ForeCAST℠ REPORT

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Regarding: Catalytic Converter Thefts (Public Dissemination)

Prepared By: Joshua Cahill, Strategic Analyst

This *Fore***CAST**℠ report analyzes the Insurance Services Office (ISO) ClaimSearch data to identify trends and patterns regarding catalytic converter thefts in the United States from January 1, 2008 to December 31, 2015.

SECTION 1: Introduction

The National Insurance Crime Bureau (NICB) has reviewed the ISO ClaimSearch database from 2008 to 2015 in order to provide an overview of catalytic converter thefts nationwide with an emphasis on identifying geographical trends and patterns. NICB was able to obtain the relevant data needed for this report by querying the "loss description" field of the ISO database in order to identify claims that contained key words related to catalytic converter theft.

In this report, a look at catalytic converter thefts will be explored from a few different angles. First, an overview of catalytic converter theft will explain the possible motives for such crimes, highlighting the importance of precious metals. Second, the total amount of catalytic converter thefts reported to ISO will be explored in relation to dates, with breakdowns by year, by month and by day of the week. Next, the focus will shift to a geographical analysis, showing the top 10 cities and states where catalytic converter theft takes place. After that, the different policy types under which catalytic converter thefts are entered into ISO will be illustrated in order to show just how many areas of coverage these thefts can affect. Lastly, a conclusion will provided summarizing the findings of this report, including a section for possible methods that could help deter future catalytic converter thefts.

SECTION 2: Possible Motive

The purpose of the catalytic converter is to reduce the potency of toxic emissions from an internal combustion engine. Precious metals, including rhodium, platinum and palladium, are used in the construction of catalytic converters. These metals act as catalysts, removing many toxic elements from the exhaust stream as it works its way out of the vehicle. These precious metals are at the core of what motivates thieves to steal catalytic converters.

Due to the platinum, palladium and rhodium in catalytic converters, they can be sold to scrap dealers anywhere from $20 to $240. At the highest price point for precious metals, a catalytic converter that came from a diesel vehicle may have garnered a black market price of around $640. Installing a replacement catalytic converter may cost between $500-$2,300 depending on the type. Repair costs are driven higher since thieves work fast and often damage other areas of the car attempting to remove catalytic converters as quickly as possible. Additionally, vehicles such as trucks and sport utility vehicles are at a higher risk of catalytic converter theft due to their ground clearance level which makes it easier for thieves to access their target.

Among the most targeted business establishments for catalytic converter thefts are vehicle dealerships and fleet operations such as shipping companies. This is due to the large number of converters all in the same place. Thefts from these kinds of locations can lead to replacement costs in excess of $30,000, with factors such as type and number of catalytic converters stolen and the amount of revenue lost being factored into the total.

Rhodium, Platinum, and Palladium Price Tables (January 1, 2008 – December 31, 2015) from Kitco.com

Platinum

(http://charts.kitco.com/KitcoCharts/index.jsp?Symbol=PLATINUM&Currency=USD&multiCurrency=true&langId=EN&zoomFrom=2008-01-01&zoomTo=2015-12-31)

Rhodium

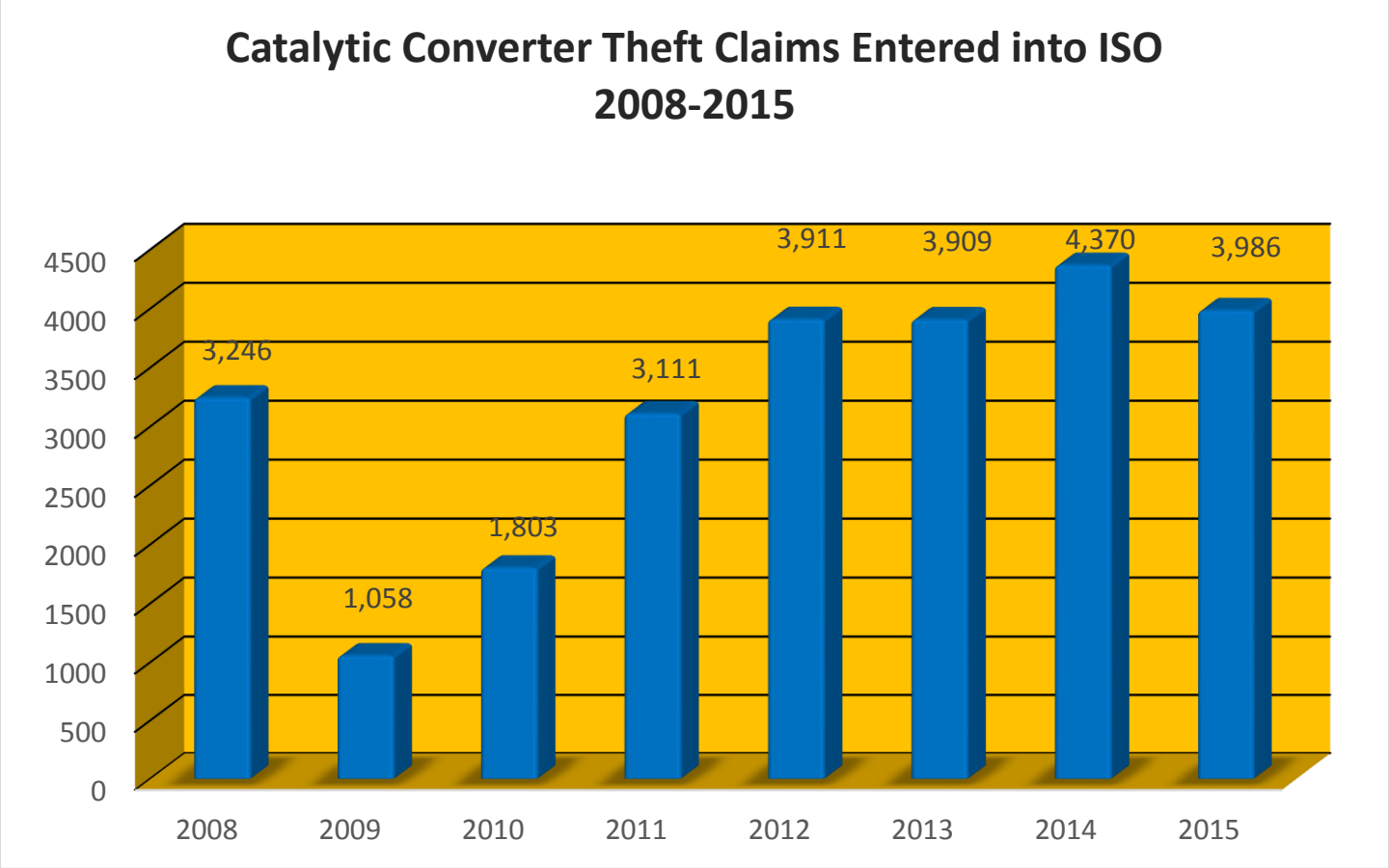
(http://charts.kitco.com/KitcoCharts/index.jsp?Symbol=RHODIUM&Currency=USD&multiCurrency=true&langId=EN&zoomFrom=2008-01-01&zoomTo=2015-12-31)

Palladium

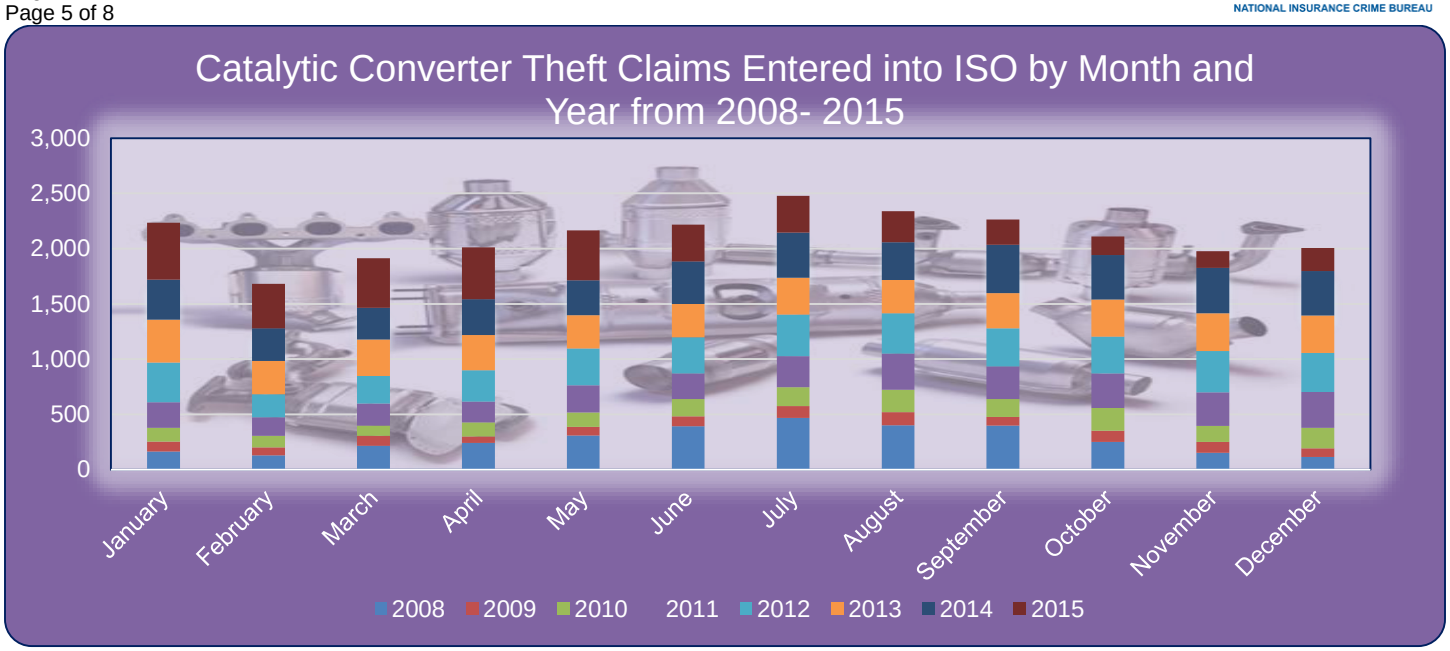
(http://charts.kitco.com/KitcoCharts/index.jsp?Symbol=PALLADIUM&Currency=USD&multiCurrency=true&langId=EN&zoomFrom=2008-01-01&zoomTo=2015-12-31)

SECTION 3: Theft by Year from ISO Data

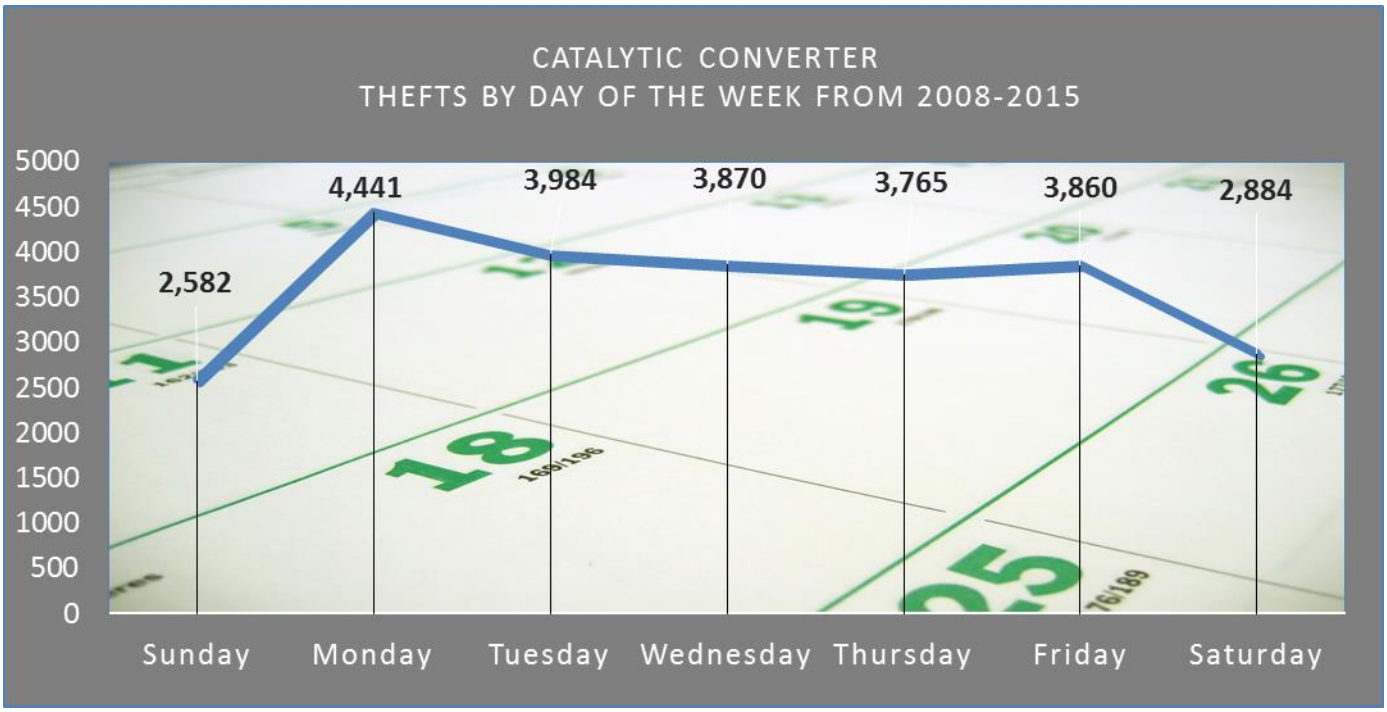
Below is a graph that visualizes the total catalytic converter thefts for each year. There was a spike of catalytic converter thefts in 2008, but likely due to the metal prices in 2008-2009, the number of these claims took a downturn. Since then, there has been a steady climb in catalytic converter thefts which is likely attributed to the growing popularity and ease of stealing them.



The following chart shows the number of catalytic converter thefts per month for the January 1, 2008 through December 31, 2015 time period. The number of thefts seems to spike during the warmer summer months, and fall off during the cooler winter months.

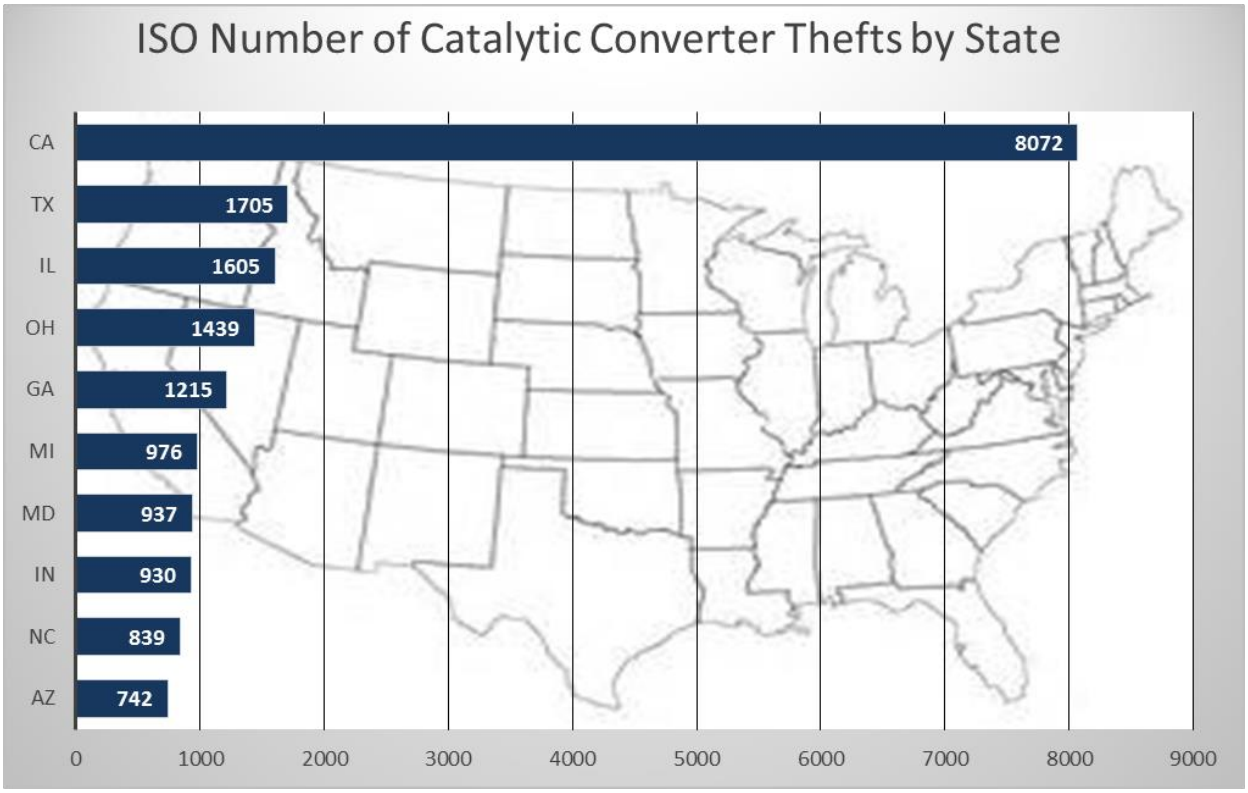


The following graph visualizes the pattern of thefts by day of the week. Thefts occur mostly at the beginning of the week which is likely attributed to drivers not using their cars over the weekend, only to notice the catalytic converter is missing on Monday morning.



SECTION 4: Theft Patterns by Region from ISO Data

Per ISO data, California had the most catalytic converter thefts at 8,072 thefts, followed by Texas with 1,705 and Illinois with 1,605. The graph below shows the top 10 thefts states for catalytic converter thefts.

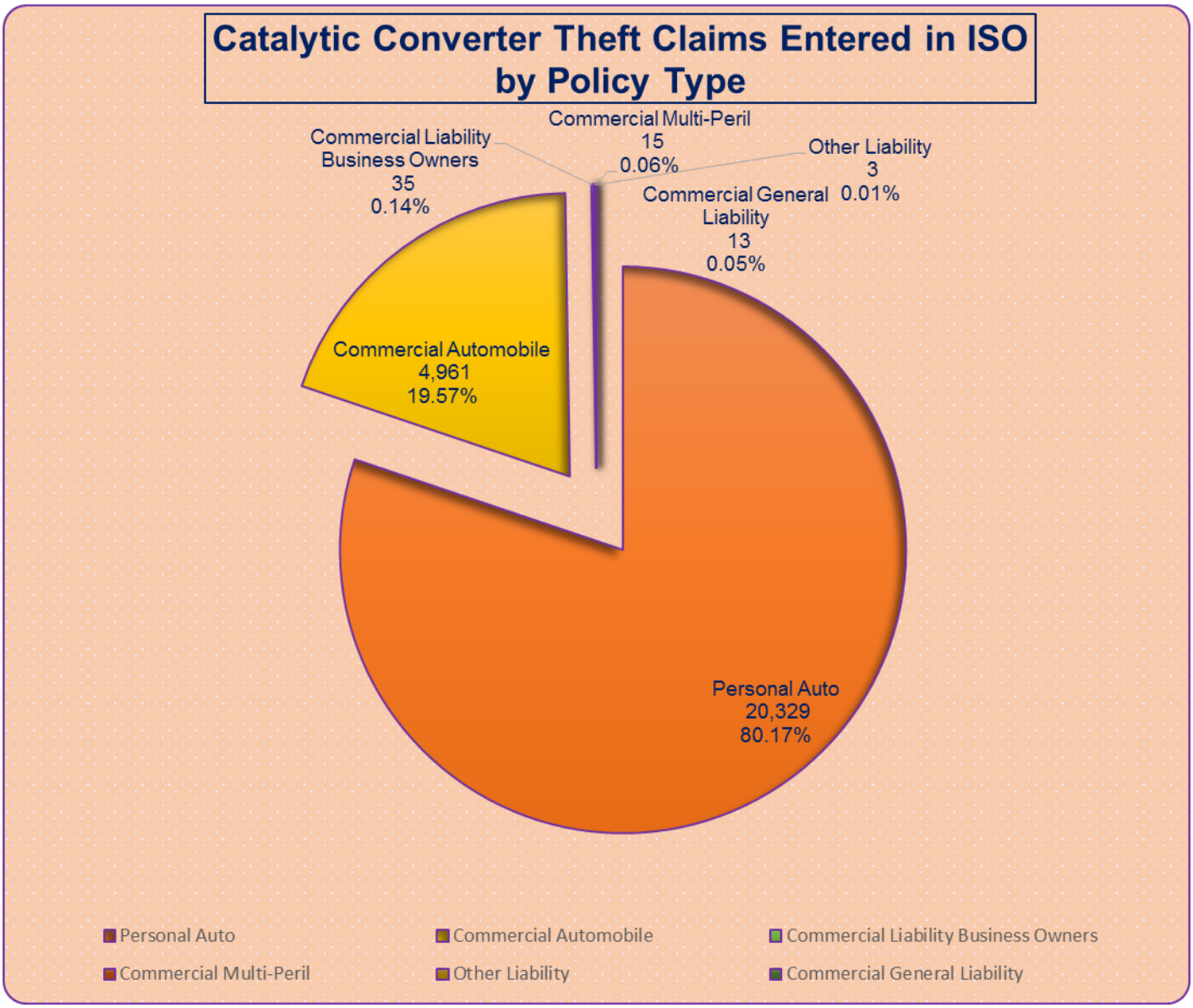


Chicago is the city with highest number of catalytic converter thefts at 980. Sacramento, Calif., had 850 catalytic converter thefts, followed by Los Angeles with 550 thefts.

Theft City	Theft State	Number of Thefts
CHICAGO	IL	980
SACRAMENTO	CA	850
LOS ANGELES	CA	550
ATLANTA	GA	407
INDIANAPOLIS	IN	353
PHOENIX	AZ	347
DALLAS	TX	337
STOCKTON	CA	335
SAN DIEGO	CA	216
SAN ANTONIO	TX	215

SECTION 5: Thefts and Policy Types from ISO Data

Of the 25,394 total claims reported to ISO from 2008 through 2015. As shown, the vast majority (80%) pertained to personal auto policies. The second largest policy type were on commercial policies with 19.57% of the total reported.



SECTION 6: Deterrence

Police departments nationwide have started catalytic converter etching programs in order to help track stolen converters and aid in criminal prosecutions. This is accomplished by “etching” the vehicles’ license plate number (the last eight (8) digits of the VIN can also be used) onto the heat shield of the catalytic converter. Etching programs include government run programs that offer citizens etch services for free and programs

operated by local businesses, i.e. body shops and car dealerships that will do the etching for a fee. Not all cars are eligible for etching, as some programs only etch highly targeted vehicles.

To minimize catalytic converter theft, one could park close to the entrance of buildings or shopping centers. Businesses with large fleets should ensure lots are secured and well-lighted at night. Lastly, you could consider modifying your vehicle with a vehicle security system or secure the catalytic converter to the vehicle frame with additional welding. However, before making any modifications, please ensure that such modifications will not void your warranty, extended warranty, or aftermarket repair agreement etc.

SECTION 7: Conclusion

California had the most catalytic converter thefts at 8,072 thefts, followed by Texas with 1,705 thefts, and Illinois with 1,605 thefts, from 2008 to 2015. Chicago led the nation with highest number of catalytic converter thefts at 980. Sacramento, Calif., had 850 catalytic converter thefts, followed by Los Angeles with 550 thefts. Overall for the time period of 2008 to 2015, data shows that catalytic converter thefts peak in the summer months, especially in July, and seem to decline in the colder months of February and March. In addition, thefts of this kind are reported on Mondays more frequently than any other day of the week. This may be due to the theft activity affecting vehicles that are stationery on weekends and not discovered until Monday. Finally, if the prices of platinum, rhodium, and palladium continue to drop, the frequency at which catalytic converters are stolen may decrease as thieves will make less from them.