# FARS Functions

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These functions can be used to analyse data from the US National Highway Traffic Safety Administration's Fatality Analysis Reporting System, which is a nationwide census providing the American public yearly data regarding fatal injuries suffered in motor vehicle traffic crashes.

## Functions included in the package

- `fars_read()` to read data.
- `fars_summarize_years()` to summarize data.
- `fars_map_state()` to create a map of the events for given state and year.

## Data

This package includes three datasets regarding fatal injuries suffered in motor vehicle traffic crashes in 2013, 2014, and 2015.

### Read in data with `fars_read()`

`fars_read()` allows you to read a comma-separated csv file into a tibble.

The *accident_2015.csv.bz2* file contains the features of events occured in 2015.

```
fname <- "accident_2015.csv.bz2"
fpath <- system.file("extdata", fname, package = "FARS")
d <- fars_read(fpath)
```

## Analyse data

### Summarize with `fars_summarize_years()`

`fars_summarize_years()` returns with the number of observations per month in the requested year(s). Such summary statistics for years 2013 and 2015 can be obtained as follows:

```
fars_summarize_years(c(2013, 2015))
```

```
## # A tibble: 12 x 3
##    MONTH `2013` `2015`
##  * <int>  <int>  <int>
##  1     1   2230   2368
##  2     2   1952   1968
##  3     3   2356   2385
##  4     4   2300   2430
##  5     5   2532   2847
```

```
##  6     6   2692   2765
##  7     7   2660   2998
##  8     8   2899   3016
##  9     9   2741   2865
## 10    10   2768   3019
## 11    11   2615   2724
## 12    12   2457   2781
```

## Map of accidents with `fars_map_state()`

`fars_map_state()` creates a map of events for given state and year.

The map of the accidents occured in 2015 in *state 1* can be obtained as follows:

```
fars_map_state(1, 2015)
```