

# Recreational Vehicle Fires (2018-2020)

Each year, from 2018 to 2020, an estimated average of 4,200 recreational vehicle (RV) fires were reported to fire departments within the U.S.¹ Annually, these fires resulted in an estimated average of 15 civilian deaths, 125 civilian injuries and \$60,300,000 in loss.²

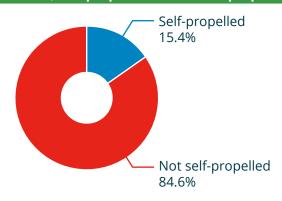
The average number of fatalities per 1,000 RV fires reported to the National Fire Incident Reporting System (NFIRS) from 2018 to 2020 was 3.9. During the same time period, the number of injuries per 1,000 fires was 16.3. Additionally, the amount of dollar loss per RV fire was \$15,350.<sup>3</sup>

# Loss measures for recreational vehicle fires (3-year average, 2018-2020)

| Loss measure           | RV fires |
|------------------------|----------|
| Average loss:          |          |
| Fatalities/1,000 fires | 3.9      |
| Injuries/1,000 fires   | 16.3     |
| Dollar loss/fire       | \$15,350 |
|                        |          |

Source: NFIRS 5.0.

## Recreational vehicle fires, self-propelled vs. not self-propelled (2018-2020)



Of the 4,200 RV fires, 85% were not self-propelled, and the remaining 15% were self-propelled.

Source: NFIRS 5.0.

RV fires most frequently occurred during the afternoon, peaking from 2 to 3 p.m. (7%).

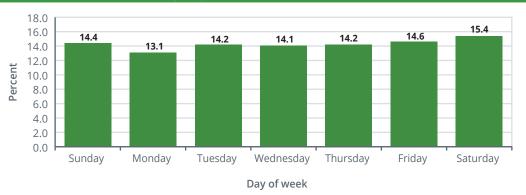
RV fires occurred least often in the morning hours from 3 to 4 a.m. (2%) and from 6 to 7 a.m. (2%).







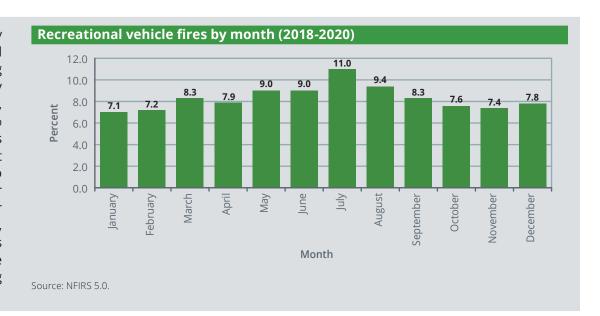
# Recreational vehicle fires by day of week (2018-2020)



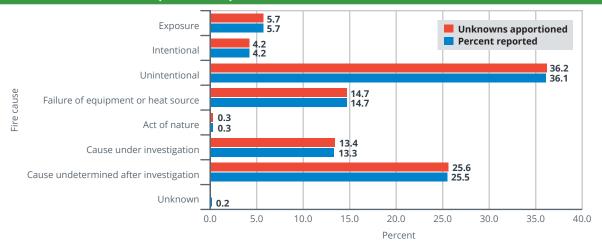
RV fires occurred most frequently on Fridays (15%) and Saturdays (15%). This coincides with the weekend and time off from work when RVs are often used.

Source: NFIRS 5.0.

RV fires peaked in July at 11% and occurred most often during the months of May through August, accounting for 38% of the fires. It is possible this slight peak may be due to elevated outdoor temperatures or increased vehicle use, as many individuals and families take vacations during these months.



## Recreational vehicle fire cause (2018-2020)



Source: NFIRS 5.0.

Note: For the unknowns apportioned distribution, the total does not add up to 100% due to rounding.

In 36% of the RV fires, the cause of ignition was unintentional actions, followed by failure of equipment or heat source (15%). Exposures and intentional actions caused an additional 6% and 4% of the RV fires, respectively, while acts of nature resulted in less than 1% of the fires. The cause of ignition was undetermined after the investigation in 26% of the RV fires and was still under investigation in 13% of the fires.

# Leading areas of fire origin in recreational vehicle fires (2018-2020)

| Areas of fire origin                  | Percent<br>(unknowns apportioned) |
|---------------------------------------|-----------------------------------|
| Engine area, running gear, wheel area | 26.2                              |
| Other vehicle area                    | 15.7                              |
| Operator, passenger area of vehicle   | 9.1                               |
| Cooking area                          | 7.7                               |
| Vehicle exterior                      | 6.9                               |
| Other area of fire origin             | 4.1                               |
| Cargo, trunk area                     | 3.9                               |

Source: NFIRS 5.0.

RV fires most often started in engine, running gear and wheel areas (26%), followed by other miscellaneous vehicle areas (16%) and operator/passenger areas (9%). Smaller but not minor percentages of fires started in cooking areas (8%), vehicle exterior areas (7%), other areas of fire origin (4%) and cargo/trunk areas (4%).

For RV fire and life safety practices, visit usfa.fema.gov.

## For additional fire statistics, visit usfa.fema.gov and search statistics.

 $Sources: NFIRS\ Public\ Data\ Release\ files\ from\ 2018\ through\ 2020\ and\ the\ National\ Fire\ Protection\ Association.$ 

Notes: 1. RV fires are defined by NFIRS Incident Type Codes 136 and 137. These fires include self-propelled motor homes or RVs and campers or RVs that are not self-propelled (includes trailers). Aid Types 3 (mutual aid given) and 4 (automatic aid given) were excluded to avoid counting a single incident more than once.

- 2. The computation of the estimate for RV fire dollar loss excludes a \$3 billion loss from a naval ship fire in California in 2020.
- 3. Average loss for fatalities and injuries is computed per 1,000 fires. Average dollar loss is computed per fire and rounded to the nearest \$10. The 2018 and 2019 dollar-loss values were adjusted to 2020 dollars. The average loss measures computed from the NFIRS data alone in the table differ from the average loss measures computed from national estimates. The fire death rate computed from national estimates is (1,000 x (15/4,200)) = 3.6 deaths per 1,000 RV fires, and the fire injury rate is (1,000 x (125/4,200)) = 29.8 injuries per 1,000 RV fires.