UNITED STATES BOMB DATA CENTER (USBDC) ARSON INCIDENT REPORT

2022

The Annual Arson Incident Report (AIR) reviews arson-related incidents from data reported to the United States Bomb Data Center (USBDC) through the Bomb Arson Tracking System (BATS).

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EXECUTIVE SUMMARY

OPERATING HIGHLIGHTS

(U) The 2022 *Arson Incident Report* (AIR) is an informational product prepared by the United States Bomb Data Center (USBDC), using incident data reported in the Bomb Arson Tracking System (BATS) by its more than 2,000 interagency partners and 8,000 registered users. This report examines the total number of fire-related incidents reported in BATS for calendar year (CY) 2022 and includes Incendiary (Arson), Undetermined, Accidental, Threats, Natural, and Wildland fire incidents. It is important to note that BATS is a real-time dynamic incident management system that is strictly user dependent; therefore, it is possible that the data represented in this report may differ slightly from previously reported data due to updates or changes made by the owners of individual records. The reader should also be aware that when compared to the data reflected in the Uniform Crime Report and/or National Fire Incident Reporting System, the number of incidents reflected in BATS may differ due to agency participation in BATS. Due to this limited dataset, the USBDC cautions the use of this report for analytical purposes.

STRATEGIC HIGHLIGHTS

(U) From January 1, 2022, through December 31, 2022, BATS captured a total of 23,790 fire-related incidents. Of these, there were 5,919 incidents reported as "Incendiary," which accounted for 25 percent of all the fires reported. The total amount of damages for all fire types was estimated at $1,784,870,861, with 1,217 injuries and 730 fatalities. "Available Combustibles" was identified as the most widely utilized Incendiary Fire Subtype, while "Residential" was identified as the most targeted property type.

LOOKING AHEAD

(U) In 2023, the USBDC BATS Section will continue to promote additional and complete fire and arson incident reporting to BATS. The USBDC Arson and Explosives Information and Analysis (AEIA) Section will continue to work to collect, analyze, and disseminate relevant information regarding arson and the suspected criminal misuse of explosives to increase situational awareness and to detect, deter and prevent criminal acts.

J. Chris Lawler
Acting Branch Chief, USBDC

2022 Arson Incident Report (AIR)

FIRE TYPES – 2022

(U) From January 1, 2022, through December 31, 2022, BATS captured a total of 23,790 fire-related Incidents. Of those 23,790 fire-related incidents, 8,153 were listed in BATS as "Accidental," 5,919 were listed as "Incendiary," 110 as "Natural," and 2,004 were "Under Investigation." There were 37 incidents entered as "Threat – Arson" and 263 listed as "Wildland." There were 6,674 fires listed as "Undetermined," which included the final determination/classification of the investigation, along with fires pending further investigative activities and/or laboratory examination. Six hundred thirty (630) incidents did not have a fire type selected.

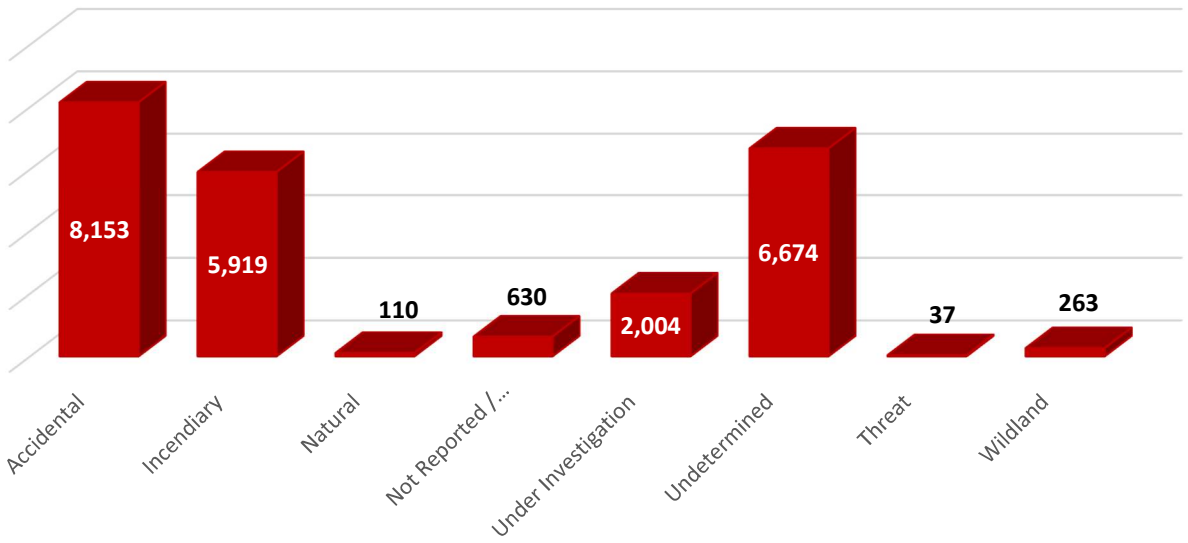

CHART 1. Fire Types as Reported in BATS

FIRE INJURIES AND FATALITIES – 2022

Injuries					
	Fire Service	Law Enforcement	Victims	Suspects	Total
Accidental	81	10	407	5	503
Incendiary	42	4	101	31	178
Natural	1	0	0	0	1
Not Reported / Blank	5	1	48	0	54
Under Investigation	37	0	77	2	116
Undetermined	83	20	261	1	365
Total	249	35	894	39	1,217

CHART 2. Fire Injuries

(U) Victim injuries accounted for 73 percent of all injuries reported in CY 2022 and were the highest population reported across all categories. Of the 178 injuries associated with “Incendiary” incidents, “Victims” were reported as the highest population at 57 percent.

Fatalities					
	Fire Service	Law Enforcement	Victims	Suspects	Total
Accidental	2	0	178	2	182
Incendiary	1	0	69	9	79
Natural	0	0	1	0	1
Not Reported / Blank	0	0	43	0	43
Under Investigation	7	0	85	0	92
Undetermined	1	1	328	3	333
Total	11	1	704	14	730

CHART 3. Fire Fatalities

(U) Victim fatalities accounted for 96 percent of all injuries reported in CY 2022 and were the highest population reported for all categories. Of the 79 fatalities associated with “Incendiary” incidents, “Victims” was reported as the highest population with 87 percent.

FIRE DAMAGES – 2022

(U) Damages associated with the 23,790 fire incidents reported in BATS totaled $1,784,870,861 for CY 2022. Fires categorized as "Accidental" led the fire type category with $1,322,340,239 in damages.

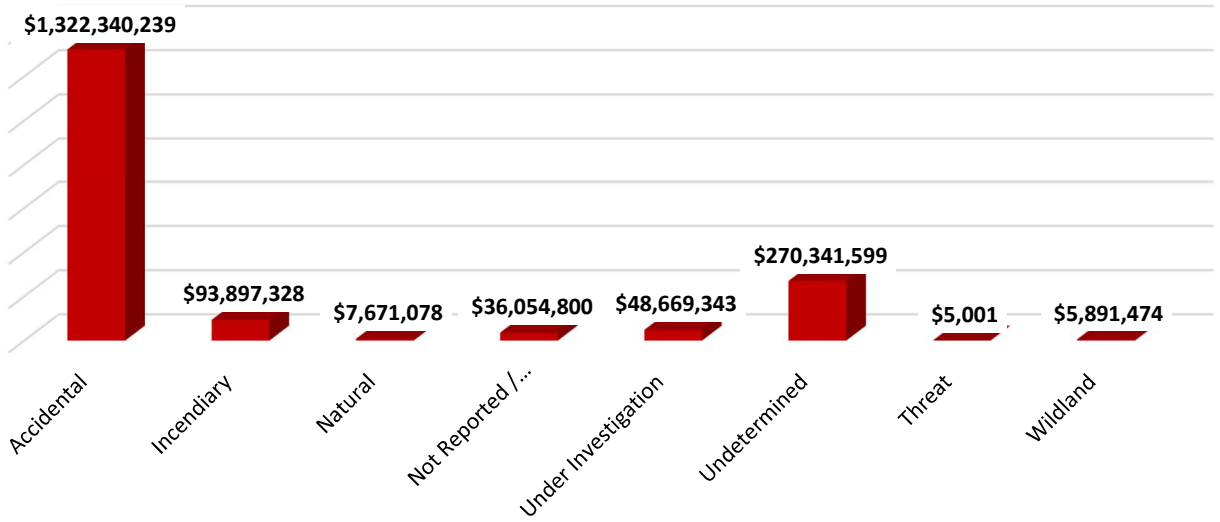

CHART 4. Damage Amount by Fire Type

INCENDIARY FIRE SUBTYPES – 2022

(U) Of the 5,919 Incendiary fire-related incidents reflected in BATS, there were 1,242 Incendiary fires listed as involving an "Accelerant," along with 2,774 fires involving "Available Combustibles" and 268 fires involving an "Incendiary Device." "Available Combustibles" accounted for 47 percent of all incendiary fires, while "Accelerant" and "Incendiary Device" were 26 percent combined. There were 1,378 incendiary fires listed as "Unknown" and 257 incendiary fires with no information reported or left blank. The unknown category can include incidents that are under investigation as well as undetermined.

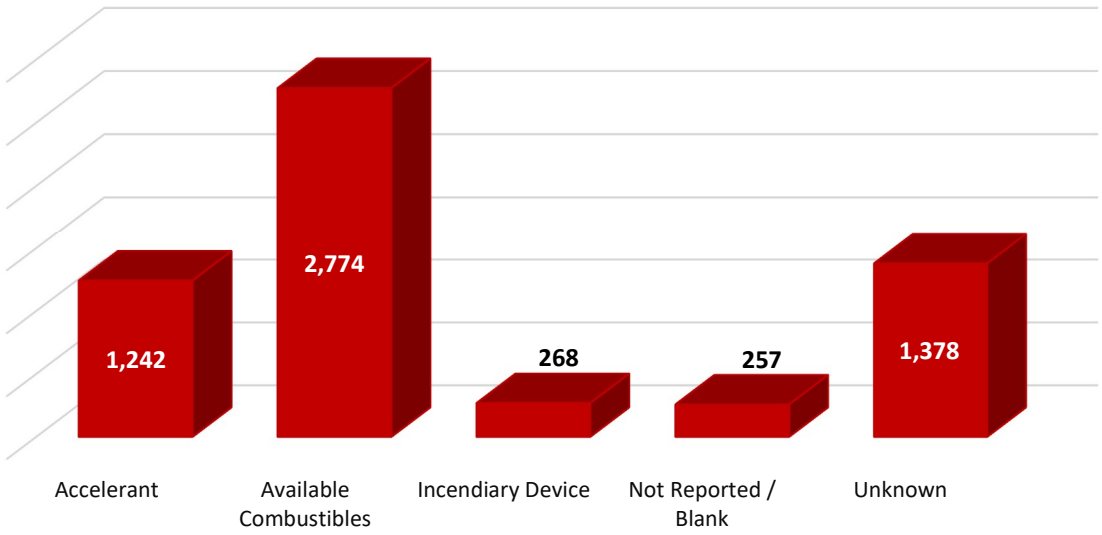

CHART 5. Incendiary Fires by Subtype

INCENDIARY FIRES (STATE) – 2022

(U) A review of the 5,919 incidents listed in BATS as "Incendiary" by location (State) revealed the highest number of incidents were reported in Illinois (782), followed by Texas (750) and Florida (628). These three (3) States accounted for 36 percent of the total "Incendiary" fires reported in BATS during CY 2022.[1]

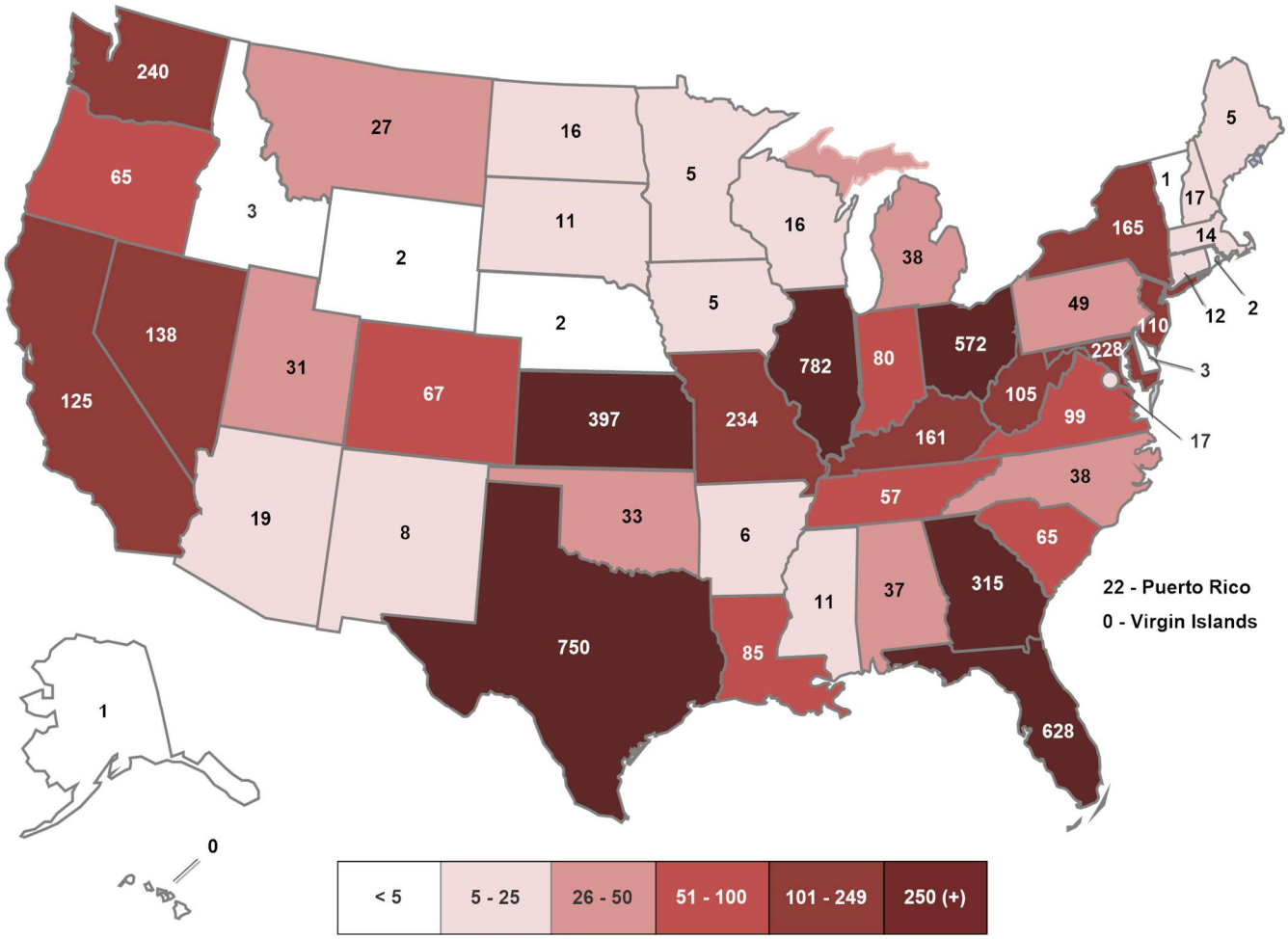

FIGURE 1. Incendiary Fires by State

[1] Of the 5,919 incidents, 24 did not have the corresponding State. These incidents were manually updated to be included in the annual statistics. They were not updated in the BATS database.

INCENDIARY FIRES (FEMA REGIONS) – 2022

(U) A breakdown of the 5,919 incidents listed in BATS as "Incendiary" by Federal Emergency Management Agency (FEMA) Region revealed the highest number of incidents occurred in the following regions: Region V (1,493) and Region IV (1,312). These two regions accounted for 47 percent of the total "Incendiary" fires reported in BATS during CY 2022.[2]

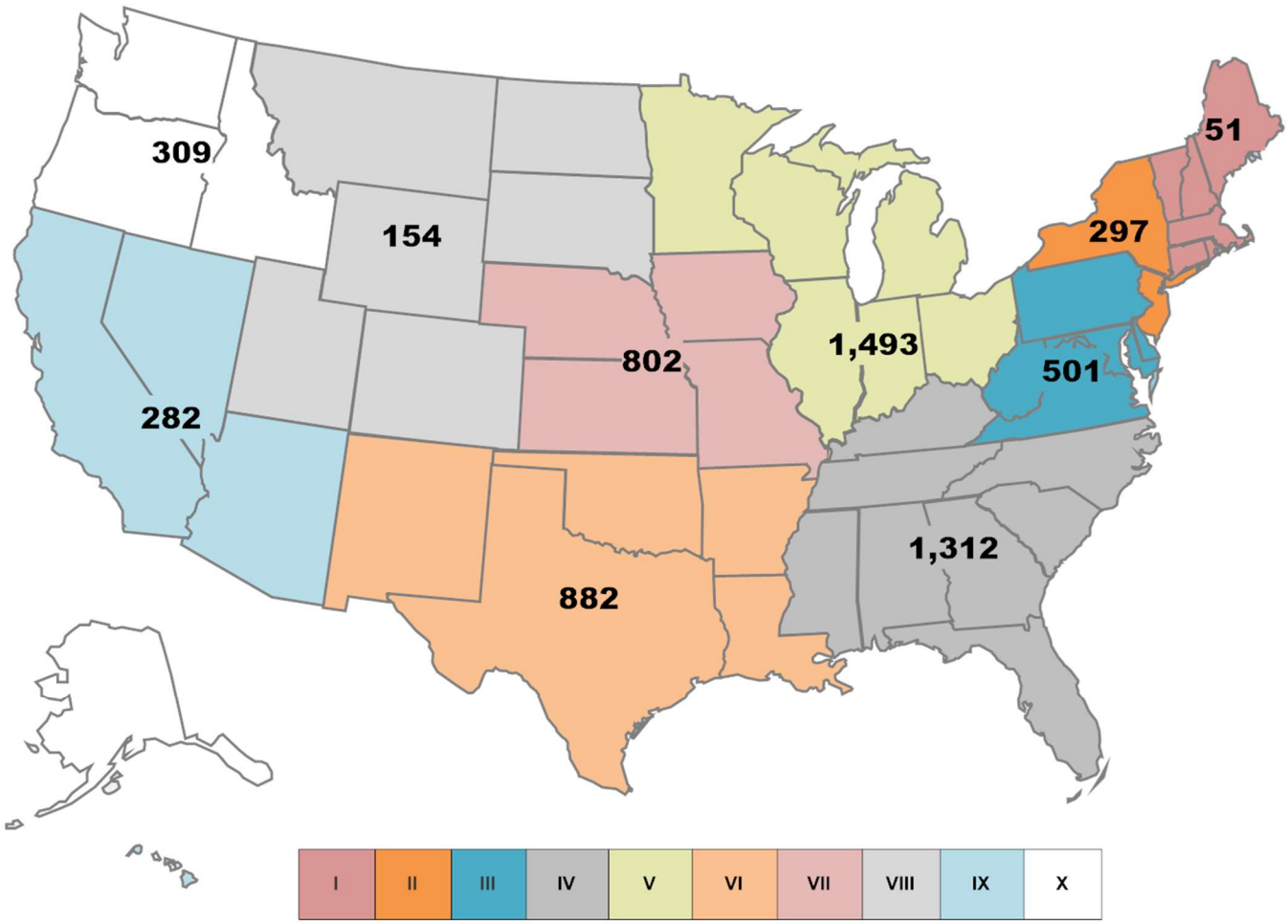

FIGURE 2. Incendiary Fires by FEMA Regions

[2] Of the 5,919 incidents, 24 did not have the corresponding State. These incidents were manually updated to be included in the annual statistics. They were not updated in the BATS database.

PROPERTY TYPES – 2022

(U) There were 23 different "Property" types selected within BATS that involved "Incendiary" fires for 2022. Of the reported "Incendiary" incidents reported, "Residential" and "Vehicle" fires accounted for a combined 66 percent.[3]

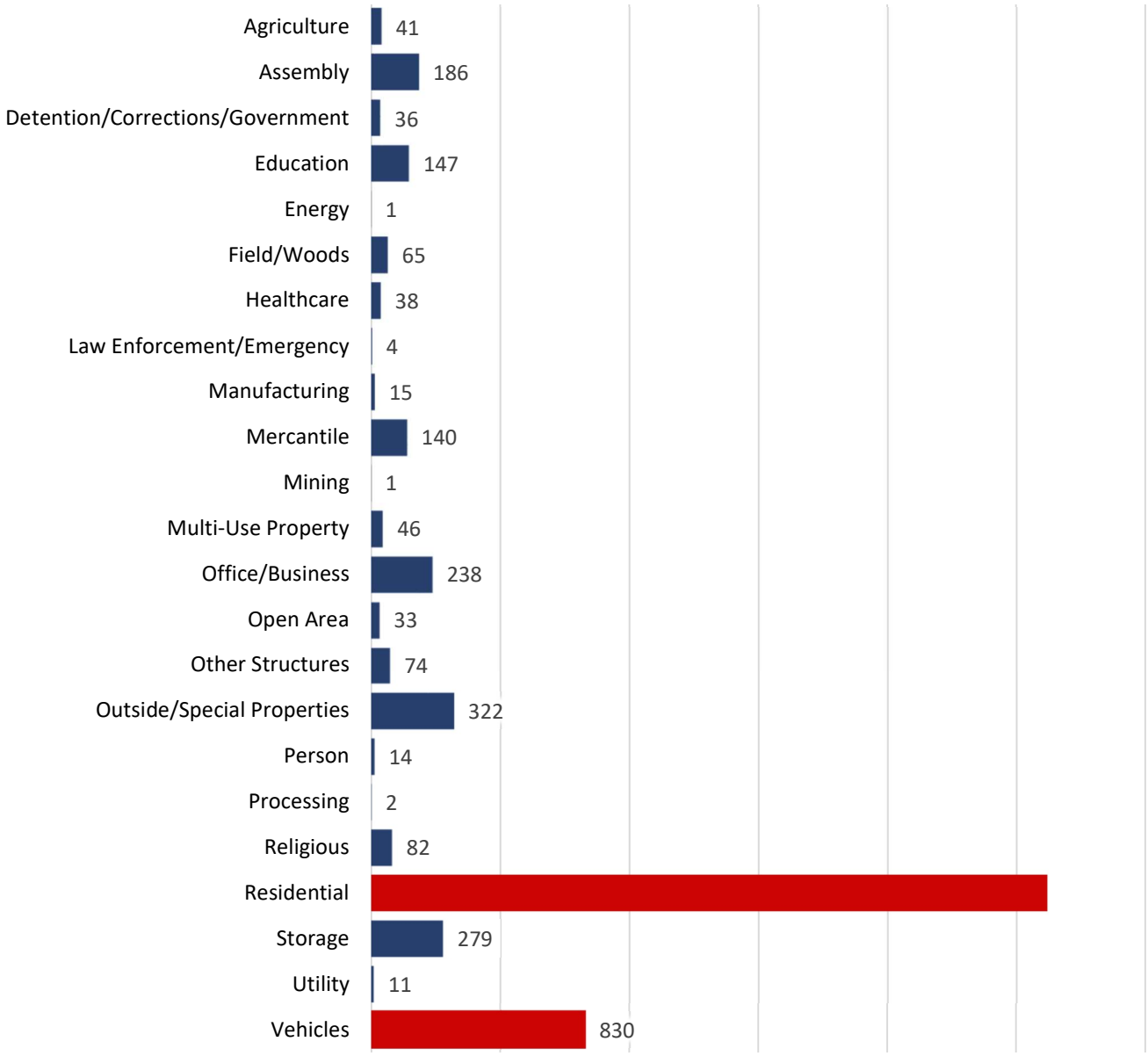

CHART 6. Incendiary Fires by Property Types

[3] There were 694 incidents that did not have a property type selected. These incidents were not included when calculating percentages for property types.

TIME/DAY/MONTH OF OCCURRENCE – 2022

(U) A review of the time of day that "Incendiary" fires occurred showed a noticeable difference between the hours of daylight and darkness. Incidents of "Incendiary" fires occurring during the predominant 9 hours of darkness (21:00 until 05:59) accounted for 43 percent of the incidents. The early morning hours until noon (06:00 until 12:00) accounted for 21 percent of incendiary fires reported in BATS during CY 2022.[4]

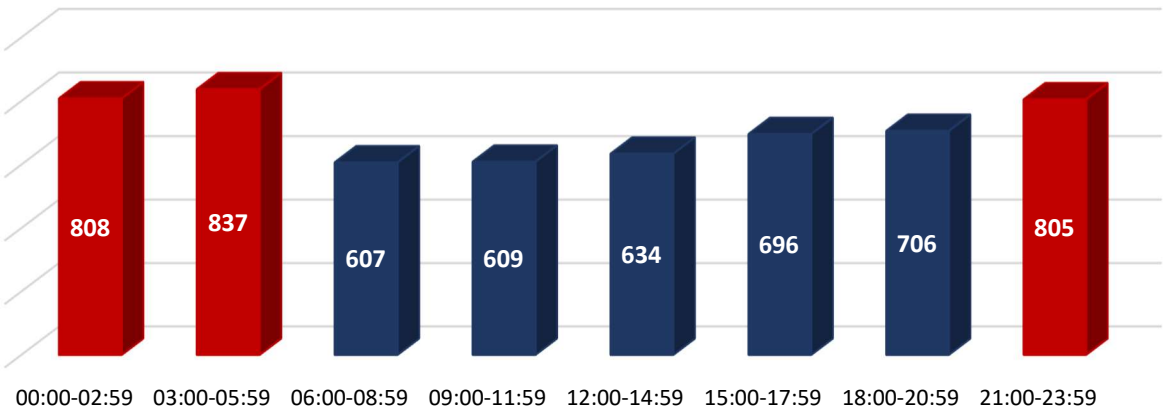

CHART 7. Incendiary Fires by Time of Day

(U) A review of the day of the week revealed that "Incendiary" fires occurred most prevalently during the first 3 days of the week. Incidents reported during these days accounted for 45 percent of all reported incidents when combined. Friday and Saturday were identified as having the lowest rate of occurrence of "Incendiary" fires.

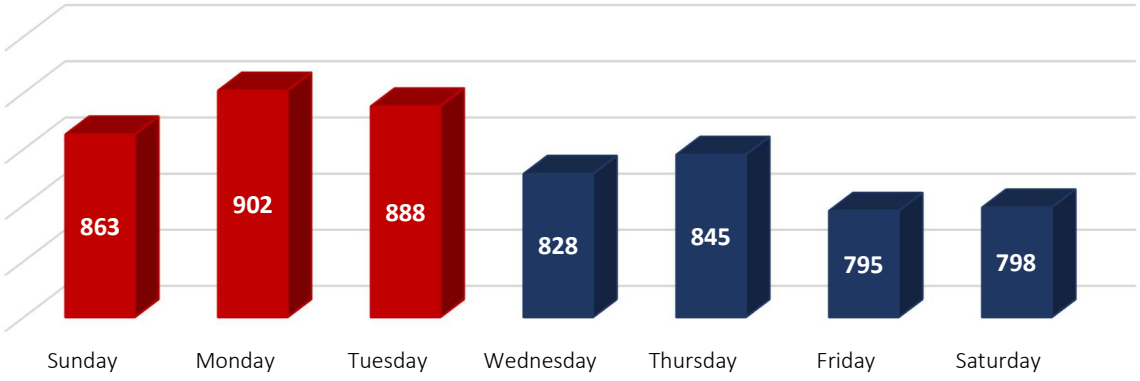

CHART 8. Incendiary Fires by Day of Week

(U) A review of the months that "Incendiary" fires occurred did not show any significant variation among the 12 months of CY 2022. December carried the least number of incidents with 7 percent, 5 months showed 8 percent, and 6 months of the year had a maximum of 9 percent in which an "Incendiary" fire occurred.

[4] There were 217 incidents identified as occurring at 00:00 that were excluded from CHART 9. The default setting in BATS enters 00:00 when users do not enter a specific time.

INCENDIARY FIRES (VEHICLES) – 2022

(U) During CY 2022, there were 830 incidents of incendiary fires associated with vehicles. Of those vehicle fires, 62 percent were associated with an "Automobile/Car," followed by 11 percent that were associated with a "Truck" (Pickup).

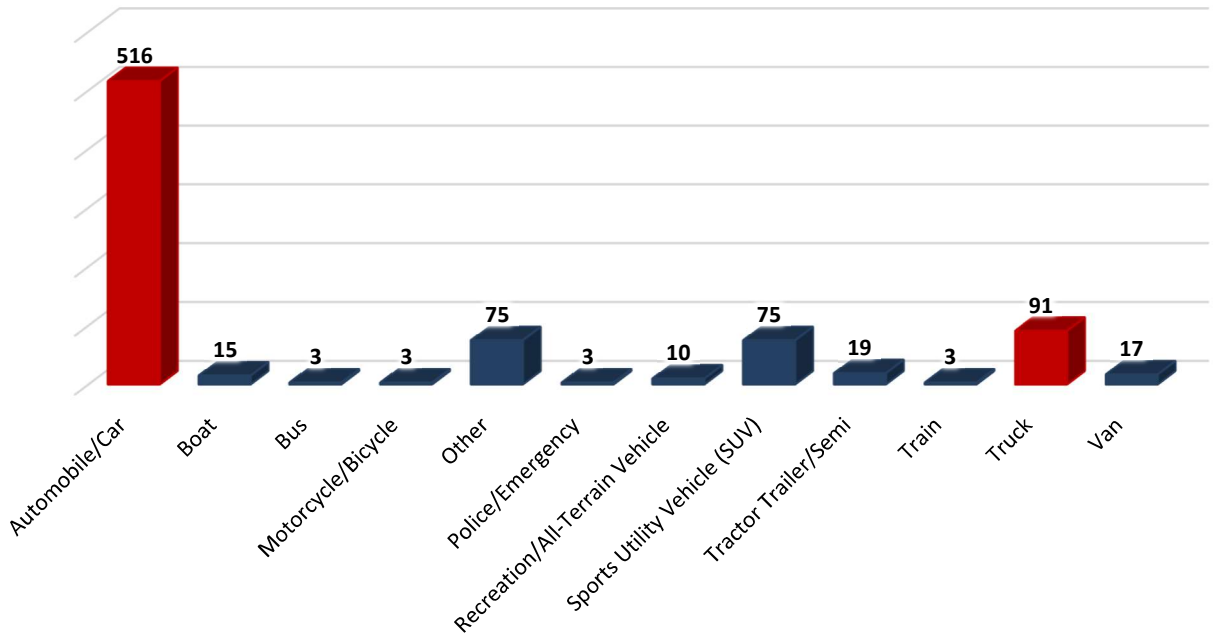

CHART 9. Incendiary Fires by Vehicle Type

INCENDIARY FIRE DESCRIPTORS – 2022

(U) The top 3 "Fire Descriptors" identified for the 5,919 Incendiary fires reported in 2022 were "Ordinary Combustibles," "Open Flame," and "Fire Spread/Movement Patterns." Sixty-nine (69) percent of reported Incendiary fires did not identify any type of fire descriptors.

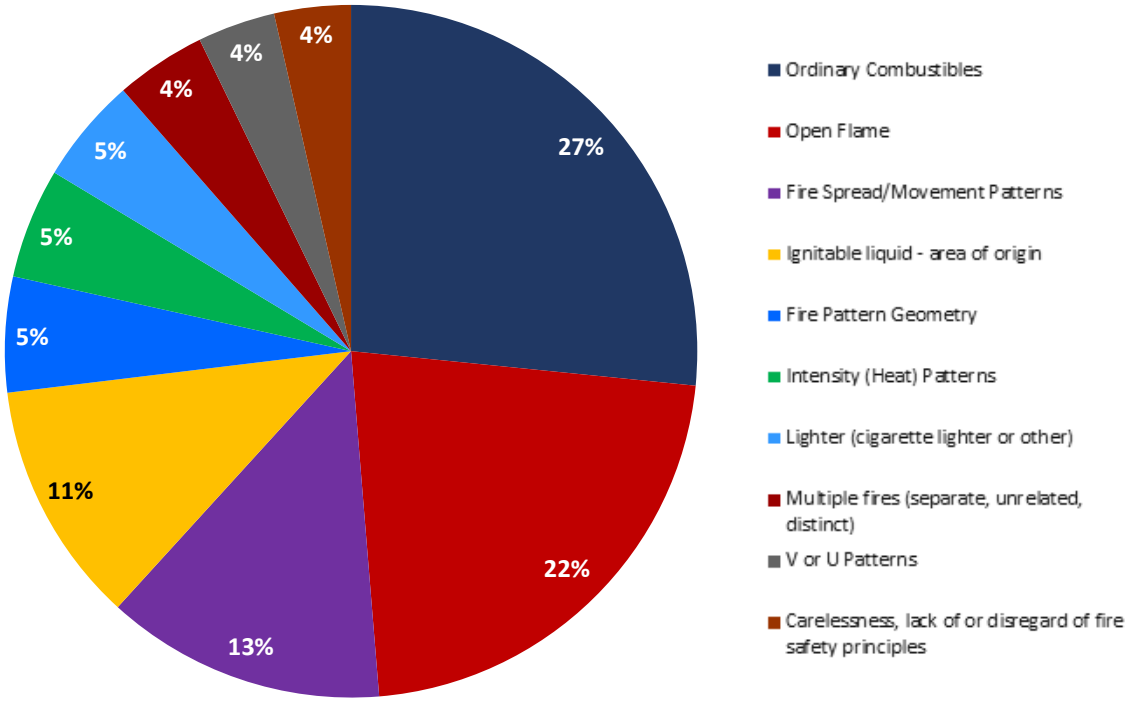

CHART 10. Top 10 Fire Descriptors of Incendiary Fires

JUVENILE OFFENDER FIRES – 2022

(U) There were 178 Incendiary fires recorded in BATS during 2022 where the suspect was listed as a "Juvenile Offender" (3 percent of total incendiary fires). A review of the property type involved in those 178 incidents revealed the primary property target of juvenile offenders was "Residential" followed by "Education." These 2 property types accounted for 105 incidents or 59 percent of the property types targeted by juvenile offenders during 2022.

(U) Excitement was established to be the number-one motivator for Juvenile-involved incendiary fire incidents during CY 2022 with 35 incidents. Motivation was either not reported or left blank for 108 incidents.

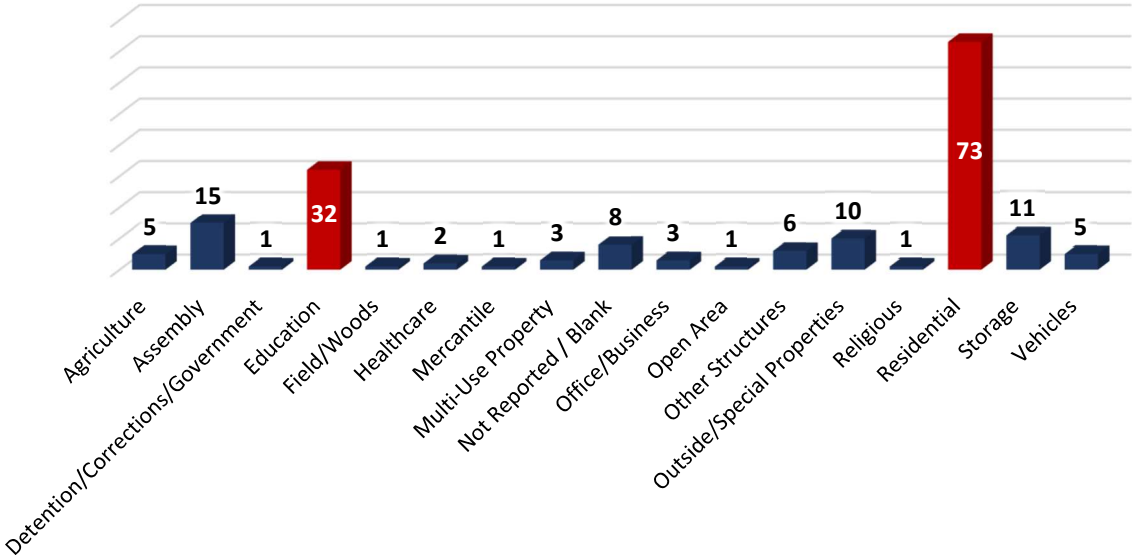

CHART 11. Property Type Targets of Juvenile Offender Fires

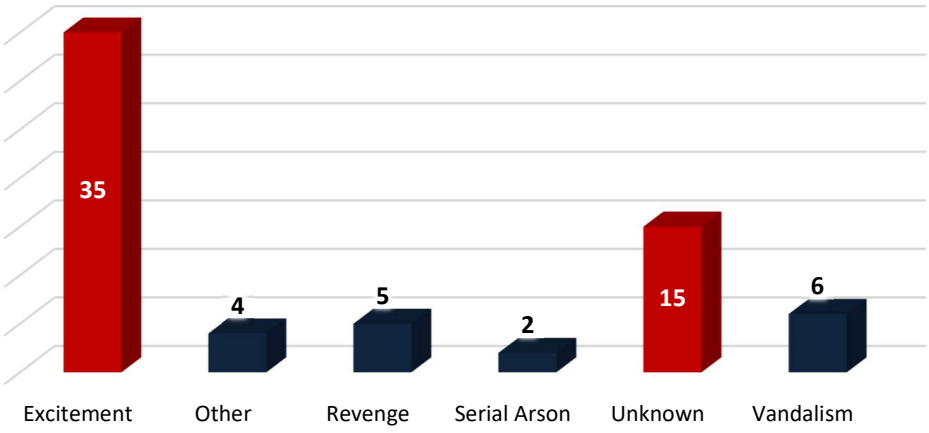

CHART 12. Motivators for Juvenile Offender Fires

AREAS OF ORIGIN – 2022

(U) The top 3 "Areas of Origin" identified for the 5,919 Incendiary fires reported in CY 2022 were "Function Areas," "Transportation," and "Other." Areas of Origin for 2,909 incidents were not reported or left blank.

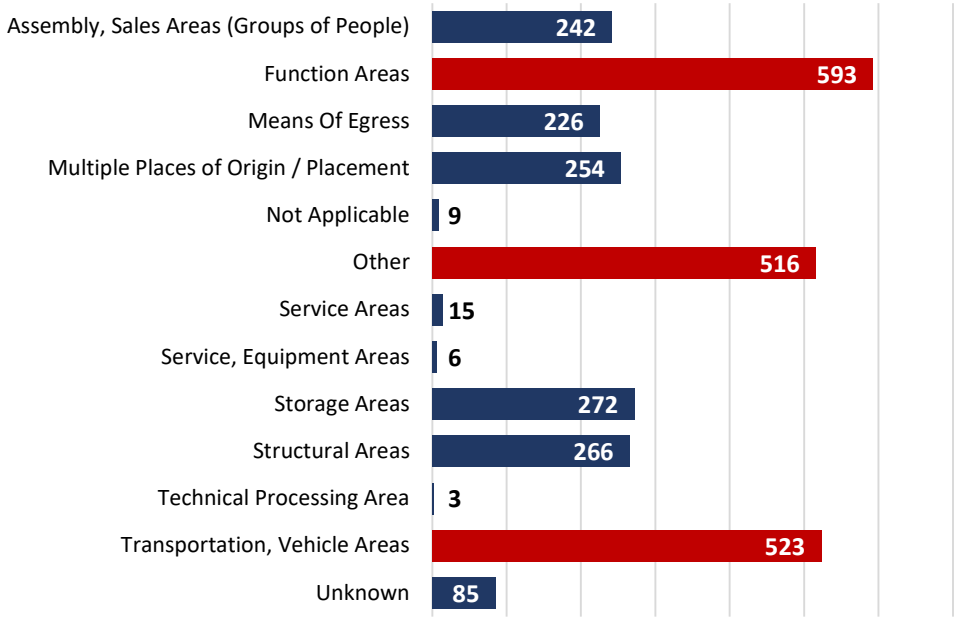

CHART 13. Areas of Origin for Incendiary Fires

(U) The top 3 "Areas of Origin" identified for the 2,620 "Residential" Incendiary fires reported in 2022 were "Function Areas," "Multiple Places of Origin/Placement," and "Structural." (See CHART 14.)

(U) The top 3 "Areas of Origin" identified for the 720 Incendiary fires related to "Commercial" use reported in 2022 were "Storage Areas," "Other," and "Structural Areas." (See CHART 15.)

Residential Fires Areas of Origin	Total
Assembly, Sales Areas (Groups of People)	182
Function Areas	437
Means Of Egress	171
Multiple Places of Origin / Placement	193
Not Applicable	1
Other	144
Service Areas	9
Service, Equipment Areas	1
Storage Areas	92
Structural Areas	193
Transportation, Vehicle Areas	13
Unknown	61

CHART 14. Residential Areas of Origin

Commercial Fires Areas of Origin	Total
Assembly, Sales Areas (Groups of People)	31
Function Areas	42
Means Of Egress	23
Multiple Places of Origin / Placement	27
Not Applicable	4
Other	73
Service Areas	3
Service, Equipment Areas	2
Storage Areas	128
Structural Areas	47
Transportation, Vehicle Areas	13
Unknown	7

CHART 15. Commercial Areas of Origin

HOUSE OF WORSHIP FIRES – 2022

(U) During CY 2022, BATS captured a total of 233 fire-related incidents involving a House of Worship (HOW). Of these, 97 were listed in BATS as "Incendiary," 43 as "Accidental" and 6 as "Natural." There were 55 fires categorized as "Undetermined" and 27 categorized as "Under Investigation," as the incidents were pending further investigative activities and/or laboratory examinations. Baptist (18) and Nondenominational Christianity (12) churches showed the highest number of incendiary fires for CY 2022.

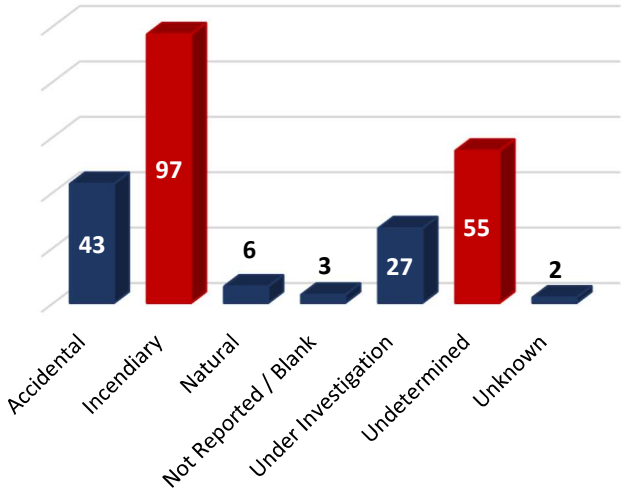

CHART 16. HOW Fires

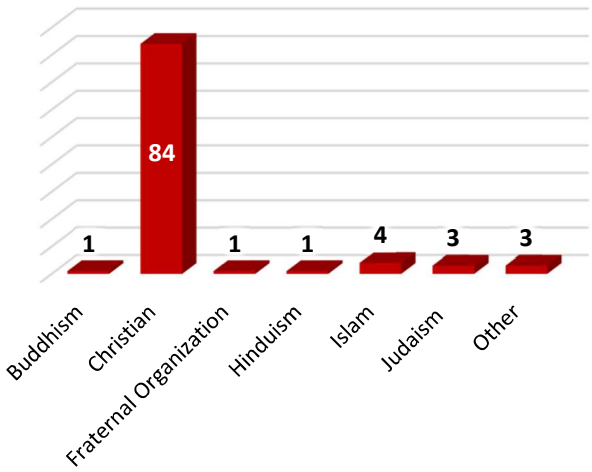

CHART 17. Denomination of HOW Fires

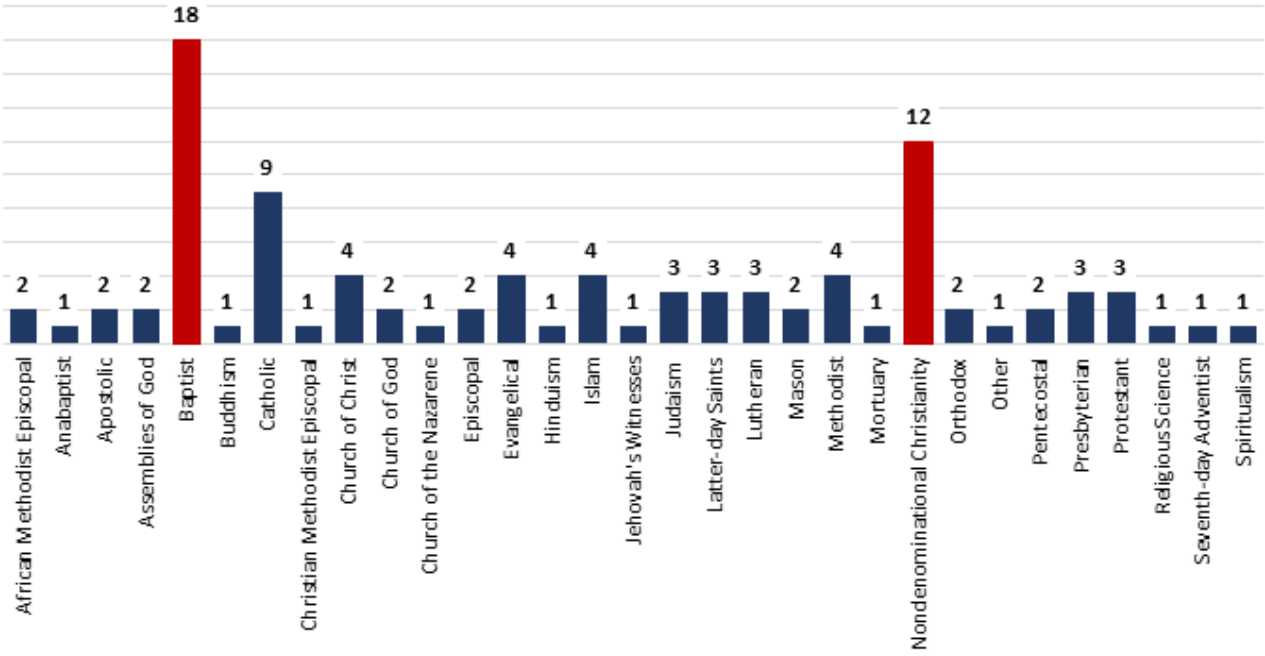

CHART 18. Incendiary HOW Fires by Church Type

EDUCATION FIRES – 2022

(U) There were 222 fires associated with an "Education" target during CY 2022. Of those 222 fires reported in BATS, 147 were listed as "Incendiary," 41 were listed as "Accidental," and 23 were listed as "Undetermined." There were also four (4) fires listed as "Under Investigation," as the incidents were pending further investigative activities and/or laboratory examinations.[5] The Target Subtype category of "High School/Junior High/Middle School" accounted for 55 percent of all fire types and 61 percent of all Incendiary fires associated with an "Education" target.

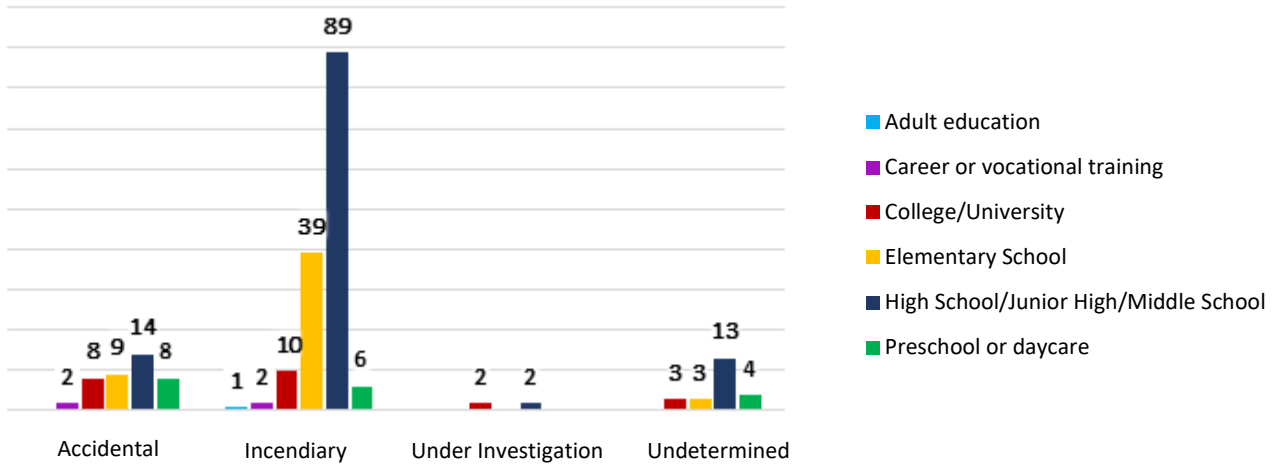

CHART 19. Education Fires

[5] There were seven (7) incidents that did not have a subtype entered and were not included in the calculation.

WILDLAND FIRES – 2022

(U) In 2022, there were 263 "Wildland" fire incidents entered into BATS. Of those 263 fires, 80 were categorized as "Incendiary," 71 were "Undetermined" and 38 were "Debris Burning."

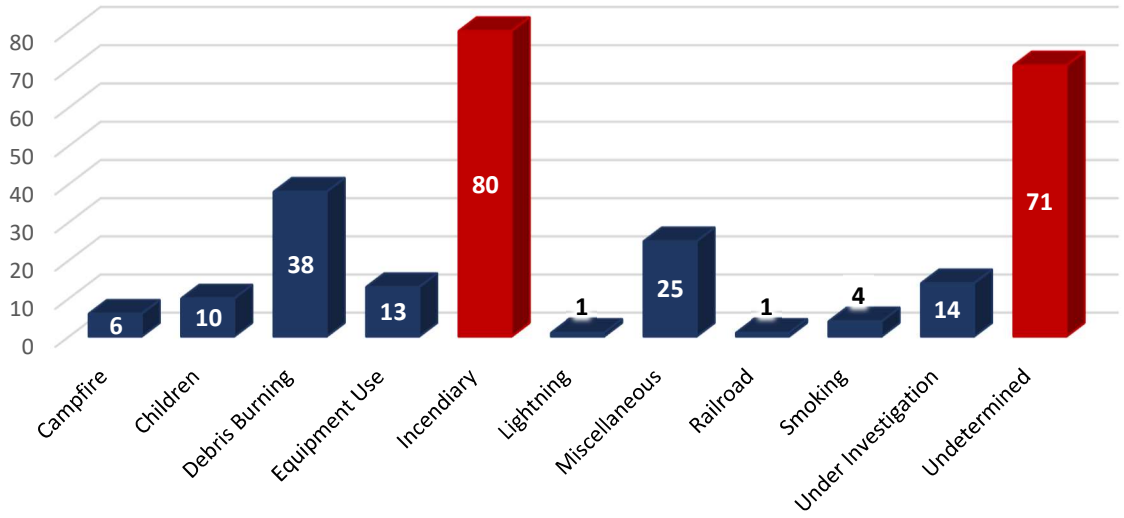

CHART 20. Wildland Fire Types

CONTACT INFORMATION

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