USA UV Index Data, 1991-2014

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A collection of UV index recordings from weather stations throughout the United States

The column names are as follows:

```
##  [1] "Y"                         "X"
##  [3] "uv_index_hourly_average" "dataset"
##  [5] "instance_datetime"       "platform_id"
##  [7] "platform_name"           "country"
##  [9] "gaw_id"                  "instrument_name"
## [11] "instrument_model"        "instrument_number"
## [13] "uv_index_qa"             "instance_hour"
## [15] "platform_type"           "data_payload_id"
## [17] "latest_observation"      "uv_index_daily_max"
## [19] "agency"
```

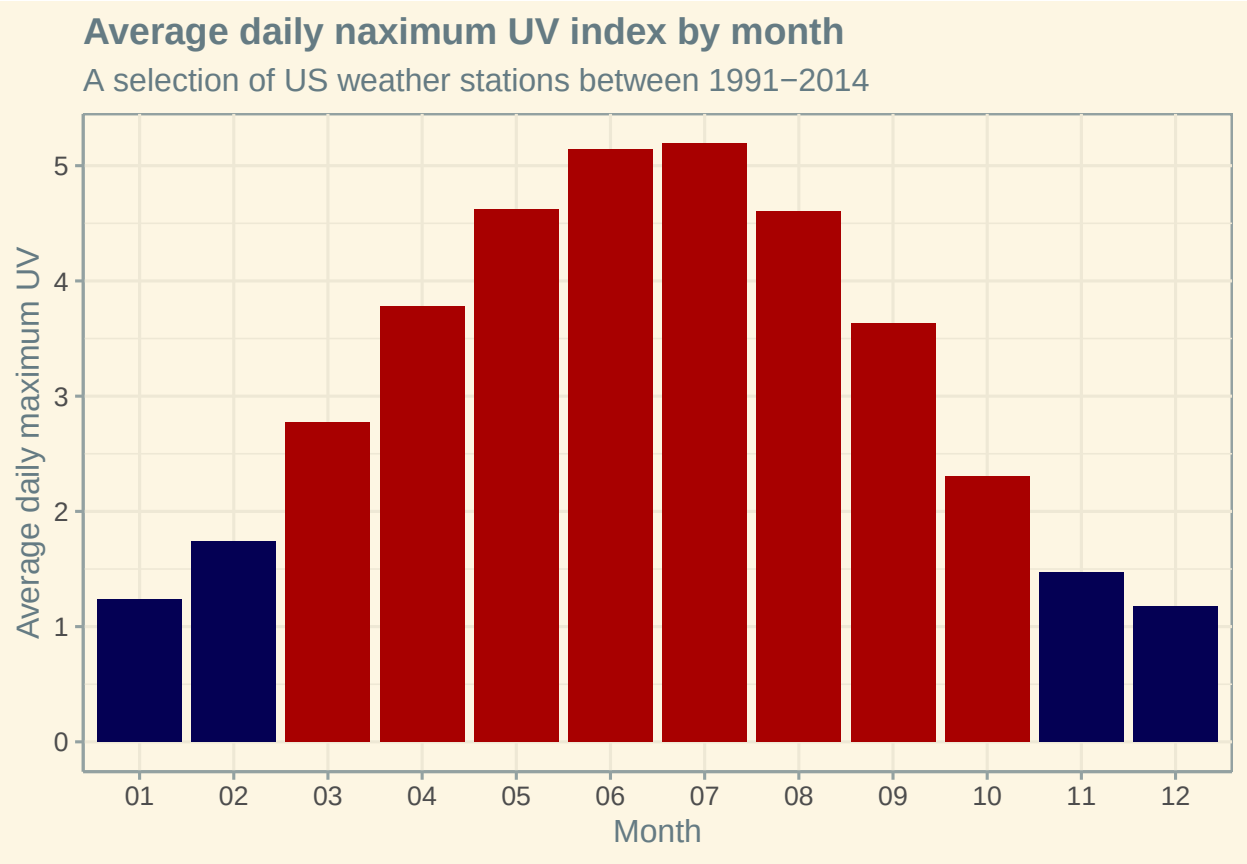
The number of rows are as follows:

```
## [1] 595437
```

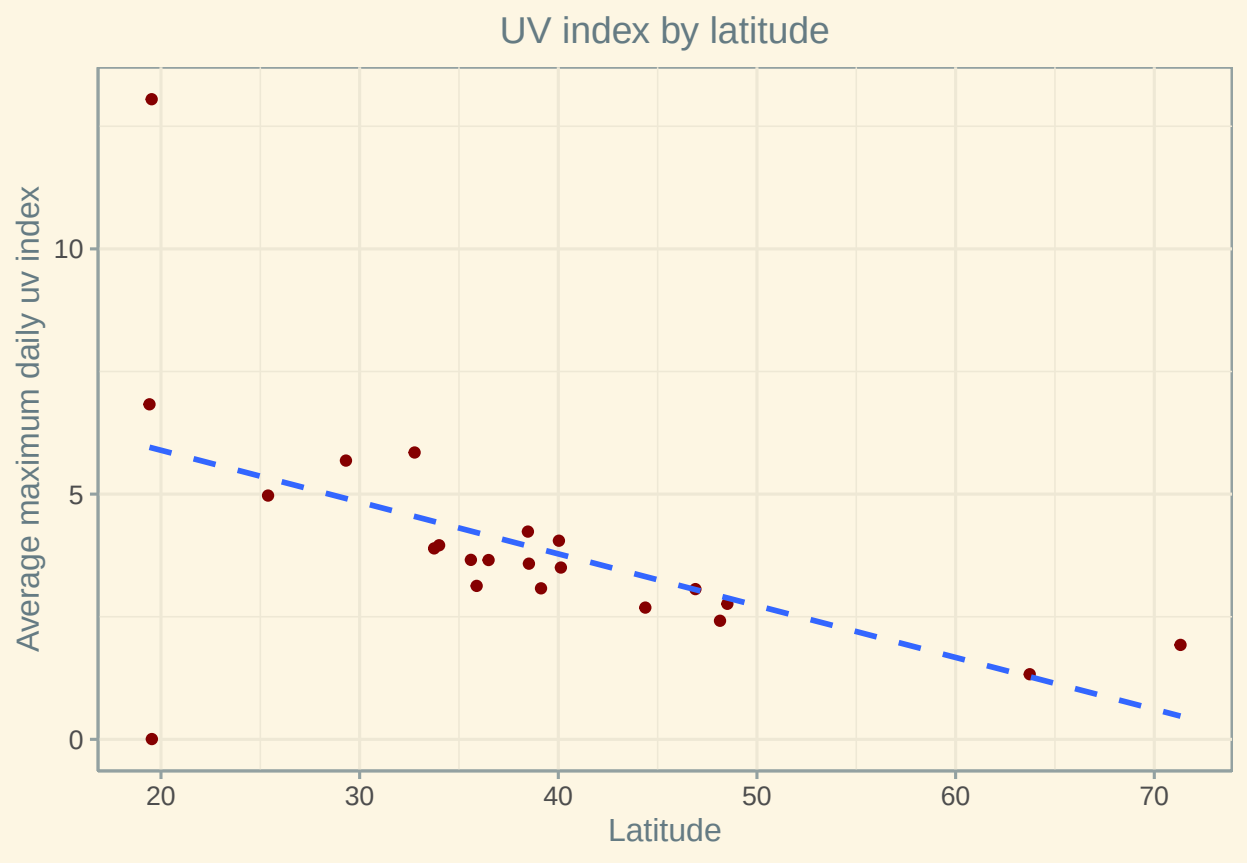
The number of weather stations in this data set:

```
## [1] 21
```

As expected, the average daily maximum UV rating is highest in the summer months and lowest during the winter.



Also as expected, it is clear that higher latitudes have, on average, lower daily UV peaks.



Taking the city of San Diego, CA as an example we can see the changes in yearly averages for peak daily UV rating. Years without all 12 months are excluded.

```
## # A tibble: 11 x 2
##    year  avg_daily_max
##    <chr>         <dbl>
##  1 1997           5.73
##  2 1998           5.66
##  3 1999           5.42
##  4 2000           5.44
##  5 2001           5.4
##  6 2002           5.61
##  7 2003           5.2
##  8 2004           5.66
##  9 2005           5.74
## 10 2006           5.76
## 11 2007           5.82
```

```
## # A tibble: 1 x 1
##   percent_change
##            <dbl>
## 1           1.57
```

As seen in the graph below, there was a slight upwards trend despite a dip in 2003.