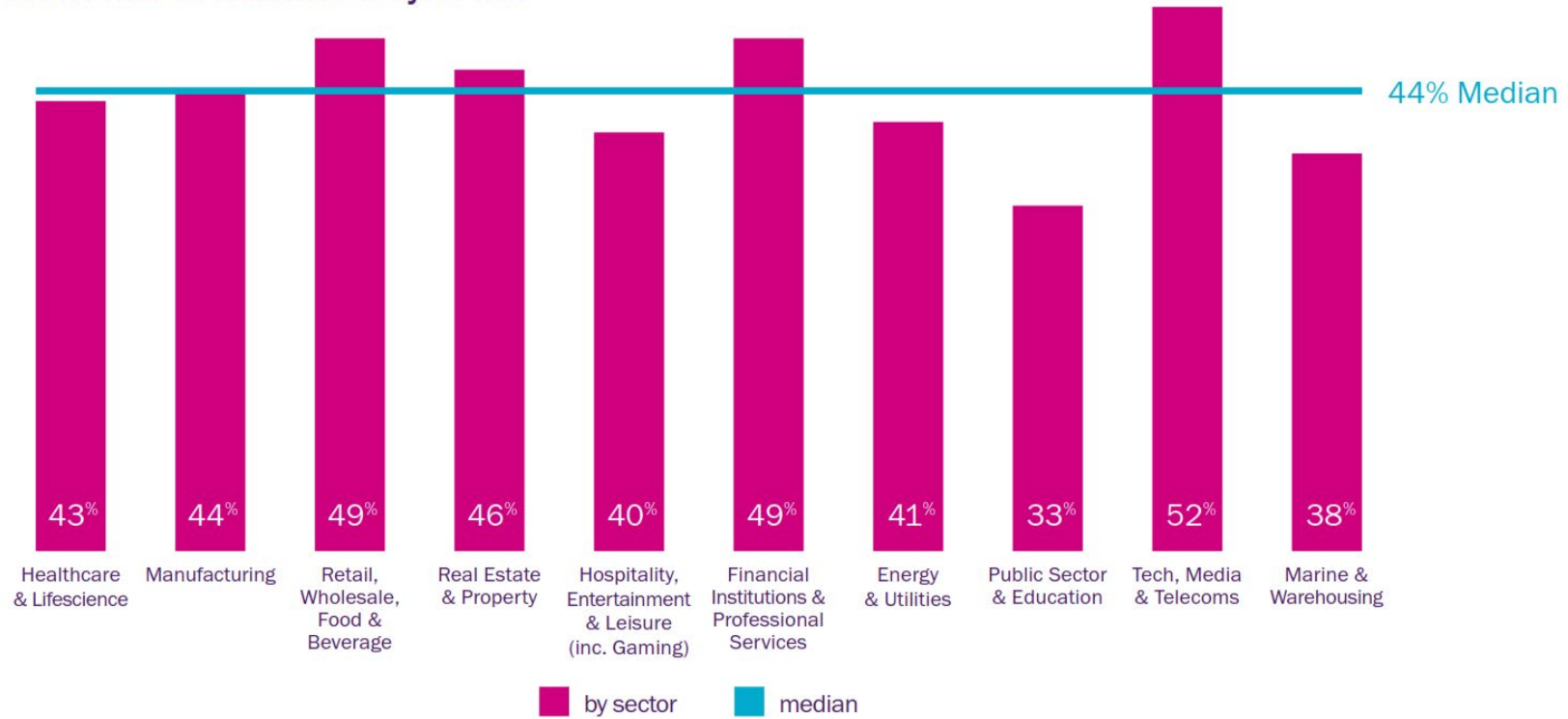


Estimated global damage from ransomware.

2018	2019	2021
\$8 Billion	\$11.5 Billion	\$20 Billion
2024	2028	2031
\$42 Billion	\$157 Billion	\$265 Billion

Targeting Public Entities

Sector view on resilience to cyber risk



Percentage of US and UK companies feeling 'very prepared' to anticipate and respond to cyber risk in 2021. Median line indicates the mid-point of the data set across all industries surveyed.

As a result, many markets are no longer writing new Public Entity cyber



Toward the Future

Liability Renewal Outlook



Excess liability continues to be a challenge



Specific Problem areas:

- Aggregate limits – Many carriers are looking to cap their exposure on pool programs
- Attachment point/Retentions are being closely examined
- Underwriter scrutiny on Law Enforcement and Sexual Abuse/Misconduct coverages
- Emerging Exclusion - PFAS



Pricing expectations based on Q2 results for 2022 = Flat to +10% – based on losses and jurisdiction



Engage incumbent carriers early to gain commitment on renewal

Property Renewal Outlook



Continued scrutiny of data (SOV, COPE, ITV with Increased Construction Cost)



Increased retentions and caps on certain types of exposure

- *Windstorm & Hail*



Rate increases expected and highly dependent on Wind Season, Reinsurance Market and individual client losses



Underwriter submission activity remains high – imperative to engage early and access global market



Regional Underwriting: Property markets are affected differently across the nation.

e.g. West Wildfire, East Hurricanes, Midwest Hail, etc.

North American CAT Property Reinsurance Outlook

THE WALL STREET JOURNAL.

Home World U.S. Politics Economy Business Tech **Markets** Opinion Books & Arts Real Estate Life & Work Style Sports

MARKETS | FINANCE

Insurers Are Facing a Steep Rise in Reinsurance Rates

Swiss Re's Pande urges cat attachment increases to counter rising valuations

The executive described the reinsurance renewals heading into 2023 as "a three-legged stool". Rate increases, some structural changes – notably to attachment points – and terms and conditions each represent one leg, Pande explained.



CIAB full-time wrap on US cat: the fight for capacity

At the Council of Insurance Agents & Brokers' (CIAB) Insurance Leadership Forum in Colorado Springs this week, the focus of brokers has been on communicating to clients expectations that they will likely need to significantly increase retentions if they are to secure the limit they require at the top of cat programs to keep pace with inflation.



i insurance insider

Berkshire to non-renew retro cat quota shares as market searches for capacity signals

i insurance insider

Swiss Re will shrink in US cat as it asks cedants for 'double-double-half'

Stonybrook Capital Says Hurricane Ian Is Largest-Ever Insured Loss Event at Over \$75B

By Chad Hemenway | October 12, 2022

'Hardening' Property Catastrophe Market Enters 'Hard' Market Phase: Bank of America

By L.S. Howard | October 12, 2022

European reinsurers will miss their earnings targets in 2022 – for the sixth year in a row – which is pressuring the industry to raise rates and continue improving the quality of their portfolios, according to a research report published by the Bank of America.

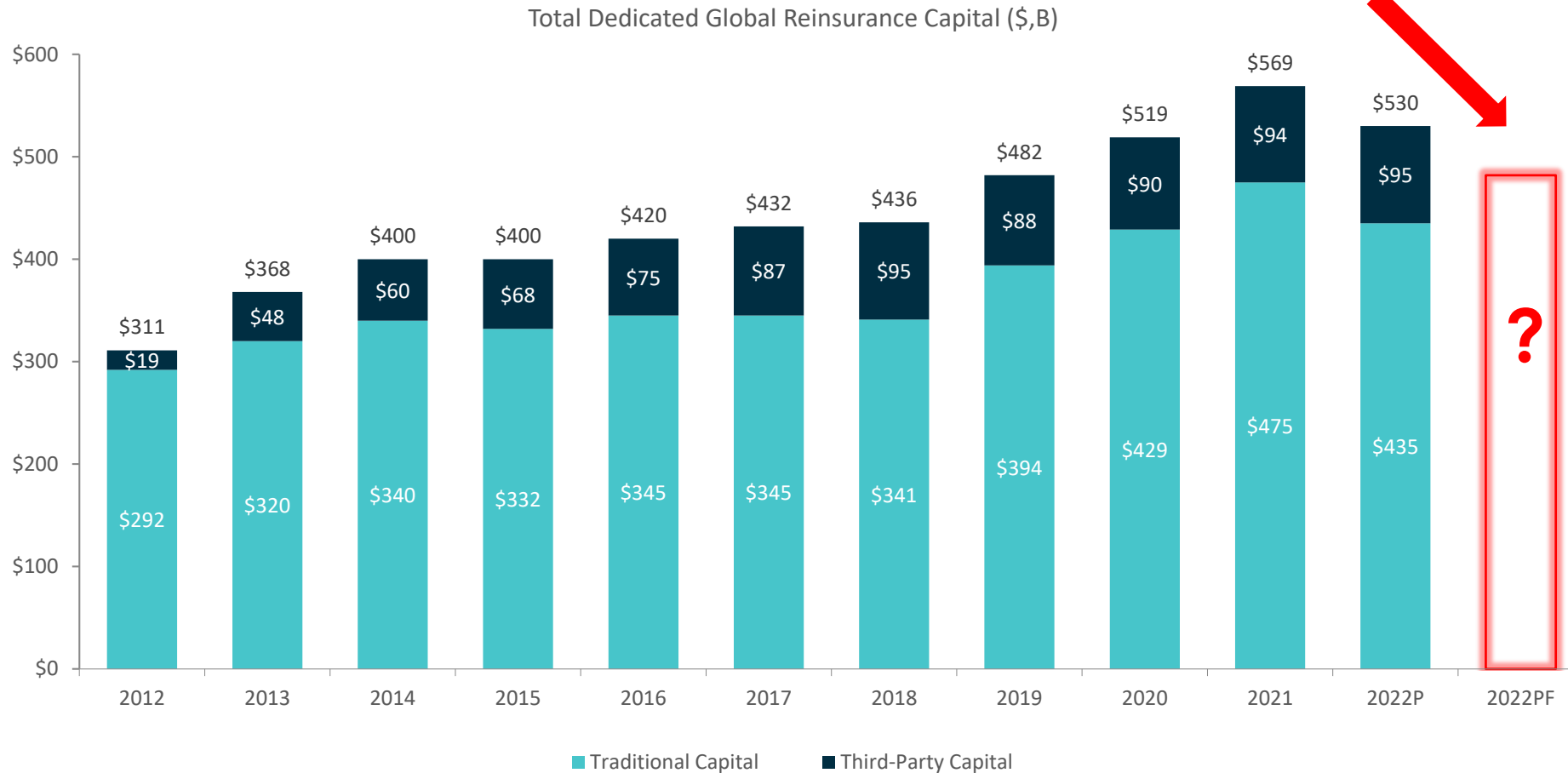
The result is that the industry is finally entering a "true 'hard' market," said the report.



Specific Challenges:

- Exposure increases (ITV) driven by inflation and supply chain
 - Knock on affect to modeling
 - \$20B of additional capital required (10% of current \$200b)
- Supply & Demand Imbalance
 - Investor fatigue from years of losses = No new entrants
 - Increase of natural disasters
 - Recent poor industry performance (unprofitable in 4 of last 5 years)
 - Reduced capacity from incumbents "de-risking" book
- Ian Loss ? = \$35B to \$70B
 - Trapped capital cannot be redeployed
 - ILS/Collateralized market seizing up

Reinsurance Capacity Supply & Demand Imbalance



Reinsurance Capital Supply Is Expected To Be Down \$50B + At YE:22 While Demand Is Estimated To Be Up \$30B +.

Source: AM Best, Guy Carpenter; D&P Analysis. 2022PF = D&P estimates

Cyber Renewal Outlook



Leading insurers have indicated “We may have hit rate equilibrium”

2023 Forecast:

- 15% to 25% increases, at a minimum, for “good” risks and most starting much higher
- Lower overall capacity deployment
- Increased per-claim, self-insured retentions for poor security posture
- Potential coinsurance percentages added for ransomware
- Further reduction of ransomware limit

Requirement to evidence security posture:



- MFA
- Data Backups
- Endpoint Detection
- Employee Education & Training Programs

Workers Compensation Leading Concerns



Rate expectations: Account Specific



Wage Inflation's impact on premiums & Medical Expense Inflation



Underwriter Concerns: Per Occurrence exposure to Cat loss



Remote Work: Out of State employees & Impact on productivity and compliance



Investment Yield on Long Tail Coverage



Thank you!

Questions?

Please contact us if you would like a copy of this presentation.

