

vignette for descfars package in Fatality Analysis Reporting System (FARS) 2012-2015

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#(1) Package Description

The `descfars` package presents descriptive statistics from Fatality Analysis Reporting System (FARS) data in 2012-2015 from the [National Highway Traffic Safety Administration](#).

##(2) Load Packages

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.1.3
```

```
##  
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':  
##  
##   filter, lag
```

```
## The following objects are masked from 'package:base':  
##  
##   intersect, setdiff, setequal, union
```

```
library(readr)
```

```
## Warning: package 'readr' was built under R version 4.1.3
```

```
library(maps)  
library(descfars)
```

```
## Warning: replacing previous import 'magrittr::not' by 'testthat::not' when  
## loading 'descfars'
```

```
## Warning: replacing previous import 'dplyr::matches' by 'testthat::matches' when  
## loading 'descfars'
```

```
## Warning: replacing previous import 'readr::edition_get' by
## 'testthat::edition_get' when loading 'descvars'
```

```
## Warning: replacing previous import 'magrittr::equals' by 'testthat::equals' when
## loading 'descvars'
```

```
## Warning: replacing previous import 'magrittr::is_less_than' by
## 'testthat::is_less_than' when loading 'descvars'
```

```
## Warning: replacing previous import 'readr::local_edition' by
## 'testthat::local_edition' when loading 'descvars'
```

```
## Warning: replacing previous import 'testthat::matches' by 'tidyr::matches' when
## loading 'descvars'
```

```
## Warning: replacing previous import 'magrittr::extract' by 'tidyr::extract' when
## loading 'descvars'
```

##(3)Included data

Data files included within the package are:

```
list.files(system.file("extdata", package = "descvars"))
```

```
## [1] "accident_2013.csv.bz2" "accident_2014.csv.bz2" "accident_2015.csv.bz2"
```

##(4) Package “descvars” Functions

####(4-1) Function `make_filename`

This function produces file name and path to the data files from the farsdata:

```
year <- 2015
make_filename(year)
```

```
## [1] "C:/Users/mohse/Documents/R/win-library/4.1/descvars/extdata/accident_2015.csv.bz2"
```

####(4-2) Function `fars_read_years`

This function reads the data per given year and is used by `fars_summarize_years`

```
fars_read_years(2015)
```

```
## Warning: `tbl_df()` was deprecated in dplyr 1.0.0.
## Please use `tibble::as_tibble()` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## Warning: `select_()` was deprecated in dplyr 0.7.0.
## Please use `select()` instead.
```

```
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## Warning: `mutate_()` was deprecated in dplyr 0.7.0.
## Please use `mutate()` instead.
## See vignette('programming') for more help
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## [[1]]
## # A tibble: 32,166 x 2
##   MONTH year
##   <dbl> <dbl>
## 1     1  2015
## 2     1  2015
## 3     1  2015
## 4     1  2015
## 5     1  2015
## 6     1  2015
## 7     1  2015
## 8     1  2015
## 9     1  2015
## 10    1  2015
## # ... with 32,156 more rows
## # i Use `print(n = ...)` to see more rows
```

###(4-3) Function `fars_summarize_years`

This function produces a descriptive statistics including annual frequency of accidents, by month.

```
fars_summarize_years(2015)
```

```
## Warning: `spread_()` was deprecated in tidyr 1.2.0.
## Please use `spread()` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## Warning: `summarise_()` was deprecated in dplyr 0.7.0.
## Please use `summarise()` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## Warning: `group_by_()` was deprecated in dplyr 0.7.0.
## Please use `group_by()` instead.
## See vignette('programming') for more help
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was generated.
```

```
## # A tibble: 12 x 2
##   MONTH `2015`
##   <dbl> <int>
```

```
## 1      1    2368
## 2      2    1968
## 3      3    2385
## 4      4    2430
## 5      5    2847
## 6      6    2765
## 7      7    2998
## 8      8    3016
## 9      9    2865
## 10     10    3019
## 11     11    2724
## 12     12    2781
```

###(4-4) Function `fars_map_state`

The function produces a given state map plot including its occurred accidents locations in a given year in the period 2012-2015.

```
state_num <- 10 # Delaware
year <- 2015
fars_map_state(state_num, year)
```



Links:

- [Package descfars GitHub](#)