The NICB Vehicle Theft Study Methodology

The NICB Vehicle Theft Study (Hot Spots) contains vehicle theft rates and rankings for Metropolitan Statistical Areas (MSAs) in the United States for 2019.

What data sources were used for the report?

a) The NICB's mirror image of NCIC's Vehicle Theft file as of 03/01/2020.
b) The extracted population database from http://www.census.gov.
c) Update locations of Cities, Counties and Core Based Statistical Areas (CBSA) via SAS software
d) Current listing of Originating Agency Identification (ORI) Numbers provided by the National Law Enforcement Telecommunication System (NLETS).

What editing was made on the data sources to create the report?

a) **NCIC File** – 2019 vehicle data was extracted using the standard representation of vehicles in the file. The dataset also included located, cleared and cancelled vehicles. Records containing the term "test" in the Vehicle Identification Number (VIN), miscellaneous, or Originating Case Agency (OCA) number were omitted.
b) **Population Database** - No specific editing was performed on the data. The 2019 report creation process used the 2019 estimated population figures provided by the U.S. Census Bureau.
c) **SAS** - The program is used to match addresses to cities and counties to get the CBSA's. No editing was performed on the file. For each city and county which is part of a metropolitan area this file identifies the CBSA code in which they fall into.
d) **ORI File** - The address fields, street, city and zip for each ORI is matched to the SAS data. The ORI location obtained using the SAS data then identifies the initial CBSA code of the ORI. Then comparing both prior years ORI information and LEADS received data a second review of the ORI table is done to make sure no major changes have occurred and verify if they need to stay or be corrected. In instances where an exact match could not be found on the ORI file to the ORI field in NCIC itself, the last two characters of the ORI (terminal location) were dropped to match the ORIs on file.

What are CBSAs - MSAs?

The United States Office of Management and Budget (OMB) defines metropolitan and micropolitan statistical areas according to published standards that are applied to Census Bureau data. The term "core based statistical area" became effective in 2000 and refers collectively to metropolitan and micropolitan statistical areas (MSAs). The 2000 standards provide that each CBSA must contain at least one urban area of 10,000 or more population. Each MSA must have at least one urbanized area of 50,000 or more inhabitants.

The MSAs are here: https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html Mar. 2020

Why are population estimates used?

The U.S. Census Bureau annually produces estimates of total resident population for each state and county. County population estimates are produced with a component of population change method, while the state population estimates are solely the sum of the county populations. The Population Estimates Program publishes total resident population estimates and demographic components of change (births, deaths, and migration) each year. These estimates are used in

federal funding allocations, as denominators for vital rates and per capita time series, as survey controls and in monitoring recent demographic changes. The most current population figures can be found here https://www.census.gov/content/census/en/data/tables/time-series/demo/popest/2010s-total-metro-and-micro-statistical-areas.html#par_textimage_1139876276   and under the heading: "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019. The link to the download on this page is Metropolitan Statistical area; and for Puerto Rico"

What process is used to calculate the theft rate and the overall report?

a) The city and county data is matched to the corresponding CBSA code.
b) This data is then used to create a table of theft records from the time period using the data from the above step to identify thefts within CBSA.
c) The resulting table contains CBSA/MSA names, number of thefts and population.
d) The calculation performed is: ((number of thefts/ year's estimated population) *100,000) rounded out to 2 decimal places.
e) The data is then ranked from highest to lowest.

What is the difference between Hot Spots and the FBI's Uniform Crime Report (UCR)?

Hot Spots data is derived from a mirror image of the Vehicle Theft file in NCIC. All law enforcement agencies report stolen motor vehicles to NCIC. The UCR is a voluntary reporting program for law enforcement agencies and many of them do not report their crime statistics to the UCR.

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