Report on the Effectiveness of the Terrorism Risk Insurance Program

FEDERAL INSURANCE OFFICE, U.S. DEPARTMENT OF THE TREASURY

Completed pursuant to the Terrorism Risk Insurance Act, as amended

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Glossary

2015 Reauthorization Act	....	Terrorism Risk Insurance Reauthorization Act of 2015, Pub. L. No. 114-1, 129 Stat. 3
2019 Reauthorization Act	....	Terrorism Risk Insurance Program Reauthorization Act of 2019, Pub. L. No. 116-94, 133 Stat. 2534
2022 Effectiveness Report	....	FIO, Report on the Effectiveness of the Terrorism Risk Insurance Program (2022)
2022-2024 TRIP data calls	....	TRIP data calls performed in 2022, 2023, and 2024 (collecting data for the years 2021, 2022, and 2023, respectively)
ACRSM	....	Advisory Committee on Risk-Sharing Mechanisms
ACRSM Report	....	Report of the Advisory Committee on Risk-Sharing Mechanisms (May 2020)
Act of Terrorism	....	Under TRIA, an act certified as terrorism by the Secretary, in consultation with the Attorney General and the Secretary of Homeland Security
AEC	....	U.S. Atomic Energy Commission
Alien Surplus Lines Insurer	....	Non-U.S. insurer that is an eligible surplus lines insurer as listed on the NAIC's Quarterly Listing of Alien Surplus Lines Insurers
ANI	....	American Nuclear Insurers
Captive Insurer	....	Insurer formed to insure the risk exposures of its policyholder owner(s) and regulated by the captive insurance laws of a particular state jurisdiction
CISA	....	U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency
CMP	....	Commercial Multi-Peril
Co-Pay Share	....	Under TRIP, the percentage of losses that an insurer is obligated to pay after meeting its deductible and the Program Trigger is satisfied. The federal government is responsible for the remaining percentage of losses above the insurer's deductible (i.e., the Federal Share of Compensation). The Co-Pay Share for 2023 was 20 percent.
DEP	....	Direct earned premiums
Embedded Terrorism Insurance	....	Terrorism insurance provided within a P&C policy that also covers other risks
Federal Share of Compensation	....	Under TRIP, the percentage of an insurer's losses that the federal government will pay after the insurer meets its deductible and the Program Trigger is satisfied. The insurer is responsible for the remaining percentage of losses above its

		deductible (i.e., the Co-Pay Share). The federal share of compensation for 2023 was 80 percent.
FIO	....	Federal Insurance Office
GAO	....	U.S. Government Accountability Office
IFTRIP	....	International Forum of Terrorism Risk (Re)Insurance Pools
IMARA	....	Insurance Marketplace Aggregate Retention Amount
Insurer Deductible	....	Under TRIP, the amount an individual insurer must pay before receiving the federal share of compensation, after an event is certified as an act of terrorism and the Program Trigger is exceeded. An insurer's deductible is 20 percent of its TRIP-eligible DEP in the prior year.
IUCRC	....	Industry-University Cooperative Research Center
NAIC	....	National Association of Insurance Commissioners
NBCR	....	Nuclear, biological, chemical, or radiological
NEIL	....	Nuclear Electric Insurance Limited
Non-Small Insurer	....	Domestic insurers or groups above the small insurer threshold
NRC	....	U.S. Nuclear Regulatory Commission
ONCD	....	White House Office of the National Cyber Director
P&C	....	Property and casualty
PML	....	Probable maximum loss
Program	....	Terrorism Risk Insurance Program (also, TRIP)
Program Cap	....	Maximum aggregate exposure limit for the federal government and insurers under TRIP in any calendar year. The program cap for 2023 was $100 billion.
Program Trigger	....	Minimum amount of insurance industry aggregate insured losses resulting from certified act(s) of terrorism that must occur in a calendar year before any federal payments can be made under TRIP. The program trigger for 2023 was $200 million.
PWG	....	President's Working Group on Financial Markets
Report	....	FIO Report on the Effectiveness of the Terrorism Risk Insurance Program (June 2024)
Standalone Policy	....	Insurance policy which provides coverage only for terrorism risk
Secretary	....	Secretary of the Treasury
September 11 Attacks	....	Terrorist attacks occurring on September 11, 2001
Small Insurer	....	An insurer as defined under TRIP pursuant to 31 C.F.R. § 50.4(z)

Take-Up Rate	....	Extent to which terrorism risk insurance is purchased by policyholders
Treasury	....	U.S. Department of the Treasury
TRIA	....	Terrorism Risk Insurance Act of 2002, as amended
TRIP	....	Terrorism Risk Insurance Program (also, Program)
TRIP-Eligible DEP	....	DEP earned within the TRIP-eligible lines of insurance
TRIP-Eligible Lines of Insurance	....	Commercial P&C insurance subject to TRIP pursuant to 31 C.F.R. § 50.4(w)

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I. INTRODUCTION AND EXECUTIVE SUMMARY

The Terrorism Risk Insurance Act of 2002, as amended (TRIA),[1] requires the Secretary of the Treasury (Secretary) to submit a report regarding the effectiveness of the Terrorism Risk Insurance Program (TRIP or Program) to the Committee on Financial Services of the House of Representatives, and the Committee on Banking, Housing, and Urban Affairs of the Senate.[2] The Federal Insurance Office (FIO) of the U.S. Department of the Treasury (Treasury) assists the Secretary in the administration of TRIP.[3] FIO has prepared this Report which, as required by TRIA, must be submitted no later than June 30, 2024, and must include:

(1) "an analysis of the overall effectiveness of the Program;"

(2) "an evaluation of the availability and affordability of terrorism risk insurance, which shall include an analysis of such availability and affordability specifically for places of worship;"

(3) "an evaluation of any changes or trends in the data collected" by the Secretary;

(4) "an evaluation of whether any aspects of the Program have the effect of discouraging or impeding insurers from providing commercial property casualty insurance coverage or coverage for acts of terrorism;"

(5) "an evaluation of the impact of the Program on workers' compensation insurers;" and

(6) "an updated estimate of the total amount" of terrorism risk insurance premiums "earned since January 1, 2003."[4]

TRIA also requires the Secretary to collect data related to the Program annually.[5] Since the 2015 Reauthorization Act, FIO has conducted nine data calls—a voluntary data call in 2016 seeking calendar year 2015 data, and eight mandatory data calls in 2017, 2018, 2019, 2020, 2021, 2022, 2023, and 2024 requiring, respectively, the production of 2016, 2017, 2018, 2019, 2020, 2021,

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[1] Terrorism Risk Insurance Act of 2002, Pub. L. No. 107-297, 116 Stat. 2322 (2002), as amended. The provisions of TRIA appear in a note of the United States Code (15 U.S.C. § 6701 note) and, therefore, references to the provisions of TRIA are identified by the sections of the law (*e.g.*, "TRIA § 102(1) (definition of an "act of terrorism")").

[2] Beginning in 2016, the Secretary has been required to submit a report to the Committee of Financial Services of the House of Representatives and the Committee on Banking, Housing, and Urban Affairs of the Senate every other year through the Program's expiration date. Treasury published four effectiveness reports between 2016 and 2022: *See* FIO, *Report on the Overall Effectiveness of the Terrorism Risk Insurance Program* (2016), https://home.treasury.gov/system/files/311/2016_TRIP_Effectiveness_%20Report_FINAL.pdf; FIO, *Report on the Effectiveness of the Terrorism Risk Insurance Program* (2018), https://home.treasury.gov/system/files/311/2018_TRIP_Effectiveness_Report.pdf (*2018 Effectiveness Report*); FIO, *Report on the Effectiveness of the Terrorism Risk Insurance Program* (2020), https://home.treasury.gov/system/files/311/2020-TRIP-Effectiveness-Report.pdf (*2020 Effectiveness Report*); *See* FIO, *Report on the Effectiveness of the Terrorism Risk Insurance Program* (2022), https://home.treasury.gov/system/files/311/2022%20Program%20Effectiveness%20Report%20%28FINAL%29.pdf (*2022 Effectiveness Report)*. This Report is the fifth Effectiveness Report published by Treasury.

[3] *See* Federal Insurance Office Act of 2010, 31 U.S.C. § 313(c)(1).

[4] TRIA § 104(h)(2).

[5] TRIA § 104(h)(1). This requirement was instituted in the Terrorism Risk Insurance Reauthorization Act of 2015, Pub. L. No. 114-1, 129 Stat. 3 (2015 Reauthorization Act).

2022, and 2023 calendar year data. This report (Report) addresses the six statutory considerations identified above and uses the 2022 through 2024 TRIP data calls (2022-2024 TRIP data calls) to comply with the requirements of TRIA.

Based on analysis of the collected information, FIO's administration of the Program, stakeholder input, publicly available information, and FIO research, Treasury has reached the following conclusions respecting the statutory issues:

(1) The Program generally has been effective in achieving the goals identified by TRIA. Refer to Sections V, VI, and VII.

(2) Terrorism risk insurance remains generally available and affordable, even with the overall market hardening impacts noted in this Report. The TRIP data calls reflect that places of worship take up terrorism risk insurance at a higher percentage than do businesses in other industry segments, although for a higher percentage amount of the total policy premium. With regards to cyber insurance, which is subject to the Program when written in a TRIP-eligible line of insurance, the market has responded to changes in the loss profile associated with cyber risk, principally ransomware, through pricing and strengthened underwriting standards. The insurance sector has also increasingly adopted exclusions regarding catastrophic loss events, which likely reflects the industry's increased awareness of potential systemic risk related to actions by state and state supported actors, as well as potential cascading losses arising from damage to infrastructure. Treasury continues to evaluate a potential federal insurance response to catastrophic cyber incidents, including how such a response would interact with the Program. Refer to Section V.

(3) The hardening of the property and casualty (P&C) insurance and reinsurance market over the past few years has had a corresponding impact on the market for terrorism risk insurance, resulting in some decline in terrorism risk insurance take-up and associated reductions in extended limits. These impacts are the likely result of general changes in the P&C insurance and reinsurance market that are not specific to terrorism risk insurance, which continues to be priced at a relatively low and consistent percentage of total P&C premium. Refer to Sections V, VI, and VII.

(4) Treasury has not observed any aspects of the Program (either based upon the collected data or administration of the Program) that have discouraged or impeded insurers from providing commercial property and casualty insurance in general, or coverage for acts of terrorism specifically. Refer to Sections V, VI, and VII.

(5) The Program continues to serve as an important backstop to workers' compensation insurance given that, under state law, workers' compensation insurance must cover terrorism risk, is not subject to limits of liability, and cannot exclude causes of loss posing extreme aggregation risks. Refer to Section V and VII.

(6) Treasury's estimate of total direct earned premiums for terrorism risk insurance from 2003 through 2023 is approximately $56.7 billion (excluding captive insurers), which is between one and two percent of the total premiums earned in the TRIP-eligible lines of insurance during that period. Refer to Section VIII.

In addition to the collection and analysis of data mandated by TRIA, Treasury has taken additional steps to further assess and evaluate whether and how the Program is meeting its objectives. These include: (1) the use of modeling tools to evaluate how the Program might respond to a certified act of terrorism, (2) continued engagement with the Advisory Committee on Risk-Sharing Mechanisms (ACRSM), (3) FIO's leadership of the International Forum of Terrorism Risk (Re)Insurance Pools (IFTRIP), and (4) establishing a partnership with the National Science Foundation (NSF) to create an Industry-University Cooperative Research Center (IUCRC) to improve the insurance sector's modeling and underwriting of terrorism and catastrophic cyber risks. Refer to Sections IX, X, XI, and XII.

II. BACKGROUND

Before September 11, 2001, commercial P&C insurance policies generally did not exclude coverage for losses resulting from terrorism.[6] The events of September 11, 2001 (September 11 Attacks) resulted in approximately $59 billion of insurance losses in 2024-adjusted dollars, about two-thirds of which were reimbursed by reinsurers to insurers.[7] Following the September 11 Attacks, insurers and reinsurers began to exclude coverage for terrorism risk from commercial P&C policies.

TRIA was enacted in 2002, in part, because the widespread unavailability of terrorism risk insurance "could seriously hamper ongoing and planned construction, property acquisition, and other business projects, generate a dramatic increase in rents, and otherwise suppress economic activity."[8] TRIA established TRIP, which requires insurers to make terrorism risk coverage available within certain lines of commercial P&C insurance (TRIP-eligible lines of insurance).[9] To assist insurers with the resulting potential financial exposure, certain insurance losses are eligible for reimbursement through the Program if they result from an "act of terrorism" as

[6] *See, e.g.*, Congressional Research Service (CRS), *The Terrorism Risk Insurance Act (TRIA)* (2022), 1, https://crsreports.congress.gov/product/pdf/IF/IF11090/5.

[7] Insured losses reported in inflation-adjusted 2021 dollars, adjusted upward to 2024 by Treasury. *See* "*Background on: Terrorism Risk and Insurance,"* Insurance Information Institute (III), (2021), https://www.iii.org/article/background-on-terrorism-risk-and-insurance.

[8] TRIA § 101(a)(5).

[9] *See* TRIA § 103(c). Treasury has implemented regulations defining the "TRIP-eligible lines of insurance" with reference to certain lines identified for state regulatory purposes as follows: Fire, Allied Lines, Commercial Multiple Peril (non-liability), Commercial Multiple Peril (liability), Ocean Marine, Inland Marine, Workers' Compensation, Other Liability (but not including Professional Liability, which is otherwise within this line for state reporting purposes), Products Liability, Aircraft, and Boiler and Machinery. Definitions, 31 C.F.R. § 50.4(w)(1). The regulations and Treasury guidance also confirm that cyber insurance, including stand-alone cyber liability policies, are subject to TRIP, so long as they are written in the TRIP-eligible lines of insurance. *Id.*; *see also* Guidance Concerning Stand-Alone Cyber Liability Insurance Policies Under the Terrorism Risk Insurance Program, 81 Fed. Reg. 95,312 (December 27, 2016). Some of the TRIP-eligible lines of insurance also include personal P&C premium exposures that are not subject to the Program. There are also certain other defined exclusions within these lines. *See* 31 C.F.R. § 50.4(w)(2).

defined by TRIA and certified by the Secretary.[10] The Program is administered by the Secretary with the assistance of FIO.[11]

TRIA originally authorized the Program for a three-year period ending December 31, 2005. Congress has since reauthorized TRIP four times, most recently in the Terrorism Risk Insurance Program Reauthorization Act of 2019 (2019 Reauthorization Act), which extended the Program through December 31, 2027.[12] Changes enacted in Program reauthorizations, coupled with increases in the insurance industry premium base over time, have generally reduced potential federal exposure to insured losses and increased private market exposure.

TRIA provides that the Secretary shall annually require participating insurers to provide information and data for the Secretary to analyze the overall effectiveness of the Program.[13] The information to be provided to the Secretary by participating insurers includes information regarding:

(1) lines of insurance with exposure to terrorism losses;

(2) premiums earned on coverage offered for terrorism losses;

(3) geographical location of exposures;

(4) pricing of terrorism risk coverage offered;

(5) the take-up rate for terrorism risk coverage;

(6) the amount of private reinsurance for acts of terrorism purchased; and

(7) such other matters as the Secretary considers appropriate.[14]

The 2022-2024 TRIP data calls are discussed in Section IV.

III. TRIP OVERVIEW

The Program requires that each entity meeting the definition of an insurer make available coverage for insured losses resulting from acts of terrorism.[15] The mandatory offer required from participating insurers must "not differ materially from the terms, amounts, and other

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[10] Further details concerning the operation of the Program are provided in Section III.

[11] Federal Insurance Office Act of 2010, 31 U.S.C. § 313(c)(1)(D) (2012).

[12] *See* Terrorism Risk Insurance Extension Act of 2005, Pub. L. No. 109-144, 119 Stat. 2660 (2005); Terrorism Risk Insurance Program Reauthorization Act of 2007, Pub. L. No. 110-160, 121 Stat. 1839 (2007); Terrorism Risk Insurance Reauthorization Act of 2015, Pub. L. No. 114-1, 129 Stat. 3 (2015); Terrorism Risk Insurance Program Reauthorization Act of 2019, Pub. L. No. 116-94, 133 Stat. 2534 (2019).

[13] TRIA § 104(h)(1).

[14] TRIA §§ 104(h)(1)(A)-(G).

[15] TRIA § 103(c). An insurer is defined under TRIA as any entity, including any affiliate thereof, which receives direct earned premiums for TRIP-eligible lines of insurance, and is licensed or admitted to engage in the business of insurance in any state; an eligible surplus lines carrier; a federally approved maritime, energy, or aircraft insurer; a state residual market insurance entity or workers' compensation fund; or, to the extent provided in rules issued by the Secretary, a captive insurer or a self-insurance arrangement, and meets any other criteria the Secretary prescribes. TRIA § 102(6)(A)-(C).

coverage limitations applicable to losses arising from events other than acts of terrorism."[16] The "make available" requirement applies only to TRIP-eligible lines of insurance.[17] TRIA does not mandate that insurers offer terrorism risk insurance at a particular price,[18] nor does TRIA require any policyholder to purchase insurance for terrorism risk.[19] All commercial P&C insurers writing in TRIP-eligible lines and required to make terrorism risk insurance available under their policies are considered Program participants, regardless of whether their policyholders accept the offer to take up the coverage.

Insurers are eligible for federal payments under the Program only for losses resulting from "acts of terrorism." An act of terrorism is defined under TRIA as an act certified by the Secretary in consultation with the Attorney General of the United States and the Secretary of Homeland Security:

- to be an act of terrorism;
- to be a violent act or an act that is dangerous to human life, property, or infrastructure;
- to have resulted in damage within the United States;[20] and
- to have been committed by an individual or individuals, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the U.S. government by coercion.[21]

Additionally, the Secretary may not certify an act that results in P&C insurance losses totaling less than $5 million,[22] or that was committed as part of the course of a war declared by Congress.[23]

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[16] TRIA §103(c)(2).

[17] *Id*. Reinsurance is excluded from the TRIP-eligible lines of insurance. TRIA § 102(11)(B)(vii). The availability of private reinsurance for terrorism risk is discussed further in Section V.G.

[18] State insurance rating laws and regulations may affect the price that can be charged by insurers writing terrorism risk insurance subject to TRIA.

[19] In some circumstances, state law may require the purchase of (or limit the ability to exclude) coverage for terrorism risk, such as in the case of workers' compensation insurance, discussed further in Section VII.

[20] TRIA also provides that an act of terrorism may involve damage outside the United States in the case of certain air carriers or vessels, or on the premises of a U.S. mission. TRIA § 102(1)(A)(iii).

[21] TRIA § 102(1)(A).

[22] TRIA § 102(1)(B)(ii). As Treasury confirmed in a clarification to the TRIP rules in 2021, P&C insurance losses for certification purposes include amounts that would be payable under P&C insurance policy obligations, such as on account of exclusions or deductibles, because the certification analysis looks to the size of the event in question. *See* 31 C.F.R. § 50.4(b)(2)(ii). *See also* Terrorism Risk Insurance Program; Updated Regulations in Light of the Terrorism Risk Insurance Program Reauthorization Act of 2019, and for Other Purposes, 86 Fed. Reg. 30,537 (June 9, 2021) (*2021 Updated Regulations*); Terrorism Risk Insurance Program; Updated Regulations in Light of the Terrorism Risk Insurance Program Reauthorization Act of 2019, and for Other Purposes; Correction, 86 Fed. Reg. 31,620 (June 15, 2021) *(2021 Updated Regulations Correction*).

[23] This limiting clause regarding an act of war does not apply to coverage under the Program for workers' compensation insurance. TRIA § 102(1)(B)(i).

If the Secretary certifies an act of terrorism, participating insurers may submit claims to Treasury, and Treasury will determine whether, and in what amounts, insurers are eligible for payments under the Program.[24] Treasury is then required to obtain reimbursement of certain payments of the federal share of compensation through a recoupment process and may obtain reimbursement of additional payments depending on the amount of total losses.

Payment to a participating insurer under the Program is based on several factors described below, including the insurer's individual deductible, the Program Trigger, the federal share of compensation of an insurer's losses, and the Program Cap. As described further below, Treasury may use a recoupment process to recover amounts expended; the applicable process will vary depending upon the Insurance Marketplace Aggregate Retention Amount (IMARA).

Insurer Deductible

After the Secretary certifies one or more acts of terrorism, two prerequisites must be met before an insurer is eligible for payments from Treasury under the Program: (1) the insurer's "insured losses" subject to the Program[25] must exceed its deductible (which is 20 percent of the insurer's direct earned premiums (DEP) in the TRIP-eligible lines for the prior calendar year),[26] and (2) the Program Trigger must be satisfied.

Program Trigger

The Program Trigger is the minimum amount of insurance industry aggregate insured losses resulting from a certified act (or acts) of terrorism taking place in a particular calendar year that must be sustained before any federal payments are made. The Program Trigger was $200 million in calendar year 2023 and will remain at $200 million each year through the currently scheduled expiration of the Program in 2027.[27] Once the Program Trigger has been satisfied, Treasury will make payments to individual insurers for the federal share of compensation above their respective deductibles.

[24] Any determination by Treasury is made pursuant to the Program regulations. *See* Terrorism Risk Insurance Program, 31 C.F.R. Part 50.

[25] In 2021, Treasury issued a final rule clarifying that "insured losses" for purposes of TRIP exclude any amounts for which the policyholder is responsible (whether on account of policy exclusions, deductibles, or retention amounts). The final rule also addresses the calculation of the Program Trigger, the recovery of the Federal Share under TRIP, and the calculation of the Program Cap. 31 C.F.R. § 50.4(n)(3)(iv); s*ee also 2021 Updated Regulations*, 86 Fed. Reg. 30,537; *2021 Updated Regulations Correction*, 86 Fed. Reg. 31,620.

[26] TRIA § 102(7).

[27] TRIA § 103(e)(1)(B). TRIP did not originally have a Program Trigger. This requirement was introduced in the Terrorism Risk Insurance Extension Act of 2005, Pub. L. No. 109-144, 119 Stat. 2660 (2005). It was initially set at $50 million (for losses occurring in 2006), and it increased to $100 million for losses occurring in 2007. When TRIP was reauthorized through 2014, no change was made to the Program Trigger, which remained at $100 million. Terrorism Risk Insurance Program Reauthorization Act of 2007, Pub. L. No. 110-160, 121 Stat. 183 (2007). The 2015 Reauthorization Act, however, provided for an annual increase in the Program Trigger of $20 million beginning in 2016, until reaching $200 million in 2020. Under the 2019 Reauthorization Act, the Program Trigger remains at $200 million until the current expiration of the Program.

Federal Share of Compensation

After an insurer meets its deductible and the Program Trigger is satisfied, the federal government will pay a certain percentage of that insurer's losses in excess of the insurer's deductible. For calendar year 2023, the federal share of compensation was 80 percent of an insurer's losses above its deductible; the sharing ratio will remain at this level until the Program expires (currently scheduled for 2027).[28]

Program Cap

TRIA limits the aggregate exposure of both insurers and the federal government arising from insured losses for an act or acts of terrorism. Specifically, TRIA prohibits the Secretary from making payments for any portion of aggregate insured losses (counting amounts paid by Program participants and the federal government) from acts of terrorism that exceed the Program Cap of $100 billion during any calendar year.[29] If the Program Cap is reached, an insurer that has met its insurer deductible by making payments for insured losses subject to the Program is not liable for any portion of losses that exceeds the Program Cap.[30]

Recoupment

The Secretary may collect "terrorism loss risk-spreading premiums" from insurers if federal payments are made to insurers. Under this mechanism, known as recoupment, Program participants may be required to collect funds from policyholders by placing a surcharge on insurance policies written in TRIP-eligible lines. The surcharges will be set based upon the amount that must be recovered by Treasury and the time within which it must be recovered, as required by TRIA. Insurers must then remit these surcharges to the Secretary.[31] The requirement to collect, or recoup, terrorism loss risk-spreading premiums applies not only to insurers that received federal payments under the Program, but also to all insurers writing policies in TRIP-eligible lines of insurance. Surcharges are placed on all TRIP-eligible insurance policies regardless of whether the policyholder purchased terrorism risk insurance.[32]

IMARA

TRIA provides that recoupment under the Program may be mandatory or subject to the Secretary's discretion. This determination depends on how any federal payments under TRIP compare with the total insured losses paid by participating insurers. Mandatory recoupment is required where total industry payments are below the IMARA. The IMARA, which is calculated annually by Treasury based upon its annual TRIP data calls, is the annual aggregate average of

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[28] TRIA § 103(e)(1)(A).

[29] TRIA § 103(e)(2)(A).

[30] TRIA requires the Secretary to notify Congress if insured losses are projected to exceed the Program Cap and in that case the Secretary shall determine the pro rata share of insured losses to be paid by each affected insurer. TRIA §§ 103(e)(2)-(3).

[31] TRIA §§ 103(e)(7)-(8).

[32] TRIA § 103(e)(8).

insurer deductibles over the prior three-year period.[33] For purposes of calendar year 2024, the IMARA is $48.5 billion.[34] In connection with amounts subject to mandatory recoupment, Treasury must collect 140 percent of total amounts expended.[35]

IV. DATA COLLECTION

This Report is based primarily on the results of Treasury's 2022-2024 TRIP data calls and FIO's administration of the Program. In addition, Treasury performed qualitative research and sought input from stakeholders through a Federal Register Notice seeking comments.[36] Treasury also reviewed publicly available data reported by insurers to state regulators.

This section explains FIO's data collection process, the categories of insurers who responded to the data call, the response rate, and how FIO evaluated the quality of the data.

A. Data Collection Process

The 2022-2024 TRIP data calls were mandatory for participating insurers, subject to an exception for small insurers that wrote less than $10 million in TRIP-eligible lines premiums in each reporting year.[37]

Treasury collected data on a group basis (combining affiliated companies) because TRIP is generally administered on a group basis.[38] The information collected included data concerning premiums, policy exposures, policyholder take-up rates, and reinsurance.[39] Treasury collected information from four insurer categories (described further in Section IV.B): (1) alien surplus lines insurers, (2) captive insurers, (3) non-small insurers (or larger licensed insurers above the

[33] *See* 31 C.F.R. § 50.4(m)(2).

[34] *See* IMARA Calculation for Calendar Year 2024 Under the Terrorism Risk Insurance Program, 88 Fed. Reg. 87,843 (December 19, 2023).

[35] *See* TRIA §§ 103(e)(7)-(8).

[36] *See* 2024 Report on the Effectiveness of the Terrorism Risk Insurance Program, 89 Fed. Reg. 19,639 (March 19, 2024). Treasury received seven responsive comments addressing the Program, from: Mitchell Berger (May 3, 2024) (Berger Comments); Marsh McLennan (May 2, 2024) (Marsh Comments); Centers for Better Insurance LLC (May 3, 2024) (CBI Comments); Coalition to Insure Against Terrorism (May 3, 2024) (CIAT Comments); National Council on Compensation Insurance (May 3, 2024, as updated May 22, 2024) (NCCI Comments); Reinsurance Association of America (May 3, 2024) (RAA Comments); and Underwriters at Lloyd's, London (May 3, 2024) (Lloyd's Comments). All comments are available at https://www.regulations.gov/document/TREAS-TRIP-2024-0005-0001/comment.

[37] Treasury estimates that insurers eligible for this reporting exception (between 350 to 400 insurers, depending upon the year) represent annually about 0.3 percent of the TRIP-eligible lines premium market for each TRIP data call between 2022 and 2024. *See, e.g.*, S&P Global Market Intelligence (as of April 13, 2024).

[38] An "affiliate" under TRIP is "any entity that controls, is controlled by, or is under common control with the insurer." 31 C.F.R. § 50.4(c). Calculation of the deductible and the submission of claims under TRIP is on a group basis, in light of the "affiliate" definition in the regulations. Recoupment surcharges, however, are assessed and collected on an individual company basis. *See* Insurer Responsibility, 31 C.F.R. § 50.96. Insurer groups may include both domestic insurers and foreign insurers that write business in the United States only on a surplus lines basis.

[39] *See* Annual Data Reporting, 31 C.F.R § 50.51(b).

small insurer threshold), and (4) small insurers.[40] Each insurer category completes a different reporting template that is tailored to that category.

Treasury collected data through a third-party insurance statistical aggregator, as required by TRIA.[41] The statistical aggregator provided results to Treasury in an aggregated, anonymous format that did not identify any individual reporting insurer. Treasury obtained most of the workers' compensation insurance elements from the National Council on Compensation Insurance (providing data from the states in which it operates as well as on behalf of other independent state workers' compensation rating bureaus), the California Workers' Compensation Insurance Rating Bureau, and the New York Compensation Insurance Rating Board, thereby reducing the burden of the reporting requirements on the insurance industry.

State insurance regulators began annually collecting data relating to terrorism risk insurance in 2016. The state insurance regulator data calls sought information similar to that collected by Treasury, although in some cases on a more detailed, granular basis. Given the similarity of the information sought by Treasury and state insurance regulators, and the burden upon insurers responding to dual data calls on the same subject, beginning in 2018, Treasury and state insurance regulators developed a consolidated data call. This data call is designed to satisfy each of their respective statutory mandates and objectives while permitting reporting insurers to submit, for the most part, the same information to both Treasury and state insurance regulators.[42] The consolidated collection approach significantly reduces burdens on insurers required to report information to both Treasury and state insurance regulators.

The 2022 TRIP data call added new reporting requirements for any insurer writing cyber insurance and for captive insurers in particular.[43] Treasury discusses the information obtained from these new reporting requirements in Section V.I and Section VI.B.

B. Responding Insurer Categories

Insurers were required to report in one of four insurer categories, based on the requirements of TRIA and its implementing regulations. The categories include insurers that are "admitted" or

[40] Small insurers are defined with reference to the size of the insurer's policyholder surplus and TRIP-eligible DEP in the immediately preceding year as compared with an amount five times the size of the Program Trigger. *See* 31 C.F.R. § 50.4(z). *See also* FIO, *Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace* (2023), 8, https://home.treasury.gov/system/files/311/2023%20TRIP%20Small%20Insurer%20Report%20FINAL.pdf (*2023 Small Insurer Study*).

[41] TRIA § 104(h)(3). The data aggregator for the 2022-2024 TRIP data calls was Insurance Services Office, Inc.

[42] *See* FIO, *2018 Effectiveness Report*, 10-11.

[43] *See* Terrorism Risk Insurance Program 2022 Data Call, 86 Fed. Reg. 64,600 (November 18, 2021); 2022 Terrorism Risk Insurance Program Data Call, 87 Fed. Reg. 22,026 (April 13, 2022).

licensed to write business in at least one U.S. jurisdiction,[44] and domestic and foreign insurers that have been permitted as a matter of state law to write U.S. business on a surplus lines basis.[45]

In 2024, the four insurer categories required to report information were as follows:

(1) **Alien Surplus Lines Insurers:** Alien surplus lines insurers that are not affiliated with either a domestic non-small or small insurer. See also Section VI.C.

(2) **Captive Insurers:** Insurers formed to insure the risk exposures of their policyholder owners and regulated by the captive insurance laws of a particular state jurisdiction. See also Section VI.B.

(3) **Non-Small Insurers:** Domestic insurers or groups (including affiliated alien surplus lines insurers) with either DEP in TRIP-eligible lines of insurance (TRIP-eligible DEP) above the small insurer threshold or a policyholder surplus above the small insurer threshold.

(4) **Small Insurers:** Domestic insurers or groups (including affiliated alien surplus lines insurers) with *both* 2022 DEP in TRIP-eligible lines of insurance of less than $1 billion *and* a 2022 policyholder surplus of less than $1 billion (subject to the reporting exception for insurers with less than $10 million in TRIP-eligible DEP).[46] See also Section VI.A.

Figure 1 shows insurer participation by category, as indicated by reported TRIP-eligible DEP.

Figure 1: TRIP-Eligible DEP by Insurer Category ($ billions)[47]

	2022 TRIP data call		**2023 TRIP data call**		**2024 TRIP data call**	
	2021 TRIP-Eligible DEP	% of Total	2022 TRIP-Eligible DEP	% of Total	2023 TRIP-Eligible DEP	% of Total
Alien Surplus Lines Insurers	$ 12.1	5%	$ 17.0	6%	$ 16.4	6%
Captive Insurers	14.4	6%	12.0	4%	14.0	5%
Non-Small Insurers	186.9	78%	209.3	78%	221.2	78%
Small Insurers	26.2	11%	31.2	12%	33.6	12%
Total	**$ 239.6**	**100%**	**$ 269.5**	**100%**	**$ 285.2**	**100%**

Source: 2022-2024 TRIP data calls

Figure 2 illustrates the total amount of premiums in the TRIP-eligible lines of insurance reported by non-small and small insurers. For a breakdown of the terrorism risk insurance premium component of these premiums, see Figure 55 (Section VII).

[44] An admitted company is "an insurance company licensed to do business in a state(s), domiciled in an alternative state or country." "Glossary of Insurance Terms," NAIC, http://www.naic.org/consumer_glossary.htm.

[45] Non-admitted insurers can write insurance on a surplus lines basis when the desired coverage cannot be obtained from admitted insurers in the jurisdiction in question. *See* 31 C.F.R. § 50.4(o)(1)(i)(B). *See also* "Glossary of Insurance Terms."

[46] The small insurer threshold is calculated annually in relation to the Program Trigger amount. *See, e.g.*, FIO, *2023 Small Insurer Study*, 11. The Program Trigger is now set at $200 million through the current expiration of the Program in 2027.

[47] Some figures in the Report may not add to 100 percent due to rounding.

Figure 2: TRIP-Eligible DEP by TRIP-Eligible Lines of Insurance (Non-Small and Small Insurers) ($ billions)

	2022 TRIP data call		2023 TRIP data call		2024 TRIP data call	
	2021 TRIP-Eligible DEP	% of Total	2022 TRIP-Eligible DEP	% of Total	2023 TRIP-Eligible DEP	% of Total
Aircraft (all perils)	$ 1.9	1%	$ 1.9	1%	$ 2.6	1%
Allied Lines	10.8	5%	12.2	5%	17.1	7%
Boiler and Machinery	2.0	1%	2.0	1%	2.3	1%
Commercial Multiple Peril (liability)	15.3	7%	17.1	7%	17.6	7%
Commercial Multiple Peril (non-liability)	31.4	15%	33.5	14%	37.3	15%
Excess Workers' Compensation	1.3	1%	1.3	1%	0.9	0%
Fire	13.4	6%	15.7	7%	18.5	7%
Inland Marine	10.9	5%	15.8	7%	16.9	7%
Ocean Marine	3.2	2%	4.0	2%	4.0	2%
Other Liability	59.4	28%	70.3	29%	70.7	28%
Products Liability	3.9	2%	4.4	2%	4.5	2%
Workers' Compensation	59.6	28%	62.2	26%	62.3	24%
Total	**$ 213.1**	**100%**	**$ 240.5**	**100%**	**$ 254.8**	**100%**

Source: 2022-2024 TRIP data calls

C. Response Rate

Treasury estimates that the response rate for domestic insurers in the 2024 TRIP data call (measured by TRIP-eligible DEP) was at least 99.1 percent for non-small insurers, and at least 83.3 percent for small insurers. Treasury estimates that approximately 99.0 percent of non-small insurers and at least 82.7 percent of small insurers reported in the 2023 TRIP data call. Treasury estimates that at least 98.5 percent of non-small insurers and at least 80.3 percent of small insurers reported in the 2022 TRIP data call.[48]

Treasury estimates that between 85 to 95 percent of alien surplus lines insurers responded to the 2022, 2023, and 2024 TRIP data calls.[49]

Determining the response rate for captive insurers under TRIP is complicated because captive insurers typically do not submit publicly available information that could be used by Treasury to independently evaluate their response rate. Therefore, Treasury has engaged with state insurance regulators and brokers that work with captive insurers to confirm that the appropriate number of

[48] Treasury evaluates the response rates to the TRIP data calls by analyzing information reported to state insurance regulators and other independent analyses. Some amount of non-reporting may be attributable to small insurers that are under the reporting threshold. Treasury will continue to analyze the response rates in future reports.

[49] Alien surplus lines insurers also report certain information to state regulators, and Treasury uses a process to evaluate the response rate for alien surplus lines insurers that is similar to the process it uses for domestic insurers.

captive insurers report for the TRIP data calls.[50] Based upon the available information and the consistency of results year over year, Treasury estimates that the significant majority of captive insurers that write terrorism risk insurance subject to the Program, on either an embedded or standalone basis, have provided information in response to the 2022-2024 TRIP data calls.

D. Data Quality Evaluation

This Report includes analysis of data for 2021 through 2023, relying on the results of the 2022-2024 TRIP data calls, with a particular focus on the 2023 and 2024 TRIP data calls conducted since Treasury's last Effectiveness Report.[51] Treasury compared the results of its data calls with state reporting data for the same period to further validate the accuracy of reported data. The comparison between TRIP data calls and state reporting data is relevant because TRIP-eligible lines are defined by regulation with general reference to state insurance reporting lines. The Program uses state-defined insurance lines and reporting data standards to determine the "property and casualty insurance" that is subject to the Program, which promotes efficient Program administration. This process also allows Treasury to determine whether the data reported by non-small and small insurers under TRIP data calls is generally consistent with similar data reported for state regulatory purposes.[52]

Figure 3 compares the premiums reported to Treasury in the 2023 and 2024 TRIP data calls with the premiums reported by non-small and small insurers for state regulatory purposes.[53] Some adjustments are made to the state data to account for variations between certain state statutory reporting lines and the premiums that are subject to TRIP and collected by Treasury.[54]

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[50] Treasury only requires reporting from captive insurers to the extent that they issue terrorism risk insurance that is subject to the Program. Captive insurers that write policies in the TRIP-eligible lines of insurance, but which do not provide any terrorism risk insurance (whether on an embedded or standalone basis), do not have a reporting requirement. *See* 2024 Terrorism Risk Insurance Program Data Call, 89 Fed. Reg. 19,640, 19,641 (March 19, 2024).

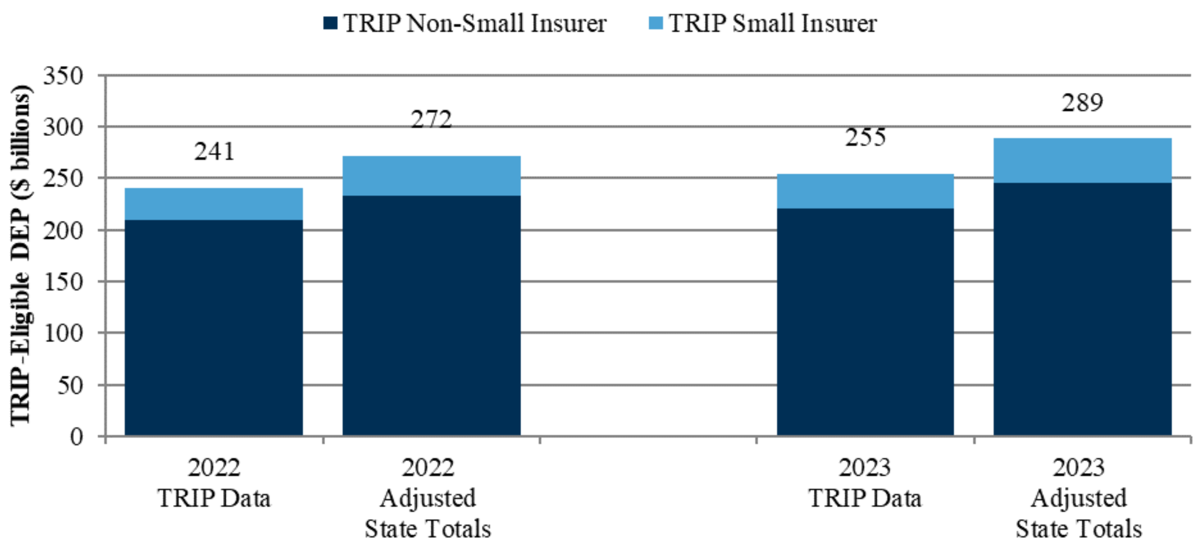
[51] Some figures in this Report relating to the 2022 and 2023 TRIP data calls may not be identical to similar information previously reported by Treasury because of late-reported or corrected data submitted after publication of prior reports. Similarly, late-reported or corrected data received in the future in connection with the 2024 TRIP data call may result in future reporting by Treasury of information different from that reported here.

[52] For purposes of this Report, Treasury evaluated the data reported by domestic non-small and small insurers that regularly make public statutory insurance filings by comparing the Treasury data with the reporting lines for state insurance regulatory purposes. Treasury has addressed this adjustment process in prior reports. *See* FIO, *Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace* (2017), 11, https://home.treasury.gov/system/files/311/Study_of_Small_Insurer_Competitiveness_in_the_Terrorism_Risk_Insurance_Marketplace_%28June_2017%29.pdf (*2017 Small Insurer Study*). Most alien surplus lines and captive insurers do not make such filings; therefore, this analysis does not extend to those Program participants.

[53] Treasury performed this analysis in connection with the data collected in the 2021 and 2023 TRIP data calls and concluded that the data reported to Treasury was consistent with the more general information reported by those insurers for state regulatory purposes. FIO, *2022 Effectiveness Report*, 13-14.

[54] The principal differences between state reporting lines and TRIP-eligible lines are: (1) certain lines of insurance (principally Fire and Allied Lines, but also other lines) encompass policies written to cover personal, and not commercial, exposures, which are not subject to TRIP; and (2) Professional Liability insurance is not subject to TRIP, even though it is reported for state purposes under the Other Liability line of insurance, which is otherwise a

Figure 3: Comparison of TRIP-Eligible DEP Reported in Treasury Data Calls to TRIP-Eligible DEP Reported to State Regulators



Source: 2023 and 2024 TRIP data calls; S&P Global Market Intelligence (as of April 12, 2024)

The data provided by reporting insurers in the 2023 and 2024 TRIP data calls is consistent with the data that insurers reported for state regulatory purposes. Therefore, the reported data is sufficient for the purpose of analyzing the effectiveness of the Program.

V. ANALYSIS OF THE OVERALL EFFECTIVENESS OF THE PROGRAM

TRIA was established to "protect consumers by addressing market disruptions and ensure the continued widespread availability and affordability of property and casualty insurance for terrorism risk," and to permit private markets to stabilize, resume pricing, and build capacity.[55] Based on Treasury's analysis, the Program has been largely effective in meeting these statutory objectives. Stakeholders—representing the interests of insurers, reinsurers, and commercial policyholders—generally agree that the Program has been effective in achieving its statutory objectives.[56]

The 2022-2024 TRIP data calls indicate that the market for commercial P&C insurance in general and terrorism risk insurance in particular remains relatively stable. However, market hardening in the P&C sector during this period (see Section V.F) has resulted in increased pricing and an overall reduction in take-up of terrorism risk insurance, as measured by premium. This decrease in take-up of terrorism risk insurance is more significant when measured by policy

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TRIP-eligible line of insurance. *See* 31 C.F.R. § 50.4(w). Other small (and offsetting) differences arise from the manner in which Treasury collects data, which Treasury has addressed in prior reports. *See* FIO, *2018 Effectiveness Report*, 14 n.53.

[55] TRIA §101(b).

[56] *See* 2024 Report on the Effectiveness of the Terrorism Risk Insurance Program, https://www.regulations.gov/document/TREAS-TRIP-2024-0005-0001/comment (collecting and providing links to comments).

limits. Nevertheless, terrorism risk insurance remains available in the market for a small percentage of total P&C policy premium and continues to be purchased by the majority of commercial policyholders in the United States, including by a significant majority of places of worship. Private reinsurance capacity for terrorism risk insurance has increased since the creation of the Program, although the most recent data reflects that reinsurance for terrorism risk has not increased at the same rate as natural catastrophe reinsurance.

The Report addresses each of these observations in more detail below, relying principally upon the 2022-2024 TRIP data calls. The Report then addresses terrorism risk insurance for nuclear, biological, chemical, or radiological (NBCR)[57] attacks and for cyber losses.

A. General Program Observations

Several commenters cited the Program as the principal mechanism that has made terrorism risk insurance available and affordable since the inception of the Program in 2002, and observed that the Program has had a stabilizing effect on the market for commercial P&C insurance generally and terrorism risk insurance in particular.[58] As reported by certain observers, market fluctuations have taken place when the Program has lapsed or when there has been uncertainty over whether it would be reauthorized.[59]

The Program mechanics—the amount of the Program Trigger, the individual insurer deductibles, and the Co-Pay Shares—also affect the operation of the market for terrorism risk insurance. The 2015 Reauthorization Act prescribed changes to the Program mechanics that would occur over time, which have caused a continued shift of exposure from the federal government to the private market for terrorism risk insurance. Treasury has not observed any market disruption or impediments to participation caused by these changes to the Program mechanics. Although the 2019 Reauthorization Act did not modify any of the Program mechanics from those in place

[57] While the TRIP data collection defines this as NBCR, other agencies and entities may refer to this as CBRN.

[58] *See* NCCI Comments, 4 ("Given the challenges presented by the terrorism peril, Congress determined a workable solution was needed that provides primary insurance carriers with a mechanism to manage the impact of the terrorism peril. That solution was the creation of TRIP and it appears it may have contributed to a relatively stable workers compensation market."); Marsh Comments, 1 ("Reviewing TRIP since its inception following 9/11 shows the Program to have been successful, allowing insurance and reinsurance capacity back into the market and providing layers of protection to the federal government and US taxpayers."); RAA Comments, 2 ("By limiting insurers' exposure to catastrophic terrorism losses, TRIA has enhanced the private market for such coverage and has had a stabilizing influence on the economy. Under TRIA and its extensions, the availability of terrorism risk insurance has increased."); Lloyd's Comments, 1 ("TRIP has been and remains quite effective and successful since its enactment. It serves its purpose of stabilizing the insurance market and the economy in times of uncertainty and provides for a smooth recovery in the event of a future terrorist attack."); CIAT Comments, 1 ("Having a stable and competitive terrorism insurance marketplace is critical to America's economic national security. Terrorism insurance allows businesses to invest in assets and create jobs without being fully exposed to potentially massive losses that could result from an act of terrorism. Since TRIA's enactment, the Program has ensured this important marketplace has remained intact, and the economy protected as a result.").

[59] *See, e.g.*, CRS, *Terrorism Risk Insurance: Overview and Issue Analysis* (2022), 1, https://crsreports.congress.gov/product/pdf/R/R47042 ("It is unclear how the insurance market would react to the expiration of the federal program, although at least some instability might be expected were this to occur."); CIAT Comments, 2 ("During each reauthorization cycle of TRIA, CIAT members have seen policy renewals with 'springing exclusions' that would void terrorism cover if TRIA were to expire during the policy term.").

during calendar year 2020, increases in industry premiums over time will result in a corresponding increase in industry and policyholder exposure (by resulting in increased insurer deductibles and potential recoupment from policyholders in the event of federal payments), which has been observed by Treasury in its assessment of insurer deductibles and corresponding calculation of the IMARA.[60] Treasury will continue to monitor and study this issue.

B. Availability of Terrorism Risk Insurance

The availability of insurance for terrorism risk refers to whether insurers offer coverage for losses arising from an act of terrorism. Even when insurers "make available" terrorism risk coverage as required by TRIA, they retain the ability to limit their terrorism risk exposure in various ways. For example, insurers can limit their exposure to terrorism risk by enacting certain pricing mechanisms, by declining to underwrite particular risks, or by excluding coverage for certain forms of terrorism loss (where permitted by state law) such as for NBCR attacks.[61] Insurers may also decline to write a particular line of insurance entirely if that line presents too great a risk of loss on account of terrorism.

In assessing whether participating insurers are complying with the "make available" requirement, this Report considers the specific experience indicated by the data calls for commercial multi-peril (CMP) insurance. CMP insurance is a type of commercial package policy that contains coverage for more than one peril in a single policy. Such insurance products are more likely to be purchased by smaller or medium-sized businesses.[62] The TRIP data calls indicate CMP products produced a significant proportion (29 percent in 2023) of all policy premiums reported by non-small and small insurers in the TRIP-eligible lines of insurance, excluding workers' compensation.

CMP policies have a high take-up rate for terrorism coverage, which indicates that participating insurers are regularly "making available" terrorism risk insurance to their policyholders. In the 2022-2024 TRIP data calls, approximately 79 percent of CMP policies (as measured by TRIP-eligible DEP) included coverage for terrorism risk, with high percentages observed in all geographic areas of the United States.[63]

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[60] The IMARA (which measures aggregate industry payments that, if not exceeded in a calendar year, require Treasury to recoup any amounts that it expends under the Program) increased from $40.9 billion in calendar year 2020 to $48.5 billion in calendar year 2024, on account of the growth in annual industry premium in the TRIP-eligible lines of insurance. Since the IMARA is the average of aggregate insurer deductibles under TRIP, the increase in the IMARA signals a similar increase in the individual deductibles of individual insurers before they are entitled to make a claim for the federal share under TRIP.

[61] The extent of terrorism risk insurance for NBCR losses is addressed further in Section V.H.

[62] Policies that package together multiple lines typically needed by small businesses are generally more cost effective for such businesses than purchasing separate policies for each line of insurance. *See generally* "Understanding Business Owners Policies (BOPs)," III, https://www.iii.org/article/understanding-business-owners-policies-bops.

[63] Using policy count data reported by non-small insurers (such information is not collected from small insurers), the take-up rate for terrorism risk insurance in CMP lines measured 88 percent in the 2022 TRIP data call, 90 percent in the 2023 TRIP data call, and 92 percent in the 2024 TRIP data call. *See also* Section V.D.

Treasury uses a different method to assess Program effectiveness in the workers' compensation line of insurance business. This is because all U.S. jurisdictions require that terrorism risk coverage be included in all workers' compensation policies and the take-up rate is 100 percent. So instead of focusing on the take-up rate, Treasury assesses availability based on whether businesses purchase terrorism insurance coverage in the standard "voluntary" market in comparison to the residual market or whether businesses elect to self-insure.

The standard or voluntary market refers to insurance provided by a state licensed and supervised insurance company through market negotiated terms. If any business cannot find an insurance company to provide needed insurance, then it can obtain that coverage in the residual market. State insurance laws require licensed insurance companies to participate in residual insurance markets through risk-sharing arrangements that vary from state to state. In the residual market, also known as the assigned market, participating insurance companies are allocated these higher risk customers by a market manager or other mechanism. Insurance premiums in this part of the market are higher, and thus reflect that they are business' second rather than first choice for coverage. Businesses that choose to self-insure must comply with strict financial responsibility rules. Markets where the residual market share is large or growing may be experiencing market stress or inefficiency. Also, expansion of the residual market can put pressure on the voluntary market through the requirement for insurance companies to assume these higher residual risks in proportion to their share of the voluntary market.[64]

Available industry data indicates that the market share of the residual market based upon total workers' compensation premiums has been stable since the enactment of TRIA. That share has ranged from 4 to 6 percent of total workers' compensation premiums over the period between 2007 and 2023.[65] Similarly, the industry data indicates that the percentage of businesses self-insuring has remained relatively steady at between 23.9 percent in 2007 and 25.7 percent in 2021.[66] In the specific context of workers' compensation insurance, terrorism risk insurance is generally available in the marketplace.

C. Affordability of Terrorism Risk Insurance

Terrorism risk coverage provided under TRIP is generally "embedded" in policies that also cover other risks. Coverage also may be provided on a "standalone" basis when the policy provides coverage only for terrorism risk. Such standalone policies generally are used when properties or operations present heightened exposure to terrorism risk.

The TRIP data calls have indicated that, depending upon the year, between 80 to 85 percent of the U.S. terrorism risk insurance market (as measured by terrorism risk insurance premium) is provided through embedded policies, while the remaining 15 to 20 percent is obtained through

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[64] *See* NCCI Comments, 2-3 (noting impact of the September 11 Attacks on the increase in the share of the residual market for workers' compensation risks and follow-on impact on insurers in the voluntary market). Workers' compensation issues under TRIA are discussed in Section VII.

[65] NCCI Comments, 3.

[66] *See* Tyler Welch *et al.*, *Workers' Compensation: Benefits, Coverage, and Costs* (2024), 24, https://www.nasi.org/wp-content/uploads/2024/02/2024-WC-Report-2021-Data-Final.pdf (analysis from the National Academy of Social Insurance, using 2021 data) (*2024 NASI Workers' Compensation Report*).

standalone terrorism policies. When measured by policy limits instead of premiums, the market share of standalone policies is much smaller, due to the higher risk and higher premiums observed in the standalone portion of the market. Each type of policy is examined in greater detail below.

1. Embedded Terrorism Risk Insurance

Embedded terrorism risk insurance is provided within P&C policies that also cover other risks. TRIA requires that insurers disclose to policyholders the amount of premium charged for embedded terrorism risk insurance.[67] This premium cost is often disclosed to the policyholder as a percentage of the total premium charged for the policy.[68]

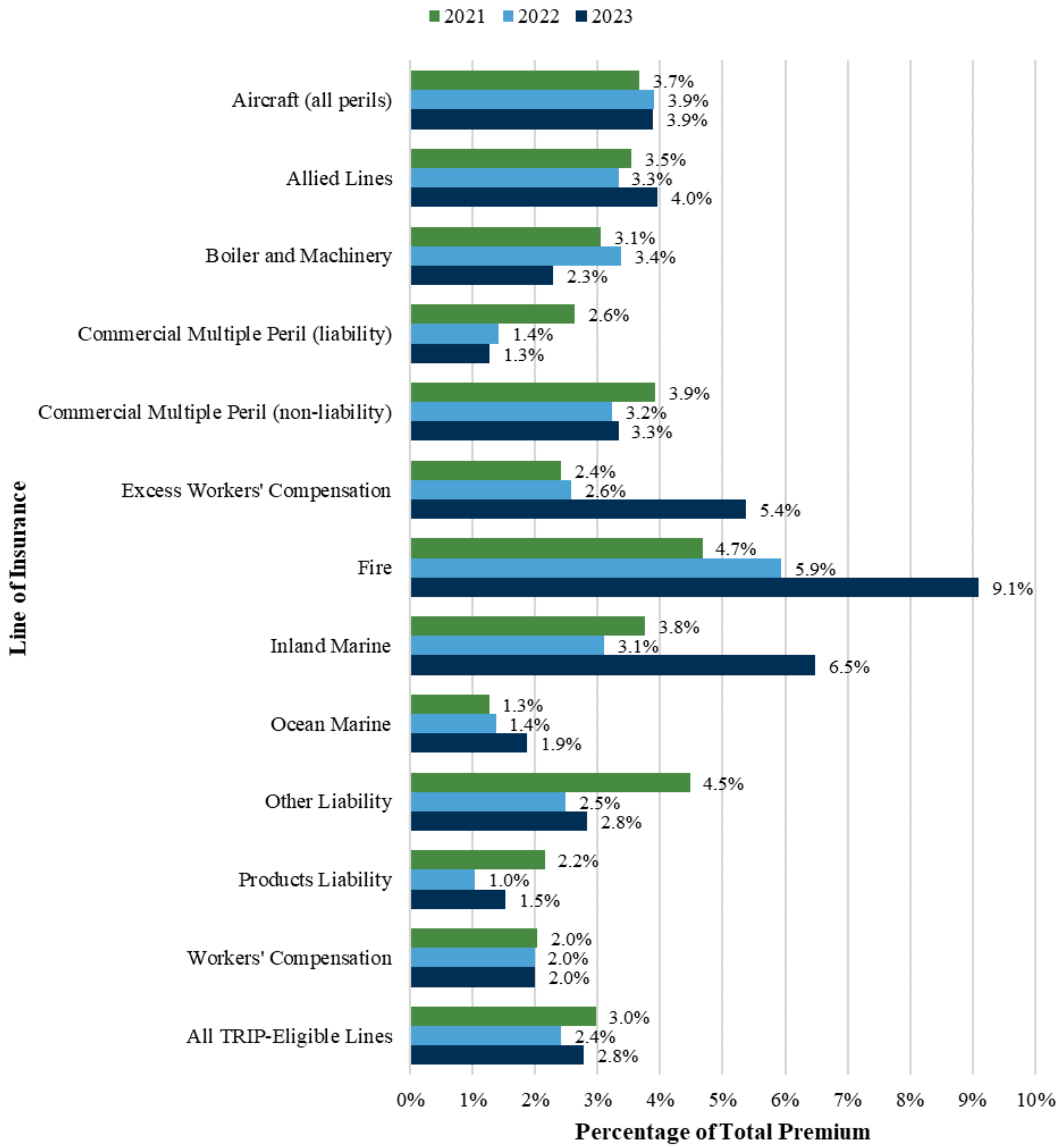
Although approximately 67 percent of insurers charge a premium for terrorism risk insurance within embedded policies, approximately 34 percent (based upon the 2024 TRIP Data Call) provide terrorism risk coverage for no additional charge. Figure 4 illustrates premium charges in the terrorism risk insurance marketplace for embedded terrorism risk insurance coverage, broken out by insurance line and in total, in cases where an additional charge is made for the insurance.[69]

[67] *See* General Disclosure Requirements, 31 C.F.R. § 50.10; Clear and Conspicuous Disclosures, 31 C.F.R. § 50.12.

[68] *See* 31 C.F.R § 50.12(b); *see also* Marsh, *2019 Terrorism Risk Insurance Report* (2019), 9, https://www.regulations.gov/comment/TREAS-TRIP-2020-0010-0004 (reflecting analysis of terrorism risk insurance cost by industry segment based upon percentage that terrorism risk premium bears to policy premium as a whole).

[69] The figures in this section are based upon the information reported to Treasury by non-small and small insurers. Similar information for captive and alien surplus lines insurers is reported in Sections VI.B and VI.C, respectively.

Figure 4: Percentage of Total Policy DEP Allocated to Terrorism Risk[70]

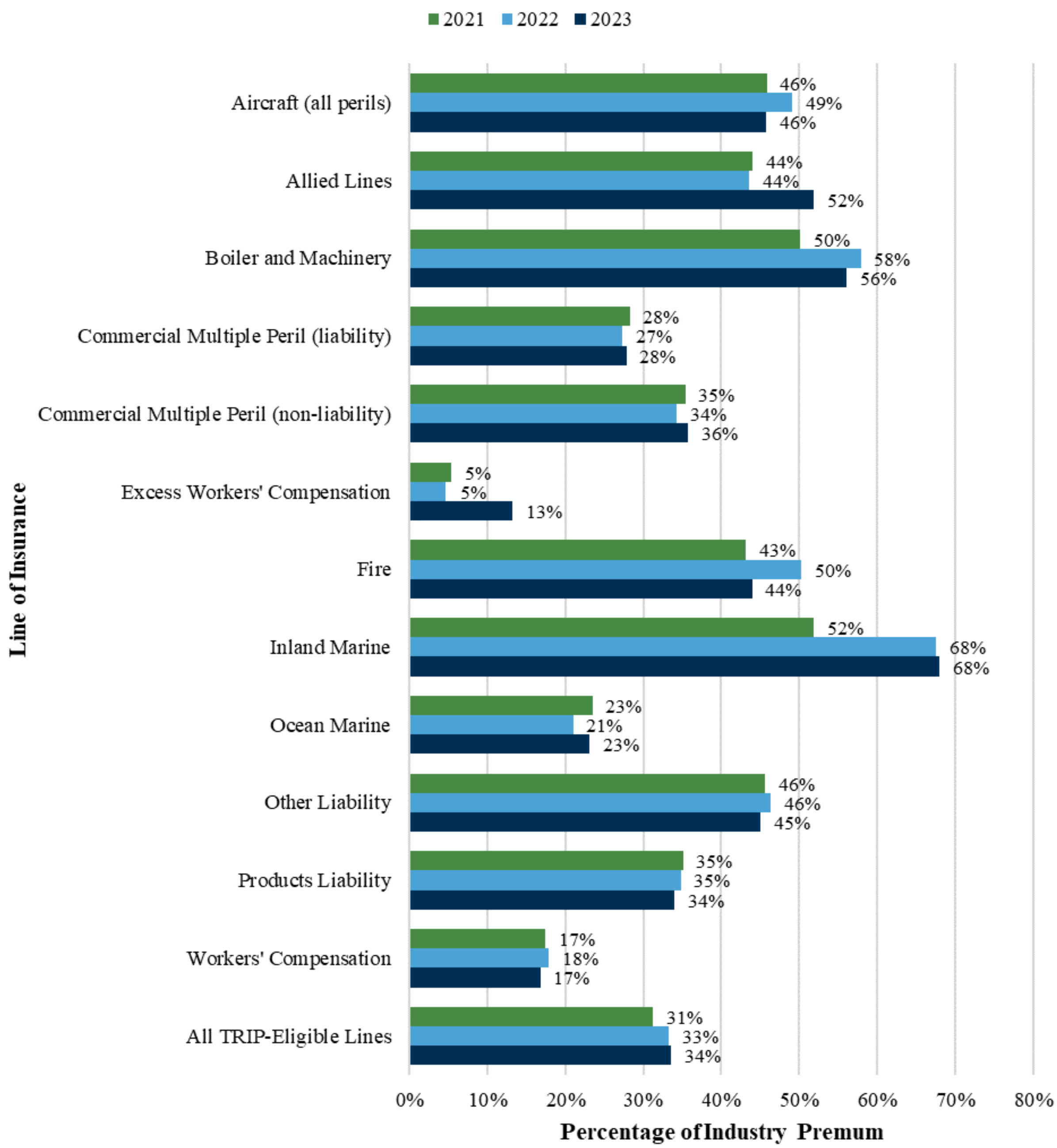


Source: 2022-2024 TRIP data calls.

Figure 5 identifies policies where terrorism risk coverage is provided for no additional charge.

[70] The premiums for embedded terrorism risk insurance are slightly overstated because total premiums contain a small amount of premium for standalone policies that cannot be removed on a line-by-line basis. When removed from the total figures, however, the total premiums decline by only a few hundredths of a percentage point, rounding to 2.7 percent in 2023.

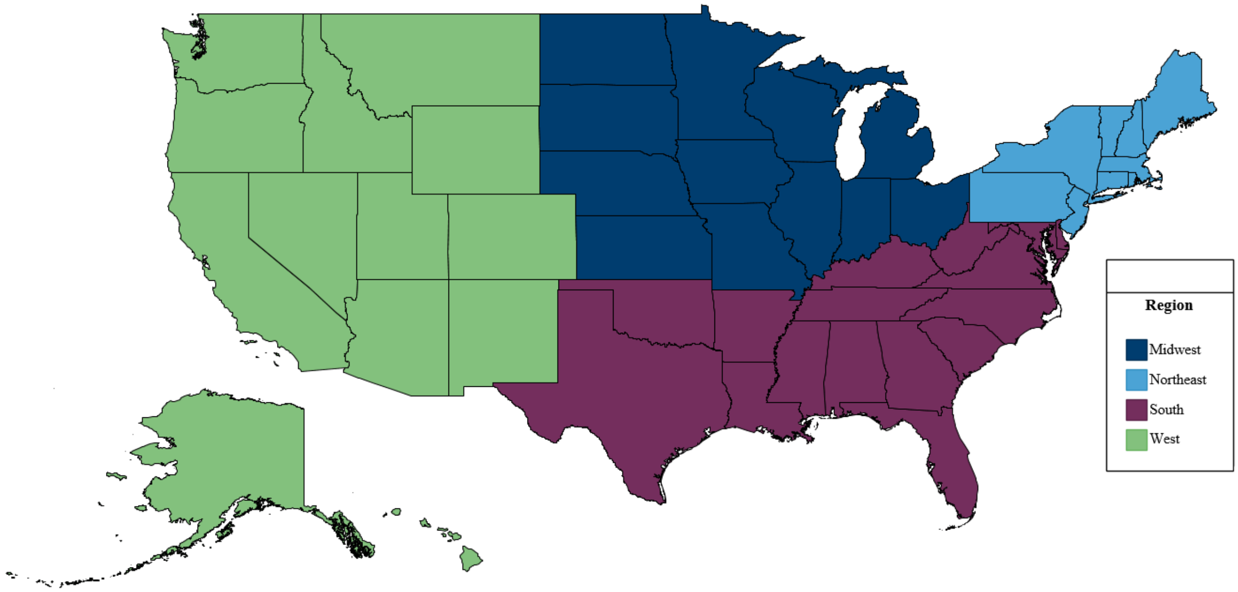
Figure 5: Percentage of DEP Where Policies Include Terrorism Coverage at No Additional Charge



Source: 2022-2024 TRIP data calls

Charges for terrorism risk coverage vary not only by line of insurance but also by geographic area. For purposes of analysis by geographic area, Treasury generally uses either the four U.S. Census Regions (shown in Figure 6) or individual state jurisdictions.

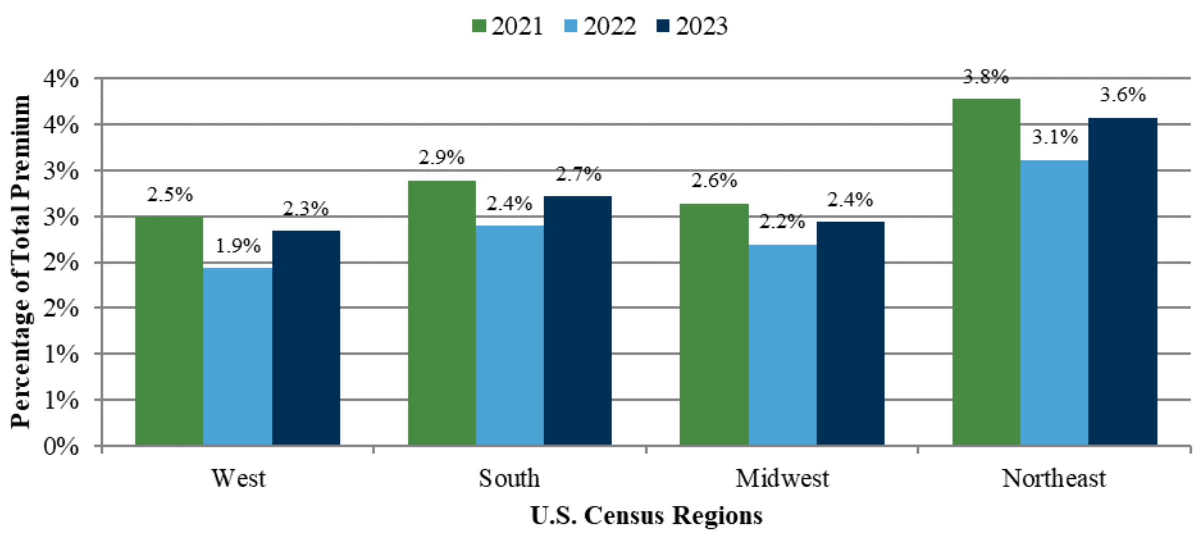
Figure 6: U.S. Census Regions



Source: U.S. Census Bureau

Figure 7 illustrates the percentage of total premiums charged for terrorism risk insurance by region.

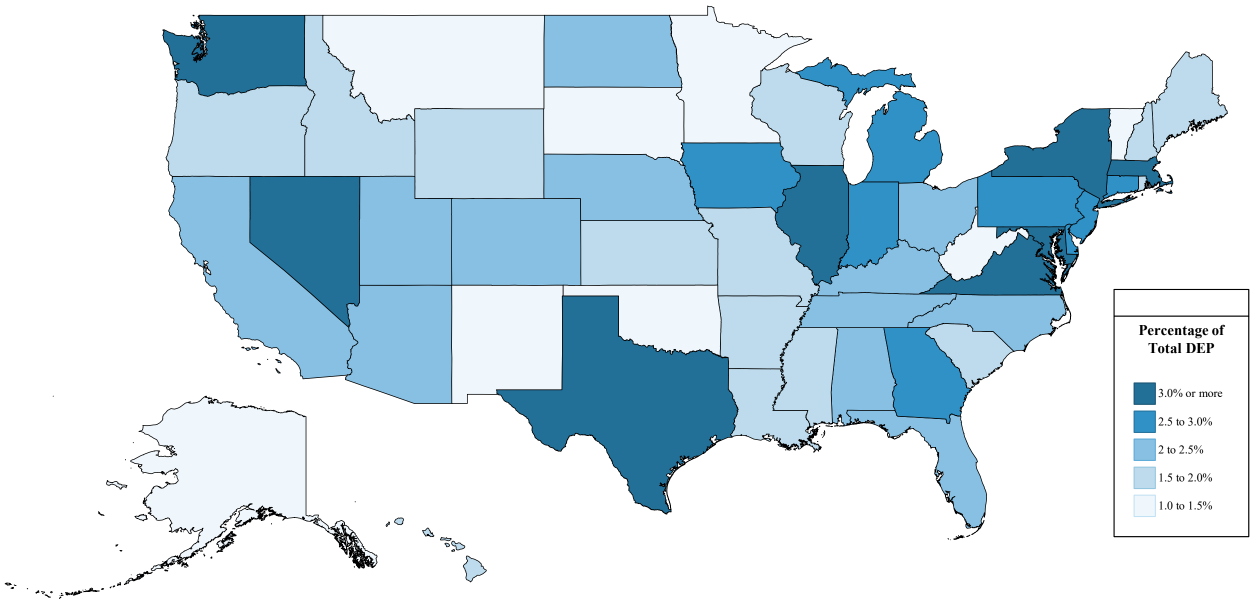
Figure 7: Percentage of Total Policy DEP Allocated to Terrorism Risk (By Region)



Source: 2022-2024 TRIP data calls

Figure 8 illustrates the percentage of total direct earned premiums for terrorism risk insurance by state.

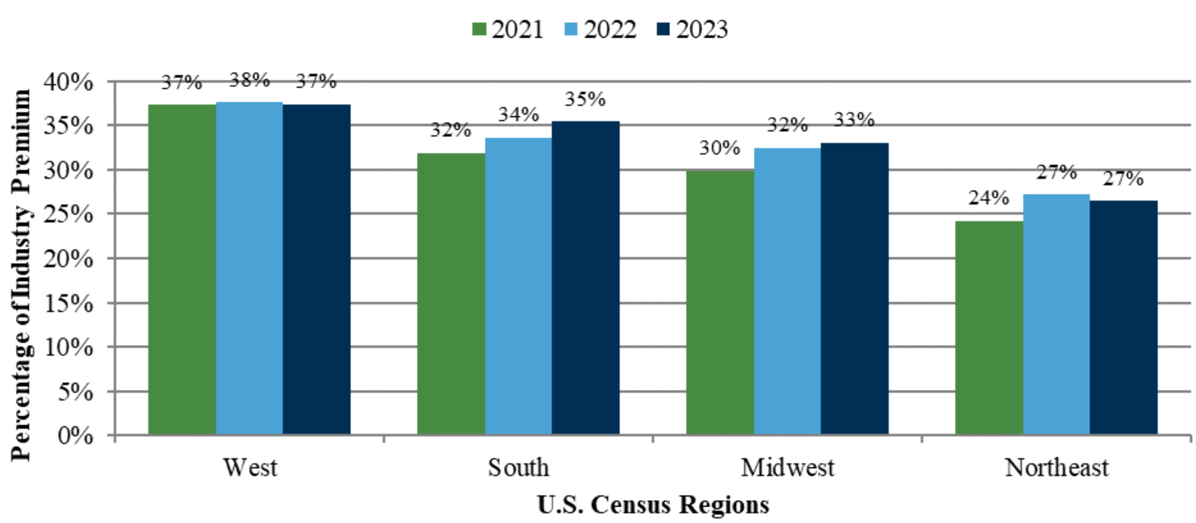
Figure 8: 2023 Percentage of Total Policy DEP Allocated to Terrorism Risk (By State)



Source: 2024 TRIP data call

Figure 9 illustrates where terrorism risk insurance was provided for no additional charge by region.

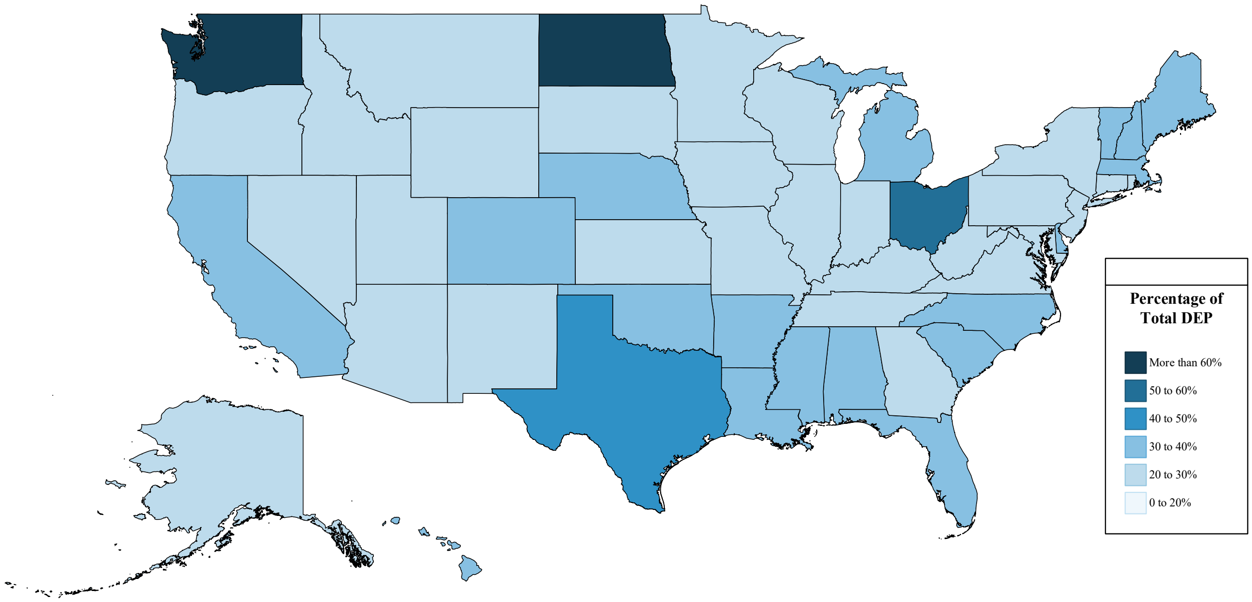
Figure 9: Percentage of DEP Where Policies Include Terrorism Coverage at No Additional Charge (By Region)



Source: 2022-2024 TRIP data calls

Figure 10 illustrates where terrorism risk insurance was provided for no additional charge by state.

Figure 10: 2023 Percentage of DEP Where Policies Include Terrorism Coverage at No Additional Charge (By State)

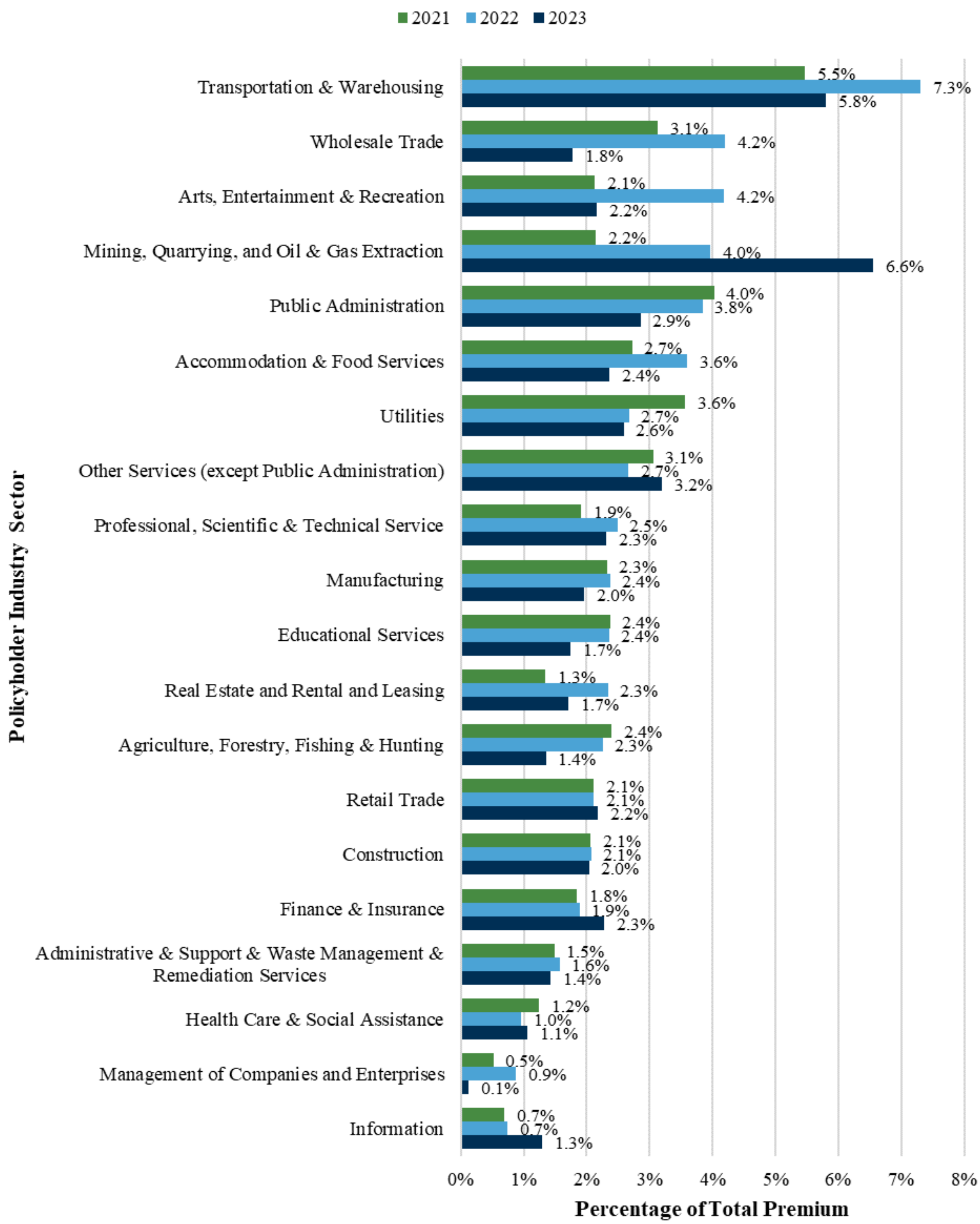


Source: 2024 TRIP data call

Charges for terrorism risk insurance also vary by the policyholder's industry sector. Figure 11 illustrates the policyholder industry sectors of terrorism risk insurance premiums as a percentage of total insurance premiums, as reported by non-small and alien surplus line insurers.[71]

[71] Policyholder industry code data was not requested from small insurers. Industry code data for policyholders insured by captive insurers is provided in Section VI.B.

Figure 11: Percentage of Total Policy DEP Allocated to Terrorism Risk for Non-Small and Alien Surplus Lines Insurers (By Policyholder Industry Sector)



Source: 2022-2024 TRIP data calls

The data from the 2022-2024 TRIP data calls demonstrates that terrorism risk insurance provided on an embedded basis continues to be priced at a relatively small percentage of the total premiums charged for policies—ranging between 2.4 percent and 3.0 percent on average during 2021 to 2023. These figures are generally consistent with prior Treasury observations in 2022 and 2020.[72] Additionally, approximately 34 percent of the time, as measured by DEP, terrorism risk insurance is provided for no additional charge—a figure that has increased over the last few years. Charges for terrorism risk insurance do vary by line of insurance, geographic area, and the policyholder's industry sector.

2. Standalone Terrorism Risk Insurance

Standalone terrorism risk insurance policies provide coverage only for losses arising from terrorism, unlike policies providing terrorism risk insurance on an embedded basis. As reported by industry sources, standalone coverage is purchased primarily by organizations that are viewed by insurers as being at relatively high risk of loss due to terrorism, including: when terrorism coverage is not available as part of the commercial property policy, when the price of terrorism coverage from the insurer providing the commercial property policy is too high, or when the terrorism coverage offered by the insurer providing the commercial property policy is too narrow.[73]

Standalone terrorism coverage can be provided either through "certified" standalone terrorism risk policies which are written subject to the terms and conditions of TRIP or through "non-certified" standalone terrorism policies which do not meet the terms and conditions of TRIP. Non-certified standalone terrorism policies therefore insure terrorism-related losses (as defined in the specific policy) regardless of whether the Secretary has certified an act of terrorism under TRIA. Any losses paid by insurers under non-certified standalone terrorism risk policies would not be eligible for reimbursement under TRIP.

As shown in Figure 12, DEP under certified standalone terrorism risk insurance policies accounted for a higher percentage than total DEP earned under non-certified standalone policies.[74]

[72] *Compare* FIO, *2022 Effectiveness Report*, Figure 4 (reflecting average premium ranging from 2.6 percent to 3.0 percent between 2019 and 2021) *with* FIO, *2020 Program Effectiveness Report*, Figure 4 (reflecting average premium ranging from 2.4 percent to 2.5 percent).

[73] "Stand Alone Terrorism Coverage," International Risk Management Institute, https://www.irmi.com/online/insurance-glossary/terms/s/stand-alone-terrorism-coverage.aspx.

[74] Small insurers have not reported any meaningful amount of terrorism risk insurance identified as standalone terrorism coverage for the last three reporting periods and are accordingly omitted from the analyses in this section.

Figure 12: Percentage of Standalone Policies that are Certified Versus Non-Certified (By DEP)

	Certified Policies			Non-Certified Policies		
	2021	2022	2023	2021	2022	2023
Alien Surplus Lines Insurers	55.4%	56.9%	58.3%	44.6%	43.1%	41.7%
Captive Insurers	90.4%	88.0%	86.8%	10.0%	11.2%	11.9%
Non-Small Insurers	55.2%	52.6%	55.5%	44.5%	47.4%	44.6%
All Insurer Categories	**76.1%**	**73.0%**	**74.4%**	**23.3%**	**26.1%**	**24.3%**

Source: 2022-2024 TRIP data calls

The data also suggests that standalone terrorism policies in each insurer category can vary significantly in terms of cost and whether they provide coverage under TRIA. Figure 13 illustrates the average cost for standalone terrorism policies, by insurer category, depending upon whether certified or non-certified coverage is provided.

Figure 13: 2023 Certified Standalone Versus Non-Certified Standalone Policies by Policy Count and DEP

	Certified Standalone Policies			Non-Certified Standalone Policies		
	# of Policies	Total DEP	Average Policy Cost	# of Policies	Total DEP	Average Policy Cost
Alien Surplus Lines Insurers	5,677	$ 92,737,863	$ 16,336	4,558	$ 66,272,321	$ 14,540
Captive Insurers	287	441,979,105	1,539,997	3	60,571,262	20,190,421
Non-Small Insurers	2,772	99,242,052	35,802	1,351	79,777,400	59,051
All Insurer Categories	**8,736**	**$ 633,959,020**	**$ 1,592,134**	**5,912**	**$ 206,620,983**	**$ 20,264,011**

Source: 2024 TRIP data call

The TRIP data calls do not request information on the total coverage (i.e., policy limits) provided under non-certified standalone policies. The disparity in average policy cost between certified and non-certified policies may be due to differences in the relative size or nature of exposures covered under each type of policy. The disparity could also indicate a higher cost associated with non-certified standalone policies compared to certified standalone policies. Treasury cannot determine the extent to which various factors contribute to this cost difference. For non-small insurers, the data for 2023 reflects a higher cost for non-certified standalone policies than for certified policies. Alien surplus lines insurers did not report any significant difference in the relative cost of the different types of standalone terrorism policies. Captive insurers reported a significantly higher total average cost for non-certified standalone policies than the cost charged for certified policies. Treasury will continue to monitor and assess these issues.

Certified standalone terrorism risk insurance policies, which do provide TRIA coverage, account for under one-fifth of all terrorism risk insurance DEP subject to the Program (14.3 percent in 2023), with the balance of almost 86 percent earned through embedded policies. However, the cost of coverage under certified standalone policies is also significantly higher than the cost of coverage under embedded policies. Measured by policy limits (whether property or liability) of all policies insuring terrorism risk under the Program, certified standalone policies accounted for only 0.2 percent of total policy limits in 2023.

Figure 14 shows the amount of premium charged per $1 million in coverage under embedded policies compared to standalone policies covering TRIA-certified events.

Figure 14: Embedded Policies Versus Certified Standalone Policies: Premium Charged Per $1 Million in Policy Limits

	Embedded Terrorism			Standalone Terrorism		
	2021	2022	2023	2021	2022	2023
Alien Surplus Lines Insurers	$ 188	$ 380	$ 338	$ 190	$ 215	$ 198
Captive Insurers	980	862	773	939	901	879
Non-Small Insurers	19	17	15	265	859	842
All Insurer Categories	**28**	**27**	**23**	**488**	**569**	**582**

Source: 2022-2024 TRIP data calls

As noted above, the data indicates that the rate charged for terrorism coverage under embedded policies is typically lower than the rate charged for standalone policies. This indicates that standalone policies are more likely to be issued to policyholders viewed as presenting exposures subject to a higher risk of terrorism attack.

D. Take-Up Rates for Terrorism Risk Insurance

TRIA requires an offer—but does not mandate the purchase—of terrorism risk insurance.[75] Therefore, the extent to which terrorism risk insurance is purchased by policyholders (the take-up rate) may approximate the distribution of insured payments in the event of a terrorist attack. A higher take-up rate means that the losses arising from a terrorist attack will be more likely to be covered by private insurers.

A take-up rate based on the number of policies will be likely influenced by the large number of small policies covering risks with lower insured values. Alternatively, a take-up rate measured by DEP or policy limits will be more influenced by policies covering larger businesses with more insured property and liability exposure. The latter comes closer to reflecting the amount of insured business activity in the economy.

Analyses by Treasury between 2005 and 2014 found that the take-up rate, when measured by the percentage of policies containing terrorism coverage, increased from 27 percent in 2003 (the first full year of the Program) to approximately 60 percent by 2006.[76] In its 2022 Effectiveness

[75] The take-up rate data discussed in this section do not consider workers' compensation, which has a 100 percent take-up rate as a matter of state law. Section VII discusses the impact of the Program on workers' compensation insurers.

[76] Office of Economic Policy, U.S. Department of the Treasury, *Assessment: The Terrorism Risk Insurance Act of 2002* (2005), 3, 84, https://home.treasury.gov/system/files/311/tria_studyby_treas.pdf; President's Working Group on Financial Markets (PWG), *Terrorism Risk Insurance: Report of the President's Working Group on Financial Markets* (2006), 42-44, https://home.treasury.gov/system/files/311/report.pdf; PWG, *Market Conditions for Terrorism Risk Insurance 2010* (2010), 23, https://home.treasury.gov/system/files/311/PWG-Report-Final-January-13.pdf; PWG, *The Long-Term Availability and Affordability of Insurance for Terrorism Risk* (2014), 30, https://home.treasury.gov/system/files/311/PWG_TerrorismRiskInsuranceReport_2014.pdf.

Report, Treasury found the take-up rates ranging from 59 percent to 76 percent depending upon the year, and whether take-up was measured by policy count, DEP, or insured values.[77]

Figure 15 illustrates the take-up rates in 2022 by policy count, DEP, and property and liability policy limits. Information is based upon alien surplus lines, non-small, and small insurer reported data.[78]

Figure 15: 2022 Terrorism Risk Insurance Take-Up Rates by Policy Count, DEP, and Policy Limits (by Insurer Category)

	Policy Count	DEP	Property Limits	Liability Limits
Alien Surplus Lines Insurers	47%	45%	52%	47%
Non-Small Insurers	78%	61%	53%	37%
Small Insurers[79]	N/A	55%	51%	53%
All Insurer Categories	**78%**	**59%**	**53%**	**39%**

Source: 2023 TRIP data call

Figure 16 illustrates the take-up rates in 2023 by the same measures and shows similar data between the various insurer categories.

Figure 16: 2023 Terrorism Risk Insurance Take-Up Rates by Policy Count, DEP, and Policy Limits (by Insurer Category)

	Policy Count	DEP	Property Limits	Liability Limits
Alien Surplus Lines Insurers	8%	40%	40%	47%
Non-Small Insurers	79%	60%	50%	42%
Small Insurers[80]	N/A	57%	53%	66%
All Insurer Categories	**77%**	**58%**	**50%**	**45%**

Source: 2024 TRIP data call

Similar to the price of terrorism risk insurance, the take-up rate of terrorism risk insurance also varies by the geographic region of the United States, and by state. Figure 17 shows the 2022 take-up rates indicated for the Northeast, Midwest, South, and West regions, using the benchmarks of policy count, DEP, and insured value. The information generally reflects that take-up is slightly higher in the Northeast and Midwest versus the South and West.

[77] FIO, *2022 Effectiveness Report*, 29.

[78] Captive insurers do not present similar issues to admitted insurers with respect to take-up rates, because the decision of a captive owner to insure its terrorism risk exposure with a captive insurer is a self-insurance decision as opposed to a market decision (although the cost of terrorism risk insurance in the marketplace at large may influence the decision to self-insure through a captive insurer). The captive insurance market for terrorism risk insurance is addressed in Section VI.B.

[79] Treasury did not require small insurers to provide policy count information in the 2023 TRIP data call.

[80] Treasury did not require small insurers to provide policy count information in the 2024 TRIP data call.

Figure 17: 2022 Terrorism Risk Insurance Take-Up Rates by Policy Count, DEP, and Insured Value (by Region)

	Policy Count	DEP	Property Limits	Liability Limits
Northeast	71%	63%	62%	55%
Midwest	82%	65%	65%	42%
South	75%	56%	46%	37%
West	81%	56%	50%	40%
All Regions	**78%**	**59%**	**53%**	**43%**

Source: 2023 TRIP data call

Figure 18 shows the 2023 take-up rates using the same metrics to illustrate similar data between the various regions.

Figure 18: 2023 Terrorism Risk Insurance Take-Up Rates by Policy Count, DEP, and Insured Value (by Region)

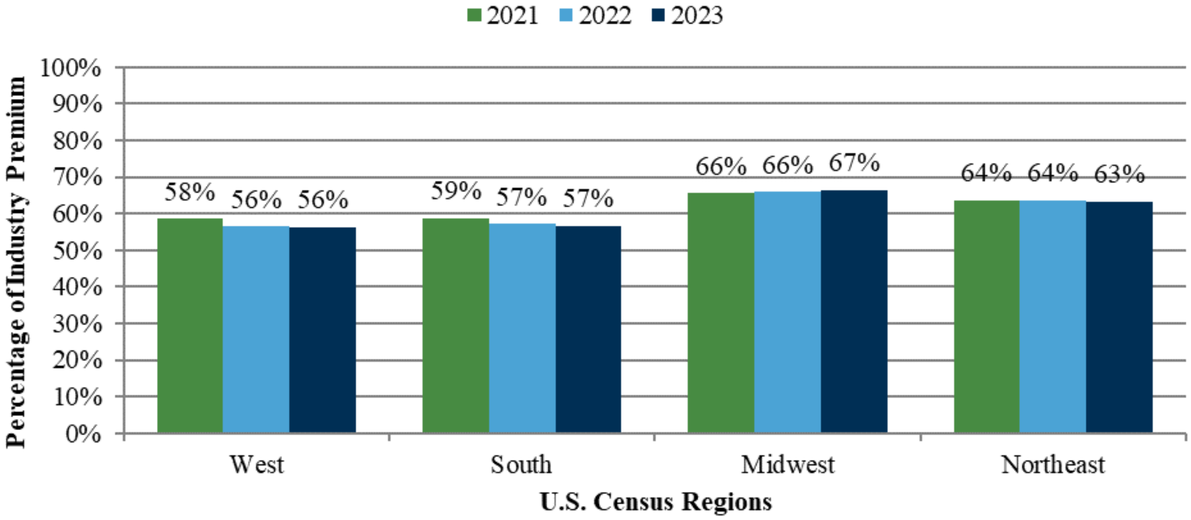
	Policy Count	DEP	Property Limits	Liability Limits
Northeast	70%	62%	56%	50%
Midwest	81%	65%	53%	41%
South	75%	55%	49%	44%
West	79%	55%	44%	48%
All Regions	**77%**	**59%**	**50%**	**45%**

Source: 2024 TRIP data call

Figure 19 illustrates take-up rates, based upon DEP, by region, again showing the small differential between the Northeast and Midwest versus the South and West.[81]

[81] Similar to the other analyses by region, the information illustrated is based upon non-small and small insurer reporting only.

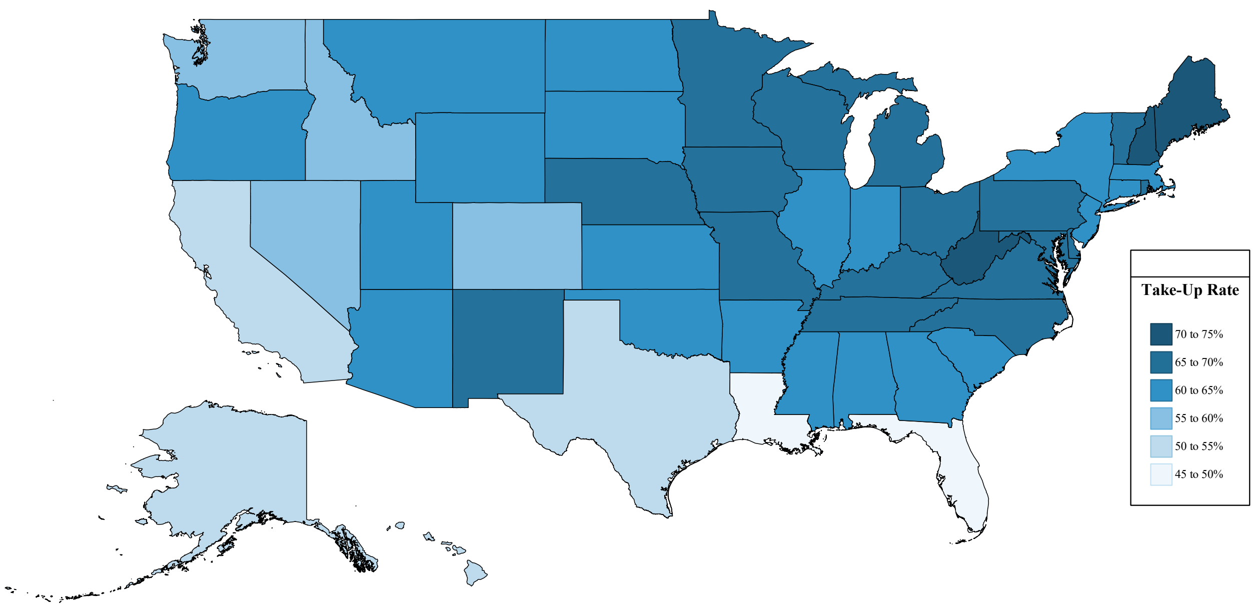
Figure 19: Terrorism Risk Insurance Take-Up Rates By DEP (by Region)



Source: 2022-2024 TRIP data calls

Figure 20 illustrates take-up rates, based upon DEP, by state (for 2023 only).

Figure 20: 2023 Terrorism Risk Insurance Take-Up Rates by DEP (By State)

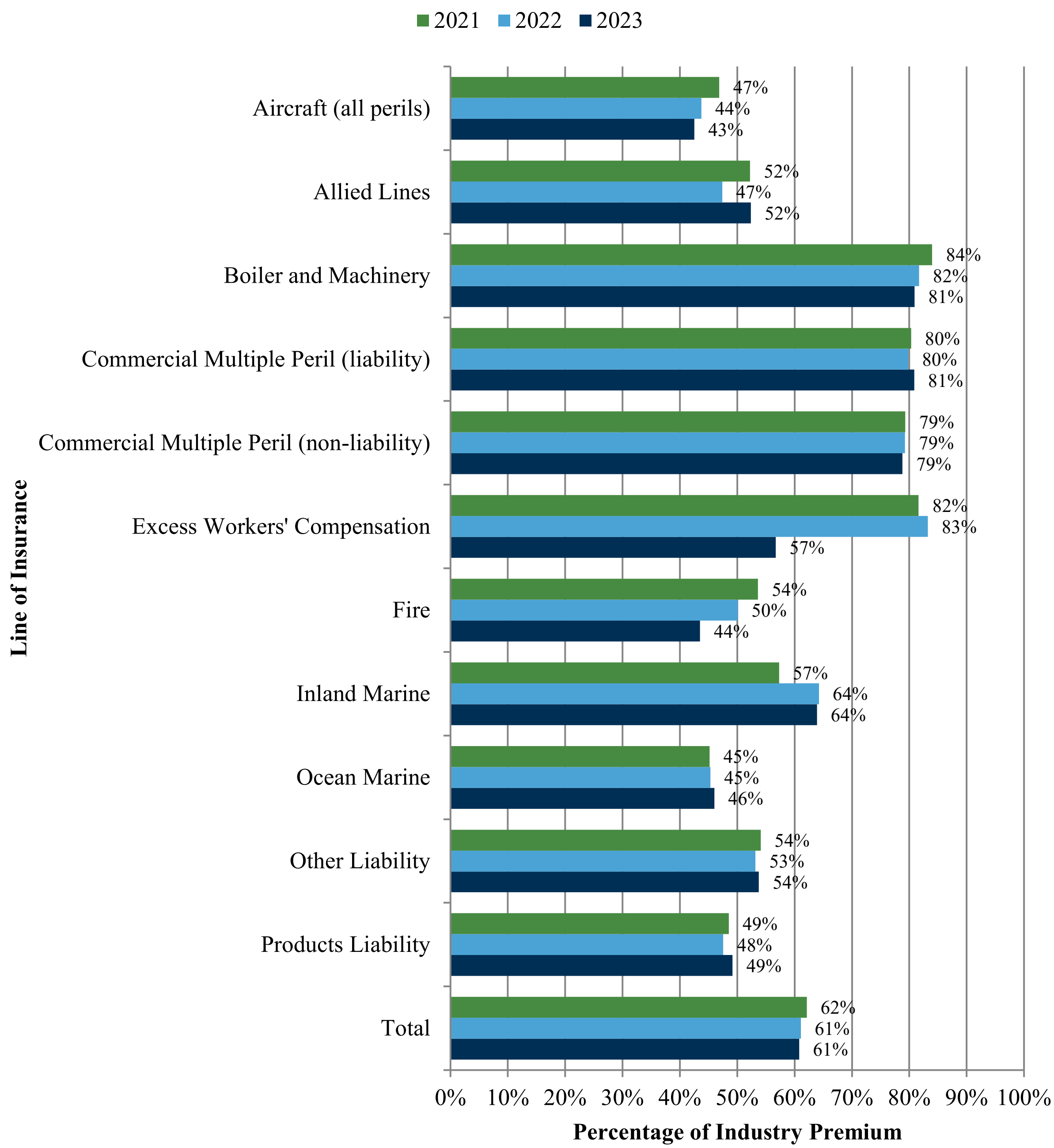


Source: 2024 TRIP data call

The Appendices provide further detail on how take-up varies by state, type of insurance, and small versus non-small insurers. Appendix 1 contains a table setting forth the 2023 take-up rates presented in Figure 20 by state for both small and non-small insurers combined, as well as additional detail on small and non-small insurers. Appendix 2 provides more detailed take-up information for small and non-small insurers, by state and by groups of TRIP-eligible lines of insurance.

Take-up rates also vary by individual line of insurance. Figure 21 shows the take-up rate within each TRIP-eligible line of insurance (excluding workers' compensation) by DEP.

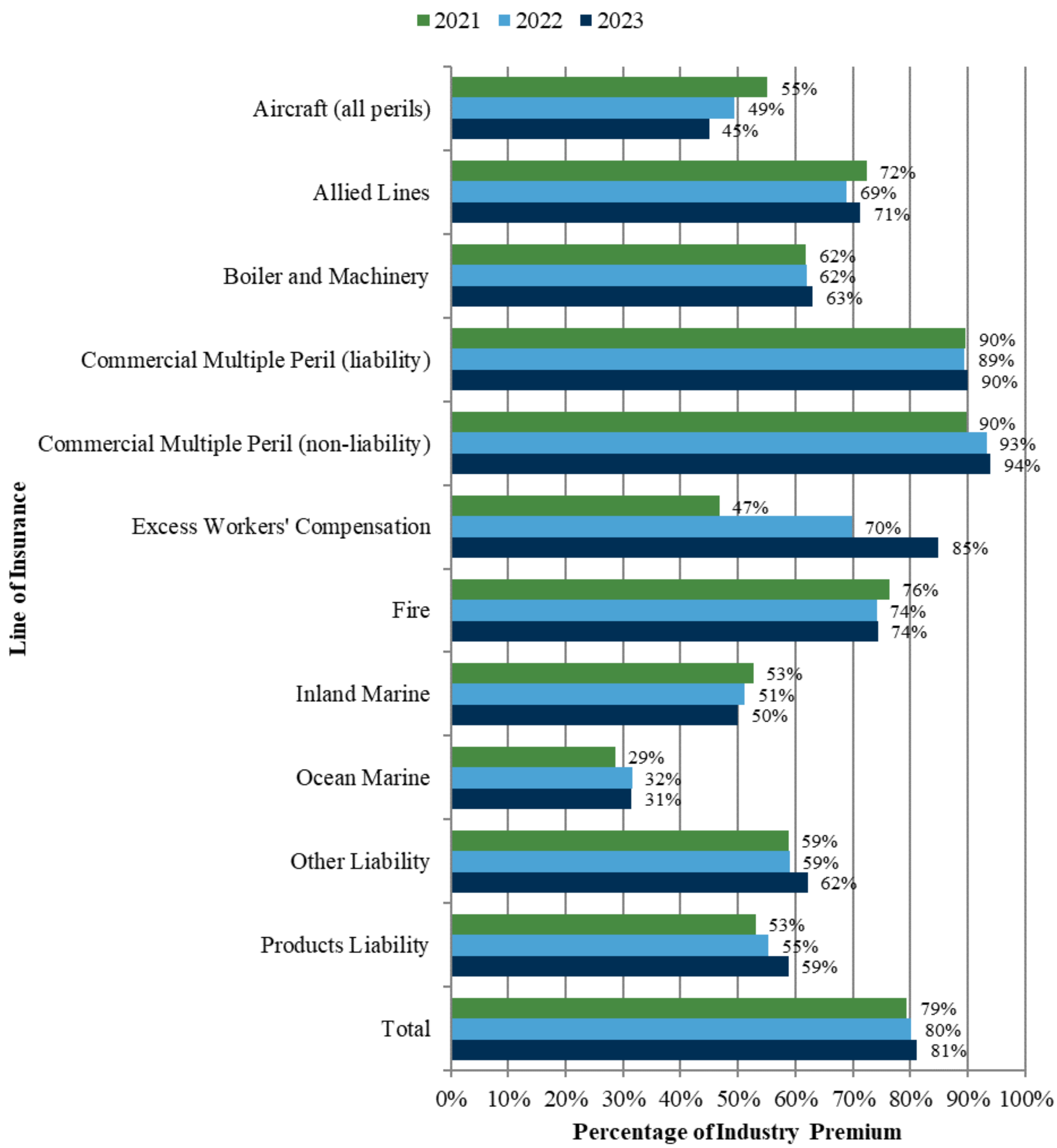
Figure 21: Terrorism Risk Insurance Take-Up Rates in TRIP-Eligible Lines (by DEP)



Source: 2022-2024 TRIP data calls

Figure 22 shows the take-up rate within each TRIP-eligible line of insurance (excluding workers' compensation) by policy count.

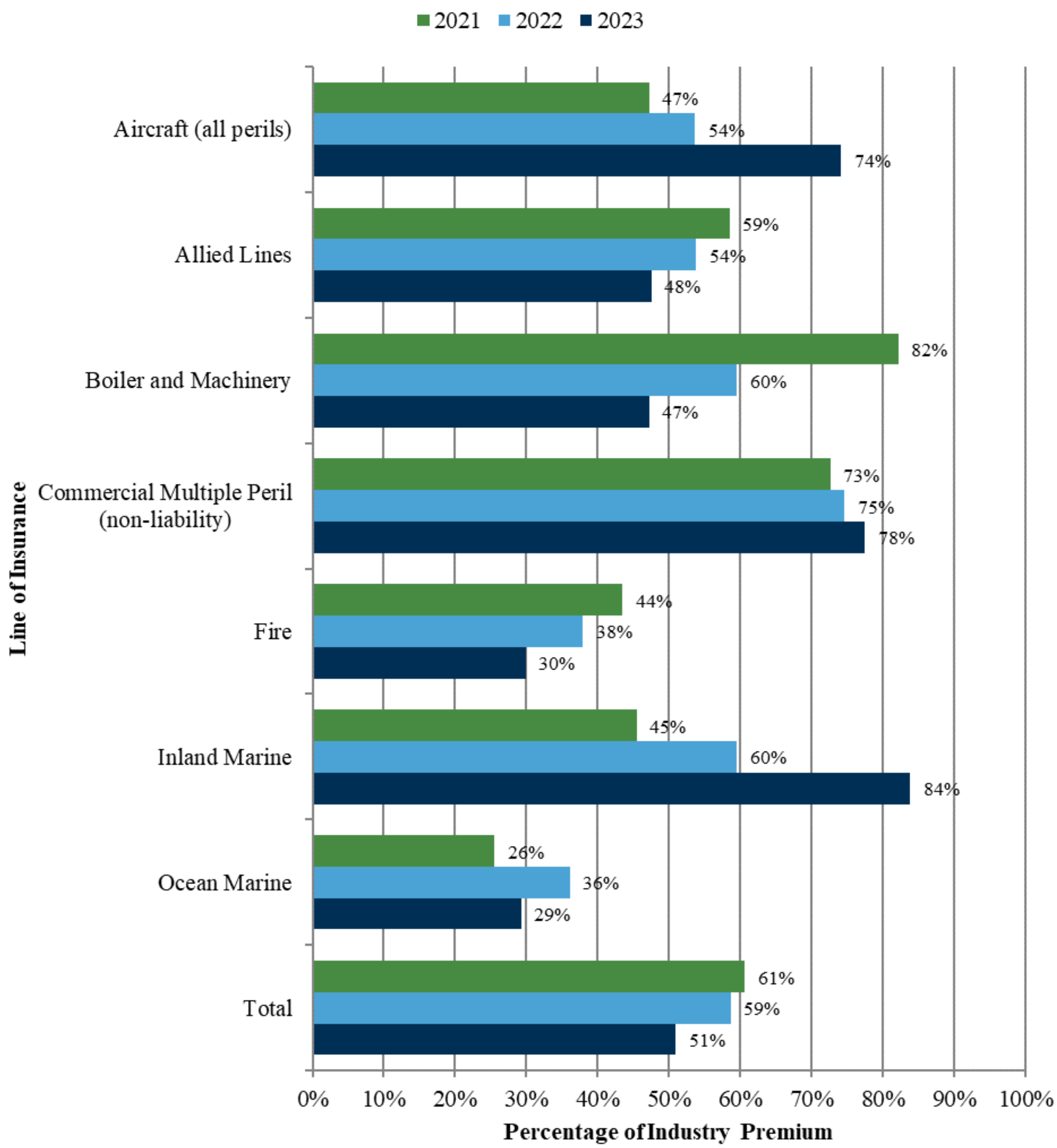
Figure 22: Terrorism Risk Insurance Take-Up Rates in TRIP-Eligible Lines (by Policy Count)



Source: 2022-2024 TRIP data calls

Figure 23 shows the take-up rate in TRIP-eligible lines by property policy limits.

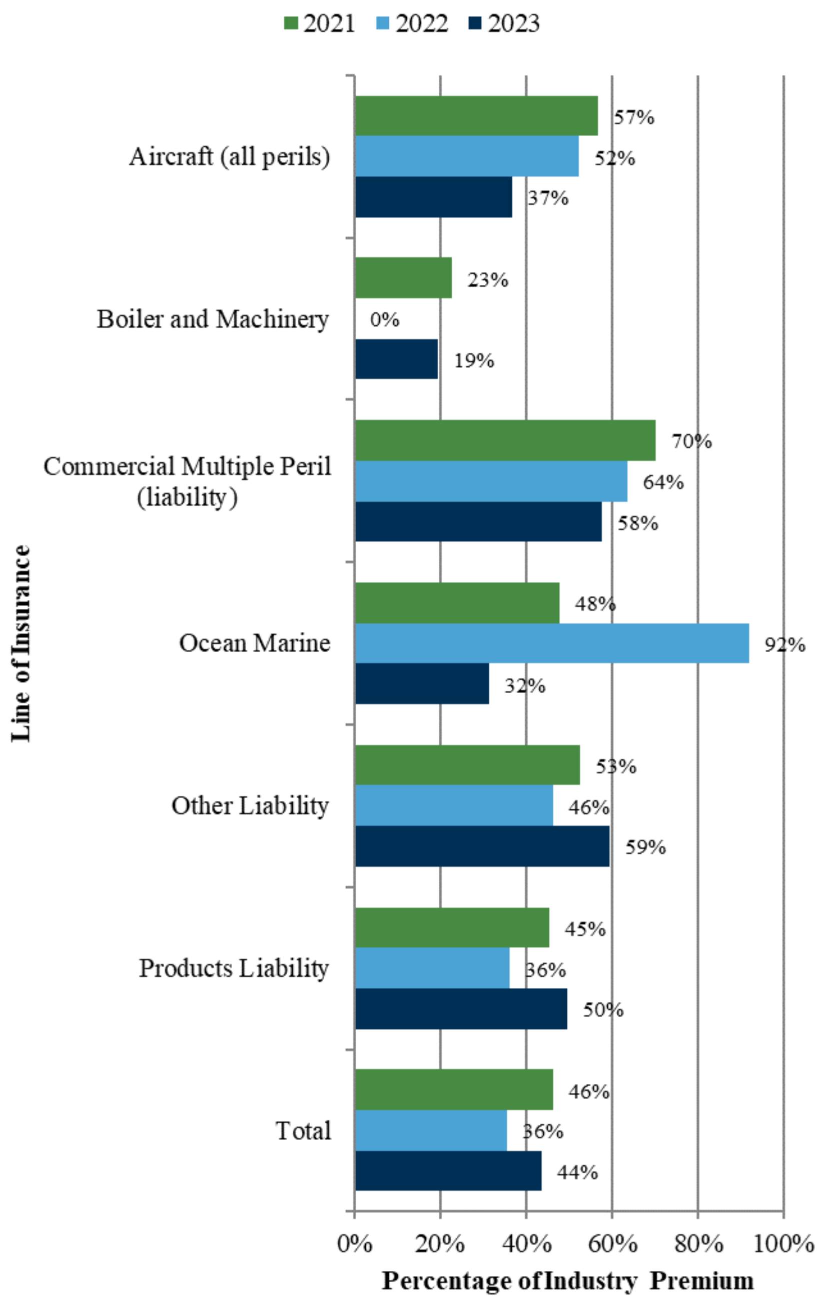
Figure 23: Terrorism Risk Insurance Take-Up Rates in TRIP-Eligible Lines (by Property Policy Limits)



Source: 2022-2024 TRIP data calls

Figure 24 shows the take-up rate in TRIP-eligible lines by liability policy limits.

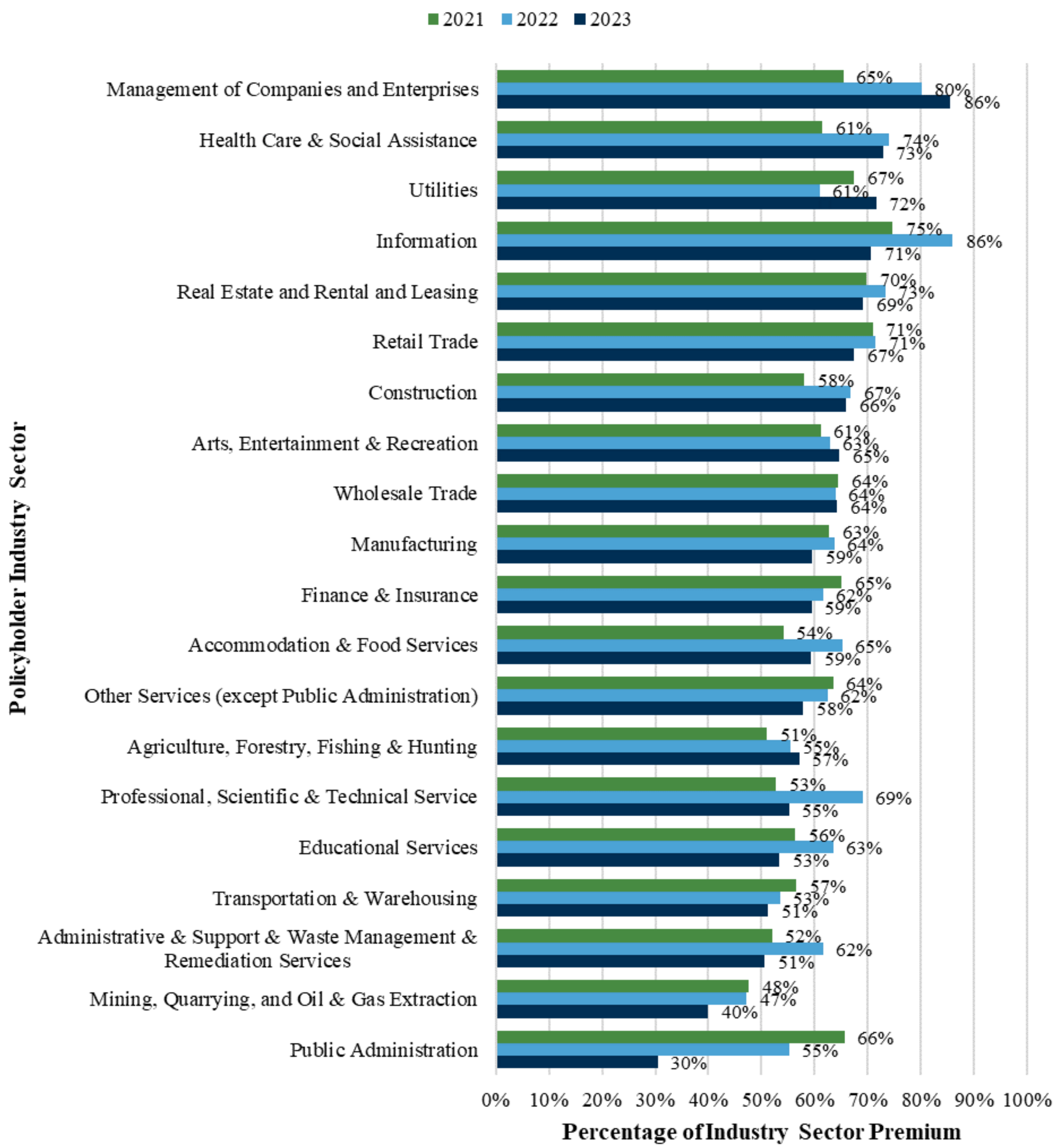
Figure 24: Terrorism Risk Insurance Take-Up Rates in TRIP-Eligible Lines (by Liability Policy Limits)



Source: 2022-2024 TRIP data calls

Take-up rates also vary by policyholder industry sector, as illustrated by Figure 25.

Figure 25: Terrorism Risk Insurance Take-Up Rates by Policyholder Industry Sector (by TRIP-Eligible DEP)[82]



Source: 2022-2024 TRIP data calls

[82] Data provided for non-small and alien surplus lines insurers. Small insurers have not been required to report policyholder industry sector information in the TRIP data calls. Take-up rates for captive insurers were not analyzed. *See* Section VI.B.

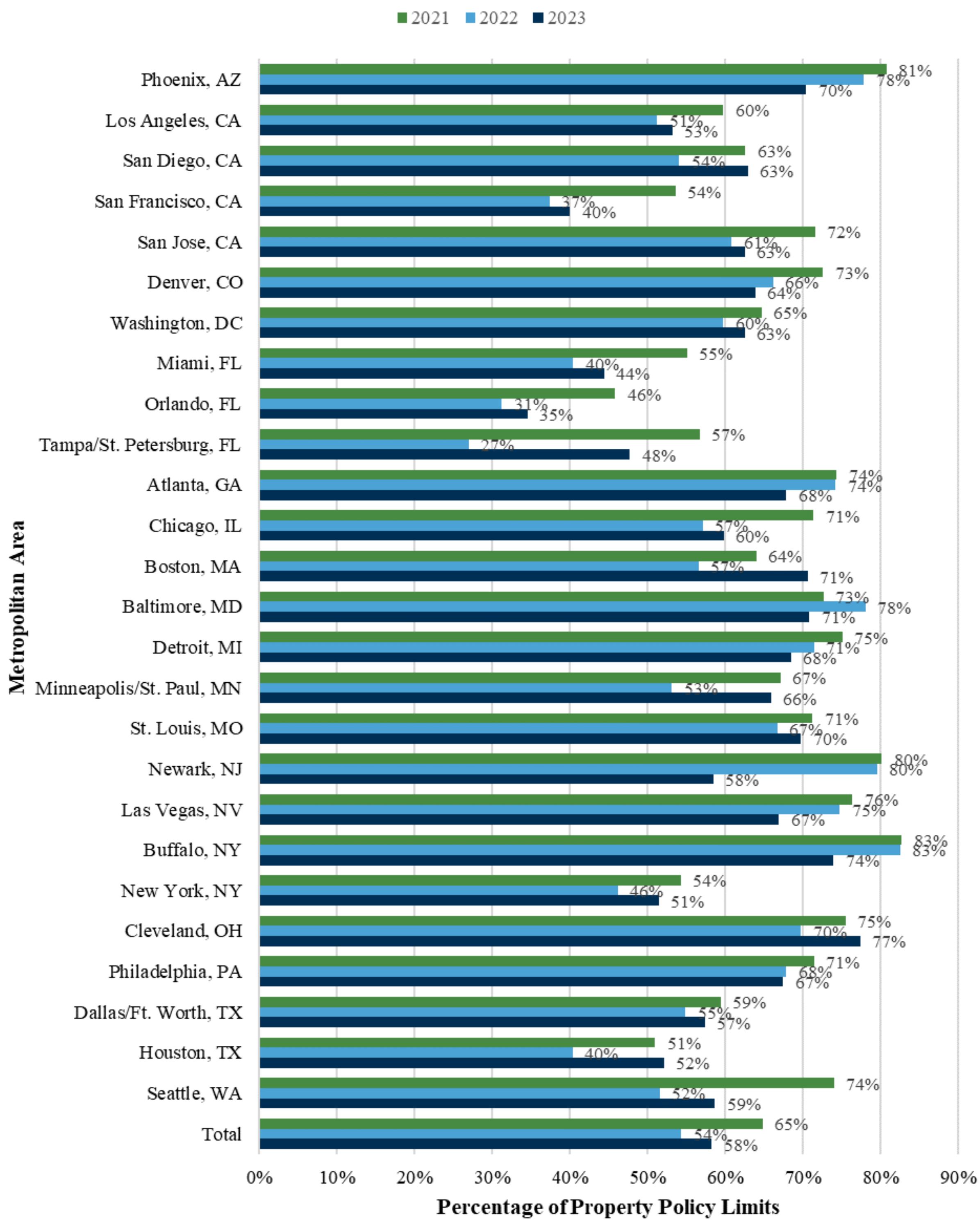
Treasury also requested more specific data from non-small, alien surplus lines, and captive insurers concerning risk exposures in 26 specific metropolitan areas.[83] This information addressed, among other things, the policy property limits assumed by each reporting insurer that are subject to the Program (as well as by those not subject to the Program because terrorism risk insurance was not obtained). In the 2022-2024 TRIP data calls, 97 or 98 percent of the reported policy exposures were identified with a particular geographic region—either a specific metropolitan area, or in areas of the United States not associated with the specified metropolitan areas.[84] Furthermore, the results obtained for each specified metropolitan area show that the aggregate reported policy property limits are proportional to gross domestic product in most metropolitan areas, thus validating the data reported by insurers.[85] Figure 26 illustrates the combined results obtained from the 2022-2024 TRIP data calls.

[83] The metropolitan areas identified are identical to those utilized by A.M. Best when considering the terrorism risk exposures of the companies it evaluates.

[84] Reporting insurers were also permitted to identify premiums by geographic region in an "unknown" category, indicating that the policy exposure could not be retrieved by geographic location, whether by one of the specified metropolitan areas or in the balance of the United States. Although the "unknown" category has accounted for higher percentages in TRIP data calls before 2020, the figure has only been about 2 or 3 percent per year since the 2020 TRIP data call.

[85] *See generally* "Regional Data," Bureau of Economic Analysis, https://www.bea.gov/iTable/iTableHtml.cfm?reqid=70&step=1&isuri=1.

Figure 26: Terrorism Risk Insurance Take-Up Rates by Metropolitan Area (by Policy Property Limits)



Source: 2022-2024 TRIP data calls

Take-up rates by property exposure for areas outside a defined metropolitan area were reported to be 70 percent in 2021, 62 percent in 2022, and 61 percent in 2023—figures comparable to the indicated figures for all metropolitan areas combined (65 percent in 2021, 59 percent in 2022, and 58 percent in 2023). The exposure that is covered under the Program in all other areas in the United States, outside the defined metropolitan areas, is significant and exceeds the total property limits covered in the 26 metropolitan areas. Based upon the results of the data calls, 68 percent of all insured property exposures under the Program fell within the "all other locations in the United States" category in 2021 versus 32 percent in the identified metropolitan areas. In 2022, the reported figures were 65 percent and 35 percent, respectively, and in 2023 they were 66 percent and 34 percent, respectively.

E. Availability and Affordability of Terrorism Risk Insurance for Places of Worship

The 2019 Reauthorization Act modified TRIA to require that, in reports concerning the effectiveness of the Program, the Secretary provide "an evaluation of the availability and affordability of terrorism risk insurance, which shall include an analysis of such availability and affordability of terrorism risk insurance specifically for places of worship."[86]

Treasury modified its data call beginning in 2020 by including a new reporting worksheet specifically addressing coverage issued to places of worship, information that Treasury had not previously collected.[87] The Places of Worship worksheet seeks premium information, allocated by whether the policyholder obtained terrorism risk insurance in the general categories of property, liability, and workers' compensation insurance. The codes specified for reporting are limited to religious organizations, which are intended to best approximate the premises associated with places of worship.[88] The information collected can be analyzed to assess the take-up and cost of terrorism risk insurance by places of worship, which is how Treasury typically evaluates whether such insurance is available and affordable in the marketplace.

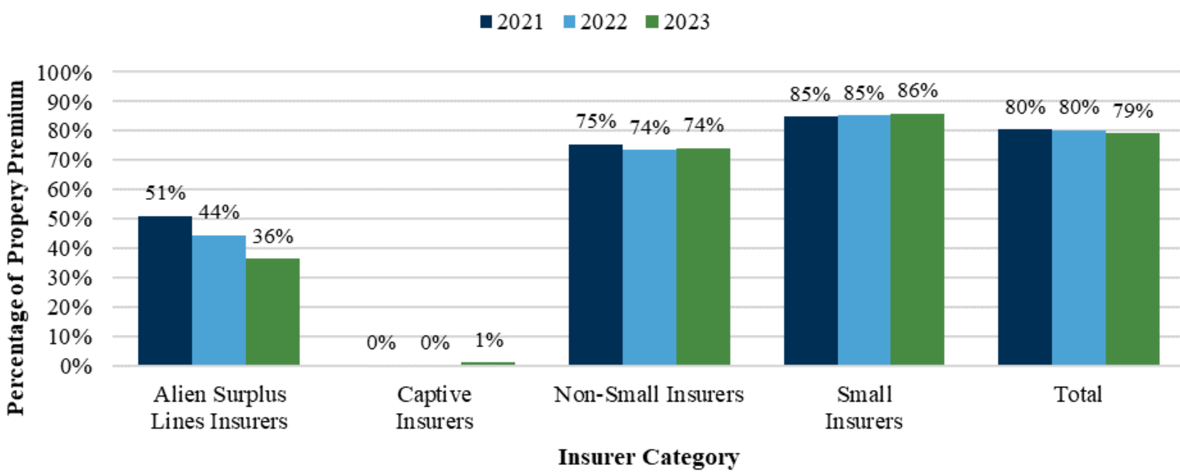
Figures 27 and 28 show the take-up of terrorism risk insurance by places of worship, by premium, by insurer category and type of coverage.

[86] 2019 Reauthorization Act, § 502(c); TRIA §104(h)(2)(B).

[87] *See* FIO, *2020 Effectiveness Report*, 40.

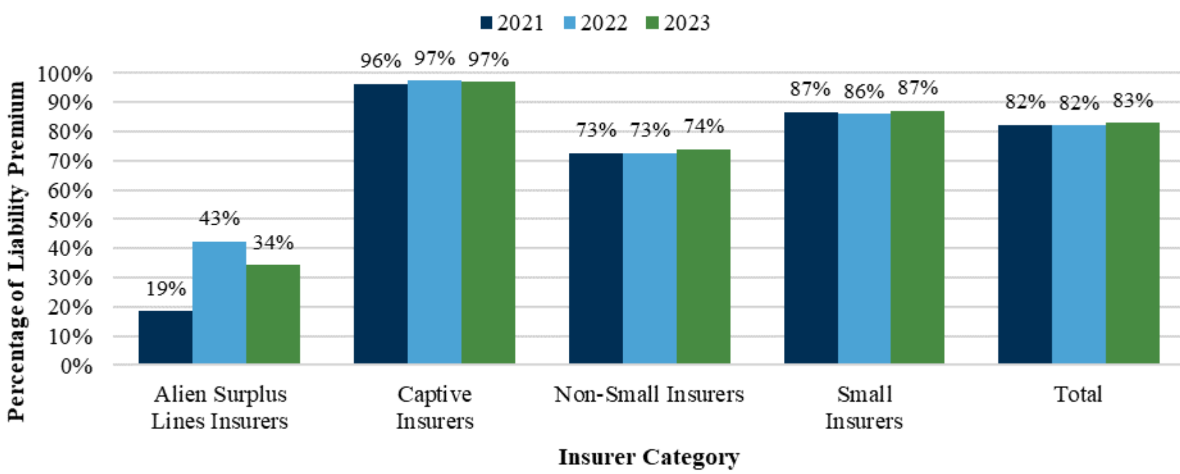
[88] The Places of Worship worksheet permits reporting by the specified North American Industrial Coding System (NAICS) code, Standard Industrial Classifications (SIC) code, or Insurance Services Office (ISO) Class Codes, as well as by other methodologies that are calculated to isolate the premium of reporting insurers associated with places of worship. The worksheet instructions state that premium associated with religious-affiliated institutions (such as hospitals or schools) that are not principally places of worship should not be reported. All insurers subject to the data call were required to complete the Places of Worship worksheet. Although Treasury generally does not analyze terrorism risk insurance take-up through captive insurers, as noted above (note 77), it provides information concerning captive insurers and places of worship to address the availability and affordability of terrorism risk insurers for place of worship, and captive insurers do provide some coverage in this area.

Figure 27: Terrorism Risk Insurance Take-Up Rates by Places of Worship (by Property Premium) (by Insurer Category)



Source: 2022-2024 TRIP data call

Figure 28: Terrorism Risk Insurance Take-Up Rates by Places of Worship (by Liability Premium) (by Insurer Category)

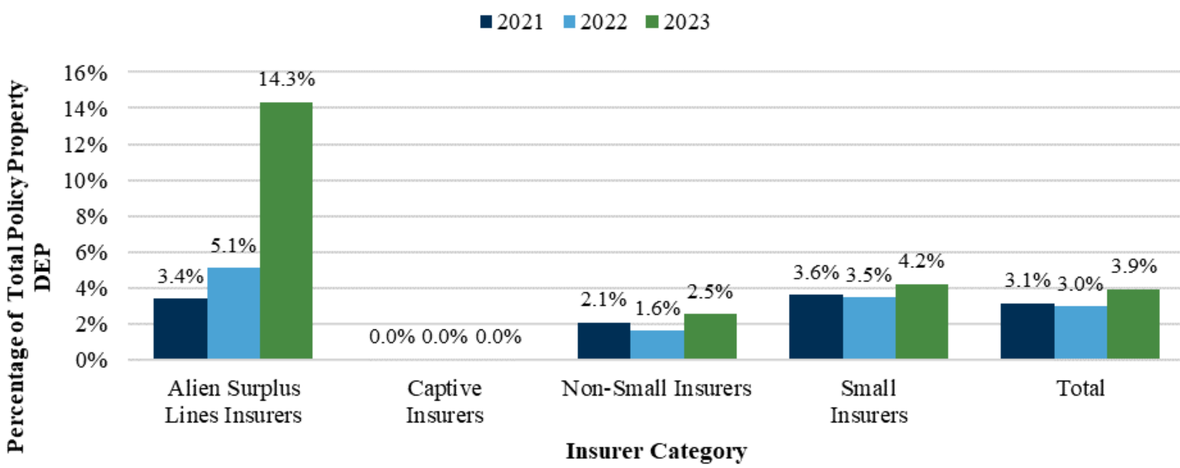


Source: 2022-2024 TRIP data call

Figure 29 shows the percentage charge, by property premium, for places of worship, by insurer category; Figure 30 shows the same percentage charge information based upon liability premium.[89]

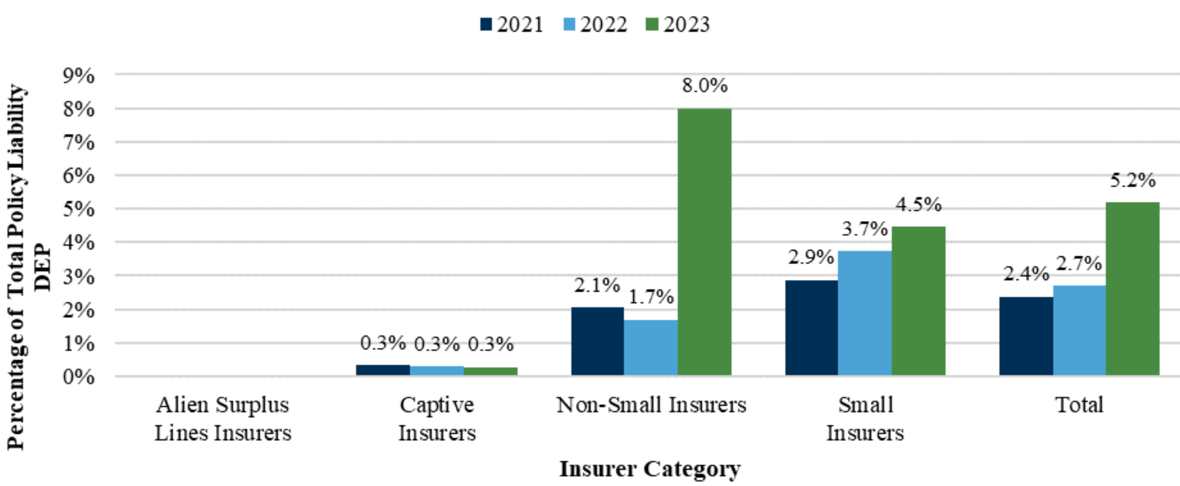
[89] Treasury did not collect information when a $0 premium for terrorism risk insurance was identified for places of worship. Therefore, this cost analysis is based upon the total amount of terrorism risk premium charged against TRIP-eligible lines premium where terrorism risk insurance was provided.

Figure 29: Percentage of Total Policy Property DEP Allocated to Terrorism Risk for Places of Worship (by Insurer Category)



Source: 2024 TRIP data call

Figure 30: Percentage of Total Policy Liability DEP Allocated to Terrorism Risk for Places of Worship (by Insurer Category)[90]



Source: 2024 TRIP data call

Places of worship obtain terrorism risk insurance at rates that exceed those of policyholders overall. For example, approximately 80 percent of places of worship obtained terrorism risk insurance as compared to 60 percent of policyholders overall in 2023, as measured by premium. The cost paid by places of worship is higher than the amount paid by policyholders overall—approximately 3.8 percent of total TRIP-eligible lines premiums for places of worship compared to 2.2 percent of total premiums for policyholders overall, once the effect of policies under which coverage provided for a $0 charge is considered. The higher cost for terrorism risk

[90] Insufficient liability premium was reported by alien surplus lines insurers to permit any meaningful comparisons.

insurance for places of worship could be explained by the higher take-up rate for the insurance. Also of note is the significant role played by small insurers, which represented about 51 percent of this market segment (measured by premium), even though they only constituted approximately 12 percent of the entire 2023 market in the TRIP-eligible lines of insurance. Treasury will continue to evaluate the availability and affordability of terrorism risk insurance for places of worship in future reports.

F. Commercial Insurance Market Conditions

Treasury follows trends in the P&C sector broadly and, for the purposes of administering TRIP, the commercial P&C sector in particular. FIO has previously observed that "[f]or 2022, total P&C sector direct premiums written reached a record of $876 billion, marking a 10 percent increase over 2021 levels and the second consecutive year of strong growth following two years of much more moderate increases."[91] FIO has also reported that "commercial lines premiums [in 2022] exceeded total personal lines premiums for the first time in the past ten years" and that, "[c]ommercial lines premium growth was driven by rate increases."[92] Commercial insurance market intermediaries have also characterized the last decade of the commercial insurance market as favoring buyers between 2015 and 2018 and favoring sellers (i.e., insurers) from 2020 to 2023.[93] A broker report noted recent conditions as largely favoring sellers/insurers, but with recent developments tending toward buyers.[94] A third broker reported that, similar to overall market conditions, the terrorism insurance market specifically favored sellers over buyers in 2022 and 2023, but there were signs in early 2024 that conditions were starting to be less favorable to sellers.[95]

Reviewing the TRIP data over a longer period does tend to show a moderate decline in take-up of terrorism risk insurance, as measured by DEP, with a larger decline shown when take-up is measured by policy limits. The 59 percent take-up rate (measured by DEP) for 2023, as shown in Figure 18, does reflect a slow decline from 2018, when the figure was 63 percent.[96] Additionally, the 50 percent take-up rate (measured by property limits) in 2023 (also in Figure 18) reflects a decline from the 75 percent figure observed in 2018. Similarly, the 45 percent take-up rate (measured by liability limits) in 2023 reflects a decline from the 68 percent rate observed in 2018.[97] Similar declines are shown by the reported data in take-up as measured by the limits reported for specific metropolitan areas and in all other areas outside the specific

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[91] FIO, *Annual Report on the Insurance Industry* (2023), 41, https://home.treasury.gov/system/files/311/FIO%20Annual%20Report%202023%209292023.pdf (*2023 Annual Report*).

[92] FIO, *2023 Annual Report*, 41.

[93] WTW, *Insurance Marketplace Realities Spring Update 2024* (May 2024), 4, https://www.wtwco.com/en-us/insights/2024/05/insurance-marketplace-realities-spring-update-2024.

[94] *See, e.g.*, Aon, *Global Insurance Market Insights Report* (2024), 4, https://www.aon.com/en/insights/reports/global-insurance-market-insights.

[95] Marsh Comments, 7.

[96] *See* FIO, *2020 Effectiveness Report*, 29 (Figure 15).

[97] *See* FIO, *2020 Effectiveness Report*, 29 (Figure 15).

metropolitan areas.[98] Terrorism risk insurance continues to be priced at a constant percentage of the overall premium P&C market for the past decade; however, market conditions may be resulting in a measurable decline in the amount of terrorism risk insurance being made available for such premium.

G. Private Reinsurance Availability

Reinsurance mechanisms support the proper functioning of insurance markets. Treasury has followed reinsurance markets in connection with their potential impact on the market for terrorism risk insurance.[99]

1. P&C Reinsurance Generally

Market conditions favored reinsurers in 2022 and 2023, with higher prices and narrower coverage.[100] Specifically, property catastrophe reinsurance rate increases ranged from single digits for non-loss impacted programs to 10 to 30 percent for loss-impacted programs.[101] Pricing and terms for casualty were also in favor of reinsurers.[102] However, early reporting for the first quarter of 2024 suggests market power may be shifting back toward insurers.[103]

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[98] *See* Figure 26 above and following text.

[99] For information on reinsurance markets generally, see FIO, *The Breadth and Scope of the Global Reinsurance Market and the Critical Role Such Market Plays in Supporting Insurance in the United States* (2014), https://home.treasury.gov/system/files/311/FIO%20-Reinsurance%20Report.pdf. *See also* FIO, *2018 Effectiveness Report*, 40-41 (observing that the reinsurance market in the United States "has generally been characterized by large amounts of capacity for P&C business, and a resulting decline in prices as reinsurers seek to place business"); FIO, *2020 Effectiveness Report*, 42 (noting "more significant variations in reinsurance pricing and capacity depending on geography and line of business, as well as upon the loss record of the particular ceding insurer and existing client relationships"); FIO, *2022 Effectiveness Report*, 43 (finding that "most recent reports reflect reinsurance market capacity has been 'ample,' or at least sufficient for most P&C risks, with some challenges for loss-impacted accounts.").

[100] Guy Carpenter, "January 1, 2024 Reinsurance Renewals Reflect a Motivated Market with Increasing Capital," press release, December 28, 2023, https://www.guycarp.com/company/news-and-events/news/press-releases/january-2024-renewals.html, (*GC 2024 press release*); Aon, *Reinsurance Market Dynamics* (January 2024), https://www.aon.com/reinsurance/getmedia/1b3076ff-7c91-40f6-899b-3b6fda3f9be8/20240102-jan-rmd.pdf; WTW, *Insurance Marketplace Realities 2024: Searching for Stability* (2023), https://www.wtwco.com/en-us/insights/2023/11/insurance-marketplace-realities-2024#table-of-contents; Gallagher Re, *Reinsurance Market Report: Results for Full-Year 2023* (2024), 3, https://www.ajg.com/gallagherre/-/media/files/gallagher/gallagherre/news-and-insights/2024/april/gallagher-reinsurance-market-report-2023.pdf (*Gallagher Re 2023 Reinsurance Report*).

[101] *GC 2024 press release*.

[102] GC *2024 press release*, *see also*, Marsh Comments, 7 ("In 2023, we saw the greatest shift in terrorism treaty market pricing and contract terms in nearly two decades. Significant restrictions in cover and tightening of terrorism event definitions were clearly evident. In 2024, coverage and pricing pressures persist, but are expected to gravitate toward mor orderly renewal negotiations.").

[103] Aon, *Reinsurance Market Dynamics* (April 2024), https://www.aon.com/reinsurance/thoughtleadership/default/reinsurance-market-dynamics-april-2024 ("Reinsurance renewals at April 1 consolidated the progress made at 1/1, as ample capacity and increased competition for catastrophe reinsurance led to improved outcomes for the majority of insurers. The renewal signaled a further

Stakeholders report continued growth in the global reinsurance markets, with reported annual growth in reinsurance dedicated capital of 12 percent in 2023, and nearly 71 percent over the entire period from 2015 to 2023, for an average annual rate over the period of about 8 percent.[104] Reinsurance capacity has been and continues to be augmented by significant competition from alternative risk transfer mechanisms such as insurance-linked securities.[105] However, alternative risk mechanisms have not, to date, been a significant factor in the area of terrorism risk exposure.[106] Reinsurance provides significant support for the developing cyber risk insurance market, and sources note that any potential reinsurance capacity constraints going forward will be a significant factor in the cyber risk insurance market.[107]

2. Reinsurance and Terrorism Risk

To the extent it is available and purchased by insurers writing terrorism risk insurance, private reinsurance may serve both to increase the availability of terrorism risk insurance and to reduce Program exposure. Since the enactment of TRIA, Treasury has evaluated reinsurance capacity for terrorism risk. In earlier analyses, Treasury found that such capacity was limited and had remained relatively consistent since shortly after the September 11 Attacks.[108] Since the start of the TRIP data calls in 2016, however, Treasury has regularly observed and reported that reinsurance capacity for terrorism risk has increased.[109] Treasury's observations are consistent with the observations of commenters that reinsurers may now have a greater willingness to cover

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improvement in market conditions and sets the stage for a more comprehensible reinsurance market at mid-year and into 2025.").

[104] *Gallagher Re 2023 Reinsurance Report*, 10.

[105] Alternative risk transfer mechanisms represented about $107 billion of total estimated reinsurance dedicated capital of $729 billion as of 2023. *See Gallagher Re 2021 Reinsurance Report*, 5.

[106] Treasury is aware of only one significant alternative risk transfer instrument for terrorism risk. In February 2019, Pool Reinsurance Co. Ltd. (Pool Re), the government-backed mutual terrorism reinsurance facility in the United Kingdom, brought the first-ever terrorism risk catastrophe bond, in an amount of £75 million (about $100 million) to market as part of its general retrocessional program for its terrorism risk exposures. *See* "Pool Re Sponsors First Terrorism Risk Catastrophe Bond, Baltic PCC," Artemis, January 14, 2019, https://www.artemis.bm/news/pool-re-sponsors-first-terrorism-risk-catastrophe-bond-baltic-pcc/. In March 2022, Pool Re increased the amount of the bond to £100 million (about $135 million) as part of its total retrocessional tower of £2.5 billion (about $3.4 billion). *See* "Pool Re's New Cat Bond Upsized to UK£100m as it Renews Retro Tower," Artemis, March 2, 2022, https://www.artemis.bm/news/pool-re-new-cat-bond-upsized-to-uk-100m-as-it-renews-2-5bn-retro-tower/.

[107] Manuel Adam *et. al.*, "Global Cyber Insurance: Reinsurance Remains Key to Growth," S&P Global, August 29, 2023, https://www.spglobal.com/ratings/en/research/articles/230829-global-cyber-insurance-reinsurance-remains-key-to-growth-12813411 For more on the cyber insurance market, see Section V.I.

[108] *See* PWG, *2006 Terrorism Risk Insurance Report*, 26 ($4-6 billion of terrorism reinsurance capacity in 2005, $6-8 billion in 2006); PWG, *2010 Market Conditions Report*, 19 (between $6-8 billion to $8-10 billion); PWG, *2014 Availability and Affordability Report*, 19 ($6-8 billion).

[109] Thus, in 2020 and 2021, insurers responding to TRIP data calls (excluding captive insurers) reported a total of $76.8 billion and $73.4 billion, respectively, in reinsurance coverage for a single loss resulting from terrorism. Based upon other reported information, in both 2020 and 2021, approximately 77 percent of these amounts fell within the co-pay obligations of the reporting insurers above their Program deductibles, with the remaining balance falling within the insurer's TRIP deductible. Captive insurers separately obtained an additional $30.9 billion and $26.9 billion in 2020 and 2021, respectively, in per loss terrorism reinsurance limits, and an even higher percentage of those figures fell within the co-pay obligations of the captive insurers. *See* FIO, *2022 Effectiveness Report*, 45-47. These figures have continued to increase, as discussed below.

conventional (i.e., non-NBCR) terrorism risks than was indicated by Treasury's earlier analyses.[110]

The TRIP data calls have consistently reflected that the total amount of purchased reinsurance that will respond to terrorism risk is smaller than the amount of reinsurance purchased for natural catastrophe risks (except in the case of captive insurers, which purchase more terrorism risk reinsurance than natural catastrophe reinsurance). Treasury has previously observed that many reinsurers were willing to offer reinsurance coverage for conventional terrorism risk as part of ceding insurers' catastrophic risk reinsurance programs otherwise principally devoted to natural catastrophe risks.[111] However, the most recent information reported to Treasury reflects that terrorism risk reinsurance capacity, while continuing to increase, is not increasing at the same rate as reinsurance purchased for natural catastrophe hazards.[112]

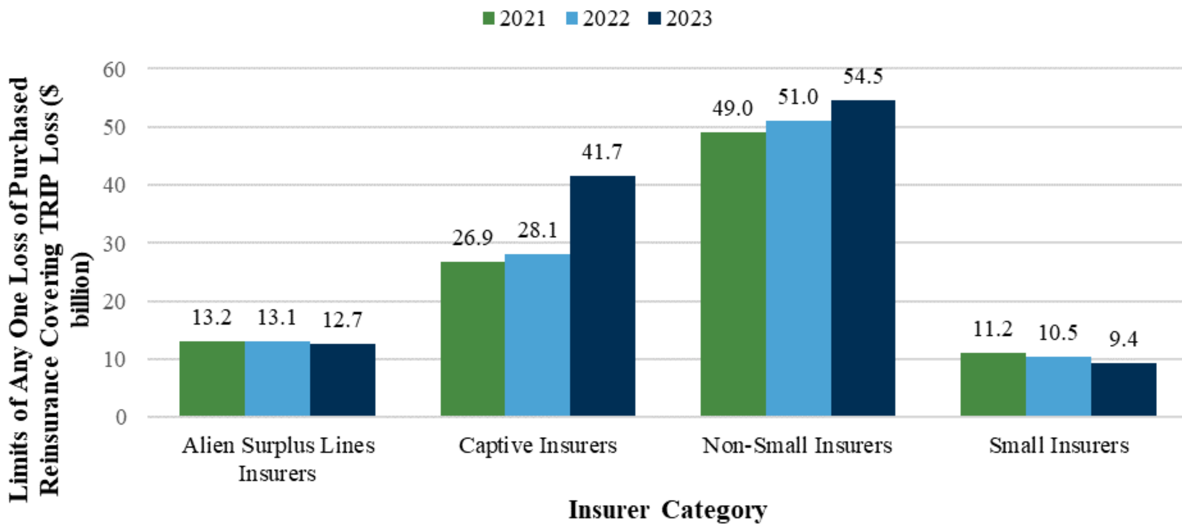
Treasury also requested information about the reinsurance contract terms (i.e., amount of coverage, attachment point, and co-participation share) for treaties covering terrorism risk and natural catastrophe risk. Figure 31 identifies the total amounts of per loss terrorism risk reinsurance limits purchased by responding insurers on an aggregated basis that will cover losses subject to the Program—serving as a measure of total market capacity between 2021 and 2023.

[110] *See* Guy Carpenter, *Evolving Risk of Terrorism,* April 2024, 5 (Appendix to Marsh Comments, at https://www.regulations.gov/comment/TREAS-TRIP-2024-0005-0003) ("In the US, many insurers continue to use the commercial reinsurance markets—at least in part—to buy down their TRIPRA deductibles and buy out their co-shares at economically viable rates, especially for conventional weapon attacks."); RAA Comments, 3 ("Reinsurers have been willing to put a defined amount of capital at risk for terrorism-related losses due to the nature of the risk, insurer demand for risk transfer and the price they are willing to pay.").

[111] *See* FIO, *2022 Effectiveness Report,* 44.

[112] *Compare* Figure 31 *with* Figure 32 (2021-2023 Non-Small Insurer reinsurance purchases for terrorism versus natural catastrophe risk).

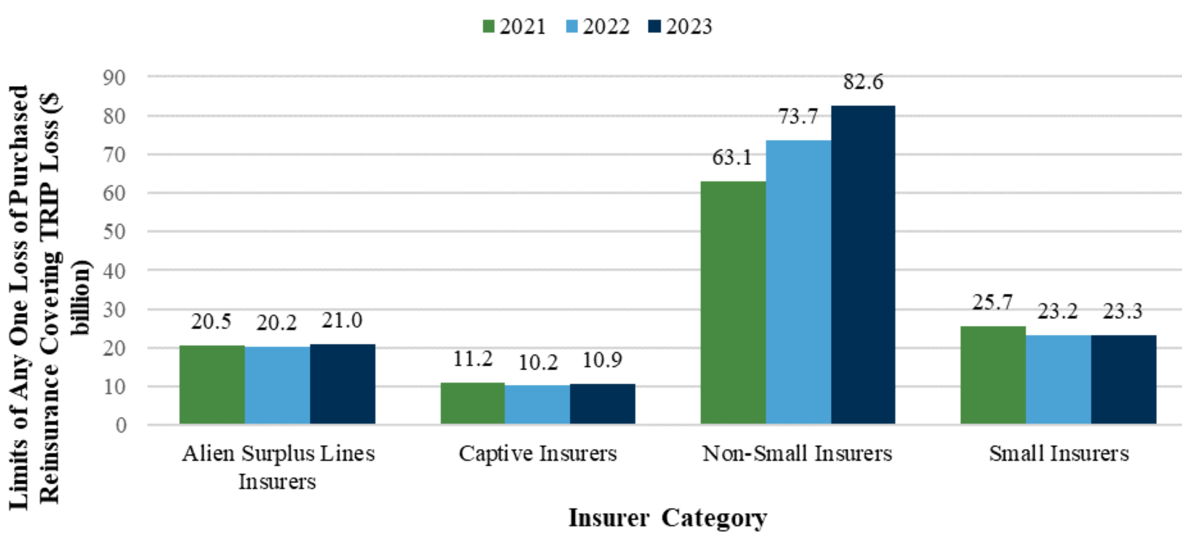
Figure 31: Total Per Loss Reinsurance Limits Purchased for Losses Subject to TRIP



Source: 2022-2024 TRIP data calls

Figure 32 reflects the total amounts of per loss natural catastrophe reinsurance purchased by responding insurers during the same periods. It reflects larger total amounts of natural catastrophe reinsurance versus terrorism risk reinsurance purchased on a per loss basis for alien surplus lines, non-small, and small insurers, and lower amounts for captive insurers.[113]

Figure 32: Total Per Loss Reinsurance Limits Purchased for Natural Catastrophes

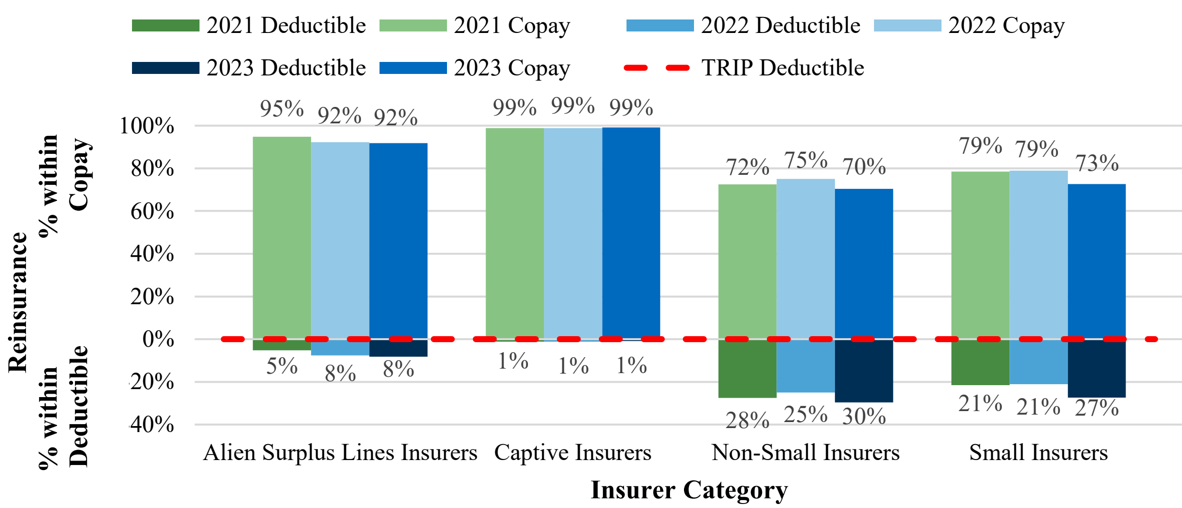


Source: 2022-2024 TRIP data calls

[113] As in other areas, captive insurers present different issues concerning purchase of reinsurance applicable to terrorism risk losses. Captive insurers' reinsurance experience is further evaluated in Section VI.B.

Private reinsurance can cover some or all of the exposure of participating insurers for amounts which the federal government will not reimburse under TRIP, namely amounts within: (1) insurers' Program deductibles and (2) insurers' Co-Pay Shares above the Program deductible. Figure 33 shows Treasury's calculation of the degree to which reinsurance purchased by participating insurers for terrorism risk insurance would respond to losses within a ceding insurer's Program deductible versus within the co-pay layer above the Program deductible.

Figure 33: Total Per Loss Reinsurance Limits Purchased for TRIP Losses Within TRIP Deductible Layer and TRIP Co-Pay Layer (by Percentage)



Source: 2022-2024 TRIP data calls

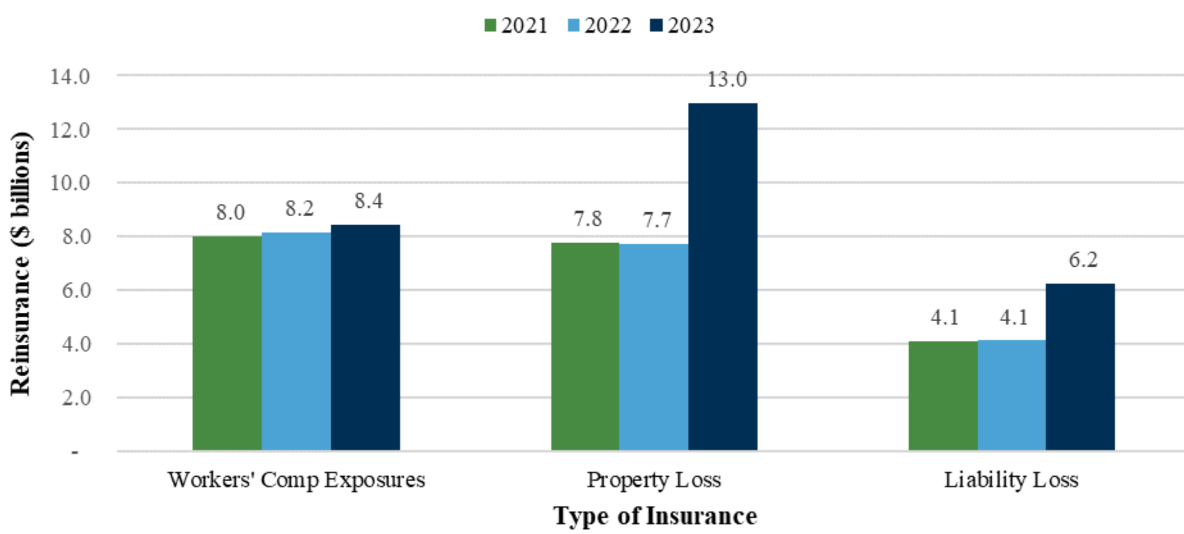
Each column in Figure 33 totals 100 percent of reinsurance purchases, as divided between amounts within TRIP deductibles (below the zero percent line) and within the co-pay layer once the TRIP deductible has been satisfied (above the zero percent line). Figure 33 shows that private reinsurance remains more heavily concentrated in the exposure retained by participating insurers above their TRIP deductibles. Based on reported 2023 data, 83.1 percent of the purchased private reinsurance covers loss above the participating insurer's TRIP deductible. This figure is materially affected by captive insurers, which purchase large amounts of reinsurance but have very small TRIP deductibles. When captive insurers are excluded from the analysis, the amount of reinsurance responding above the TRIP deductible was 74.3 percent of the total in 2023.

In many individual cases, reinsurance purchased for terrorism risk insurance remains subject to limitations and exclusions for specified risks. Many reporting insurers, for example, identified various exclusions from—or limitations to—coverage under their terrorism risk reinsurance, typically for exposures at particular locations and more generally for NBCR risks, discussed in Section V.H. Such limitations are consistent with information from industry sources and the

U.S. Government Accountability Office (GAO) regarding the reported risk appetite of reinsurers for terrorism risk.[114]

Treasury also requests data regarding the reinsurance coverage that is expressly available for terrorism risks involving NBCR exposures. The data collected by Treasury for 2020 and 2021, which was analyzed in the 2022 Effectiveness Report, reflected significantly smaller amounts of reinsurance coverage for NBCR-related terrorism risk than the limits generally available for a terrorism loss.[115] The more recent experience reported to Treasury for 2022 and 2023 contains similar data.

Figure 34: Total Per Loss Reinsurance Limits Purchased for NBCR Losses Subject to TRIP (by Type of Insurance)



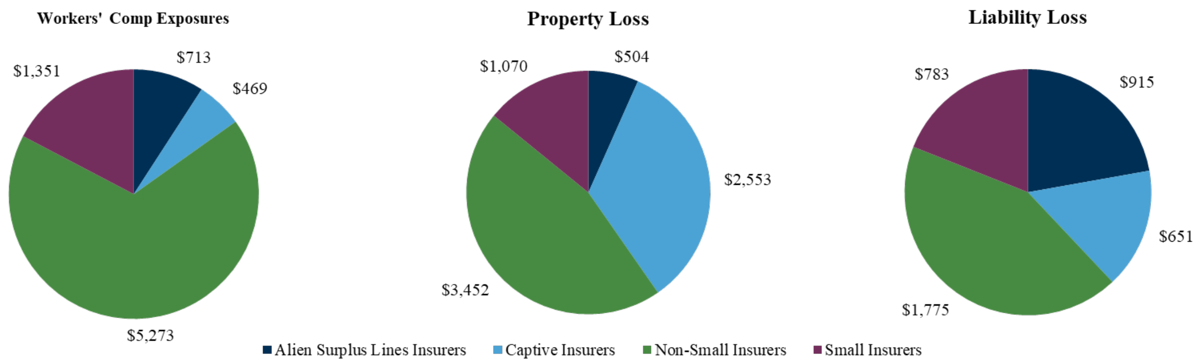
Source: 2023 and 2024 TRIP data calls

The reported reinsurance purchases for NBCR exposures are allocated among the various insurer categories as shown in Figures 35 (for 2022) and Figure 36 (for 2023).

[114] *See* RAA Comments, 4 ("With respect to reinsurance capacity that includes NBCR, especially in Tier 1 cities and central business districts, such capacity remains challenging to secure because of accumulated aggregated constraints in some markets…"); Marsh Comments, 7 (noting that reinsurance capacity for NBCR risk remains dependent upon the current TRIP mechanics). GAO has also previously found that reinsurers frequently write terrorism risk reinsurance with specific limits for particular properties, as distinguished from a share of all properties insured by the ceding insurer. *See* GAO, *Terrorism Insurance: Treasury Needs to Collect and Analyze Data to Better Understand Fiscal Exposure and Clarify Guidance* (2014), 35, http://www.gao.gov/assets/670/663387.pdf.

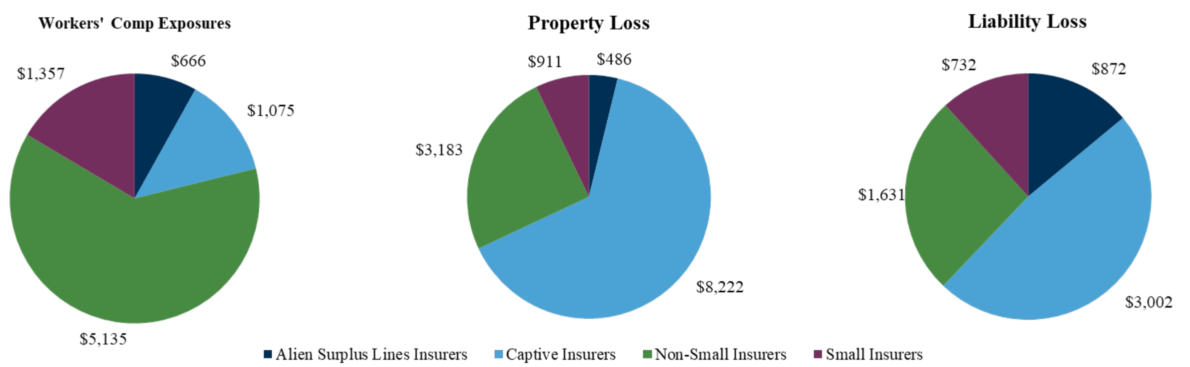
[115] FIO, *2022 Effectiveness Report*, 48-49.

Figure 35: 2022 Total Per Loss Reinsurance Limits Purchased for NBCR TRIP Losses (by Type of Insurance), Allocated by Insurer Category ($ millions)



Source: 2023 TRIP data call

Figure 36: 2023 Total Per Loss Reinsurance Limits Purchased for NBCR TRIP Losses (by Type of Insurance), Allocated by Insurer Category ($ millions)



Source: 2024 TRIP data call

Although TRIA requires participating insurers to offer insurance for terrorism risk for "acts of terrorism" certified by the Secretary on the same basis as for other perils, TRIA does not require such insurance to be offered for exposures in which coverage is otherwise generally not provided (or specifically excluded) under the policy in question.[116] Because many insurers generally exclude NBCR risks under P&C policies (excepting workers' compensation, as discussed in Section VII), the amount of direct insurance coverage for such risks may be substantially limited. The reported data reflects, however, that regardless of the amount of direct coverage available for NBCR exposures, that coverage is less likely to be supported by private reinsurance than losses arising from conventional acts of terrorism. Furthermore, a large portion of the limited reinsurance obtained for NBCR property exposures supports the risks assumed by captive insurers which—while potentially significant on an individual basis—represents only a small percentage of total risk exposures assumed by insurers participating in the Program.[117] That

[116] *See* No Material Difference from Other Coverage, 31 C.F.R. § 50.22(b) (2021).

[117] *See* Section VI.B, addressing captive insurers.

NBCR reinsurance purchased by captive insurers has also continued to increase as a percentage of the whole, as illustrated by Figures 35 and 36.

In sum, private reinsurance capacity for terrorism risk has improved significantly since the immediate aftermath of the September 11 Attacks. Commenters attribute this improvement in large part to the backstop support the Program provides for a major portion of insurers' exposure to terrorism risk nationwide.[118] Nevertheless, commenters have noted that the aggregation risk[119] presented by terrorism continues to be a limiting factor for the development of private reinsurance capacity,[120] and recent market changes may otherwise be negatively affecting the total amount of private reinsurance purchased for terrorism risk. Modeling applications, including accumulation models, deterministic scenario modeling, and probabilistic modeling of terrorism are available in the market and remain significant analytical tools to support the deployment of reinsurance capital. Commenters note continuing improvements in these tools in recent years as well.[121] However, the lack of significant numbers of terrorism events increases the difficulty of modeling potential terrorism exposure from both a frequency and severity standpoint. The TRIP data further reflects that private reinsurance capacity may be reduced as the aggregation risk presented by a particular type of terrorism loss (such as from an NBCR attack) increases.

H. Terrorism Risk Insurance for NBCR Losses

NBCR losses, to the extent arising from a certified "act of terrorism," are within the scope of the Program. However, TRIA and Treasury's implementing regulations permit an insurer to exclude, from the mandatory offer of terrorism risk insurance coverage that must be made, risks that are otherwise excluded under the policy.[122] Accordingly, an insurer that does not provide coverage for NBCR risks generally under its policy is not required to extend that coverage for the risk of terrorism. Because of potentially significant NBCR aggregation risks that insurers find difficult to manage,[123] many insurers exclude these risks to some extent.[124] This means that

[118] *See, e.g.*, Marsh Comments, 1 ("Reviewing TRIP since its inception following 9/11 shows the program to have been successful, allowing insurance and reinsurance capacity back into the market and providing layers of protection to the federal government and US taxpayers.").

[119] Aggregation risk refers to circumstances where the same event causes losses to a large number of policyholders of the same insurer, potentially in multiple lines of insurance.

[120] RAA Comments, 3 ("Terrorism risk has characteristics regarding frequency, severity and correlation that make it unlike any other insured peril or risk. Reinsurance underwriters must consider these and other factors when deciding when and how much terrorism risk to assume.").

[121] *See* RAA Comments, 6 ("Although terrorism modeling continues to evolve and meaningful enhancements have been made, the last few years have not seen transformational changes to the state of terrorism models.").

[122] TRIA § 103(c)(2); 31 C.F.R. § 50.22(b).

[123] In its analyses, ACRSM identified potential NBCR aggregation risks with examples based upon modeled results. *See* ACRSM, *Report of the Advisory Committee on Risk-Sharing Mechanisms* (2020), 24, https://home.treasury.gov/system/files/311/5-20-ACRSM-Report-Final.pdf (*ACRSM Report*).

[124] Commenters noted the difficulty in obtaining terrorism risk coverage for NBCR risks, particularly in areas deemed to be at greater risk. *See* Marsh Comments, 7 (noting that limits on coverage for NBCR risk is "especially the case in large cities and central business districts, and for certain types of occurrences"). In addition, GAO has previously analyzed the difficulty the policyholders may have in obtaining insurance coverage for these risks. *See*

in the event of a certified act of terrorism involving NBCR losses there may be less coverage for policyholders than would be the case in connection with losses arising from a conventional attack.[125] The principal exception is in connection with workers' compensation, which as a matter of state law must provide coverage for all employment-related injuries, including those arising from NBCR risks.[126] In addition, so-called "fire following" laws in some states require all fire losses under standard fire policies to be covered, regardless of the cause and the existence of what would otherwise be applicable exclusions in the policy.[127]

While coverage for NBCR risk under policies subject to TRIP is more limited than it is for conventional terrorism risk, the data provided to Treasury reflects that some amount of NBCR terrorism risk coverage is extended by Program participants on a voluntary basis, outside of the context of the mandatory requirements imposed by workers' compensation and fire following laws. In the TRIP Data Calls, Treasury requests the amount of policy limits under which NBCR risk exposures are not totally excluded when insurers report the policy limits that are subject to TRIP (i.e., the insurers extend coverage that would be subject to the Program's backstop). Figure 37 shows the information, on a percentage basis, in a stacked bar chart that illustrates the percentage of TRIP property limits extending coverage for some amount of NBCR risk, by insurer category, from 2021 to 2023.

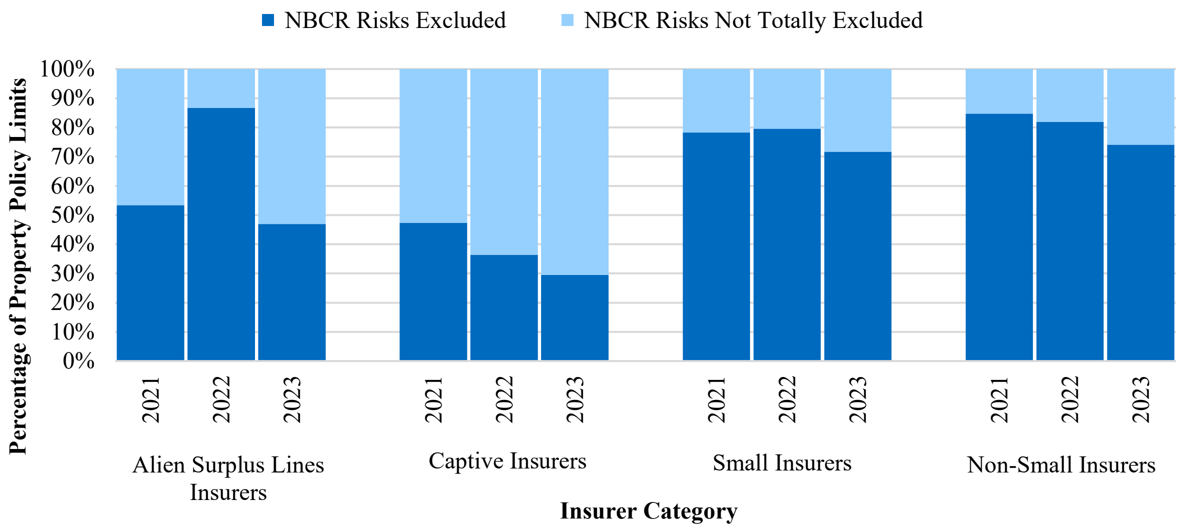
GAO, *Terrorism Insurance; Status of Coverage Availability for Attacks Involving Nuclear, Biological, Chemical, or Radiological Weapons* (2008), https://www.gao.gov/assets/gao-09-39.pdf.

[125] *See, e.g.*, FIO, *2020 Effectiveness Report*, 51-52 (discussing results of modeled loss question in a hypothetical attack in San Francisco involving both conventional and non-conventional attack modes and showing greater losses for non-small and alien surplus lines insurers arising from the conventional attack, but greater losses for captive insurers from the non-conventional attack).

[126] The impact of the requirement to provide NBCR coverage in connection with workers' compensation is discussed further in Section VII.

[127] Treasury has addressed the implications of fire following laws in prior reports. *See* FIO, *2018 Effectiveness Report*, 32 n.84.

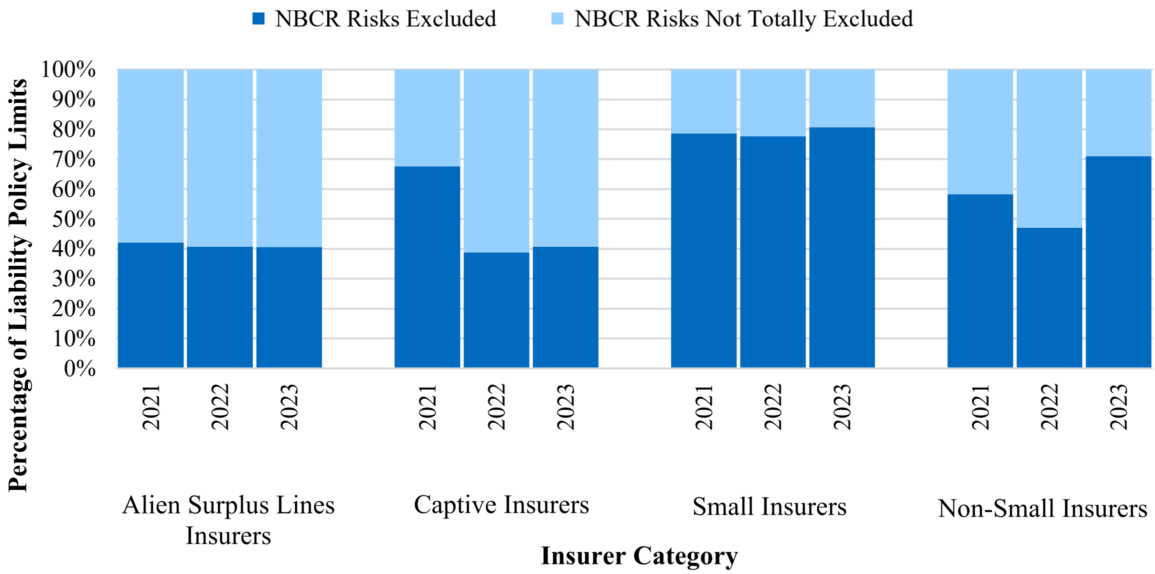
Figure 37: 2021-2023 TRIP Property Limits Where NBCR Risks Are Not Totally Excluded, by Insurer Category



Source: 2022-2024 TRIP data calls

As reflected in Figure 37, all insurer groups extend some amount of NBCR risk in connection with the terrorism risk limits subject to TRIP, although the percentage for captive insurers is higher than for other insurer categories. Figure 38 shows the same information for TRIP liability limits extending coverage for some amount of NBCR risk. The relative percentages shown for liability limits are similar to those shown for property limits.

Figure 38: 2021-2023 TRIP Liability Limits Where NBCR Risks Are Not Totally Excluded, by Insurer Category



Source: 2022-2024 TRIP data calls

NBCR risk remains more challenging for Program participants and will be covered by the Program on a more limited basis in the event of a certified act of terrorism. Furthermore, the extent and availability of such coverage in metropolitan areas is likely far less than reflected by Treasury's nationwide figures given the aggregation risk concerns in those areas. Nonetheless, the Program does currently provide support for some amount of NBCR risk that is voluntarily extended, in addition to the amounts that are driven by the statutory requirements associated with workers' compensation and fire following laws. Commenters have identified the Program as critical support for the NBCR terrorism risk insurance (and reinsurance) coverage that is extended by the industry.[128]

Commenters that addressed the issue of the availability of NBCR risk coverage, provided in association with the Program, characterized it as an unavoidable consequence of the nature of NBCR risk.[129] There are potential changes to the Program that could be made to increase the

[128] *See* Marsh Comments, 7 ("Maintaining the availability of any reinsurance capacity for NBCR relies on TRIP remaining in its current program format as it supports the overall market. Should TRIP lapse or be further restricted—with no NBCR alternative requiring all insurers to enter the reinsurance market simultaneously—the impacts remain unknown and untested.").

[129] *See, e.g.*, CIAT Comments, 3 ("CIAT believes the lack of availability of cover for NBCR risk has little to do with the design of TRIA; rather, as mentioned above, it is a challenge that is not unique to terrorism."); Lloyd's Comments, 3 ("Excluding NBCR terrorism is consistent with TRIA's make available requirement, since NBCR risk is typically excluded from policies regardless of whether terrorism caused the loss. This demonstrates that NBCR coverage is not a problem that is confined to TRIA or terrorism risk more generally, but rather remains an issue that is beyond the capacity of the private market to solve."); Marsh Comments, 7 ("Limited coverage for NBCR

availability of NBCR terrorism risk insurance, including adding a requirement that it be mandated, as it is in connection with workers' compensation. However, such a requirement could have a chilling effect on the provision of coverage overall if insurers are unable to assume such an expanded risk exposure. Additionally, modification of the TRIP sharing mechanism as applicable to NBCR-related risks could encourage insurers to provide more NBCR terrorism risk insurance.[130] Further improvement in modeling techniques in connection with NBCR loss events could also lead to an improvement in insurer risk appetite for such exposures. Treasury will continue to evaluate this issue and work with the ACRSM and stakeholders to identify ways to further improve coverage for NBCR risks subject to the Program.

I. Terrorism Risk Insurance and Cyber Losses

Treasury has a longstanding interest in terrorism risk insurance for cyber losses and its implications for the administration of TRIP. Treasury confirmed in 2016 that TRIA requirements apply to any policy covering cyber risk written in a line of insurance that is subject to the Program.[131] Additionally, to the extent that cyber coverage (including under a standalone cyber policy) is written in TRIP-eligible lines of insurance, and the requirements of TRIA and TRIP are met, reimbursement for losses from a cyber attack that is certified as an "act of terrorism" is potentially available under TRIP.[132]

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exposures has been available from insurers over the past 20 years; however, the market capacity for the coverage remains selective and finite. This is especially the case in large cities and central business districts, and for certain types of occupancies."). As discussed above, while coverage provided for NBCR risk by program participants is limited, some levels of coverage are provided across insurer categories. The coverage is not limited solely to captive insurers; and the NBCR coverage is supported in all cases by the Program. Captive insurers are discussed further in Section VI.B.

[130] The ACRSM has proposed that FIO "[e]xplore whether a change of the cap, IMARA, and deductibles for NCBR is appropriate and, if not, how to address growing uninsured NCBR risk above the $100B cap." *See* ACRSM, *ACRSM Report*, 25.

[131] *See* Guidance Concerning Stand-Alone Cyber Liability Insurance Policies Under the Terrorism Risk Insurance Program, 81 Fed. Reg. 95,312 (December 27, 2016).

[132] *See* Guidance Concerning Stand-Alone Cyber Liability Insurance, 81 Fed. Reg. 95,312; 31 C.F.R 50.4(w)(1); *2021 Updated Regulations*, 86 Fed. Reg. 30,537. "Silent" or "non-affirmative" coverage for cyber losses can also arise under policies that do not expressly state that they cover cyber-related losses, but also do not expressly exclude coverage for such losses. Non-affirmative cyber insurance is also subject to TRIA if written in a TRIP-eligible line of insurance. *See* 81 Fed. Reg. at 95,313 ("Certain insurance policies that may contain a 'cyber risk' component or which do not exclude losses arising from a cyber event continue to be written in existing TRIP-eligible lines of insurance and are thus subject to the provisions of the Program.").

For cyber insurance within TRIP-eligible lines, Treasury began collecting data in 2018[133] and expanded the TRIP data call to request more detailed information concerning cyber insurance in 2022.[134]

Before discussing the analysis of the cyber insurance information collected in the 2024 TRIP data call, this Report provides information on the cyber insurance market. Conditions in the cyber insurance market may affect the scope of insurance extended by cyber insurers that may also provide coverage for certified acts of cyber terrorism. These market conditions may also inform Treasury's administration of the Program and its evaluation of cyber insurance subject to TRIP, particularly where there have been significant changes and developments in the cyber insurance market. After analyzing the information collected in the 2024 data call, the section concludes with a brief discussion of FIO's recent work assessing a potential federal insurance response to catastrophic cyber incidents (in contrast to the potential application of TRIP to a cyber incident that is certified as an "act of terrorism" as defined in TRIA).

1. Cyber Insurance Market

The cyber insurance market remains a small but growing component of the U.S. P&C market. Insurers reported total TRIP-eligible cyber DEP of $5.6 billion in 2023 (see Section V.I.2) but, as noted above, some cyber coverage may fall outside TRIP-eligible lines. The total size of the U.S. cyber insurance market in 2022 is estimated at $9.7 billion in direct written premium, a 47.6 percent increase over the previous year.[135] This total includes the premium of alien surplus lines insurers, which make up about 25 percent of the cyber insurance market in the United States, with direct written premium of approximately $2.4 billion. The United States continues to constitute a significant percentage the worldwide cyber insurance market.[136]

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[133] *See* Terrorism Risk Insurance Program 2018 Data Call, 82 Fed. Reg. 56,328, 56,329 (November 28, 2017). Not all cyber insurance is written within TRIP-eligible lines. For example, cyber insurance can also be written as Professional Liability Insurance, which is expressly excluded from the Program. 81 Fed. Reg. at 95,313; TRIA § 102(11)(B)(xi). *See also* Section V.I.2 (addressing results of TRIP data call reflecting amount of cyber insurance coverage not within the scope of TRIP).

[134] *See* Terrorism Risk Insurance Program 2022 Data Call, 86 Fed. Reg. 64,600 (November 18, 2021); 2022 Terrorism Risk Insurance Program Data Call, 87 Fed. Reg. 22,026 (April 13, 2022); *see also* FIO, *2022 Effectiveness Report*, 59.

[135] Memorandum from NAIC Staff to Property and Casualty Insurance (C) Committee (November 3, 2023), https://content.naic.org/sites/default/files/inline-files/Final%202023%20Cyber%20Report.pdf (NAIC Cyber Data Memo). In addition to a coordinated data call with TRIP (as discussed in Section IV), the NAIC collects data from insurers writing cybersecurity insurance each year through the Property/Casualty Annual Statement Cybersecurity and Identity Theft Supplement. *See* NAIC Cyber Data Memo. As a result, NAIC and Treasury figures on cyber insurance will differ. Treasury collects premium data on a direct earned, versus direct written, basis, as TRIP is operated on a DEP basis. Since direct written premium is wholly allocated to the year in which it is written, versus when it is earned, direct earned premium will lag direct written premium in a growing insurance market. *See also* Section V.I.22. The NAIC also collects data from cyber insurers outside TRIP-eligible lines, thus capturing more of the cyber insurance market.

[136] One estimate places the 2023 global cyber insurance market at over $14 billion in written premium. *See* Munich Re, *Cyber Insurance: Risks and Trends 2024* (2024), https://www.munichre.com/en/insights/cyber/cyber-insurance-risks-and-trends-2024.html.

Cyber insurance is, however, a relatively small part of the total U.S. P&C insurance market. Cyber insurance is only 1.1 percent of direct written premiums in the overall P&C market in the United States.[137] Similarly, the amount and limits of cyber insurance is significantly smaller than the limits of insurance otherwise available in the TRIP-eligible property or liability lines. For example, in the 2024 TRIP data call, responding insurers reported total nationwide property limits subject to TRIP (irrespective of whether terrorism risk insurance was obtained) of approximately $270 trillion, and total liability limits subject to TRIP of approximately $150 trillion. By contrast, the corresponding figure for all cyber limits (whether subject to TRIP or whether terrorism risk insurance was obtained) was only $3.5 trillion.

Cyber insurance remains one of the fastest growing product segments in the P&C insurance market.[138] Growth in the cyber insurance market has been driven (at least in part) by continued increases in cyber incidents, including ransomware. Ransomware attacks on financial services have continued to increase year over year. In 2023, ransomware attacks on financial services rose to 64 percent, up from 55 percent in 2022 and 34 percent in 2021.[139] According to the FBI's Internet Crime Complaint Center, after a brief downturn in 2022 (after Russia's invasion of Ukraine), ransomware incidents rose again in 2023.[140]

The cyber insurance market has fluctuated with respect to underwriting and pricing. Between 2019 and 2022, insurers increased cyber insurance pricing and tightened underwriting standards.[141] In response to the temporary moderation in the frequency and severity of cyber claims in the second half of 2022, the 2023 cyber insurance market experienced softening conditions.[142] More recently, increased underwriter awareness of systemic risk related to state and state-sponsored cyber attacks, as well as concern that artificial intelligence may exacerbate the cyber threat environment, has led industry experts to predict that underwriting standards are likely to remain tight, and exclusions may broaden in scope.[143] For example, in May 2024 Lloyd's issued Market Bulletin Y5433, requiring that all standalone cyber-attack policies include

[137] *See* NAIC, *U.S. Property & Casualty and Title Insurance Industries: 2022 Full Year Results* (2023), 3, https://content.naic.org/sites/default/files/inline-files/2022%20Annual%20Property%20%26%20Casualty%20%26%20Title%20Insurance%20Industries%20Analysis%20Report.pdf ("Direct premiums written (DPW) increased 9.6% year-on-year (YoY) to $874.5 billion in 2022.").

[138] Steve Hallo, "Cyber Insurance Sector to See Continued Robust Growth," *ALM PropertyCasualty360*, February 16, 2024, https://www.propertycasualty360.com/2024/02/16/cyber-insurance-sector-to-see-continued-robust-growth.

[139] Puja Mahendru, "The State of Ransomware in Financial Services 2023," *Sophos News,* July 13, 2023, https://news.sophos.com/en-us/2023/07/13/the-state-of-ransomware-in-financial-services-2023.

[140] Federal Bureau of Investigation, *Internet Crime Report 2023* (2023), 3, https://www.ic3.gov/media/pdf/annualreport/2023_ic3report.pdf.

[141] *See* discussion in FIO, *2022 Effectiveness Report*, 63-64.

[142] Gallagher, *2024 Cyber Insurance Market Conditions Outlook: Cyber Market Stabilization and Lingering Turbulence* (2024), 2, https://www.ajg.com/us/-/media/files/gallagher/us/2024/2024-cyber-insurance-market-conditions-outlook.pdf.

[143] Gallagher, *2024 Cyber Insurance Market Conditions Outlook*, 6.

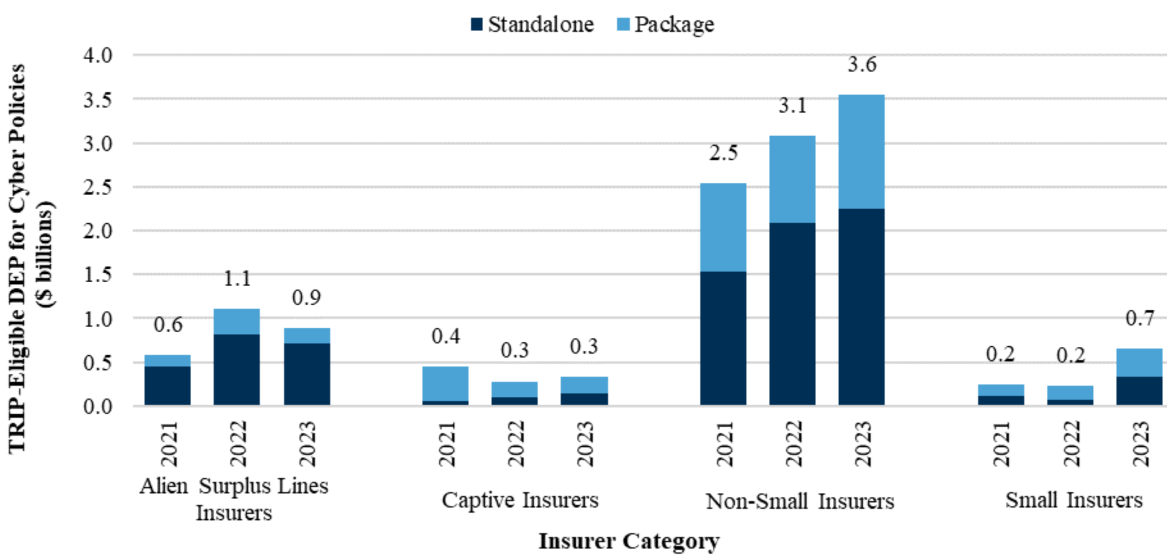
a clause excluding liability for losses arising from any state backed cyber-attack, tightening the requirements announced in a previous market bulletin issued in August 2022.[144]

2. Analysis of Data Call Information

The TRIP data call requires insurers to report whether their cyber policies are written on a "package" or "standalone" basis. Policies are identified as standalone when the policy provides coverage only for cyber risk, while package policies provide broader coverage, including coverage for non-cyber losses.

For the TRIP data call, respondents are required to report data for cyber policies that provide coverage for terrorism risk and are written in TRIP-eligible lines, even if the policy only responds to losses arising from non-certified acts of terrorism.[145] Figure 39 summarizes TRIP-eligible DEP for cyber policies on a nationwide basis between 2021 and 2023.

Figure 39: 2021-2023 TRIP-Eligible DEP for Cyber Policies



Source: 2022-2024 TRIP data calls

Figure 39 generally reflects continued market growth in the TRIP-eligible cyber insurance market, with insurers reporting total TRIP-eligible cyber DEP of $5.4 billion in 2023, up from $4.7 billion in 2022. The market remains concentrated among non-small insurers, who hold over 66 percent of the market. Alien surplus lines insurers are also significant participants, with a 16 percent market share. However, the surplus lines insurers' market share is likely understated

[144] *Compare* Lloyd's, Market Bulletin Y5433 – State-Backed Cyber-Attack Wordings (2024), https://assets.lloyds.com/media/6335bcb0-e2a2-4378-8328-1ddf54828f2f/Y5433.pdf *with* Lloyd's, Market Bulletin Y5381 – State-Backed Cyber-Attack Exclusions (2022), https://assets.lloyds.com/media/35926dc8-c885-497b-aed8-6d2f87c1415d/Y5381%20Market%20Bulletin%20-%20Cyber-attack%20exclusions.pdf.

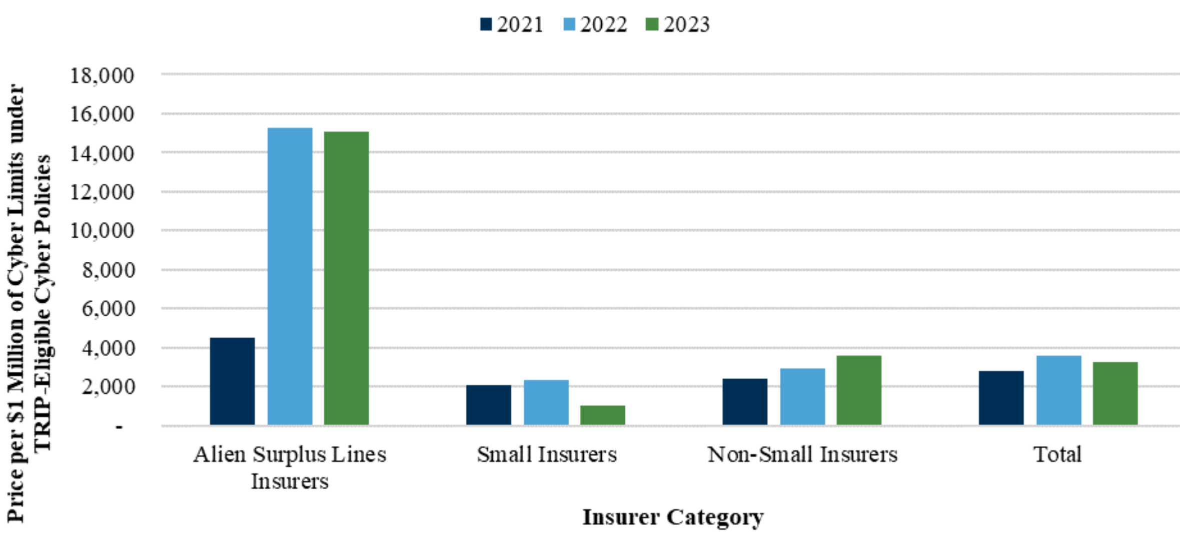
[145] Non-certified standalone policies are discussed in greater detail in Section V.C.2.

given that some alien surplus lines insurer cyber premium is combined in the reports of affiliated non-insurers.

Importantly, the most recent data provided in the TRIP data calls reflects that this increased total premium in 2023 is supporting only slightly higher total limits compared to the prior year ($3.5 trillion in limits 2023 compared to $3.3 trillion in 2022). It therefore appears that increased premiums have been accompanied by some retrenchment by cyber insurers who are increasing prices more than expanding the amount of coverage provided.

Figure 40 shows the price of cyber insurance per $1 million in limits between 2021 and 2023, based upon limits of liability under TRIP-eligible cyber policies extending terrorism risk insurance.[146] The slight cost decrease reflected for some size categories in the 2023 data is generally consistent with the modest market softening reported by other industry sources and discussed above. However, because Treasury's TRIP data is on a direct earned premium basis, the extent of the change shown here is smaller than those reflected by other industry sources that are reported on a direct written premium basis.

Figure 40: 2021-2023 Premium Charged per $1 Million of Cyber Limits under TRIP-Eligible Cyber Policies



Source: 2021-2024 TRIP data calls

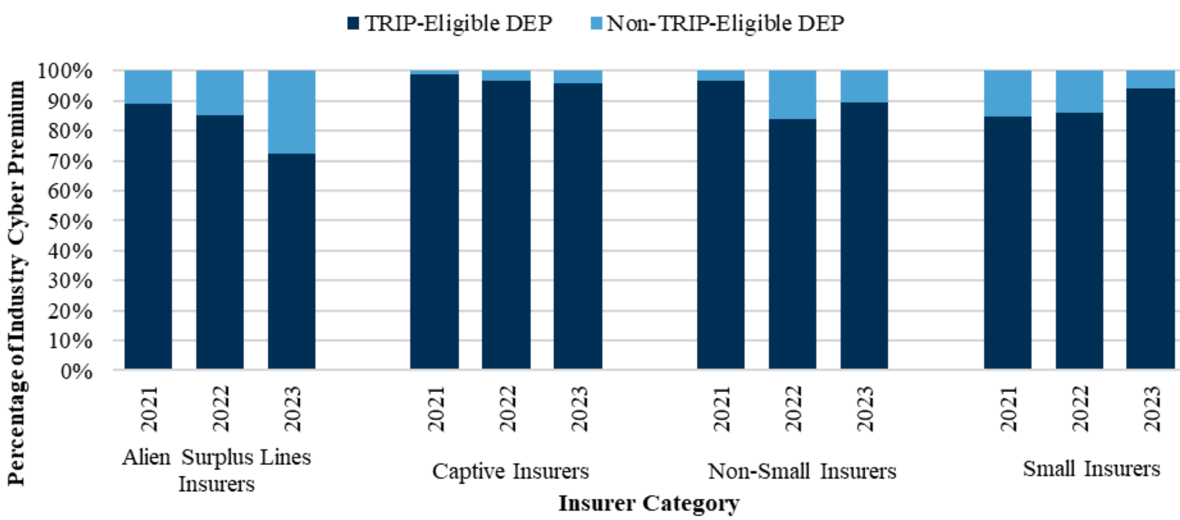
As Treasury has previously observed, at least some of the difference between prior estimates of the total U.S. cyber insurance market and the TRIP-eligible amounts reported to Treasury likely stems from cyber policies reported to state regulators that are written as errors & omissions and other forms of professional liability coverage, which is not a TRIP-eligible line of insurance.[147] In order to increase the data that Treasury has on the amount of cyber insurance currently written

[146] Prior to 2022, Treasury only collected information on limits associated with policies under which terrorism risk insurance was provided. Starting in the 2022 TRIP data call, Treasury began collecting broader cyber limits information on all TRIP-eligible lines policies.

[147] *See* FIO, *2020 Effectiveness Report*, 55-56; 31 C.F.R. § 50.4(w)(2).

outside the scope of the Program, Treasury expanded the TRIP data call in 2022 to require the reporting of cyber insurance information in the non-TRIP-eligible lines of insurance. Figure 41 illustrates the relative size of the TRIP-eligible and non-TRIP-eligible cyber insurance markets, based upon the information reported in the 2024 TRIP data call.

Figure 41: 2021-2023 TRIP-Eligible versus Non-TRIP-Eligible Cyber Insurance Market (by DEP)



Source: 2022-2024 TRIP data calls

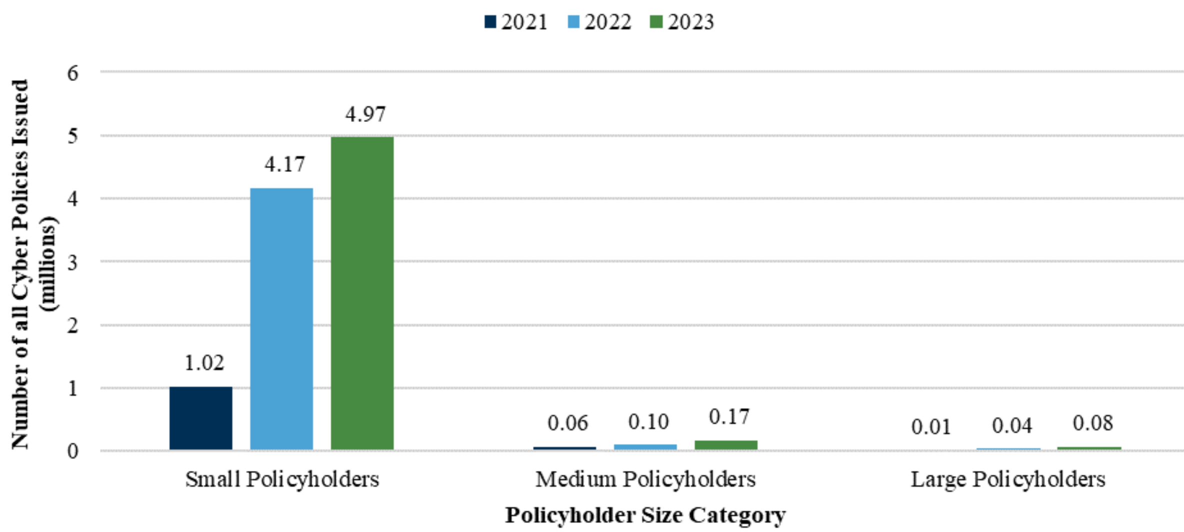
Based upon the data collected, cyber insurance currently written outside TRIP-eligible lines amounts to only nine percent of the total U.S. cyber insurance market. However, this likely underestimates the amount of cyber insurance being written in non-TRIP eligible lines.[148] Treasury will continue to evaluate the issue of cyber insurance written outside TRIP-eligible lines of insurance and take steps to increase reporting for future TRIP data calls. Insurers would not receive potential payments under the Program in connection with losses under such policies written outside TRIP-eligible lines of insurance, even if they resulted from a cyber event that Treasury has certified as an act of terrorism.

Figure 42 shows the proportion of cyber insurance (by number of policies) issued to small, medium, and large policyholders.[149]

[148] *See* FIO, *2022 Effectiveness Report*, 67.

[149] This information on policyholder size starts with 2022 data as policy count of insurers allocated by policyholder size was collected for the first time in the TRIP 2022 data call. *See* FIO, *2022 Effectiveness Report*, 68.

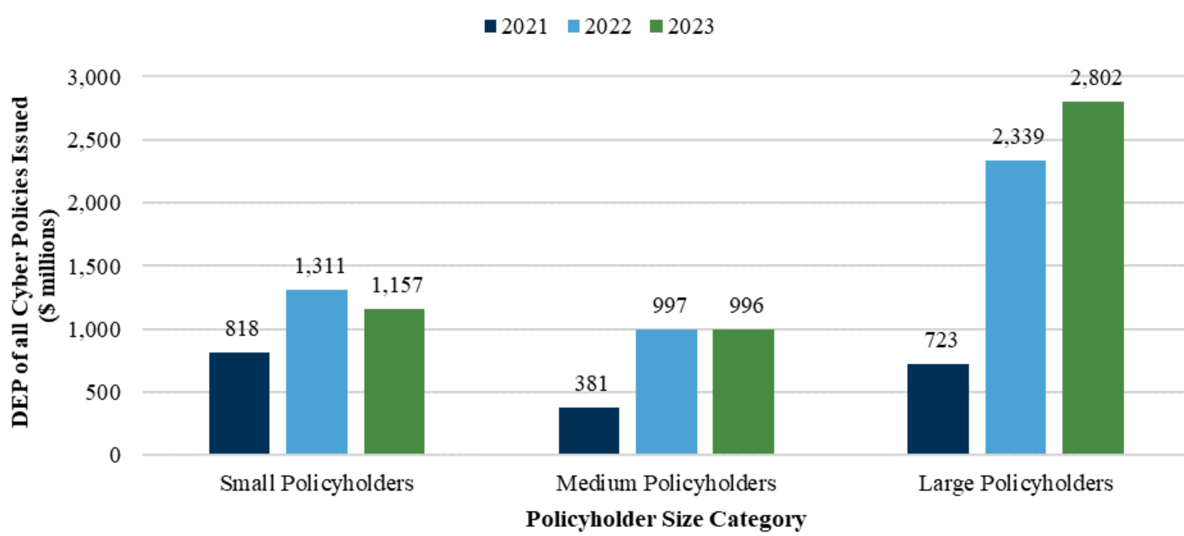
Figure 42: 2021-2023 Cyber Insurance Issued to Small, Medium, and Large Policyholders (by Number of Policies)



Source: 2022-2024 TRIP data call

Figure 43 shows the amount of cyber insurance issued to entities in the different size categories as measured by DEP.

Figure 43: 2021-2023 Cyber Insurance Issued to Small, Medium, and Large Policyholders (by DEP)

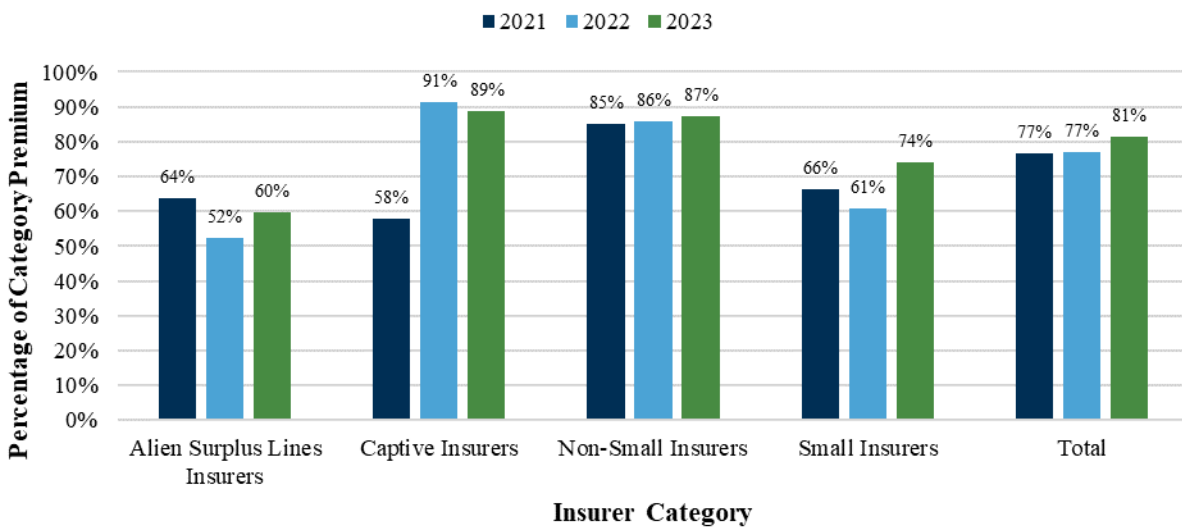


Source: 2022-2024 TRIP data call

FIO will continue to evaluate cyber insurance for different-sized policyholders in its administration of TRIP and the annual data call.

Figure 44 shows take-up rates for all cyber policies written in the TRIP-eligible lines of insurance (standalone and package) providing terrorism risk coverage in each insurer category.

Figure 44: 2021-2023 Take-Up Rates for Terrorism Risk Insurance under Cyber Policies (by TRIP-Eligible DEP)



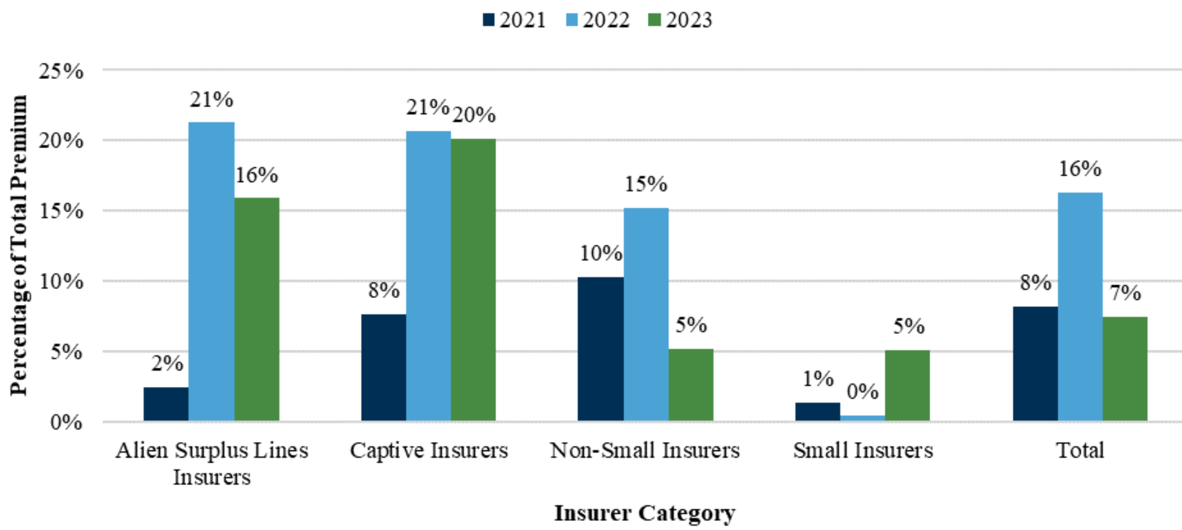
Source: 2022-2024 TRIP data calls

Figure 44 shows consistent take-up rates from 2022 to 2023 for the terrorism component of cyber insurance. However, take-up rates for cyber insurance covering terrorism risk subject to the Program, combined for all reporting insurer categories, are now materially higher than the take-up rates for the TRIP-eligible lines overall (compare Figure 44 to Figures 15 and 16).

Figure 45 reflects the reported premiums charged for obtaining terrorism risk insurance associated with standalone cyber insurance policies.[150]

[150] Treasury requests data on the terrorism risk premium component of cyber coverage under both standalone cyber policies and within the cyber component of package policies. However, much of the information provided in connection with package policies may reflect the terrorism risk premium charged for the entire policy, which may not provide an accurate assessment of the terrorism risk insurance component of the cyber coverage.

Figure 45: 2021-2023 Percentage of Total Policy DEP Allocated to Terrorism Risk Under Standalone Cyber Policies

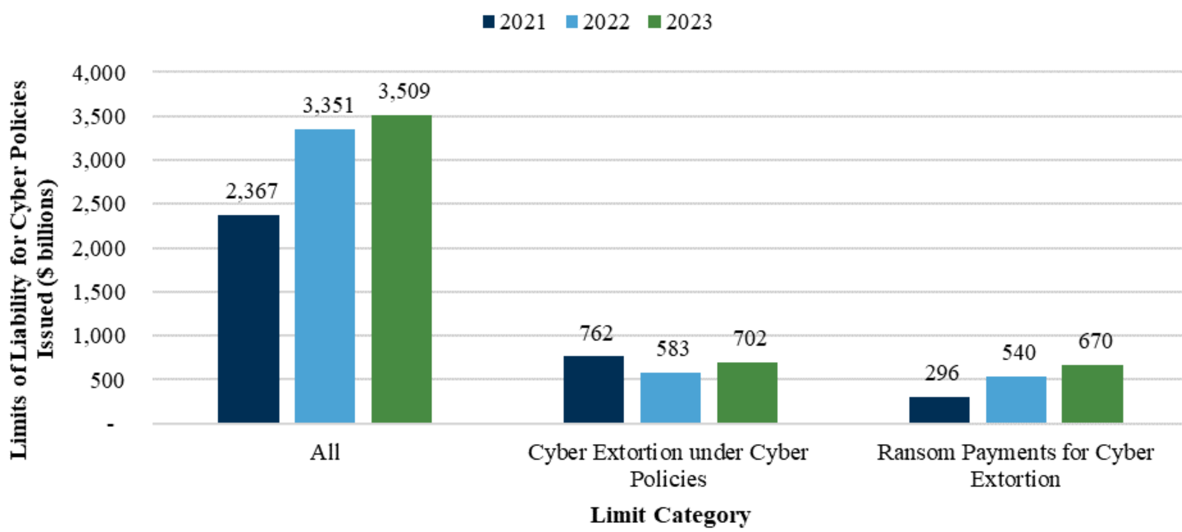


Source: 2022-2024 TRIP data calls

Figure 45 demonstrates that there was a decrease in the percentage of total policy DEP being allocated to terrorism risk under standalone cyber policies from a high in 2022 (7 percent in 2023 from 16 percent in 2022). Figure 45 indicates that terrorism risk remains a significant component of standalone cyber policies.

As discussed above, ransomware has had a significant impact upon the broader cyber insurance market (of which cyber terrorism risk insurance is a component) in terms of losses, pricing, and the availability of desired limits. For this reason, Treasury expanded the data call in 2022 to obtain additional information on both the ransomware coverage provided and losses experienced by the cyber insurance market. Figure 46 shows the total policy limits for standalone cyber insurance policies as compared to the limits for cyber extortion, and the limit specifically for a ransom payment. The second and third groupings of columns—for cyber extortion and ransomware limits—are subsets of the total policy limits expressed in the first grouping of columns.

Figure 46: 2021-2023 Total Cyber Policy Limits Compared Against Cyber Extortion Limits and Ransom Payment Limits



Source: 2022-2024 TRIP data call

The information from the TRIP data call reflects that the limits available under cyber policies in the aggregate will vary significantly depending upon the type of loss. Thus, the limits available under cyber policies overall are significantly higher than the limits available for cyber extortion in particular. Those limits for cyber extortion are in turn higher than the limits available for the reimbursement of a ransom payment.

Figure 47 shows the 2021-2023 loss experience reported by cyber insurers for cyber extortion loss amounts (paid and incurred), amounts specifically made for ransom payments, and cyber extortion defense and loss containment amounts (paid and incurred).

Figure 47: 2021-2023 Reported Cyber Extortion and Ransom Loss Figures (Paid and Incurred)

	2021 Direct Losses ($ million)	% of Total	2022 Direct Losses ($ million)	% of Total	2023 Direct Losses ($ million)	% of Total
Direct Losses Paid	$ 605	35%	$ 3,032	48%	$ 641	46%
Direct Losses Paid: Ransom Payment or Reimbursement Only	*403*	*23%*	*112*	*2%*	*142*	*10%*
Direct Losses Incurred	662	38%	3,085	49%	562	40%
Direct Defense and Loss Containment Amounts Paid	232	13%	47	1%	63	5%
Direct Defense and Loss Containment Amounts Incurred	243	14%	88	1%	141	10%
Totals	**$ 1,742**	**100%**	**$ 6,252**	**100%**	**$ 1,408**	**100%**

Source: 2022-2024 TRIP data calls

Based on the results of the 2024 TRIP data call, the aggregate ransomware payment amount by insurers in 2023 was $142 million, in connection with 2,784 claims.

The cyber extortion and ransomware information reported to Treasury for 2023 provides further detail on how ransomware and extortion are affecting the insurance market. While ransom payments are a significant portion of total cyber extortion losses for insurers, they are only 10 percent of those losses in total. Insurers' total losses also include other direct losses of the policyholders, including direct defense and loss containment amounts (90 percent of total losses).

The TRIP data call information shows that: (1) insurer information is a significant component of the data necessary to analyze issues related to ransomware; and (2) ransom payments alone are not the most significant portion of total associated losses for cyber insurers.

3. Application of TRIP to Cyber Terrorism Losses vs. Other Potential Federal Insurance Responses to Catastrophic Cyber Incidents

If a cyber attack is an "act of terrorism" pursuant to the terms of TRIA, it could be covered by TRIP.[151] Losses from a cyber attack or other cyber incident that is *not* certified as an act of terrorism, even if such a cyber incident results in catastrophic losses, are not eligible for TRIP reimbursement. The 2019 TRIP Reauthorization Act instructed GAO to produce a report on cyber terrorism that would address vulnerabilities and potential costs of cyber attacks to U.S. critical infrastructure and the adequacy of TRIP to cover systemic cyber incidents.[152] In June 2022, GAO issued the report, *Cyber Insurance: Action Needed to Assess Potential Federal Response to Catastrophic Attacks*. The GAO report noted, among other things, that: (1) U.S. critical infrastructure faces increasing cybersecurity risks, as cyber incidents affecting critical infrastructure have increased in frequency and severity; (2) recent attacks demonstrate the potential for systemic cyber incidents; and (3) the cyber insurance market and TRIP are, for

[151] *See* FIO, *2022 Effectiveness Report*, 73-74.

[152] *See* 2019 Reauthorization Act, § 502.

various reasons, limited in their ability to cover (non-terrorist) catastrophic losses from systemic cyber attacks.[153] GAO recommended that FIO, in conjunction with the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA), engage in further work in this area.[154] Treasury and the Department of Homeland Security accepted GAO's recommendation to work together "to produce a joint assessment for Congress on the extent to which the risks to the nation's critical infrastructure from catastrophic cyber attacks, and the potential financial exposures resulting from these risks, warrant a federal insurance response."[155]

Treasury, in coordination with CISA, subsequently began work on a joint assessment of a federal insurance response to catastrophic cyber incidents. On September 29, 2022, FIO, in coordination with CISA, published a Request for Information in the Federal Register, seeking public comment on several questions related to a Potential Federal Insurance Response to Catastrophic Cyber Incidents. These questions focused on whether a federal insurance response is warranted, the implications of any potential response, and how any potential insurance response should be structured.[156]

FIO's work on this topic is now responsive not only to the GAO Report, but also to the National Cybersecurity Strategy. The March 2023 National Cybersecurity Strategy stated that the Administration would assess the need for and possible structures of a federal insurance response to catastrophic cyber events that would support the existing cyber insurance market.[157] The July 2023 Implementation Plan for the National Cybersecurity Strategy charged FIO with responsibility (in coordination with CISA and the White House Office of the National Cyber Director (ONCD)) for the initial phase of the assessment, assessing the need for a federal insurance response to catastrophic cyber events that would support the existing cyber insurance market, to be completed by the end of calendar year 2023.[158]

In November 2023 FIO co-sponsored a half-day conference with NYU's Volatility and Risk Institute on catastrophic cyber risk and a potential federal insurance response, featuring remarks

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[153] *See* GAO, *Cyber Insurance: Action Needed to Assess Potential Federal Response to Catastrophic Attacks* (2022), https://www.gao.gov/products/GAO-22-104256.

[154] *See* GAO, *Cyber Insurance: Action Needed*. *See also* FIO, *2022 Effectiveness Report*, 74 n.177.

[155] *See* GAO, *Cyber Insurance: Action Needed*, 33.

[156] *See* Potential Federal Response to Catastrophic Cyber Incidents, 87 Fed. Reg. 59,161, https://www.federalregister.gov/documents/2022/09/29/2022-21133/potential-federal-insurance-response-to-catastrophic-cyber-incidents. FIO received 60 comments from a wide range of stakeholders. *See* "Potential Federal Insurance Response to Catastrophic Cyber Incidents," Regulations.gov, https://www.regulations.gov/docket/TREAS-DO-2022-0019/comments.

[157] The White House, *National Cybersecurity Strategy* (2023), 22, https://www.whitehouse.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf.

[158] The White House, *National Cybersecurity Strategy Implementation Plan* (2023), https://www.whitehouse.gov/wp-content/uploads/2023/07/National-Cybersecurity-Strategy-Implementation-Plan-WH.gov_.pdf.

by senior officials from Treasury, CISA and the ONCD, and panels with (re)insurance CEOs, senior cyber insurance experts, and representatives of critical infrastructure organizations.[159]

At the end of 2023, Treasury completed its initial assessment of the need for a federal insurance response to catastrophic cyber events, finding that further exploration of the appropriate form of such a response is warranted and would be undertaken in Phase 2 of the assessment.[160]

In May 2024, FIO hosted a conference exploring potential forms of a federal insurance response to catastrophic cyber incidents. The conference featured remarks by senior officials from Treasury, CISA, and ONCD, as well as panels with cyber insurance and reinsurance experts, and executives from major insurers, reinsurers, brokers, and modelers. Panel subjects included (1) estimating the potential catastrophic cyber protection gap, (2) potential reinsurance structures (as a stipulated for discussion potential form of a federal insurance response), and (3) potential insurance responses other than some kind of federal reinsurance structure (including non-response).[161]

FIO is now continuing to explore the form that a federal insurance response to catastrophic cyber incidents might take, including areas of potential convergence and divergence with TRIA and TRIP, in coordination with CISA and ONCD. FIO will also coordinate with IFTRIP members on issues related to catastrophic cyber risk and terrorism risk.[162]

VI. ADDITIONAL ANALYSIS ON INSURER CATEGORIES

Non-small insurers represent almost 80 percent of the market for terrorism risk insurance in the TRIP-eligible lines of insurance, as shown in Figure 1. Many of the prior analyses in this Report are heavily weighted by the experience of those non-small insurers. Treasury provides further information here concerning the other insurer categories that participate in the Program: (a) small insurers, (b) captive insurers, and (c) alien surplus lines insurers.

A. Small Insurers

In 2017, 2019, 2021, and 2023, Treasury issued studies addressing domestic small insurers, which Treasury defined as those insurers that might not be able to obtain reimbursement under

[159] *See* FIO & New York University Stern School of Business's Volatility and Risk Institute, "*Conference on Catastrophic Cyber Risk and a Potential Federal Insurance Response: Conference Agenda"* (November 17, 2023), https://home.treasury.gov/system/files/311/Treasury-NYU%20Nov%2017%20cat%20cyber%20insurance%20conference%20agenda%20%28updated%20final%2014%20Nov%202023%29.pdf.

[160] *See "*Cyber Insurance: Action Needed to Assess Potential Federal Response to Catastrophic Attacks," GAO, June 21, 2022, https://www.gao.gov/products/gao-22-104256 (noting in section on status of recommendations Treasury's determination to further explore the appropriate form of a federal insurance response, in coordination with CISA).

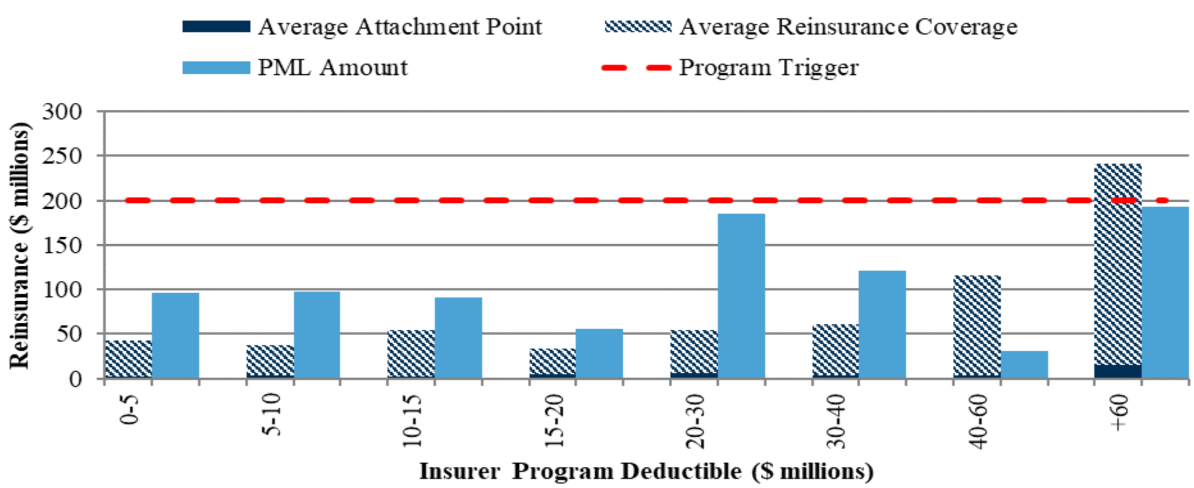
[161] *See* FIO, *"Exploring Potential Forms of a Federal Insurance Response to Catastrophic Cyber Incidents: Conference Agenda"* (May 16, 2024), https://home.treasury.gov/system/files/311/Agenda%20for%20May%2016%20cat%20cyber%20insurance%20conference%20%28final%20public%29.pdf.

[162] For more on IFTRIP, see Section XI.

the Program even after satisfaction of their individual deductibles due to the Program Trigger.[163] Treasury will continue to issue studies concerning the competitiveness of small insurers within the terrorism risk insurance market in alternate years, as required by TRIA.[164]

In the 2024 TRIP data call, Treasury again observed that, while small insurers are significant purchasers of private reinsurance, they do not uniformly obtain reinsurance to cover the entire risk of their potential exposure below the Program Trigger. As a result, there is potential for some small insurers to sustain losses above their Program deductibles but be unable to receive federal reimbursement because the Program Trigger is not met.[165] In its prior reports Treasury has noted that, while the amount of insurance purchased by small insurers could be explained by probable maximum loss (PML) information reported for those insurers, a significant percentage of small insurers remain exposed for a PML above their Program deductible and below the Program Trigger amount, without the support of private reinsurance for that exposure.[166] The additional data now available for 2023 continues to reflect the same trend, as shown in Figure 48.

Figure 48: 2023 Comparison Between Small Insurer Deductibles, Reported PML Figures, and Reinsurance Purchases



Source: 2024 TRIP data call

[163] *See* FIO, *2017 Small Insurer Study*, 6-7 (explaining definition of small insurers by reference to application of the Program Trigger). *See also* FIO, *Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace* (2019), https://home.treasury.gov/system/files/311/2019_TRIP_SmallInsurer_Report.pdf (*2019 Small Insurer Study*); FIO, *Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace* (2021), 44-46, https://home.treasury.gov/system/files/311/2021TRIPSmallInsurerReportJune2021.pdf (*2021 Small Insurer Study*); FIO, *Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace* (2023), https://home.treasury.gov/system/files/311/2023%20TRIP%20Small%20Insurer%20Report%20FINAL.pdf.

[164] TRIA § 108(h).

[165] *See* FIO, *2017 Small Insurer Study*, 25-27.

[166] *See* FIO, *2018 Effectiveness Report*, 57-58; FIO, *2019 Small Insurer Study*, 41-43; FIO, *2020 Effectiveness Report*, 63-64; FIO, *2021 Small Insurer Study*, 44-46.

Where reinsurance purchases approximate a small insurer's PML, the lack of reinsurance up to the Program Trigger may not be significant, if the insurer is not exposed to a catastrophic loss up to that amount. The reported information, however, still reflects a significant number of small insurers that remain exposed for a PML above their Program deductible and below the Program Trigger amount, without the support of private reinsurance for that exposure.

B. Captive Insurers

Captive insurers are licensed insurers formed to insure the risks of a parent entity or other affiliated entities. Such companies in the United States are supervised and regulated by the state insurance departments of their domicile, under state laws and regulations specifically applicable to captive insurers.[167]

U.S. domestic (domiciled or licensed) captive insurers that provide insurance in TRIP-eligible lines participate in the Program.[168] As of 2023, there were 3,365 U.S. domiciled captive insurers writing various lines of insurance and reinsurance (including but not limited to the TRIP-eligible lines of insurance), distributed among 29 states and the District of Columbia.[169] The number of domestic U.S. captive insurers that write terrorism risk insurance subject to the Program for 2023, however, was 615, or approximately 18 percent of the total number of domestic U.S. captive insurers.[170] Those same captive insurers also write insurance that is not subject to the Program. In the 2024 Data Call, reporting captive insurers identified an additional $16.2 billion in non-TRIP-eligible lines earned premium for calendar year 2023, meaning that the TRIP-eligible lines DEP of those captive insurers represented about 46 percent of their total earned premium.

The potential exposure associated with terrorism risk insurance written by captive insurers for a parent or other affiliated entity differs from that of conventional commercial insurers. Commercial insurers must "make available" terrorism risk insurance coverage to all potential, third-party policyholders in the TRIP-eligible lines of insurance. For captive insurers, the offer

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[167] TRIA defines a captive insurer as an insurer licensed under the captive insurance laws or regulations of any state. 31 C.F.R. § 50.4(g).

[168] *See* 31 C.F.R. § 50.4(o)(1)(i)(A). *See also* Terrorism Risk Insurance Program, 68 Fed. Reg. 41,250, 41,259-60 (July 11, 2003), https://www.gpo.gov/fdsys/pkg/FR-2003-07-11/pdf/03-17585.pdf.

[169] "Captives by State, 2022-2023," III, https://www.iii.org/publications/a-firm-foundation-how-insurance-supports-the-economy/a-50-state-commitment/captives-by-state.

[170] A larger number of captive insurers write P&C insurance that is subject to the Program, but do not issue terrorism risk insurance subject to TRIP to their policyholders; those captive insurers are not required to report in the TRIP data call. *See also* Marsh Comments, 10 (of 1,600 captive insurers for whom Marsh provides management services only about 240 issued policies in one or more TRIP-eligible lines of insurance, with a lesser percentage of those providing coverage on a standalone terrorism basis). There are also large numbers of captive insurers in non-U.S. jurisdictions, as the total number of captive insurers worldwide (including U.S. captive insurers) is now estimated to be over 7,000. *See* "Captive Insurance Companies," NAIC, last updated January 31, 2024, https://content.naic.org/cipr_topics/topic_captive_insurance_companies.htm. Non-U.S. captive insurers are unable to participate in TRIP unless they have been licensed by one or more state insurance departments to write insurance in one or more U.S. jurisdictions (or have otherwise qualified as an alien surplus lines insurer). Based on the 2024 TRIP data call, only two non-U.S. captive insurers reported information to Treasury as captive insurers licensed in a particular state jurisdiction.

and acceptance of terrorism risk insurance under the Program is controlled by the insured. Captive insurers are also regulated under a separate regulatory regime under relevant state law. Therefore, even though captive insurers underwrite a significant portion of the risks for losses arising from acts of terrorism that are covered under TRIP, they can also be analyzed separately.

Most state insurance regulators do not require captive insurers to report information publicly concerning their operations. However, industry stakeholders indicate that captive insurers may issue policies for terrorism risk subject to the Program that provide coverage that otherwise might not be readily available, such as for NBCR risks, "trophy" or "iconic" properties, and locations in other higher-risk geographical areas, including sporting arenas and properties in proximity to critical infrastructure.[171] The formation of a captive insurer may provide certain tax advantages to a business entity, as compared to an entity that self-insures its risks by simply putting aside funds to pay anticipated losses and claims.[172]

Captive insurers typically have premium writings (upon which Program deductible calculations are based) that are small, relative to other insurer categories. As a result, captive insurers may be able to claim Program reimbursement subject to low thresholds (in terms of absolute dollars), assuming that overall losses from one or more certified acts of terrorism in a given calendar year are sufficient to trigger the Program.[173] However, because most captive insurers have a significant gap between their TRIP deductibles and the Program Trigger, they could be in a

[171] *See* Marsh Comments, 10; GAO, *Terrorism Insurance: Status of Efforts by Policyholders to Obtain Coverage* (2008), 9, 14-16, http://www.gao.gov/assets/290/280918.pdf.

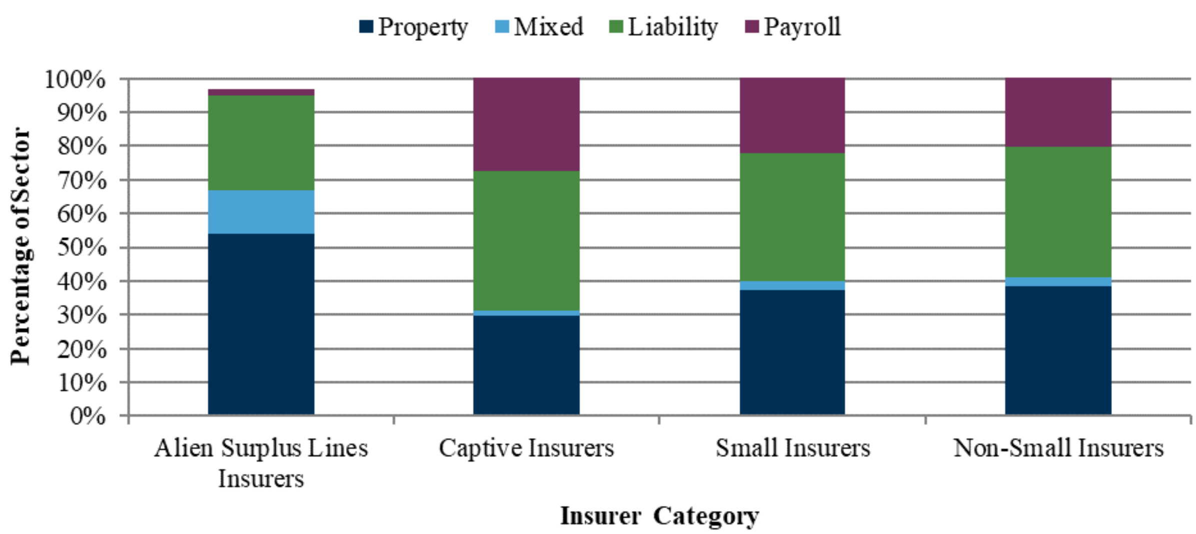
[172] The totality of the tax implications of an insurance arrangement, including self-insurance arrangements, depends upon the specific circumstances presented. In certain cases, an insurer with relatively small amounts of total gross receipts or premiums may qualify for favorable tax treatment. A stock insurance company (other than a life insurance company) with gross receipts of $600,000 or less (of which more than 50 percent are premiums) is a tax-exempt corporation. A mutual non-life insurance company with gross receipts of $150,000 or less (of which more than 35 percent are premiums) is also tax-exempt. 26 U.S.C. § 501(c)(15). A non-life insurance company that meets certain diversification requirements regarding policyholders or ownership interests, with annual net written premiums (or, if greater, direct written premiums) of $2.8 million or less in a taxable year beginning in 2024 ($2.65 million for a taxable year beginning in 2023) may elect to be taxed only on its taxable net investment income, as defined in 26 U.S.C. § 834. *See* 26 U.S.C. § 831(b). This premium threshold is subject to an annual inflation adjustment. 26 U.S.C. § 831(b)(2)(E). About half of the captive insurers reporting in the TRIP data calls, based upon their reported deductibles, would be potentially eligible to make the election under 26 U.S.C. § 831(b). However, information reported to Treasury during the 2024 TRIP data call (consistent with prior data calls) indicates that about 98 percent of the total captive DEP is reported by captives that are ineligible to elect favorable treatment under 26 U.S.C. § 831(b) because they received premiums in excess of the specified premium threshold amount. Accordingly, Treasury's analysis of captive insurers under the Program (which principally focuses upon DEP) is mostly based upon data from captive insurers that are taxed on their full income, including both underwriting and investment income.

[173] Treasury's modeled loss questions have demonstrated proportionally higher payments to captive insurers than to other insurer categories. *See* Section IX.B. Commenters, as well as the ACRSM, have questioned whether the existing program mechanics result in an appropriate level of risk sharing where captive insurers are involved. *See* CBI Comments, 4-6; ACRSM, *ACRSM Report*, 5-6, 19-20. Treasury retains the ability to address the participation of captive insurers in the Program (see TRIA § 103(f)) and will continue to consider these issues in connection with its specific rulemaking authority in this area as it evaluates the available data.

position in which they could sustain significant losses above their TRIP deductible that would not trigger reimbursement under TRIP.[174]

Captive insurers tend to insure similar TRIP exposures as other insurers—property, liability, payroll (workers' compensation), and mixed. The most significant difference in exposures between captives and alien surplus lines insurers is the lack of substantial participation by alien surplus lines insurers in the market for workers' compensation insurance. Because captive insurers are typically unable, as a matter of state law, to directly provide workers' compensation insurance, most of the workers' compensation insurance issued by captive insurers is in the form of workers' compensation deductible reimbursement policies, which reimburse their policyholders for some portion of the deductibles existing under policies issued to the captive insurer's parent by conventional commercial insurance companies.[175] Figure 49 shows the relative breakdown of TRIP exposures in 2023.

Figure 49: 2023 DEP in TRIP-Eligible Lines (by Insurer Category)



Source: 2024 TRIP data call

Since 2022, Treasury has requested more detailed information from captive insurers concerning the prevalence of deductible reimbursement policies issued by captive insurers in all TRIP-eligible lines of insurance, and not solely limited to workers' compensation. Figure 50 sets forth the results of the data call for all TRIP-eligible lines policies, by line, issued by reporting captives in 2024 for conventional policies, deductible reimbursement policies, and then the percentage of deductible reimbursement policies by DEP within each line.

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[174] *See* FIO, *2017 Small Insurer Report*, 21-23. Although the 2017 Small Insurer Report focused upon the impact of the Program Trigger upon small insurers, almost all captive insurers are potentially presented with the same risk.

[175] The 2024 TRIP data call showed that approximately 93 percent of the workers' compensation premiums reported by captive insurers was in connection with workers' compensation deductible reimbursement policies.

Figure 50: 2023 Captive Insurer DEP in TRIP-Eligible Lines

	DEP Conventional Policies ($ millions)	DEP Deductible Reimbursement Policies ($ millions)	DEP Deductible Reimbursement Policies (% of line total)
Aircraft (all perils)	$ 128.7	$ 2.3	1.8%
Allied Lines	829.4	48.8	5.6%
Boiler and Machinery	1.5	0.6	29.0%
Commercial Multiple Peril (liability)	579.6	305.7	34.5%
Commercial Multiple Peril (non-liability)	633.8	143.4	18.5%
Excess Workers' Compensation	4.6	NA	0.0%
Fire	1,712.0	158.3	8.5%
Inland Marine	19.3	7.9	29.1%
Ocean Marine	30.8	7.7	20.1%
Other Liability	2,073.4	-	0.0%
Products Liability	366.6	-	0.0%
Workers' Compensation	391.3	4,874.1	92.6%
Total TRIP Eligible	**$ 6,771.0**	**$ 5,548.8**	**45.0%**

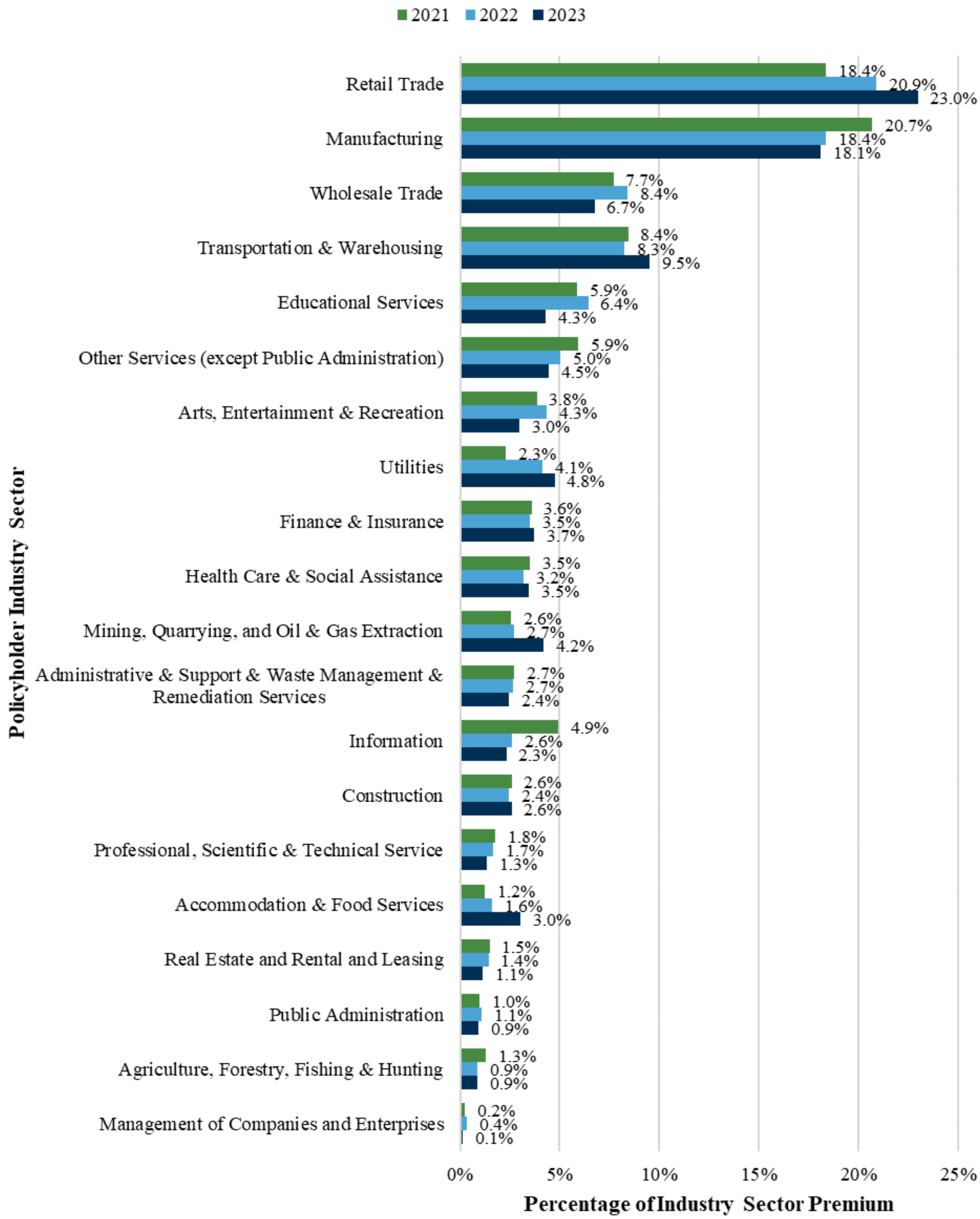
Source: 2024 TRIP Data Call

Based upon the reported data, captive structures are not predominately created to fund the deductibles imposed on the policyholder by conventional insurers, except in the case of workers' compensation, which is driven by state law requirements.

Treasury also requested more detailed information from captive insurers concerning the extent of their assumption of NBCR risk exposures. As noted above, captives (like other insurer categories) do not exclude all NBCR risk exposures from all policies. In the 2024 TRIP data call, Treasury requested information on limits extended by captive insurers that only insure NBCR risks. On a percentage basis, about 9 percent of the captive insurer property limits only insure NBCR risk; for liability limits, that figure is only about 0.2 percent.

Captive insurers underwrite risks in all policyholder industry sectors, based upon their responses to the TRIP data calls classifying the business operations of their principal (owner) policyholder. Figure 51 reflects the distribution of policyholder industry categories within the insurance written by captive insurers that is subject to the Program.

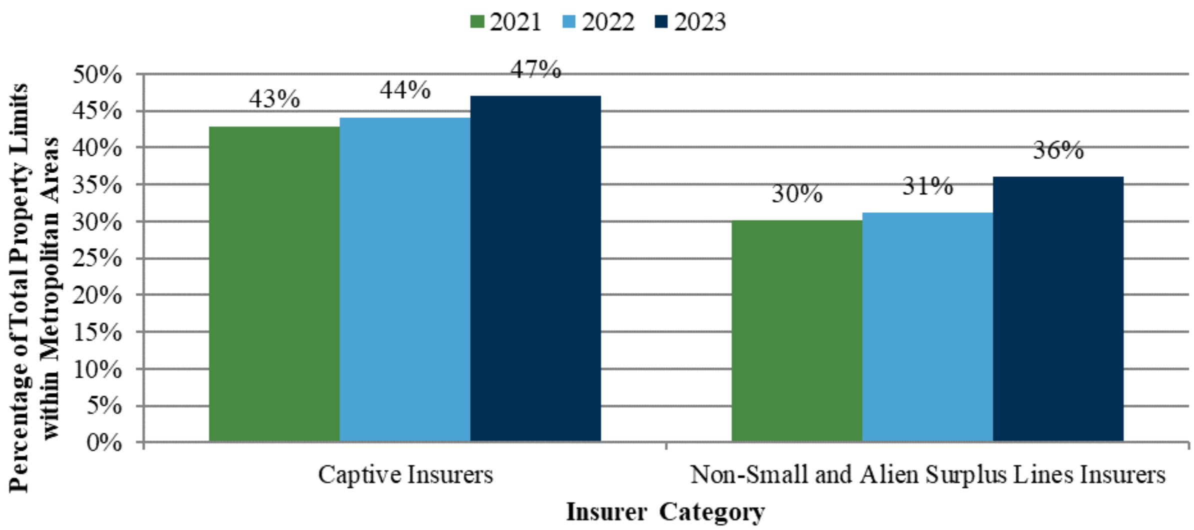
Figure 51: Captive Insurer TRIP-Eligible Lines DEP by Policyholder Industry Sectors



Source: 2022-2024 TRIP data calls

The property exposures written by captive insurers subject to the Program are slightly more concentrated in the larger metropolitan areas than is the case for non-small and alien surplus lines insurers, as shown in Figure 52.

Figure 52: Percentage of Total Property Limits within Metropolitan Areas for Captive Insurers Versus Non-Small and Alien Surplus Lines Insurers

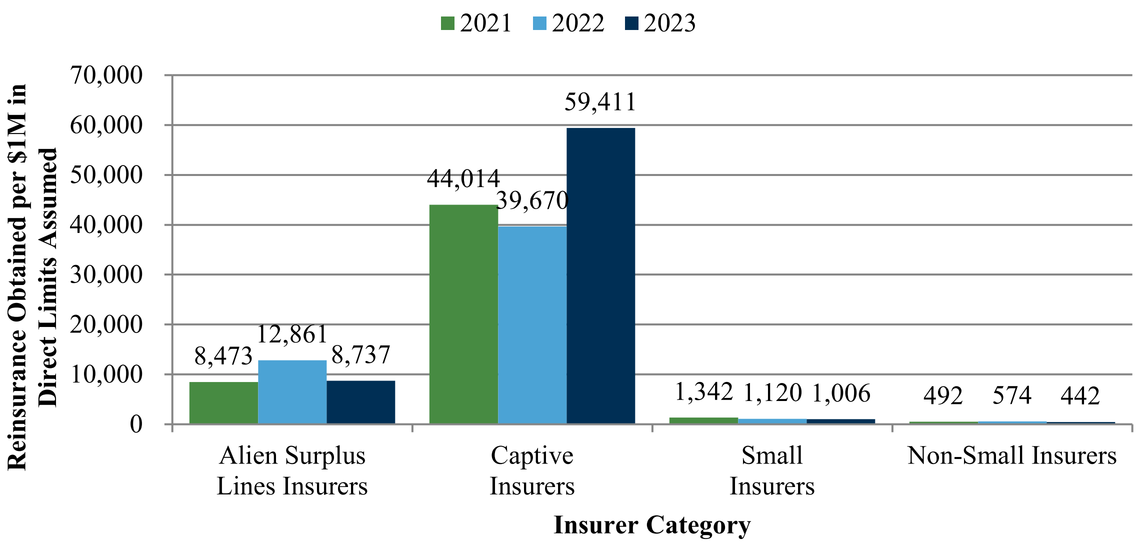


Source: 2022-2024 TRIP data calls

In the 2022 TRIP data call, approximately 21 percent of captive insurers reported purchasing reinsurance that would cover an act of terrorism certified under TRIA; in the 2023 TRIP data call that figure dropped to no more than 19 percent, and in the 2024 TRIP data it dropped further to 15 percent. The data also indicates, however, that captive insurers in the aggregate are obtaining reinsurance coverage for a greater proportion of their insurance risks than is the case for other insurer categories.

Captive insurers, as compared to other types of insurers, may be better able to purchase reinsurance coverage for terrorism risk. This is because conventional commercial insurers will generally have business to reinsure that will present a much broader range of exposures (in terms of type and locations), with the associated aggregation risks presented, than a captive insurer. By contrast, captive insurers write the range of risk exposures presented by their policyholder owners, which will usually be more limited and defined than the portfolio of risks underwritten by a conventional commercial insurer. Figure 53 compares the reinsurance limits for terrorism risk insurance subject to the Program against the total direct property and liability limits assumed under policies subject to TRIP.

Figure 53: Reinsurance Obtained Per $1 Million in Direct Policy Limits Subject to TRIP (Property and Liability Combined)



Source: 2022-2024 TRIP data calls

C. Alien Surplus Lines Insurers

Alien surplus lines insurers are those non-U.S. insurers that have been qualified to do business in the United States through a process administered by the NAIC assessing their financial stability and trustworthiness.[176] Those insurers appearing on the NAIC's current Quarterly Listing of Alien Surplus Lines Insurers participate in the Program pursuant to TRIA.[177] (Like other insurers, not all insurance written by alien surplus lines insurers is in the TRIP-eligible lines of insurance.) The companies on the Quarterly Listing fall into two general categories: (1) insurance syndicates operating at Lloyd's of London and (2) insurance companies domiciled in various non-U.S. jurisdictions (principally European countries and non-U.S. jurisdictions in North America). Industry sources report that Lloyd's accounts for approximately 64 percent of the alien surplus lines market (by premium) in the United States, while individual companies comprise the balance of 36 percent.[178]

The TRIP data calls do not permit an exact evaluation of the participation of alien surplus lines insurers within the Program because of the Program data collection mechanics and the manner in which many such entities participate within TRIP. Many alien surplus lines insurers (Lloyd's syndicates as well as individual companies) are affiliated with U.S.-based insurance groups. Treasury collects data for the Program by insurer group because TRIP operates for most purposes on a group basis, i.e., insurer groups submit claims on a group basis, and the deductible

[176] *See* NAIC, *Quarterly Listing of Alien Surplus Lines Insurers* (2024), https://www.slacal.com/docs/default-source/general-content-documents/lasli-resources/naicqtrlisting-alieninsurers-202310.pdf?sfvrsn=50f360eb_3.

[177] *See* TRIA § 102(6); 31 C.F.R. § 50.4(o)(1)(i)(B).

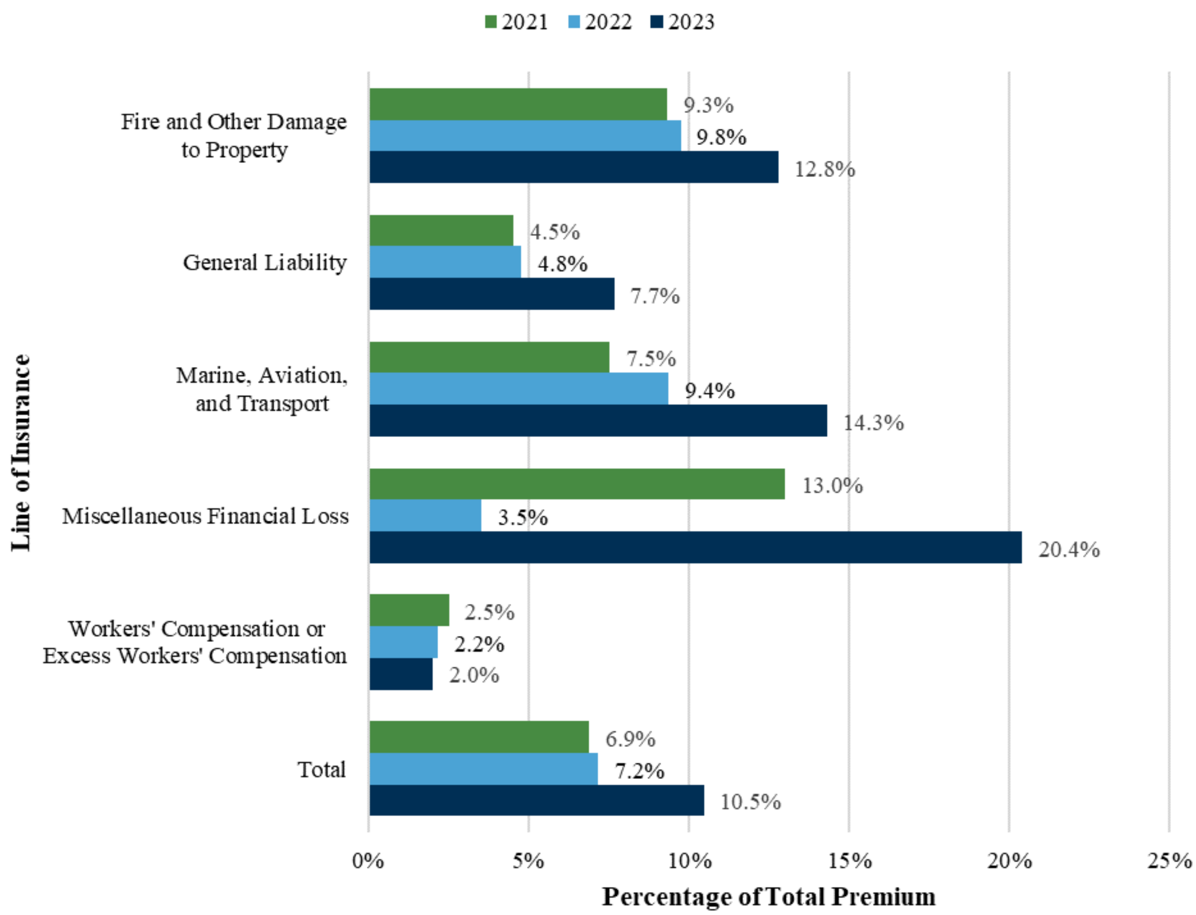
[178] *See* A.M. Best, *Surplus Lines Insurers Focus on Evolving Risks to Sustain Premium Growth* (2023), 4, https://www3.ambest.com/ambv/sales/bwpurchase.aspx?record_code=335589&AltSrc=22 (citing 2022 data).

that must be satisfied is calculated by reference to the TRIP-eligible lines DEP of the group as a whole. As a result, some of the experience of alien surplus lines insurers participating in the Program is incorporated within the data reported by non-small and small insurers. Given the size of the premium writings of alien surplus lines insurers, this does not have a significant impact on the reported results for non-small and small insurers. It does, however, potentially affect the ability to analyze the entire population of alien surplus lines insurers.

Most of the experience reflected by the reporting of alien surplus lines insurers is set forth above, in the relevant sections of the Report. For purposes of premium, however, Treasury collects information from alien surplus lines insurers based upon a different array of insurance lines that such insurers typically use in connection with their other operations. Figure 54 illustrates charges by alien surplus lines insurers for terrorism risk insurance coverage, by the lines used for alien surplus lines reporting.[179]

[179] Only a very small amount of terrorism risk insurance is provided by alien surplus lines insurers for no additional charge.

Figure 54: Terrorism Risk Insurance Premiums as a Percentage of Total Policy DEP when a Premium is Charged by Alien Surplus Lines Insurers (by Line of Insurance)



Source: 2022-2024 TRIP data calls

The information reported by unaffiliated alien surplus insurers reflects a higher percentage charge for terrorism risk insurance than has been reported by admitted insurers. That differential is to be expected since these insurers write on a surplus lines basis, which responds in large part to risks that may be more difficult to insure, and which cannot be placed in the admitted market.

VII. WORKERS' COMPENSATION

Workers' compensation insurance is a product offered by insurers to employers that covers costs related to medical care and treatment, rehabilitation, loss of wages, and other financial hardships encountered by workers resulting from workplace injuries. Workers' compensation is a TRIP-eligible line of insurance and thus is covered under the Program. Every state, with the exception of Texas, requires employers to possess some form of workers' compensation insurance to cover injured employees.[180] Self-insurance of workers' compensation exposures is also permitted in most states.[181] A qualified self-insurer may obtain excess workers' compensation insurance from a commercial insurance carrier, which will respond to losses above certain thresholds, either on an aggregate or individual claimant basis.[182] Although state law does not generally permit captive insurers to write workers' compensation insurance, many captive insurers issue workers' compensation deductible reimbursement policies to reimburse their policyholders for some portion of the deductible expense under commercial workers' compensation policies issued to the captive insurer's parent.[183]

Unlike most lines of insurance, state laws prohibit insurers from excluding coverage for terrorism risk, including NBCR risks, under workers' compensation coverage. Since terrorism risk cannot be excluded from a policy, the take-up rate for terrorism coverage is 100 percent as it relates to workers' compensation insurance. Furthermore, payments to employees under workers' compensation policies are only limited by the scope of benefits available under state law.[184]

NBCR events present a more pronounced aggregation risk than conventional terrorism claims because of the potential for broad-based losses from NBCR events.[185] An insurer cannot decline to write terrorism risk coverage (or the NBCR component of it) in conjunction with workers'

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[180] NCCI Comments, 2. In Texas, an employer (subject to certain exceptions) can decline to purchase workers' compensation insurance entirely (including for loss arising from terrorism), or otherwise qualify as a self-insurer for the exposure. However, when a Texas employer elects to remain outside of the workers' compensation system, it also remains subject to common law actions for employment-related injuries. *See generally* Texas Labor Code, Title 5 (Workers' Compensation), Chapter 401 *et seq*. In addition, although Wyoming only requires workers' compensation coverage for workers in "extra-hazardous" occupations, most occupations in Wyoming are so designated under the Wyoming workers' compensation laws. *See* Welch *et al., 2024 NASI Workers' Compensation Report*, 6 & n.15 (although noting that share of workers subject to the compensation system in Wyoming has declined in recent years on account of the decision of several large employers not to provide coverage). In most states, mandatory workers' compensation coverage does not apply to self-employed workers or independent contractors. Additionally, in some states, mandatory coverage does not extend to some employees in certain sectors, such as farm and domestic workers.

[181] Studies (based upon benefits payment history) indicate that self-insurance currently constitutes an estimated 25.7 percent of all workers' compensation. *See, e.g.*, Welch *et al.*, *2024 NASI Workers Compensation Report*, 24 (based upon 2021 data). Although self-insurers are also responsible for terrorism-related workers' compensation losses, self-insurance arrangements that are not accomplished through P&C insurance within the scope of TRIA are not subject to the Program.

[182] Industry sources describe excess workers' compensation insurance as "a type of coverage available for risks that choose to self-insure the majority of workers' compensation loss exposures. Two categories of coverages are available: specific, which controls loss severity by placing a cap on losses the insured must pay arising out of a single occurrence, and aggregate, which addresses loss frequency by providing coverage once a cumulative per occurrence loss limit is breached." "Excess Workers Compensation Insurance," International Risk Management Institute, https://www.irmi.com/term/insurance-definitions/excess-workers-compensation-insurance.

[183] *See* Section VI.B.

[184] *See* Welch *et al.*, *2024 NASI Workers' Compensation Report*, 8 (noting that private workers' compensation policies either provide coverage for all workers' compensation benefits, or all benefits subject to a deductible for which the policyholder is responsible).

[185] Estimates of aggregate loss arising from NBCR events have exceeded amounts well in excess of the $100 billion aggregate limit provided for under TRIP. *See, e.g.*, ACRSM, *ACRSM Report*, 24 (noting RMS maximum modeled losses for nuclear, biological, chemical, and radiological terrorism events ranging as high as $625 billion).

compensation coverage, so insurers choosing to write workers' compensation business must find other ways in which to manage the NBCR aggregation risk. This presents a substantial issue for insurers and employers in large metropolitan areas, with large concentrations of employees subject to workers' compensation. Employers seeking coverage in such metropolitan areas who are unable to find an insurer in the voluntary market may be forced to seek coverage from the residual market, which under state law must provide coverage to all applicants, although such coverage usually comes with a relatively high premium.[186]

Workers' compensation is the largest TRIP-eligible line of insurance by total DEP, as reflected in Figure 2. It is also the largest TRIP-eligible line of insurance by the total amount of terrorism risk insurance premiums charged by non-small and small insurers, as reflected in Figure 55.

Figure 55: Terrorism Risk Insurance Premiums by TRIP-Eligible Line of Insurance (Non-Small and Small Insurers) ($ millions)

	2022 TRIP data call		**2023 TRIP data call**		**2024 TRIP data call**	
	2021 Terrorism Risk DEP	% of 2021 Total Terrorism Risk DEP	2022 Terrorism Risk DEP	% of 2022 Total Terrorism Risk DEP	2023 Terrorism Risk DEP	% of 2023 Total Terrorism Risk DEP
Aircraft (all perils)	$ 17.2	0.6%	$ 15.9	0.6%	$ 22.7	0.7%
Allied Lines	109.7	3.5%	106.2	3.9%	167.5	5.1%
Boiler and Machinery	25.5	0.8%	23.5	0.9%	18.3	0.6%
Commercial Multi-Peril (liability)	229.9	7.3%	139.5	5.1%	129.2	4.0%
Commercial Multi-Peril (non-liability)	623.3	19.9%	556.6	20.3%	621.2	19.0%
Excess Workers' Comp.	23.4	0.7%	26.8	1.0%	23.6	0.7%
Fire	187.6	6.0%	227.6	8.3%	401.7	12.3%
Inland Marine	110.6	3.5%	100.8	3.7%	220.1	6.7%
Ocean Marine	13.8	0.4%	19.1	0.7%	25.9	0.8%
Other Liability	766.7	24.5%	489.8	17.9%	581.6	17.8%
Products Liability	26.1	0.8%	13.7	0.5%	22.0	0.7%
Workers' Compensation	1,001.0	31.9%	1,015.7	37.1%	1,037.1	31.7%
Total	**$ 3,134.7**	**100.0%**	**$ 2,735.1**	**100.0%**	**$ 3,270.9**	**100.0%**

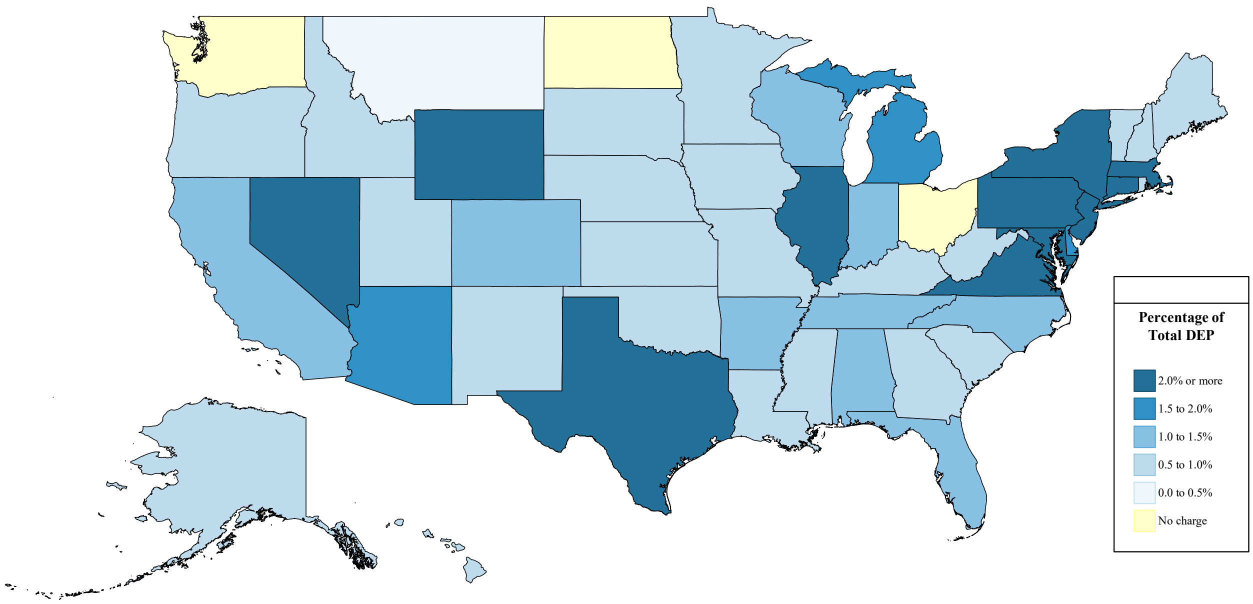
Source: 2022-2024 TRIP data calls

The proportional premiums charged for terrorism risk insurance in the workers' compensation line in 2023 vary by jurisdiction, from a high of 20.3 percent of total premiums when a charge is

[186] *See* Marsh Comments, 6 ("Employee concentrations result in large accumulations for commercial lines carriers, which becomes significantly magnified for NBCR event footprints and accumulations… [T]he economic impact from a TRIA non-renewal or notable changes to the trigger, deductibles, and co-shares could result in significant shifts from the private market to state funds and residual market pools, and would be particularly challenging for the workers' compensation line of business.").

made in the District of Columbia, to a low of 0.5 percent in Montana.[187] Figure 56 illustrates the charges (as a percent of DEP) on a state-by-state basis across the country in 2023.

Figure 56: 2023 Terrorism Risk Insurance Premiums for Workers' Compensation as a Percentage of Total TRIP-Eligible DEP when a Charge is Made (Non-Small and Small Insurers)



Source: 2024 TRIP data call

Insurance rates for terrorism risk insurance in the workers' compensation line are based, at least in part, upon terrorism catastrophe modeling that estimates the potential impact of terrorist attacks upon workers' compensation insurers.[188] In the development of loss costs on a state-by-state basis, industry sources report that the impact of the Program is considered.[189] This shows that, in the absence of the Program, indicated costs—and thus associated premium rates—would likely be higher than at present.

In sum, the Program constitutes an important feature of the existing market for workers' compensation insurance in the United States, and observers note that there could be disruptions to that market in the absence of the Program.[190] This is largely on account of the nature of the insurance coverage that must be provided as a matter of state law for workers' compensation exposures. Commenters indicated that the market as a whole has been relatively stable.[191]

[187] In three jurisdictions where all workers' compensation insurance is provided by a state entity (North Dakota, Ohio, and Washington), no additional charge is made for the terrorism risk portion of the coverage.

[188] NCCI Comments, 3-4.

[189] NCCI Comments, 4.

[190] Marsh Comments, 5 ("Without TRIP, the private market choices may be significantly reduced for buyers with large concentrations of insured employees, and demand for coverage could outpace the available capacity.").

[191] NCCI Comments, 4.

VIII. TERRORISM RISK PREMIUMS EARNED OVER TIME

TRIA requires that Treasury provide in each Effectiveness Report an estimate of the total amount of premiums earned on terrorism risk insurance since January 1, 2003.[192] In the 2022 Effectiveness Report, Treasury determined that as much as $49.7 billion was earned by non-small, small, and alien surplus lines insurers between 2003 and 2021, with an additional $10.0 billion earned by captive insurers during this period.[193] Based on the information reported for 2022 and 2023, Treasury now estimates that non-small, small, and alien surplus lines insurers have earned approximately $56.7 billion in terrorism risk insurance premiums between 2003 and 2023, with captive insurers earning an additional $11.6 billion. This section provides additional details on those calculations, by insurer category.

A. Non-Small and Small Insurers

Figure 57 provides information on terrorism risk insurance premiums earned by non-small and small insurers in 2022 and 2023 and the percentage of total TRIP-eligible DEP represented by that figure.

Figure 57: Terrorism Risk Insurance DEP, Non-Small and Small Insurers

	2023 TRIP data call		2024 TRIP data call	
	2022 Terrorism Risk Insurance DEP	% of Category's 2022 TRIP-Eligible DEP	2023 Terrorism Risk Insurance DEP	% of Category's 2023 TRIP-Eligible DEP
Non-Small Insurers	$ 2,440,429,318	1.2%	$ 2,806,477,270	1.3%
Small Insurers	294,697,306	0.9%	464,445,414	1.4%
Total	**$ 2,735,126,624**	**1.1%**	**$ 3,270,922,684**	**1.3%**

Source: 2023 and 2024 TRIP data calls

Figure 57 shows that non-small and small insurers earned approximately $6.0 billion in terrorism risk insurance premiums in 2022 and 2023. Adding in the prior figure of $46.5 billion reported in the 2022 Effectiveness Report, small and non-small insurers earned $52.6 billion in terrorism risk insurance premiums between 2003 and 2023.

B. Alien Surplus Lines Insurers

Figure 58 provides information on terrorism risk insurance premiums earned by alien surplus lines insurers in 2022 and 2023 and the percentage of total TRIP-eligible DEP represented by that figure.

[192] TRIA § 104(h)(2)(F).

[193] FIO, *2022 Effectiveness Report*, 90-91 (using reported estimates for the years 2003 through 2021, coupled with the data directly reported for 2020 and 2021).

Figure 58: Terrorism Risk Insurance DEP, Alien Surplus Lines Insurers

	2023 TRIP data call		2024 TRIP data call	
	2022 Terrorism Risk Insurance DEP	% of Category's 2020 TRIP-Eligible DEP	2023 Terrorism Risk Insurance DEP	% of Category's 2021 TRIP-Eligible DEP
Alien Surplus Lines Insurers	$ 387,462,220	2.3%	$ 490,241,889	3.0%

Source: 2023 and 2024 TRIP data calls

In 2022 and 2023, alien surplus lines insurers earned approximately $877.7 million in terrorism risk insurance premiums. Adding the 2022 and 2023 information received in the TRIP data calls to the prior figure of $3.2 billion reported in the *2022 Effectiveness Report*, Treasury estimates that alien surplus lines insurers earned approximately $4.1 billion in terrorism risk insurance premiums between 2003 and 2023.

C. Captive Insurers

Figure 59 provides information on terrorism risk insurance premiums earned by captive insurers in 2020 and 2021 and the percentage of total TRIP-eligible DEP represented by that figure.

Figure 59: Terrorism Risk Insurance DEP, Captive Insurers

	2023 TRIP data call		2024 TRIP data call	
	2022 Terrorism Risk Insurance DEP	% of Category's 2020 TRIP-Eligible DEP	2023 Terrorism Risk Insurance DEP	% of Category's 2021 TRIP-Eligible DEP
Captive Insurers	$ 896,623,101	3.7%	$ 653,440,354	2.2%

Source: 2023 and 2024 TRIP data calls

Captive insurers earned approximately $1.6 billion in terrorism risk insurance premiums in 2022 and 2023. Adding to the prior figure of $10.0 billion reported in the *2022 Effectiveness Report*, Treasury estimates that captive insurers earned approximately $11.6 billion in terrorism risk insurance premiums between 2003 and 2023.

D. Aggregate Industry Total Premiums

As noted above, Treasury estimates that non-small, small, and alien surplus lines insurers, in the aggregate, earned as much as $56.7 billion in terrorism risk insurance premiums between 2003 and 2023, with captive insurers earning an additional $11.6 billion. Based on the information provided by the domestic admitted market, this amount constitutes between 1 and 2 percent of total TRIP-eligible lines premiums earned over the entire period by these insurers.

Treasury will continue to update these figures in future Effectiveness Reports with the results of future TRIP data calls as they are conducted.

IX. USE OF MODELING TO PROJECT POTENTIAL IMPACTS TO PROGRAM

A. Background

Insurers typically gain insight into the risks that they underwrite through the collection and analysis of claims data, which they can use to predict with some degree of certainty likely future losses, thus permitting appropriate pricing and insurer acceptance of risks. The lack of a significant number of prior terrorism claims and losses prevents insurers from applying typical methodologies in this area and requires different approaches, such as modeling of potential losses. Treasury addresses in this section the most recent results from the modeled loss questions on NBCR risks posed to Program participants in its annual data calls. The section also includes an analysis from both historic and commercial models of the potential impact of an attack on a nuclear power plant, with its attendant impacts on the Program.

B. Projections from Modeled Loss Questions

To assist in evaluating Program effectiveness and obtain some tangible assessment of the likely impact of the Program in a specific loss situation, Treasury has posed modeled loss questions in each TRIP data call from 2017 through 2024. Treasury has previously discussed the results of these questions in 2018 (for the modeled loss questions posed in the 2017 and 2018 TRIP data calls), in 2020 (for the modeled loss questions posed in the 2019 and 2020 TRIP data calls), and in 2022 (for the modeled loss questions posed in the 2021 and 2022 TRIP data calls).[194]

As in the prior data calls, in the 2023 and 2024 TRIP data calls Treasury posed a question to non-small, alien surplus lines, and captive insurers asking them to report projected loss information based upon a defined, hypothetical terrorism event.[195] The 2023 TRIP data call used an event in Las Vegas, Nevada, while the 2024 TRIP data call used an event in Atlanta, Georgia.[196] In both data calls, insurers were given a description of the location and nature of the event, with certain specified assumptions concerning numbers of deaths and injuries, and the scope of property damage. Treasury asked responding insurers to project the total amount of loss exposure arising from the hypothetical modeled event under their TRIP-eligible policies in force at the time of each such event. Treasury further requested that insurers then divide that amount among (1) the insurer's net payments within its TRIP deductible; (2) private reinsurance payments within the insurer's TRIP deductible; (3) federal share payment under TRIP; (4) payments by the insurer in

[194] *See* FIO, *2018 Effectiveness Report*, 49-53; FIO, *2020 Effectiveness Report*, 49-55; FIO, *2022 Effectiveness Report*, 50-54.

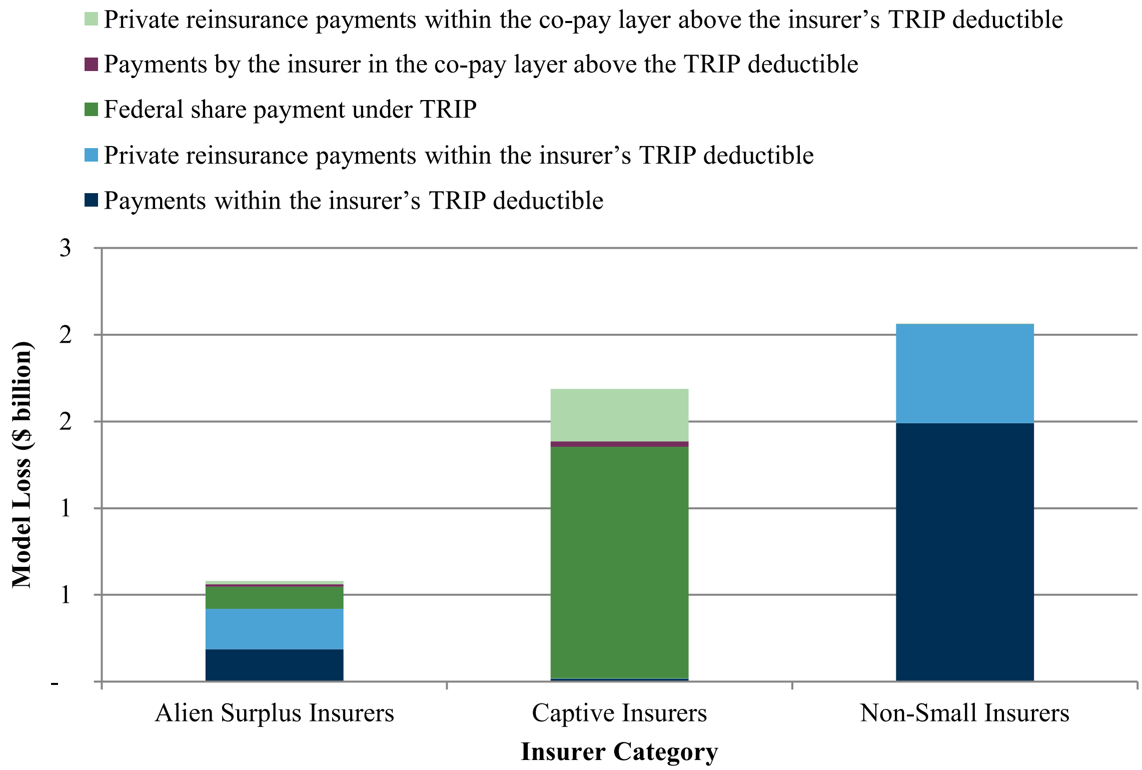
[195] Treasury has not required small insurers to complete the modeled loss questions in the 2017-2024 TRIP data calls. Given the size of the market represented by small insurers, and where their risks tend to concentrate, the experience of small insurers may not significantly affect the aggregate results, even though certain small insurers might sustain a significant loss.

[196] The details concerning the scenarios each year are published in the data collection templates available on FIO's website. *See, e.g.*, FIO, *Terrorism Risk Insurance Program 2024 Data Call: Insurer (Non-Small) Groups or Companies,* at 13 (Reinsurance Template), https://home.treasury.gov/system/files/311/2024%20Data%20Call%20Non-Small%20Insurers.pdf.

the co-pay layer above the TRIP deductible; and (5) private reinsurance payments within the co-pay layer above the insurer's TRIP deductible.[197]

Figures 60 and 61 illustrate how the 2023 TRIP data call modeled loss question was projected to result in payments.

Figure 60: Total Insured Loss Payments Resulting from 2023 Las Vegas Modeled Loss Scenario by Insurer Category ($ billions)



Source: 2023 TRIP data call

[197] No questions were posed about potential exposure under liability policies in these modeled loss questions because of the difficulty to reasonably project how liability claims might be made in connection with an act of terrorism committed by a third party. Nonetheless, the possibility of liability claims remains an additional source of exposure to participating insurers and the Program. *See, e.g.*, III, *Terrorism Risk: A Constant Threat* (2014), 6, https://www.iii.org/sites/default/files/docs/pdf/terrorism_white_paper_0320141_0.pdf (loss distribution estimates for losses arising from September 11 Attacks reflecting that liability claims resulted in 12 percent of total losses). Treasury did ask responding insurers to report estimates associated with potential liability exposure in the 2020 TRIP data call's Dallas scenario. *See* FIO, *2020 Effectiveness Report*, 50, 52-54.

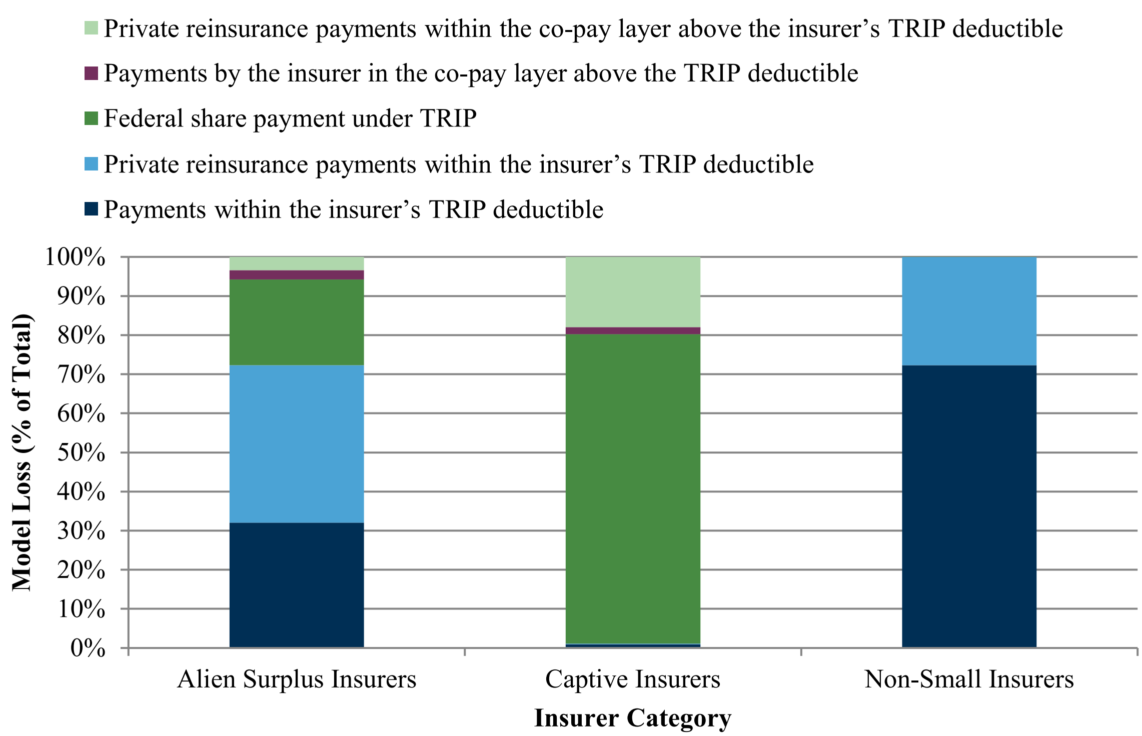
Figure 61: Total Insured Loss Payments Resulting from 2023 Las Vegas Modeled Loss Scenario by Insurer Category (in $ millions)

	Alien Surplus Lines	Captives	Non-Small Insurers
Payments within the insurer's TRIP deductible	$ 186.3	$ 16.2	$ 1,490.9
Private reinsurance payments within the insurer's TRIP deductible	233.7	3.2	570.0
Federal share payment under TRIP	127.0	1,334.7	0.0
Payments by the insurer in the co-pay layer above the TRIP deductible	13.9	30.6	-
Private reinsurance payments within the co-pay layer above the insurer's TRIP deductible	19.7	303.1	-
Total	**$ 580.6**	**$ 1,687.7**	**$ 2,060.9**

Source: 2023 TRIP data call

Figure 62 sets forth how the loss amounts generated under the 2023 modeled loss scenario are distributed (on a 100 percent basis) within each insurer category.

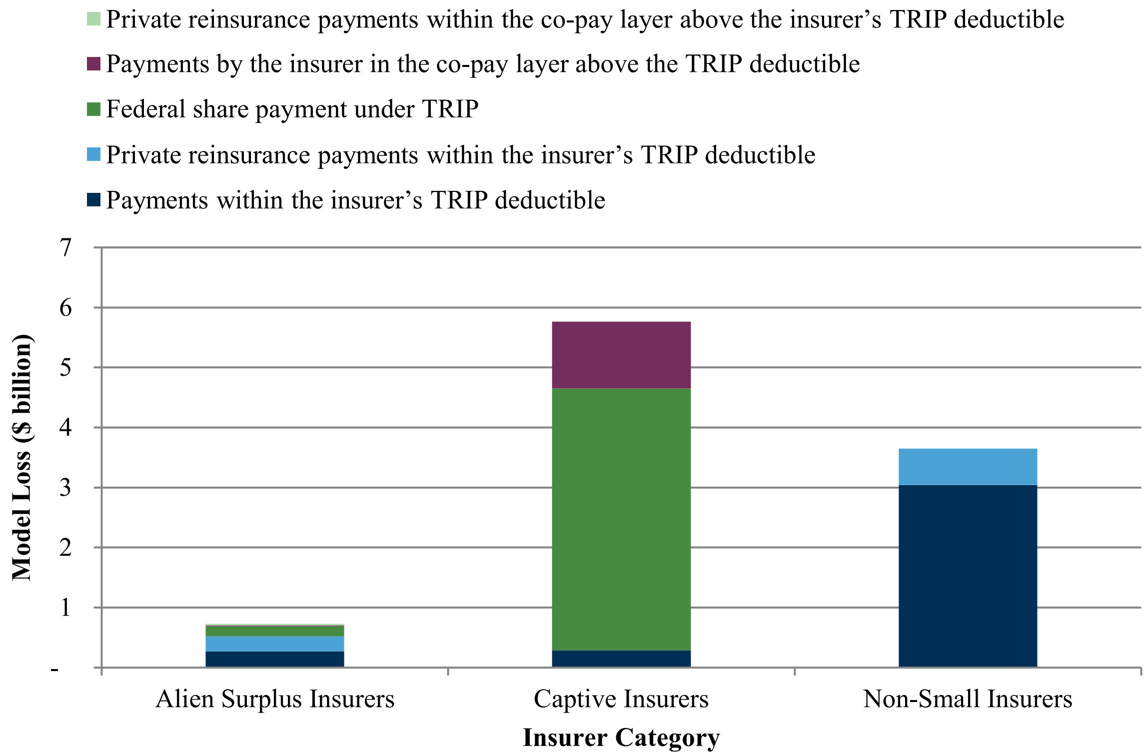
Figure 62: Distribution of Loss Payments Arising from 2023 Las Vegas Modeled Loss Scenario Within Each Insurer Category



Source: 2023 TRIP data call

Figures 63 and 64 illustrate how the 2024 TRIP data call's modeled loss scenario (set in Atlanta in 2023) is projected to result in payments.

Figure 63: Total Insured Loss Payments Resulting from 2024 Atlanta Modeled Loss Scenario by Insurer Category ($ billions)



Source: 2024 TRIP data call

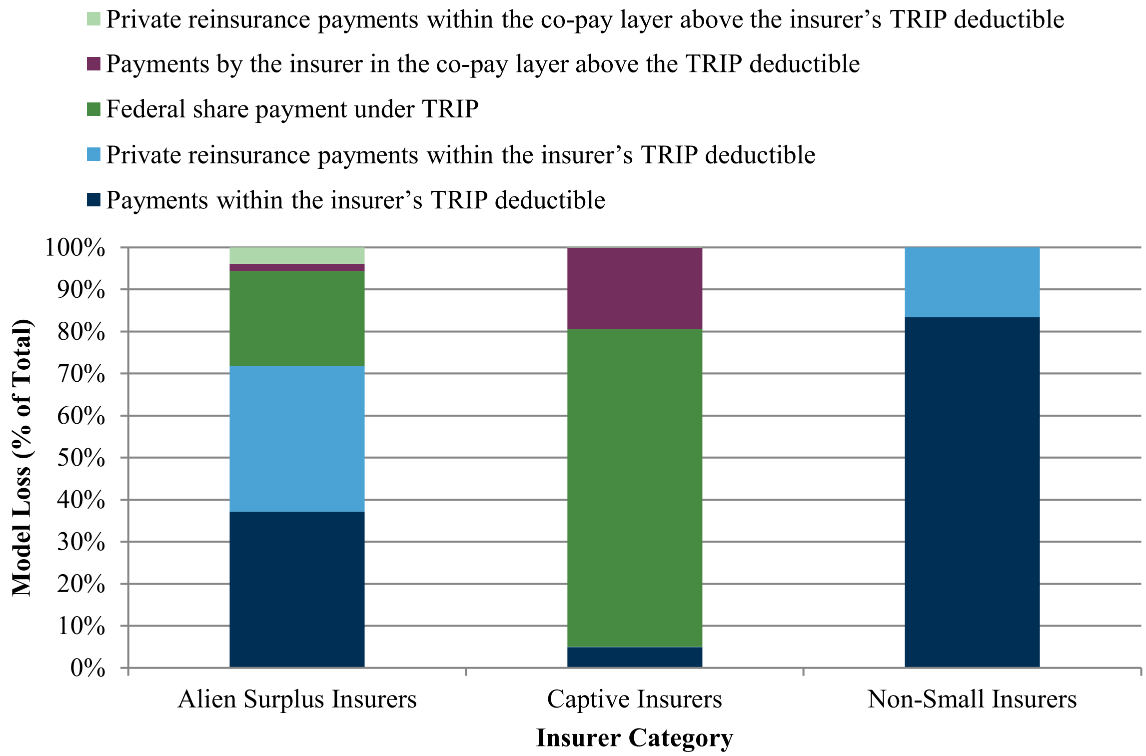
Figure 64: Total Insured Loss Payments Resulting from 2024 Atlanta Modeled Loss Scenario by Insurer Category ($ millions)

	Alien Surplus Lines	Captives	Non-Small Insurers
Payments within the insurer's TRIP deductible	$ 271.1	$ 285.8	$ 3,043.3
Private reinsurance payments within the insurer's TRIP deductible	252.7	2.7	604.8
Federal share payment under TRIP	165.1	4,360.8	-
Payments by the insurer in the co-pay layer above the TRIP deductible	12.7	1,113.8	-
Private reinsurance payments within the co-pay layer above the insurer's TRIP deductible	28.6	3.1	-
Total	**$ 730.1**	**$ 5,766.2**	**$ 3,648.1**

Source: 2024 TRIP data call

Figure 65 sets forth how the loss amounts generated under the 2024 TRIP data call's modeled loss scenario are allocated on a 100 percent basis within each insurer category.

Figure 65: Distribution of Loss Payments Arising from 2024 Atlanta Modeled Loss Scenario within Each Insurer Category



Source: 2024 TRIP data call

The reported information indicates that both the Las Vegas and Atlanta scenarios would result in losses requiring payments by Treasury, although in each of these cases (as was largely the case with prior scenarios posed) the amounts expended by Treasury will be subject to complete recovery through the recoupment process. The payments made by Treasury would be split between those made to alien surplus line insurers and captive insurers (in both scenarios), largely because of the relatively smaller deductibles for those entities as compared to non-small insurers. Under each of these scenarios, no Federal Share of Compensation payments would be directed to the affected non-small insurers (because those losses would be contained within each non-small insurer's TRIP deductible). This recoupment will be at the 140 percent recoupment level through surcharges imposed by Treasury upon all commercial policyholders.[198] Additional amounts would likely be subject to recoupment once small insurer losses (not captured in these analyses) are considered.

C. Modeling of Terrorism Attacks Against US Commercial Nuclear Power Plants

The United States initially developed the use of nuclear power for commercial purposes in the 1950s. One important consideration in the development of commercial nuclear power was the ability to secure insurance for the hazards associated with its use. Congress enacted legislation,

[198] *See* Mandatory and Discretionary Recoupment, 31 C.F.R. § 50.90(b) (2021); TRIA § 103(e)(7)(D).

relying in part commercial insurance solutions, to address the liability risk, followed by separate requirements for property risk. The U.S. government subsequently undertook modeling efforts to assess whether these existing structures were appropriate.

TRIP provides support for these mechanisms to address the use of nuclear power for commercial purposes in the event there is a certified act of terrorism affecting a nuclear power plant. This section analyzes how potential terrorist events could affect these existing insurance mechanisms, as well as the potential implications for TRIP. As part of this analysis, this section describes the evolution of modeling tools for nuclear power plant hazards. The section concludes by comparing Treasury's modeled outputs using commercial models with prior U.S. government analyses conducted in the 1960s and 1970s.

1. Commercial Nuclear Power Risk Insurance Structures

The Atomic Energy Act of 1954 granted private entities the authority to construct, own, and operate nuclear reactors to produce electric power, subject to a strict licensing regime administered by the Atomic Energy Commission (AEC), the predecessor to the current Nuclear Regulatory Commission (NRC).[199] Initially, nuclear risk was considered "uninsurable" by many American lawmakers and insurance industry executives. To overcome this challenge, in 1957 the U.S. Congress passed the Price-Anderson Nuclear Industries Indemnity Act (Price-Anderson Act) which, with the collaboration of private insurers and nuclear operators, established a nuclear insurance regime for commercial nuclear power plants that has continued to the present day.[200] (See Box 1.)

Box 1: The Price Anderson Act and Nuclear Insurance in the United States

The Price-Anderson Act of 1957, 42 U.S.C. § 2210, was enacted to indemnify the emerging nuclear industry from catastrophic third-party liability losses that could be associated with a major nuclear accident. The law established accident liability limits for owners and operators of nuclear power reactors and their suppliers, and a mechanism to ensure that bodily injury and property damage compensation would be readily available within those limits. The TRIP backstop interacts with this insurance mechanism as well as with first-party property insurance later required as well, as outlined below.

American Nuclear Insurers (ANI)

ANI, a joint underwriting association and managing agent for a syndicate of participating insurers, provides primary insurance to all U.S. commercial nuclear power plants. It also administers a secondary retrospective program established by Congress in 1976. ANI provides $500 million per site in primary coverage. Any damages to the public from a nuclear incident exceeding the site's $500 million primary coverage is assessed equally among all 94 operating commercial power reactors. These retrospective premiums are currently capped at $158.0 million per reactor. There is also a five percent surcharge equal to $7.9 million per reactor that

[199] The Atomic Energy Act of 1954, Pub. L. No. 83-703, 68 Stat. 919 (1954).

[200] An Act to Amend the Atomic Energy Act of 1954 - Price–Anderson Nuclear Industries Indemnity Act, Pub. L. No. 85-256, 71 Stat. 576 (1957).

may be imposed on the retrospective premium, raising the total to $165.9 million per reactor. The total available compensation is $16.097 billion—the current limit of liability.

Nuclear Electric Insurance Limited (NEIL)

The Price-Anderson Act only applies to third-party liability, and not to first-party (i.e., coverage to the owner) property coverage. After the Three Mile Island accident in 1979, the NRC required all commercial nuclear power plants to carry a minimum of $1.06 billion in property coverage to cover the operator's obligation to stabilize and decontaminate the reactor site after an accident.[201]

NEIL, a mutual insurance company, provides first-party nuclear property and power outage policies that insure nuclear power plants for physical losses, decontamination expenses, and costs associated with electric power generation interruptions caused by both nuclear and non-nuclear events. NEIL provides member companies with up to $1.5 billion per site of primary coverage, and $1.25 billion per site in excess coverage, for a maximum property coverage level of $2.75 billion per site per occurrence. NEIL also provides up to $4.5 million per reactor per week in business interruption coverage, with a coverage limit of $490 million per reactor for a nuclear outage event. The coverage starts following an initial deductible period ranging from 8 to 26 weeks. NEIL's policies include a retrospective premium provision that allows NEIL to call up to 10 times the premium paid by each insured in a particular policy year for covered loses, currently totaling up to $1.99 billion for a maximum retrospective premium call. The retrospective premium is intended to recapitalize NEIL so that it may continue to provide coverage to the remaining nuclear power plants.

ANI, NEIL, Reinsurance and TRIP

Both ANI and NEIL reinsure each other, and they both also provide and receive reinsurance from other global nuclear pools and commercial reinsurers. Notably, both ANI and NEIL extend terrorism risk insurance subject to TRIP. Therefore, in cases where an act of terrorism is certified, they both could be reimbursed for up to eighty percent of their exposed policy limits ($500 million in the case of ANI and $2.75 billion for NEIL) after application of their respective TRIP deductibles.

2. Pre-TRIP Commercial Nuclear Power Risk Modeling

Prior to the enactment of the Price-Anderson Act, Congress commissioned a study to model the likelihood and consequences of a major accident at a large nuclear power reactor. For this study the AEC enlisted the Brookhaven National Laboratories to study three accident scenarios at a 500-megawatt reactor, located on a river about 30 miles from a major city—a site very similar to the recently decommissioned Indian Point nuclear power plant located 36 miles north of Midtown Manhattan. Based on the three accident scenarios, the "Brookhaven Report" estimated

[201] Comptroller General of the United States, *Three Mile Island: The Financial Fallout* (1980), https://www.gao.gov/assets/emd-80-89.pdf. In addition, the Three Mile Island accident disrupted the operator's ability to generate power from the plant, forcing the owner to pay an estimated $325 million in 1980 for replacement power. *Id.*

casualties ranging from none to an upper limit of 3,400 killed and 43,000 injured; and property damages ranging from $500,000 to an upper limit of about $7 billion.[202] For most of the accident scenarios, the total losses calculated would likely not exceed a few hundred million dollars.[203] Although none of the estimates included third-party liability compensation for the families of the dead and injured, many of the key risk parameters used in the Brookhaven Report are used in terrorism risk modeling tools today.[204]

In 1972, the U.S. Congress Joint Committee on Atomic Energy requested the AEC launch a new study looking at the probabilities and consequences of severe reactor accidents in commercial nuclear power plants.[205] The "Rasmussen Report", released in 1975, represented the first use of probabilistic risk analysis techniques to study core meltdown accidents.[206] The study found that accident probabilities were higher than previously believed but that the offsite consequences to the public and the environment were significantly lower.[207]

Following the Three Mile Island accident in 1979, the NRC accelerated the use of probabilistic risk analysis and in 1985 released guidelines on its use.[208] In 1988, the NRC required all nuclear power plants to begin to conduct individual plant examinations looking at plant-specific internal vulnerabilities such as equipment failures and external events such as earthquakes and windstorms.[209] Deliberate malevolent acts (e.g., terrorism) were not included in the set of external events considered during this period. After the September 11 Attacks, the NRC issued a

[202] AEC, *Theoretical Possibilities and Consequences of Major Accidents in Large Nuclear Power Plants* (1957), https://www.osti.gov/servlets/purl/4344308.

[203] AEC, *Theoretical Possibilities and Consequences of Major Accidents,* viii.

[204] Some of the factors used in the Brookhaven Report that are still used by nuclear insurers include, for example: the quantity of radioactivity released, the effects of weather conditions and terrain in dissipating the fission cloud, the distribution of population around the plant site, and other variables which could influence the behavior of the cloud and the number of people exposed to it, as well as the number, age, and generating capacity of the reactors, the type of containment, and operating history of the nuclear power plant. *See, e.g.*, *Nuclear Energy Liability Policy: Hearings Before the Joint Committee on Atomic Energy,* 85th Cong., (March 25-27, 1957), 100, https://www.google.com/books/edition/Governmental_Indemnity_and_Reactor_Safet/TOVEAQAAMAAJ?hl=en&gbpv=1&dq=Hearings%20Before%20the%20Joint%20Committee%20on%20Atomic%20Energy%20(1957)%2C%20%E2%80%9CNuclear%20Energy%20Liability%20Policy%3A%20March%201%2C%201957%2C%20Edition%2C%E2%80%9D&pg=PA100&printsec=frontcover; John Gudgel, "Insurance and the Public–Private Management of Risk at U.S. Commercial Nuclear Power Plants," *Risk Management and Insurance Review*, 2023, https://onlinelibrary.wiley.com/doi/pdf/10.1111/rmir.12257.

[205] William Keller & Mohammad Modarres "A Historical Overview of Probabilistic Risk Assessment Development and Its Use in the Nuclear Power Industry: A Tribute to the Late Professor Norman Carl Rasmussen," *Reliability Engineering and System Safety* (November 11, 2004, 275, https://www.nrc.gov/docs/ML1216/ML12167A131.pdf.

[206] NRC, *Reactor Safety Study: An Assessment of Accident Risks in U.S. Commercial Nuclear Power Plants – Main Report* (1975), https://www.nrc.gov/docs/ML1533/ML15334A199.pdf (*Rasmussen Report*).

[207] NRC, *Rasmussen Report*, 8-11.

[208] NRC, *Probabilistic Risk Assessment Reference Document* (1984), https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/NUREG1050F.xhtml.

[209] NRC, *Individual Plant Examination for Severe Accident Vulnerabilities – 10 CFR 50.54(f) (Generic Letter No. 88-20)* (1988), https://www.nrc.gov/reading-rm/doc-collections/gen-comm/gen-letters/1988/gl88020.html.

series of orders to ensure that commercial nuclear power plants had effective security measures in place to respond to the changing threat environment.[210]

3. Post 9/11 Modeling of Potential Terrorism Losses from Commercial Nuclear Power Plants

In 2002, not long after the September 11 Attacks, commercial modeling companies released their first terrorism risk modeling tools.[211] These tools were intended to assist insurers and reinsurers in estimating the potential property, business interruption, and workers' compensation losses that could arise from acts of terrorism in the United States or in other locations around the world.

Beginning in 2017, Treasury in its annual TRIP data call required non-small insurers, captives, and alien surplus lines insurers to report projected loss information based on a defined hypothetical terrorism event. Today, many of the carriers subject to TRIP's data call use terrorism modeling tools not only to manage their terrorism risk portfolio, but also to respond to the TRIP annual modeled loss question.

In 2021, Treasury obtained access to commercial terrorism modeling tools to better understand the potential impact of catastrophic terrorism events on insurers, reinsurers, TRIP, and the U.S. economy.[212] The modeling tools permit the evaluation of a broad array of potential terrorist attacks at locations throughout the United States, including attacks on commercial nuclear power plants, that could have immediate, catastrophic, and far-ranging consequences.

For purposes of this report, Treasury analyzed the potential losses generated by an attack on a nuclear power plant in the United States to measure the potential impact upon TRIP. There are currently 94 reactors in operation at 54 nuclear power plants in 28 U.S. states.[213] Commercial modeling tools can model terrorism attacks against all 54 operational nuclear power plants, as well as 13 additional plants that are being decommissioned. The decommissioned plants include the Indian Point nuclear power station likely used by modelers in the Brookhaven and Rasmussen reports. To illustrate the potential consequences arising from a terrorist attack on a nuclear power facility, Treasury evaluated the results of two types of terrorist attacks—aircraft collision and nuclear sabotage—at the Indian Point nuclear power plant, which then permits comparisons with the impact results of the Brookhaven and Rasmussen reports.

Scenario 1: Terrorist Aircraft Crash into a Commercial Nuclear Power Reactor

The modelled aircraft collision scenario is based on the September 11 commercial jet hijackings and subsequent collisions with the World Trade Center towers and the Pentagon. Under the Treasury aircraft collision scenario, a large commercial jetliner is deliberately crashed into the

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[210] NRC, "Design Basis Threat – Final Rule," 10 C.F.R. Part 73 (March 19, 2007).

[211] Guy Carpenter, *Terrorism Solutions: Modeling* (2014), https://www.guycarp.com/insights/2014/09/terrorism-solutions-modeling-2.html.

[212] *See generally* Contract# 2032H321C00036, *TRIP Terrorism Risk Modeling,* Federal Procurement Data System.

[213] Grant W. Eskelsen *et al.*, "Large Increases to Price-Anderson Act Secondary-Layer Protection in Inflation Adjustments," Morgan Lewis, September 23, 2023, https://www.morganlewis.com/blogs/upandatom/2023/09/large-increases-to-price-anderson-act-secondary-layer-protection-in-inflation-adjustments.

containment dome of one reactor on a nuclear power plant site. The simple footprint target has a 1,500-meter radius, destroying the reactor but not the reactor safety systems, thus preventing a large release of radiation affecting nearby populations. Thus, the primary insured losses are to the nuclear power plant property and onsite workers. For the Indian Point nuclear power plant (assuming it was still operational) the property loss is estimated to be $3.9 billion, with estimated workers' compensation losses of $172.1 million.

The primary property insurer impacted by this type of attack is NEIL, which provides up to $1.5 billion in primary coverage and $1.25 billion in excess property and decontamination liability coverage. NEIL also provides up to $490 million per reactor in business interruption coverage which also qualifies for federal payments under TRIP. Assuming this aircraft collision is declared a terrorist event, TRIP would provide coverage for 80 percent of the loss, less NEIL's TRIP deductible, up to the combined policy maximum ($2.75 billion).

Scenario 2: Nuclear Sabotage of a Commercial Nuclear Power Plant with Major Radioactive Release

The second scenario involves an armed suicide attack on a multi-reactor commercial nuclear power plant, disabling the safety systems and allowing a major radioactive release for several days involving 15 to 20 percent of the plant's radioactive inventory. Precedents include a left-wing commando raid on the Atucha nuclear power plant north of Buenos Aires in 1973, and several Basque separatist attacks on nuclear power plants in Spain during the late-1970s. None of these attacks resulted in a major radioactive release.

For this scenario Treasury once again chose the Indian Point nuclear power plant with the attack release occurring around 11 a.m. local time with a wind blowing to the south. While there is considerable damage to the nuclear power plant and onsite workers (comparable to the losses in Scenario 1), most of the impact is on the communities south of the nuclear power plant. The plume spreads with high radiation levels 50 miles to the south over large population centers and causing widespread contamination, radiation illnesses, and major disruption of business activities. Thus, the primary insured losses are to third-party property and offsite populations. For the Indian Point nuclear power plant (assuming it was still operational) the third-party property loss is estimated to be $240.8 billion, with 391,740 worker injuries, and 24 immediate worker deaths. The reason for the relatively low death count is the presumed evacuation of much of the population in the plume's path. Further, based on the experience of Fukushima (see below), many of the casualties would be related to the mental stress of the radiation emergency and subsequent evacuation.[214] The estimated workers' compensation losses are $5.1 billion. Workers' compensation (within the scope of TRIA) is a mandatory coverage from which terrorism risk cannot be excluded, although approximately 25 percent of employers self-insure

[214] A 2014 Fukushima government report estimated that 2,313 evacuated residents suffered premature deaths not related to radiation but attributed to physical and mental stress stemming from long stays at shelters, a lack of medical care due to closed hospitals, and suicides. *See* World Nuclear Association, "Fukushima Daiichi Accident," updated April 24, 2024, at https://world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-daiichi-accident

the risk.[215] Thus, it is assumed that about 75 percent of this loss will give rise to claims under TRIP, for losses sustained by insurers in excess of their respective deductibles. Conversely, because many insurers exclude NBCR coverage from their property policies, a significant percentage of the $240.8 billion in losses in excess of the nuclear coverage of $500 million described below would likely not be covered by TRIP.[216]

The primary third-party liability insurer impacted by this attack scenario is ANI, which provides up to $500 million in primary third-party liability coverage. Assuming this sabotage attack is certified as an "act of terrorism" under TRIA, TRIP would provide coverage for 80 percent of any successful liability claims less ANI's TRIP deductible, up to the policy maximum ($500 million). After this coverage involving TRIP, the retrospective coverage arrangements required under the Price-Anderson Act would respond to the next portion of the losses up to the $16.1 billion statutory limit of liability (see Box 1). Given that the potential liability for this event (based upon the estimates of offsite property damage noted above) could far exceed this liability cap, the Price-Anderson Act has a provision where the federal government, with congressional approval, would fully and promptly compensate all claims above the Act's aggregate limit of liability.[217]

4. Comparisons and Conclusion

The analyses and results above demonstrate the potential effects that nuclear events involving a power plant could have on TRIP, as well as the need for continued analyses of these issues by Treasury. For comparison purposes, the modeled property losses of 1957 Brookhaven ($7 billion in losses) and 1975 Rasmussan ($14 billion in losses) were approximately a third of the 2024 Treasury ($240.8 billion) modeled losses.[218] Treasury's estimated 391,740 worker casualties is also ten times larger than those earlier studies, though the estimated fatalities (24) is far less than earlier modeled worst case estimates.[219]

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[215] *See* Section VII (discussing Workers' Compensation).

[216] *See* Section V.H (addressing extent to which insurers wholly exclude NBCR risk).

[217] NRC, *The Price-Anderson Act: 2021 Report to Congress* (2021), 2-70, https://www.nrc.gov/docs/ML2133/ML21335A064.pdf.

[218] These losses are adjusted for inflation.

[219] Treasury's modeled results for Indian Point can also be compared to two known nuclear accident disasters—Chernobyl (1986) and Fukushima (2011).

The total economic and human cost of Chernobyl is difficult to estimate since at the time it was located within the territory of the former Soviet Union where there was limited insurance coverage, and most disaster information was suppressed. The Chernobyl accident's explosion and severe radiation effects killed 30 of the site's 600 workers in the first four months after the event. Another 106 workers received high enough doses to cause acute radiation sickness. "Backgrounder on Chernobyl Nuclear Power Plant Accident," NRC, updated April 4, 2024, https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/chernobyl-bg.html. The Belarus government estimates that losses over the 30 years following the accident will amount to $235 billion. The Ukrainian government estimates the loss as $148 billion over the period from 1986 to 2000. *See* Patrick Gray, *The Human Consequences of the Chernobyl Nuclear Accident A Strategy for Recovery* (2002), https://www.iaea.org/sites/default/files/strategy_for_recovery.pdf.

When comparing early congressionally ordered models (Brookhaven and Rasmussen), with actual nuclear accidents (Chernobyl and Fukushima) and with Treasury's nuclear sabotage terrorism model, several observations can be made.

First, all scenarios suggest that a worst-case event could cause tens, if not hundreds of billions of dollars in insurance losses for property, workers' compensation, and business interruption. TRIP will cover all workers' compensation claims except those subject to self-insurance because terrorism coverage is required in all workers' compensation insurance. Conversely, given that nuclear events are often excluded from P&C policies (outside coverage limited to the operators of the nuclear power plants), TRIP may cover only a small percentage of property losses because of the lack of responsive P&C insurance. The TRIP cap of $100 billion could still be exceeded under the worst-case scenario because of the significant number of workers' compensation claims. TRIP would also respond to potential liability claims against ANI policy limits of no more than $500 million. Losses above the policy limits would not implicate the Program. TRIP would respond as well to liability risk emerging under any other potentially responsive policies – but only assuming NBCR risk was insured under such policies.

However, the losses would also trigger retrospective assessments on the nuclear power industry (of an additional $15.5 billion) and, potentially, the guarantees in the Price-Anderson Act in the event of congressional approval to provide full and prompt settlement of all claims.

Second, the number of casualties and deaths range considerably between the modeled output and actual accident experiences. For example, modeled casualties range from tens of thousands (Brookhaven and Rasmussen models) to the hundreds of thousands (Treasury models), while actual casualties from such real events were far fewer. Estimated fatalities from the Treasury model and deaths from actual nuclear events are much less than predicted by the early models. Therefore, the use and analyses of modeled results remains an important tool to assess potential impacts, although they should not be viewed as rigid loss or casualty estimates.

Understanding the impacts of potential acts of terrorism on the operation of TRIP, as well as the likely responsive coverage, is critical to assessing the appropriate scope and likely operation of the Program in a catastrophic situation such as an attack on a nuclear power plant. Continued analyses of the scope of loss events and how those impact the insurance industry (both in the case of nuclear power plants and other scenarios) remains an area for continued study as Treasury evaluates the effectiveness of the Program.

The economic and other impacts of Fukushima are better documented. There were no immediate deaths or injuries from radiation associated with the Fukushima event. A total of 164,850 people had to be evacuated due to the combined effects of the earthquake, tsunami, and Fukushima accident. As of January 2017, the estimated costs for decontamination and compensation to individuals and firms had risen to $191 billion, including $140 billion from TEPCO, $35 billion by other nuclear operators, and $17 billion by the Japanese government. World Nuclear Association, *Fukushima Daiichi Accident* (2024), https://world-nuclear.org/Information-Library/Safety-and-Security/Safety-of-plants/Fukushima-Daiichi-Accident.

X. ADVISORY COMMITTEE ON RISK-SHARING MECHANISMS

The Advisory Committee on Risk-Sharing Mechanisms was created by the 2015 Reauthorization Act.[220] By statute, the ACRSM is to be made up of directors, officers, or other employees of insurance industry participants that participate or desire to participate in nongovernmental risk sharing mechanisms for terrorism risk.[221] Its role is to provide Treasury with "advice, recommendations, and encouragement with respect to the creation and development of . . . nongovernmental risk-sharing mechanisms" for terrorism risk.[222] In 2020, the ACRSM published a report containing initial recommendations to Treasury relating to the Program (the ACRSM Report).[223] Treasury summarized the findings of the ACRSM Report, as well as its initial recommendations to Treasury concerning the Program, in its *2020 Effectiveness Report*.[224] In the *2022 Effectiveness Report*, Treasury summarized its work in response to the ACRSM recommendations,[225] and Treasury's work in that regard is continuing.

Treasury is continuing to engage with the ACRSM on additional issues as well. The ACRSM has established two new subcommittees, one on the use and development of modeling for terrorism and cyber risk, and one on industry treatment and evaluation of cyber risk. The committee has conducted two public meetings, on July 26, 2023 and February 1, 2024, receiving information on those issues and others.[226] Treasury will continue to engage with the ACRSM and stakeholders in the future regarding the issues identified by the ACRSM and continue to report on these matters.

XI. INTERNATIONAL FORUM OF TERRORISM RISK (RE)INSURANCE POOLS (IFTRIP)

Many countries with substantial insurance markets have adopted some sort of terrorism risk insurance mechanism that relies (to a greater or lesser degree) upon government involvement in case of a significant terrorism event. FIO participates in the activities of the International Forum of Terrorism Risk (Re)Insurance Pools (IFTRIP), an organization of international terrorism risk insurance programs, as part of its assistance to the Secretary in the administration of TRIP.[227]

[220] 2015 Reauthorization Act, § 110.

[221] 2015 Reauthorization Act, § 110(b)(3).

[222] 2015 Reauthorization Act, § 110(b)(2).

[223] *See* ACRSM, ACRSM Report.

[224] FIO, *2020 Effectiveness Report*, 79-81.

[225] FIO, *2022 Effectiveness Report*, 92-93.

[226] *See* "Advisory Committee on Risk-Sharing Mechanisms (ACRSM)," Treasury, https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/terrorism-risk-insurance-program/advisory-committee-on-risk-sharing-mechanisms-acrsm (containing records from meetings on June 26, 2023, and February 1, 2024).

[227] *See generally* "Sharing Knowledge About Terrorism Risk," International Forum of Terrorism Risk (Re)Insurance Pools, http://iftrip.org/ (providing general information and news about IFTRIP); The Terrorism Pool Index, WTW, updated April 24, 2024, https://www.wtwco.com/en-us/insights/2024/04/the-terrorism-pool-index-2024 (summarizing salient features of terrorism risk programs in IFTRIP member countries).

IFTRIP is a forum for the development of best practices, thought leadership, and discussion of areas of common interest in the insurance of terrorism risk.[228]

Beginning in 2024, FIO serves as the Chair of IFTRIP. In April 2024, FIO hosted the IFTRIP Annual Conference in Washington, D.C., the first annual conference held in person since 2019.[229] During the closed session of the Annual Conference, representatives of IFTRIP member pools provided updates on issues facing their organizations and discussed both emerging and ongoing issues, such as cyber terrorism risk, terrorist financing, terrorism risk modelling, and a joint IFTRIP-Geneva Association report on chemical, biological, radiological, and nuclear risk. The open session of the conference provided an opportunity for diverse stakeholders from the private sector, academia, and government to discuss the value of ongoing collaboration, emerging risks, workers' compensation, multi-risk pools, the current threat landscape, and how the insurance industry can assist in the fight against terrorism.[230]

IFTRIP represents an important forum for international collaboration on critical financial resilience issues presented by terrorism. FIO's leadership of IFTRIP will aid in increased collaboration and information sharing with the other national terrorism risk pools.

XII. INDUSTRY-UNIVERSITY COOPERATIVE RESEARCH CENTER (IUCRC)

During the 2024 Annual IFTRIP Conference, FIO announced a partnership with the National Science Foundation (NSF) to establish a new IUCRC to provide research, analysis, and thought leadership to improve the insurance sector's modeling and underwriting of terrorism and catastrophic cyber risks.[231] As a public private partnership, the IUCRC is designed to build on existing capacity, maximize resources, and leverage cross-disciplinary expertise.[232]

This IUCRC is intended to help the insurance industry and other stakeholders respond to the risks that terrorism and catastrophic cyber incidents could pose to the resilience of the U.S. financial system. These risks share common modeling and underwriting challenges, as well as the potential for high losses. Unlike for natural catastrophes, there is limited relevant historical data on terrorist attacks and systemic cyber incidents with which to model actuarial projections. Risk evaluation for cyber incidents, and some terrorist attacks, is further complicated in that losses from these risks can cascade across geographic and commercial boundaries. The potential for systemic losses also limits the ability of insurers and reinsurers to use traditional risk transfer strategies focusing on the region, industry, or size of the entity insured, and requires the

[228] For example, during the period between 2020 and 2022, IFTRIP, in association with The Geneva Association, issued a series of reports addressing the issues presented by the insurance of hostile cyber activity. *See* FIO, *2022 Effectiveness Report*, 61-62 & nn. 141-42.

[229] Treasury, "U.S. Department of the Treasury's Federal Insurance Office Launches New Partnership with the National Science Foundation," press release, April 26, 2024, https://home.treasury.gov/news/press-releases/jy2300 (also addressing IFTRIP Conference).

[230] "Re(Connect): Terrorism Risk Resiliency in a Changing World," IFTRIP, https://iftrip.org/iftrip-conf-2024/.

[231] Treasury, "U.S. Department of the Treasury's Federal Insurance Office Launches New Partnership."

[232] *See* "Accelerating Impact through Partnerships: Industry-University Cooperative Research Centers (IUCRC)," NSF, https://iucrc.nsf.gov/.

reevaluation of underwriting and risk management strategies to account for differing accumulation risks.

The IUCRC will stimulate research and develop solutions to provide insurers and other stakeholders with additional data and improved modeling and underwriting tools, methodologies, and practices for insuring terrorism and catastrophic cyber risks. The center's objectives could include:

> (1) helping insurers to estimate risk with greater certainty, thereby improving insurance pricing, coverage, and policyholder uptake;
>
> (2) contributing to the potential expansion of commercial reinsurance and capital markets to help support these risks; and
>
> (3) informing the treatment of terrorism and catastrophic cyber risks in government programs.

This initiative seeks to assist FIO's work administering TRIP and FIO's evaluation of a potential federal insurance response to catastrophic cyber risks. In combining the investments, expertise, and creativity of academics, industry, and government, the IUCRC will work to discover innovative approaches that will accelerate improvements to terrorism and catastrophic cyber risks modeling and underwriting and strengthen the resilience of the U.S. financial system to the benefit of the American people.

FIO and NSF released a letter explaining the new project and calling for proposals.[233] FIO and NSF invite the academic community to review the opportunity to submit proposals to provide research, analysis, and thought leadership on these issues. Requirements for submitting preliminary and full proposals, including planning grants, can be found on NSF's website.[234]

XIII. CONCLUSION

The 2019 Reauthorization Act extended the Program for an additional seven years until 2027, continuing the Program structure in place as of 2020. Treasury's evaluation of the relevant data concerning the Program indicates—consistent with the views expressed by most market participants—that TRIP continues to help make terrorism risk insurance available and affordable in the United States, and that the market for terrorism risk insurance has been relatively stable for some time since the enactment of TRIA.

While the Program does not mandate the purchase of terrorism risk insurance, a significant proportion of commercial policyholders nationwide have elected to obtain such insurance, and take-up may be even higher in metropolitan areas. The Program is not limited to defined

[233] NSF, "Dear Colleague Letter: IUCRC Proposals for Research and Thought Leadership on Insurance Risk Modeling and Underwriting Related to Terrorism and Catastrophic Cyber Risks: A Joint NSF and U.S. Department of the Treasury Federal Insurance Office Call" April 24, 2024, https://www.nsf.gov/pubs/2024/nsf24082/nsf24082.jsp.

[234] "Industry-University Cooperative Research Centers Program (IUCRC)," NSF, https://new.nsf.gov/funding/opportunities/industry-university-cooperative-research-centers.

metropolitan areas (where terrorism risk is perceived to be most substantial). However, over the last few years there has been a small but measurable decline in take-up of the insurance, with larger declines observed where take-up is measured by extended limits. Treasury will continue to evaluate issues concerning the take-up of terrorism risk insurance, including the potential effects of overall market conditions, and report on its findings.

Commercial reinsurance of terrorism risk has significantly increased since the start of the Program. There is now increased reinsurance capacity for those exposures that remain wholly with the private market under TRIP. Nonetheless, commercial reinsurance capacity does not exist for all exposures currently covered by the Program, as is reflected in the continued limited amount of reinsurance available for NBCR events, which pose the greatest risk of causing catastrophic industry losses (including arising from workers' compensation insurance to which insurers are not permitted under state law to apply NBCR exclusions). Modeling of risk provides some ability to estimate risk exposure in connection with such events, and thus to support the commitment of additional insurance and reinsurance capital to the risk. Treasury's partnership with the NSF to create an IUCRC to conduct research in the areas of terrorism and cyber risk modeling and underwriting seeks to further the development of these important tools in the placement and management of insurance risk.

The analysis in this Report is based principally on industry data received by Treasury from insurers. Treasury, through FIO, will continue to evaluate and analyze whether the Program is meeting its objectives. Changed circumstances and continued market developments must be assessed over time to make certain that the Program, established in the wake of the September 11 Attacks, remains appropriately tailored to efficiently support terrorism risk insurance markets. In particular, recent developments in the cyber insurance market, coupled with changes in the nature of cyber risk since the enactment of TRIA, highlight the importance of further evaluation in this area, particularly as regard to catastrophic cyber events and the approach of insurance markets to such risks. Treasury will also continue to evaluate and address the other areas that have been identified by the ACRSM and other stakeholders.

APPENDIX 1: 2023 TAKE-UP RATES BY STATE

This table sets forth numerically the 2023 take-up rates, based upon DEP (presented graphically in Figure 20 by state for small and non-small insurers combined). It provides the separate experience of small and non-small insurers, and then provides the combined figure as well. Workers' compensation is not included within these figures, although excess workers' compensation is included.

	Non-Small Insurers	Small Insurers	Combined
Alabama	61%	66%	62%
Alaska	51%	56%	51%
Arizona	64%	64%	64%
Arkansas	66%	67%	66%
California	57%	43%	56%
Colorado	60%	52%	59%
Connecticut	65%	70%	66%
Delaware	64%	78%	66%
District of Columbia	62%	75%	63%
Florida	50%	30%	47%
Georgia	63%	64%	64%
Hawaii	54%	75%	57%
Idaho	63%	53%	61%
Illinois	63%	70%	63%
Indiana	63%	81%	65%
Iowa	68%	71%	68%
Kansas	64%	54%	63%
Kentucky	68%	60%	67%
Louisiana	49%	41%	48%
Maine	67%	87%	71%
Maryland	68%	77%	69%
Massachusetts	62%	78%	63%
Michigan	65%	80%	68%
Minnesota	63%	61%	63%
Mississippi	62%	69%	63%
Missouri	65%	75%	66%
Montana	62%	60%	62%
Nebraska	64%	62%	64%
Nevada	62%	53%	62%
New Hampshire	65%	85%	68%
New Jersey	64%	64%	64%
New Mexico	69%	55%	68%
New York	61%	59%	60%
North Carolina	69%	74%	69%
North Dakota	58%	62%	59%
Ohio	69%	69%	69%

	Non-Small Insurers	Small Insurers	Combined
Oklahoma	62%	53%	61%
Oregon	61%	59%	61%
Pennsylvania	68%	71%	68%
Rhode Island	69%	68%	69%
South Carolina	64%	66%	64%
South Dakota	56%	67%	57%
Tennessee	68%	65%	68%
Texas	54%	54%	54%
Utah	65%	49%	64%
Vermont	58%	91%	65%
Virginia	66%	77%	67%
Washington	61%	56%	61%
West Virginia	76%	60%	75%
Wisconsin	66%	74%	67%
Wyoming	63%	60%	62%

Source: 2024 TRIP data call

APPENDIX 2: 2023 TAKE-UP RATES BY STATE AND LINE GROUPS

This table contains more detailed take-up information for small and non-small insurers, by state and by groups of TRIP-eligible lines of insurance. In order to streamline the presentation, and provide information by more general categories of information, Treasury displays the information by the following categories: (1) Property Insurance; and (2) Liability Insurance.[235] Evaluation of Appendix 2 permits identification of differences in take-up, on a state-by-state basis, as between small insurers and non-small insurers, by the more general coverage categories identified.

	Non-Small		**Small**		**Combined**	
	Property	Liability	Property	Liability	Property	Liability
Alabama	66%	56%	60%	79%	65%	59%
Alaska	65%	46%	61%	57%	65%	47%
Arizona	75%	57%	66%	68%	74%	58%
Arkansas	73%	59%	73%	64%	73%	60%
California	69%	52%	47%	46%	67%	52%
Colorado	68%	55%	53%	54%	67%	55%
Connecticut	76%	62%	81%	64%	76%	62%
Delaware	74%	62%	72%	83%	73%	64%
District of Columbia	81%	54%	82%	70%	81%	55%
Florida	45%	54%	17%	52%	38%	54%
Georgia	74%	56%	76%	60%	74%	56%
Hawaii	58%	52%	85%	73%	63%	55%
Idaho	72%	59%	25%	66%	66%	60%
Illinois	72%	57%	75%	71%	73%	59%
Indiana	66%	60%	81%	82%	68%	63%
Iowa	76%	59%	76%	80%	76%	62%
Kansas	69%	57%	56%	55%	68%	57%
Kentucky	71%	64%	56%	76%	70%	65%
Louisiana	50%	50%	42%	46%	49%	49%
Maine	75%	64%	92%	92%	78%	69%
Maryland	77%	65%	83%	79%	78%	66%
Massachusetts	71%	58%	88%	71%	74%	59%
Michigan	68%	63%	83%	76%	72%	64%
Minnesota	69%	58%	61%	64%	68%	59%
Mississippi	67%	60%	70%	73%	67%	62%
Missouri	73%	57%	76%	79%	74%	60%
Montana	69%	57%	64%	58%	68%	57%
Nebraska	70%	58%	63%	62%	69%	59%
Nevada	70%	57%	48%	58%	69%	57%

[235] "Property Insurance" includes Fire, Allied Lines, Boiler & Machinery, and Commercial Multi-Peril (Property) combined. "Liability Insurance" includes Commercial Multi-Peril (Liability), Products Liability, and Other Liability combined.

	Non-Small		**Small**		**Combined**	
	Property	Liability	Property	Liability	Property	Liability
New Hampshire	71%	61%	86%	88%	74%	64%
New Jersey	71%	62%	76%	59%	72%	62%
New Mexico	74%	66%	70%	48%	74%	63%
New York	74%	57%	77%	51%	75%	56%
North Carolina	78%	62%	78%	76%	78%	64%
North Dakota	66%	50%	63%	66%	65%	53%
Ohio	76%	63%	69%	74%	76%	63%
Oklahoma	66%	57%	62%	41%	65%	55%
Oregon	71%	57%	59%	62%	70%	57%
Pennsylvania	77%	63%	73%	72%	76%	64%
Rhode Island	77%	66%	75%	67%	77%	66%
South Carolina	67%	61%	65%	70%	66%	63%
South Dakota	59%	51%	73%	69%	61%	53%
Tennessee	76%	63%	65%	71%	75%	64%
Texas	58%	51%	43%	53%	56%	51%
Utah	74%	62%	52%	51%	73%	61%
Vermont	65%	52%	95%	87%	72%	58%
Virginia	78%	61%	85%	78%	79%	62%
Washington	70%	58%	62%	61%	69%	58%
West Virginia	79%	75%	61%	61%	77%	74%
Wisconsin	75%	59%	75%	73%	75%	61%
Wyoming	68%	57%	71%	53%	68%	57%

Source: 2024 TRIP data call