Trend function

• Usage

A visual function which plots line charts for the trends in which our clients are interested.

• Description

A visual function which shows the trends for specified types of crime records in selected states from a chosen start year to an end year.

• Arguments

1. states
Names for the states that are of interest. A vector including capitalized full names for one or more states should be provided.

2. crime
Crime types of interest. A vector including abbreviations for one or more crime types should be provided. Corresponding full names for crime types are as follows:

Abbreviations	Full names
VC	ViolentCrime
MD	Murderandnonnegligentmanslaughter
RB	Robbery
AS	Aggravatedassault
PC	PropertyCrime
BG	Burglary
LT	Larcenytheft
MT	Motorvehicletheft

3. start_year

The start year for the time range should be provided.

4. end_year

The end year for the time range should be provided(should be no less than the start year).

5. by_state

A boolean value should be provided.

TRUE: Each plot generated by the function shows all types of trend lines in a specific state mentioned in the argument 'states'.

FALSE: Each plot generated by the function shows the trend lines for a specific crime type mentioned in the argument 'crime' for all states mentioned in the argument 'states'.

• Examples

```
trend(state = c("MONTANA", "WYOMING", "COLORADO", "NEW MEXICO", "IDAHO", "UTAH",
          "ARIZONA", "WASHINGTON", "OREGON", "NEVADA", "CALIFORNIA", "ALASKA"),
    start_year = 1999, end_year = 2019,
    crime = "LT", by_state = FALSE)
```