



United States Annual Report 2022



Table of Contents

1. Executive Summary	Page 3
2. USA: 2022 Cargo Theft Report	Page 4
a. Spatial and Temporal Analysis of Cargo Theft in United States	Page 5
b. Thefts Per Day & Hour	Page 6
c. Analysis of the 10 States with the Highest Volume of Cargo Thefts	Page 6
d. Cargo Theft by Product Type & Value	Page 7
e. Product Type Drilldown: Electronics	Page 7
f. Product Type Drilldown: Miscellaneous	Page 8
g. Product Type Drilldown: Home & Garden	Page 8
h. Average Loss Value	Page 9
i. Cargo Theft by Event Type & Location	Page 9
j. Special Report 2022	Page 10
a. Cargo Theft in California	Page 10
k. Recommendations	Page 11



Executive Summary

In 2022, 1,090 incidents of cargo theft were recorded in the US. That same year, cargo theft hot spots emerged in states such as California (34%) and Texas (13%), which ranked 1st and 2nd in terms of cargo theft risk. In terms of stolen products, Electronics (26%) were especially at risk, followed by Miscellaneous (13%), Home & Garden (12%), and Building & Industrial (11%). These numbers show definitively that cargo theft remains a problem in the US, and a better understanding of the patterns behind these thefts is necessary in order to help companies prepare against them.

In order to highlight the various factors behind these cargo crimes, Overhaul has released our 2022 Annual Report, which compiles data regarding stolen loads by product type and thefts by date, location, Modus Operandi (M.O.), value, and specific product. The report also analyzes trends derived from database content, law enforcement information, and industry personnel. It further draws on observations by personnel in the field to provide an overview of national cargo theft activity as well as a deep dive into specific focus areas based on our findings. Specifically, we homed in on cargo theft activity in California.

In 2023, cargo theft events in the United States are expected to show a minor decrease from 1,090 to 1,031. This number is still alarming, and it is our hope that this report will shed light on how these crimes are evolving and why. This understanding is critical in order to help shippers and drivers prepare for and avoid future risks.

We hope this report helps you better understand the cargo theft patterns observed in the United States during 2022 and how this data has informed Overhaul's predictions for 2023. In turn, these predictions can help you better plan your shipping routes and outfit your carriers with the electronic security and real-time monitoring solutions to best protect your cargo.





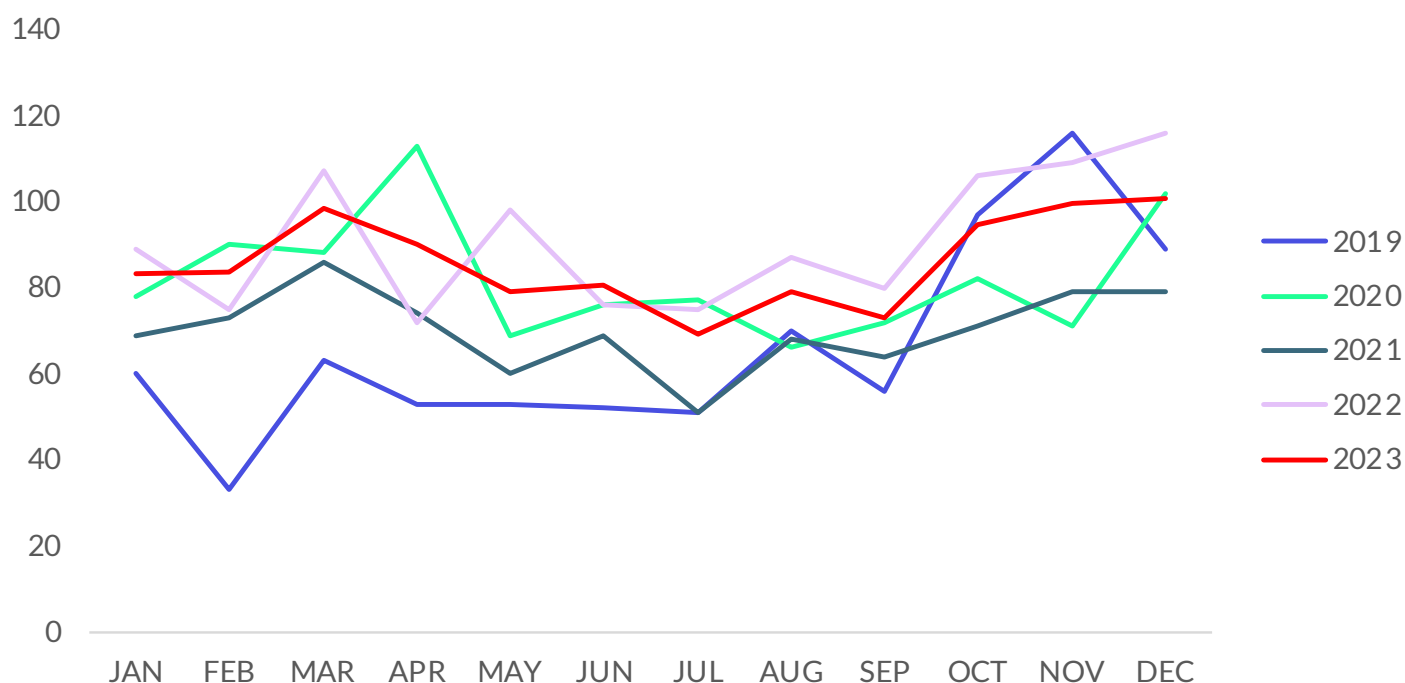
United States: 2022 Cargo Theft Report

Overhaul recorded a total of 1,090 cargo thefts throughout the United States in 2022, 271 in Q1, 246 in Q2, 242 in Q3, and 331 in Q4. The average value of these thefts was \$361,986. These numbers represent a 29% increase in volume and a 58% increase in average value when compared to 2021. With an average of 90.8 reported cargo thefts per month, the United States sustained cargo thefts at a rate of 2.99 per day in 2022, up from 2.15 in 2021.

As seen in **Graph 1**, U.S. cargo theft volumes showed an atypical increase of 24% in 2020 despite decreased economic activity, largely driven by spikes in pandemic-related product targeting. 2021 saw a return to pre-pandemic trends in cargo theft volumes, decreasing by 14% versus 2020, while remaining 6% above the 2019 total. 2022 was another unprecedented year with unique supply chain disruptions and economic challenges, likely influencing the 29% increase observed in cargo theft volumes in the U.S.

Under a stable scenario, Overhaul's time series analysis suggests that national cargo theft volumes will decrease by 5.4% in 2023.

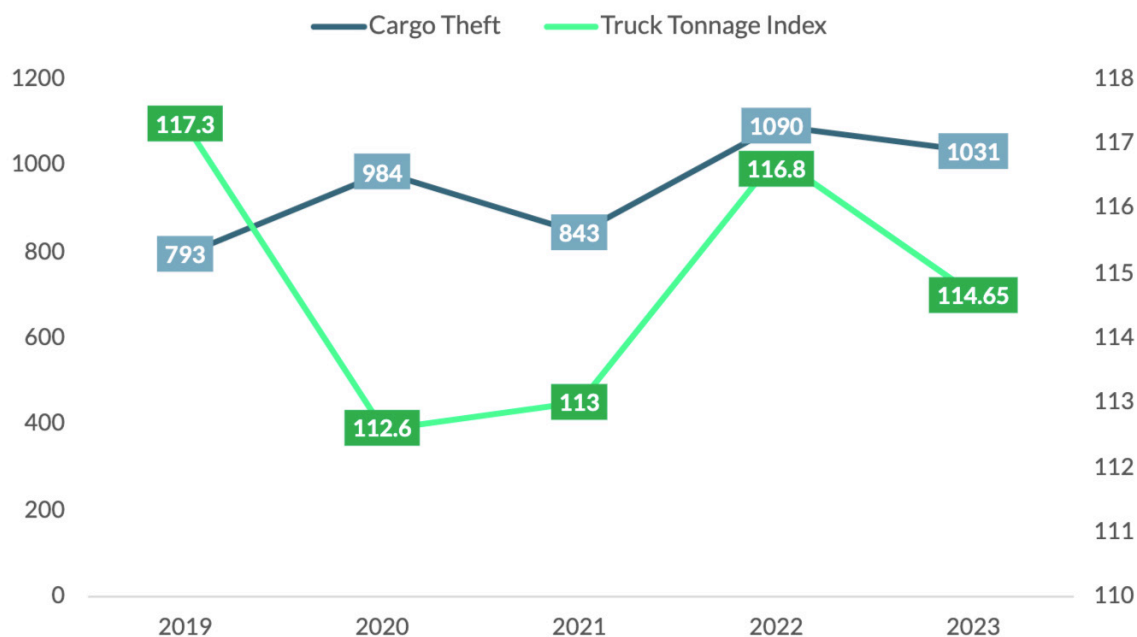
Graph 1: Cargo Theft Monthly Trends 2019-2022/Predictive Analysis 2023



2022 cargo theft volumes and Overhaul's prediction for 2023 can be partially explained by the U.S. Bureau of Transportation Statistics (BTS) regarding truck tonnage, which provides insight regarding over-the-road movement of freight. According to the American Trucking Associations (ATA), 72.2% of tonnage carried by all modes of domestic freight transportation is hauled by trucks. A comparison of historical cargo theft trends and available truck tonnage data published by the U.S. BTS shows a 1.7% correlation between the two when including 2019-2022 values. However, when this window is adjusted to compare data from 2021 through 2023 projections, the correlation increases significantly to 93.3% (**Graph 2**).



Graph 2: Annual Trends 2019 - Projection 2023
Cargo Theft vs Truck Tonnage Index



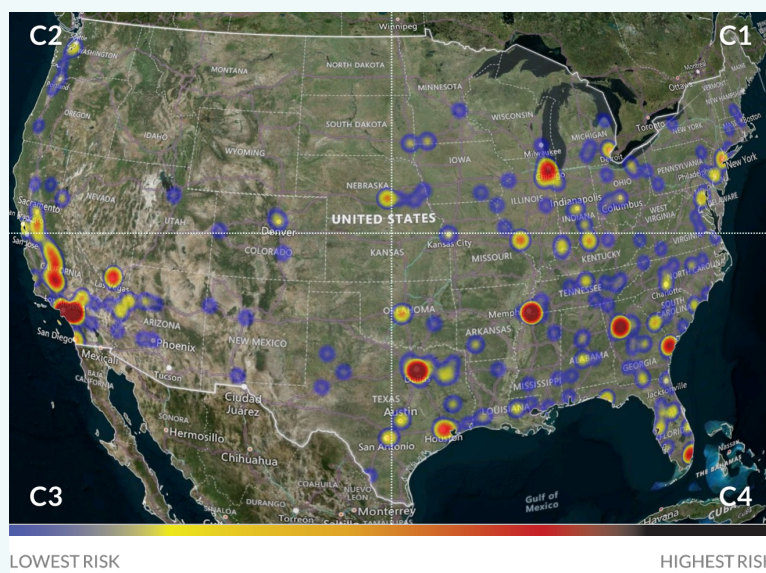
Overhaul foresees a decrease of 1.8% in the domestic movement of goods over the road, supporting the expected downward trend of 5.4% in recorded cargo thefts, which would result in a total of 1,031 cargo theft incidents in the U.S. in 2023.

Spatial and Temporal Analysis of Cargo Theft in the United States

At a national level, a spatial analysis of Overhaul data shows that 68.3% of cargo theft crimes in the United States were concentrated within 38.6% of the national territory in 2022. By dividing the country into quadrants, as seen in the map below, it was identified that 45% of recorded cargo thefts occurred in Quadrant 4 (C4), which includes known cargo theft hot spots such as Atlanta, Memphis, and Dallas. Put in other terms, the concentration

of cargo theft in the fourth quadrant was 82% higher than average. Despite having recorded the highest volume of thefts in the country, C4 theft volumes decreased 14% in 2022, whereas Quadrant 3 (C3) recorded a 26% increase versus 2021, driven primarily by California theft volumes. This increase resulted in a 40% concentration of thefts in the quadrant.

In terms of temporal patterns, cargo theft by month was slightly less volatile in 2022, with a range of 2.7% between the highest and lowest months (December and September respectively) as compared to a range of 2.8% in 2021. In 2022, the highest levels of cargo theft were concentrated in the fourth quarter with 30%, followed by Q1 with 25%.



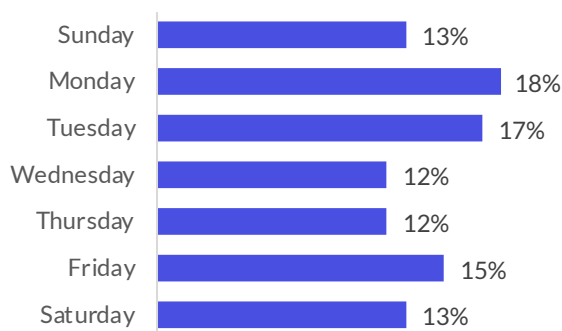


Thefts Per Day & Hour

Unlike previous periods where weekends persisted as the most popular days of the week among thieves, in 2022, Mondays and Tuesdays showed the highest concentration of cargo crime with a combined 34% of incidents.

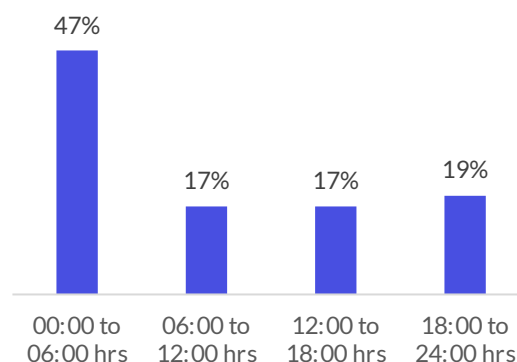
As for timetables, the pattern remained similar to that of 2021, with 47% of all cargo theft events taking place between 12:00 a.m. and 6:00 a.m. However, the concentration of thefts during these hours decreased 9 percentage points versus 2021, while thefts occurring in the afternoon between 12:00 p.m. and 06:00 p.m. increased 7 percentage points, to represent a total of 17% in 2022.

Graph 3: Cargo Theft per Day of the Week 2022



Source: Own development with data from Overhaul Intelligence Center

Graph 4: Cargo Theft by Time of Day 2022

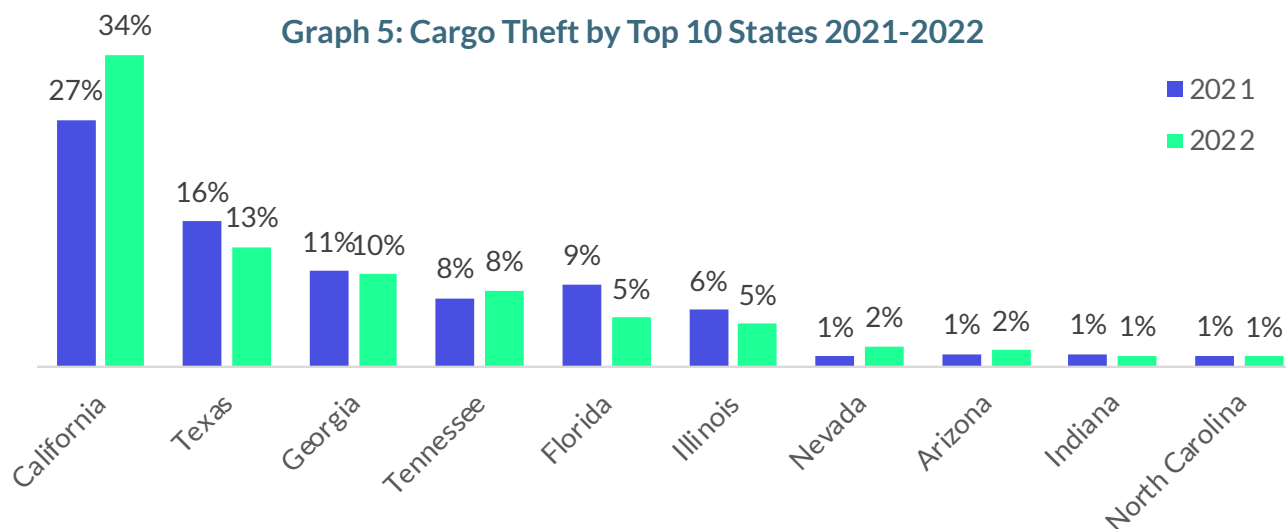


Source: Own development with data from Overhaul Intelligence Center

Analysis of the 10 States with the Highest Volume of Cargo Thefts

57% of total thefts in 2022 occurred in the top three states, up from 24% in 2021. This is largely due to the increase in thefts in California. Consisting of 34% of total thefts in 2022, California once again claimed the top spot for cargo theft. Notably, although still ranked second, Texas cargo theft volumes continued to decrease, landing at 13% in 2022.

Graph 5: Cargo Theft by Top 10 States 2021-2022

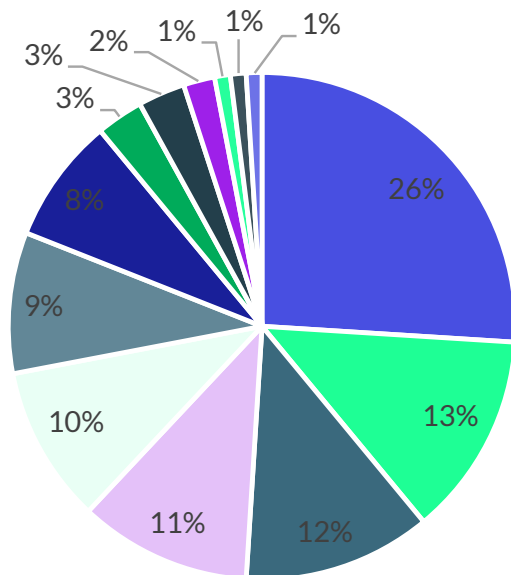


Source: Own development with data from Overhaul Intelligence Center



Cargo Theft by Product Type & Value

For the second consecutive year, Electronics was the most stolen product type among recorded cargo theft incidents, registering 23% of total thefts, up from 20% in 2021. Miscellaneous (13%) was the second most stolen product, recording a 33% decrease from the theft rate in 2021. Home & Garden (12%) followed closely behind, maintaining its position in third place in 2022.



Graph 6: Cargo Theft by Product Type 2022

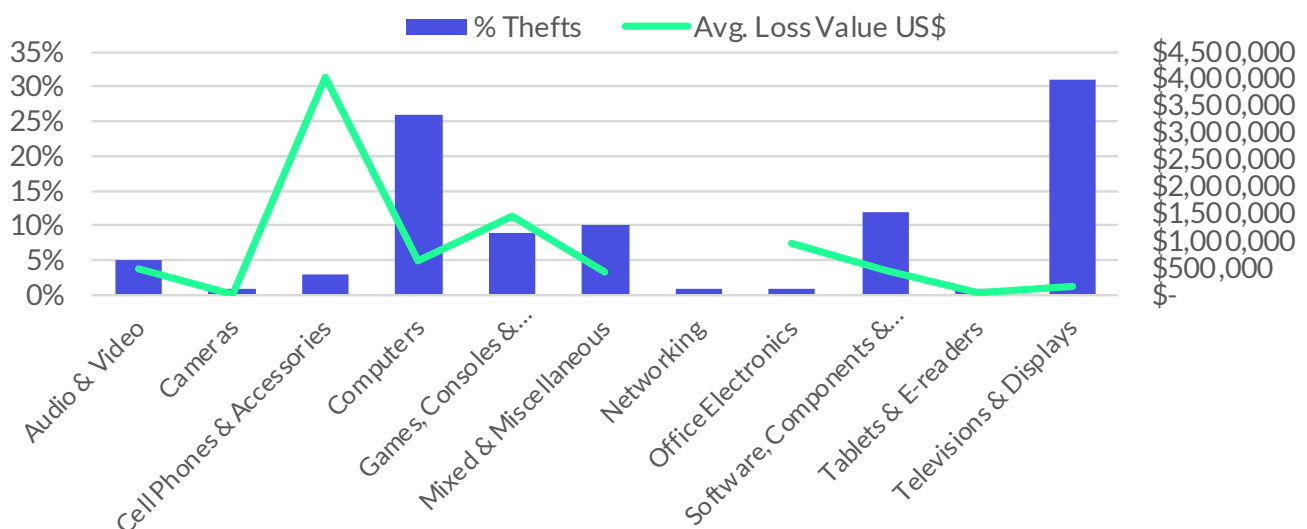
- Electronics
- Home & Garden
- Auto & Parts
- Clothing & Shoes
- Pharmaceuticals
- Tobacco
- Cash In Transit
- Miscellaneous
- Building & Industrial
- Food & Drinks
- Alcohol
- Metals
- Personal Care

Source: Own development with data from Overhaul Intelligence Center

Product Type Drilldown: Electronics

Electronics recorded 26% of total thefts in 2022 and an average loss value of \$651,549, ranking first in both regards. California (59%) remained the top state for Electronics theft, followed by Illinois (8%) and Tennessee (5%) to represent a combined 72% of total Electronics thefts.

Graph 7: Electronics Theft by Subtype & Value 2022





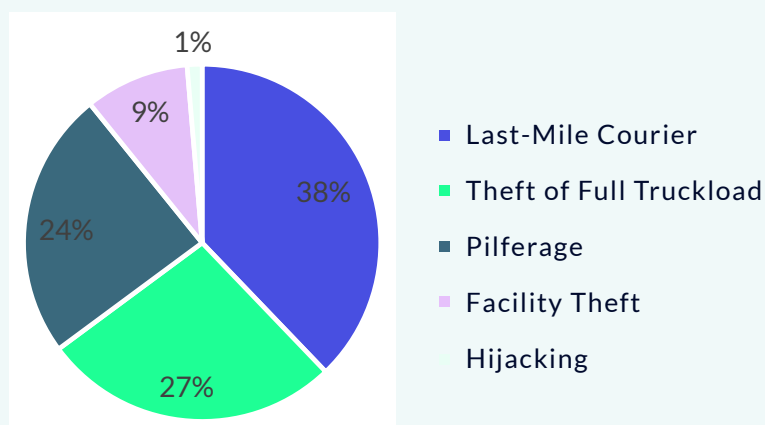
Within the Electronics sector in 2022, 33% of thefts were Televisions & Displays, up two percentage points from 2021. Computers accounted for 25%, a 9% decrease from 2021. By theft type, Pilferage accounted for 57% of Electronics thefts, with Theft of Full Truckload dropping from 39% in 2021 to 23% in 2022. There was also an increase of 12 percentage points in atypical theft types: Facility Theft (11%) and Deceptive Pickup (7%).

Product Type Drilldown: Miscellaneous

Miscellaneous ranked second in 2022, representing 13% of recorded cargo theft events, down from 19% in 2021. 29% of stolen loads within this category were last-mile parcel shipments while mixed loads accounted for 40% of thefts.

California concentrated the highest volume of Miscellaneous thefts at 39%. Texas ranked second at 13%, followed by Illinois with 7%. In terms of the type of thefts recorded within the category, after Last-Mile Courier thefts, Theft of Full Truckload accounted for 27% of incidents, followed by Pilferage with 24%.

Graph 8: Miscellaneous Theft by Type of Event 2022

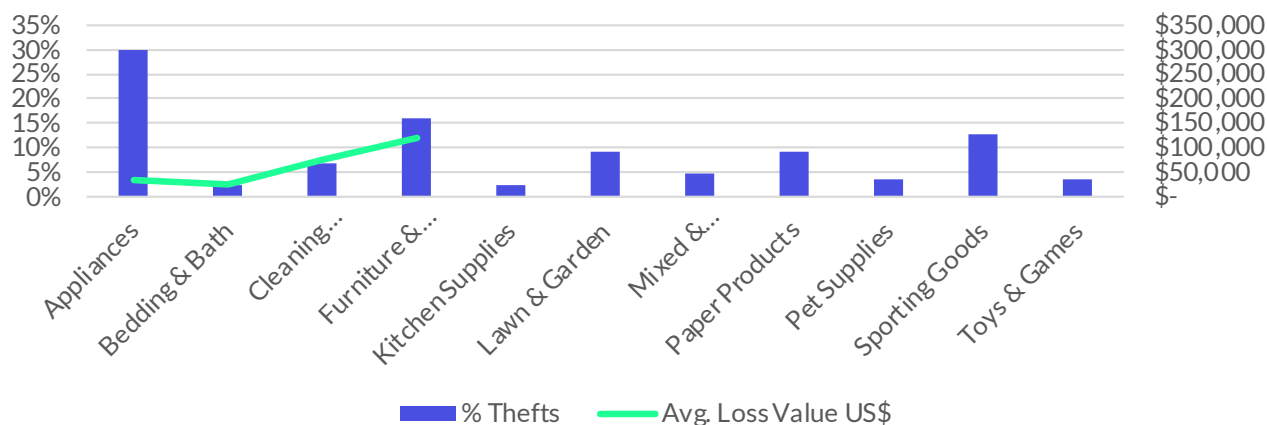


Product Type Drilldown: Home & Garden

In 2022, Home & Garden was the third most stolen product type behind Electronics and Miscellaneous, accounting for 12% of the total, which marked a decrease of four percentage points in comparison to 2021.

Appliances remained the most stolen subtype, accounting for 30% of total Home & Garden thefts, followed by Furniture & Décor (16%). Sporting Goods increased from 6% in 2021 to 13% in 2022, replacing Paper Products & Cleaning Supplies as the third most stolen subtype. In addition to the increased volume of thefts, Sporting Goods also recorded a significant increase in average loss value, rising 370% between 2021 and 2022 to record the highest average loss value within the broader product category of Home & Garden.

Graph 9: Home & Garden Theft by Subtype & Value 2022



Average Loss Value

The average loss value per theft incident in 2022 was \$361,986, a 58% increase compared to 2021. In 2022 there were 23 thefts valued at \$1 million or more, with a value reporting rate of 23%, compared with 2021 in which 15 thefts were valued at \$1 million. The increase in both average value and cargo theft volume indicates that cargo theft risk is on the rise. With criminals specifically targeting high-value loads using increasingly sophisticated methods, cargo theft risk will continue to increase for high-demand products, despite the slight decrease expected in overall theft volumes in 2023.

Some product types recorded significantly higher average values in 2022 when compared to 2021, such as Building & Industrial (+226%), Food & Drinks (+131%), Auto & Parts (+84%), and Electronics (+70%).

Product Type	2022	2021
Alcohol	\$ 31,184	\$ 64,920
Auto & Parts	\$ 143,204	\$ 77,694
Building & Industrial	\$ 120,025	\$ 36,819
Cash In Transit	\$ 646,000	\$ 625,000*
Clothing & Shoes	\$ 350,706	\$ 554,040
Electronics	\$ 651,549	\$ 383,270
Food & Drinks	\$ 140,253	\$ 60,784
Home & Garden	\$ 103,200	\$ 89,447
Metals	\$ 134,857	\$ 114,128
Miscellaneous	\$ 129,472	\$ 232,742
Personal Care	\$ 304,111	\$ 175,757
Pharmaceuticals	\$ 496,471*	\$ 221,602
Tobacco	\$ 142,258	\$ 406,027
All Product Types	\$ 361,986	\$ 229,231

**Values estimated based on average values per shipment, taking into account the types of thefts recorded.*

Cargo Theft by Event Type & Location

Due to risk of capture, cargo thieves in the United States largely tend to target loaded trailers and containers that are stationary and unattended. From 2021 to 2022, Pilferage rates increased 5% while Theft of Full Truckload rates decreased 27%. Meanwhile, Facility Theft and Deceptive Pickup increased to a combined 13% versus just 5% in 2021.

In 2021, 55% of all thefts with a known location occurred within Unsecured Parking, a rate which decreased to 44% in 2022. Truck Stops/Fuel Stations recorded the second highest theft rate at 22%, up from 19% in 2021. While these were the two most frequently targeted locations, Warehouse/DCs (+23%), Company Yard/Premises (+184%), and Boarding Houses/Carrier Facilities (+72%) all recorded increases, representing a combined 26% in 2022, up from 25% in 2021.





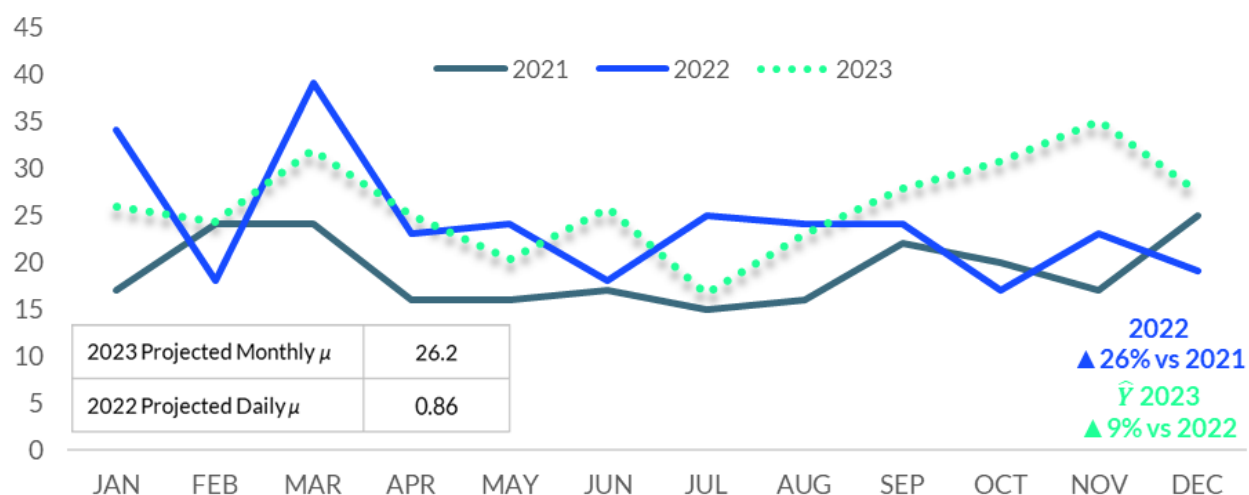
Special Report 2022

The Overhaul Intelligence Center decided to do a special report on load theft in the state of California, which recorded the largest increase in cargo theft at a national level and remained the state with the highest cargo theft risk in 2022.

Cargo Theft in California

In 2022, California concentrated 34% of recorded U.S. cargo theft events, showing an increase in volume of 26% in comparison to 2021. This trend is expected to continue into 2023, though at a slower rate of +9% versus 2022, to result in an average of 26.2 thefts per month.

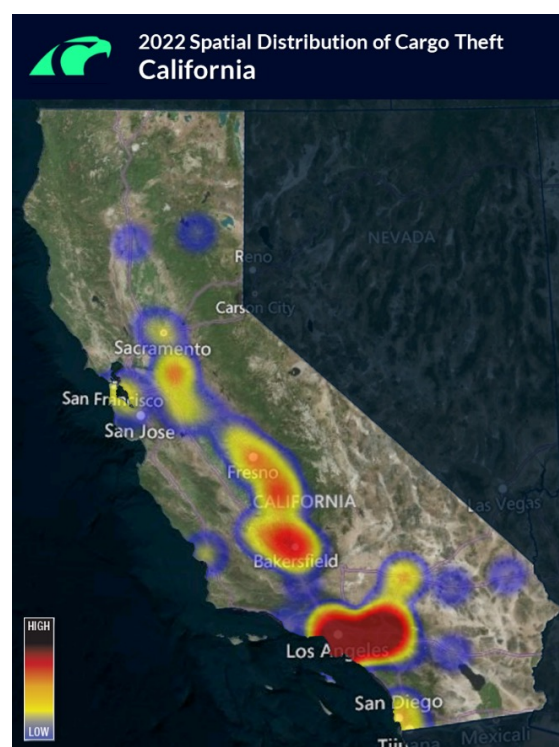
Graph 10: California Cargo Theft Monthly Trends 2019 - 2022/Predictive Analysis 2023



In terms of spatial distribution, the primary hot spot in the state has consistently been in Southern California. More specifically, the cities with the highest incidence in 2022 were Fontana (8%), Los Angeles (7%), Bakersfield (6%), Ontario (6%), and San Bernadino (3%).

The most stolen product type in the state was Electronics at 39% with an average loss value of \$471,634, which is 34% higher than that recorded across all product types (\$351,443). Miscellaneous (13%), Home & Garden (11%), Building & Industrial (7%), and Clothing & Shoes (7%) comprised the rest of the top 5 most stolen product types in California, which represented a combined 77% of total thefts.

The displacement of criminal activity in California shows that cargo crimes have been shifting from Theft of Full Truckload (-47%) to Pilferage (+26%), Facility Theft (+160%), and Deceptive Pickup (+900%), with Pilferage now occupying the number one spot. There was also a shift in the time at which thefts occurred. Although most thefts continue to occur after dark (64%), there was an increase in the rate of thefts recorded between 6:00 a.m. and 12:00 p.m. (+100%) and 12:00 p.m. and 6:00 p.m. (+91%).





Recommendations

Overhaul considers the threat of cargo theft in the United States to be HIGH and on the rise, despite the expected decrease in theft volume in 2023. This is due, in part, to the continued increase in the level of organization and sophistication of criminal groups focusing on high-value cargo, as evidenced by the ongoing upward trend observed in atypical theft types such as Deceptive Pickup and Facility Theft.

Steps should be taken to verify the authenticity of all shipment related activity, particularly any entity which has been engaged to either move or store a shipment. Driver and business verification, prior to releasing any shipment, is paramount.

Given that a significant proportion of thefts continue to occur while cargo units are stopped, Overhaul recommends that any location where cargo would either intentionally (or unintentionally) come to rest—even for brief periods of time - should be as secure as possible. Things to consider when selecting a secure area/lot are: controlled access, adequate lighting, congestion, any type of either personal or video surveillance, the estimated duration of the stop, and past intelligence of localized cargo theft activity.

In all cases, tracking technology should be used to its fullest extent on the conveyance power unit, the cargo area (when separate), and within the cargo itself, allowing shippers to maintain visibility of the shipment to identify suspicious route deviations, unauthorized stops, and separation of the cargo from the conveyance.



DISCLAIMER

It is inherent that the reader understands that any cargo theft report is an indirect representation of the overall cargo theft footprint; it is not a direct reflection. Overhaul records only those cargo thefts reported by reliable sources, such as transportation security councils, insurance companies and law enforcement organizations. While this does not result in the 100% capture of incidents, it provides a sufficient cross section of cargo thefts and allows Overhaul to identify trends and deliver in-depth, accurate analysis of the scope of cargo theft in the United States and Canada. Additionally, Overhaul only records incidents involving the theft of cargo, not standalone conveyances such as trailers, containers, or bobtail tractors.

It should be noted that delays in incident reporting typically cause measurable increases in theft volumes in the weeks following publication of Overhaul reports. As such, the most recent totals for the year are expected to rise above those recorded thus far. It is Overhaul practice to use updated theft numbers for past timeframes when comparing them to current totals.