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1  ##' This function creates (base graphics) plots for gunsales analysis.
2  ##'
3  ##' In interactive mode, plot display is paused and the user has to
4  ##' advance by pressing the Return key.
5  ##' @title Base Plots for gunsales analysis
6  ##' @param df A \code{data.frame} as prepared by the
7  ##' \code{\link{analysis}} functions.
8  ##' @param savePlots A boolean toggle to indicate if the plots are to
9  ##' be saved in the \code{out/} directory, with a default of
10 ##' \code{FALSE}.
11 ##' @return \code{NULL} is returned invisibly.
12 ##' @author Gregor Aisch and Josh Keller wrote the R code; Dirk
13 ##' Eddelbuettel created and maintains the package.
14 ##' @seealso The NY Times article presenting this analysis undertaken
15 ##' by this package is at
16 ##' \url{http://www.nytimes.com/interactive/2015/12/10/us/gun-sales-terrorism-obama-
restrictions.html?}
17 ##' @examples
18 ##' \dontrun{
19 ##'   gs <- analysis()
20 ##'   plot_gunsales(gs)
21 ##' }
22 plot_gunsales <- function(df, savePlots=FALSE) {
23
24   if (interactive()) {
25     op <- par(ask=TRUE)
26     on.exit(par(op))
27   }
28
29   ## save all plots as PDF
30   if (savePlots) pdf("out/plots.pdf", width=9, height=4)
31
32   ## plot total guns sold
33   plot(df2ts(df, "guns_total")/1e6, main="Total estimated gun sales",
34        ylab="in million", xlab="")
35
36   ## plot seasonally adjusted gun sales
37   plot(df2ts(df, "guns_total_seas")/1e6, main="Total estimated gun sales",
38        ylab="in million", xlab="seasonal adjusted")
39
40   ## plot gun sales normalized to population
41   plot(df2ts(df, "guns_total_per_1000_scaled"), main="Estimated gun sales per 1000",
42        xlab="red = adjusted for population growth", ylab="")
43   ## and add the not normalized version for comparison
44   lines(df2ts(df, "guns_total_per_1000"), col="red")
45
46   ## plot handgun/longgun
47   plot(df2ts(df, "longgun_share"), col="blue",
48        ylim=c(0.2,0.8), main="Long guns vs handguns",
49        ylab="", xlab="red = handguns, blue = long guns")
50   lines(df2ts(df, "handgun_share"), col="red")
51
52
53   ## plot percent of national for selected states
54   show_states <- c('New Jersey', 'Maryland', 'Georgia',
55                    'Louisiana', 'Mississippi', 'Missouri')

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```
56     selected <- gsub(" ", "_", tolower(show_states))
57     ## plot staate data
58     for (s in seq_along(show_states)) {
59         plot(df2ts(df, selected[s]), main=paste(show_states[s]),
60             xlab="pct of national gun sales", ylab="")
61     }
62
63     ## plot DC chart
64     plot(df2ts(df, "dc_handguns_per_100k_national_sales"),
65         main="Washington D.C.", xlab="sales per 100,000 national handguns", ylab="")
66
67     ## save plots
68     if (savePlots) dev.off()
69
70     invisible(NULL)
71 }
72 }
73 }
```