analysis

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############ READING IN DATA AND SUBSETTING ######################

# read in data, change date column to date type
data <- read.csv(file="G:/My Drive/Year 2/Thesis/Data/1979-1988/all_data/all_data_weather_mortality_popu
data$date <- as.Date(data$date, format="%Y-%m-%d")
data$month <- as.factor(format.Date(data$date, format="%m"))
# replace all -999s with NA (these are the lag values that don't exist)
data[data==-999] <-NA

# subset data by summer months and climate regions
summer_months <- c('04', '05', '06', '07', '08', '09')
data <- subset(data, format.Date(date, "%m") %in% summer_months)

# reorder dow factor to be Sunday-Saturday, also change value to abbreviations
data$dow <- factor(data$dow, levels=c("Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday",
data$dow_abbrev <- mapvalues(data$dow,
                             from=c("Sunday","Monday","Tuesday", "Wednesday", "Thursday", "Friday", "S
                             to=c("Su","M","T", "W", "Th", "F", "Sa"))

n_data <- data[which(data$clim_div=='NORTHERN'),]
tw_data <- data[which(data$clim_div=='TIDEWATER'),]
cm_data <- data[which(data$clim_div=='CENTRAL MOUNTAIN'),]
wp_data <- data[which(data$clim_div=='WESTERN PIEDMONT'),]
ep_data <- data[which(data$clim_div=='EASTERN PIEDMONT'),]
swm_data <- data[which(data$clim_div=='SOUTHWESTERN MOUNTAIN'),]

############# NORTHERN CLIMATE DIVISION ########################
hist(n_data$death_count, breaks=20)
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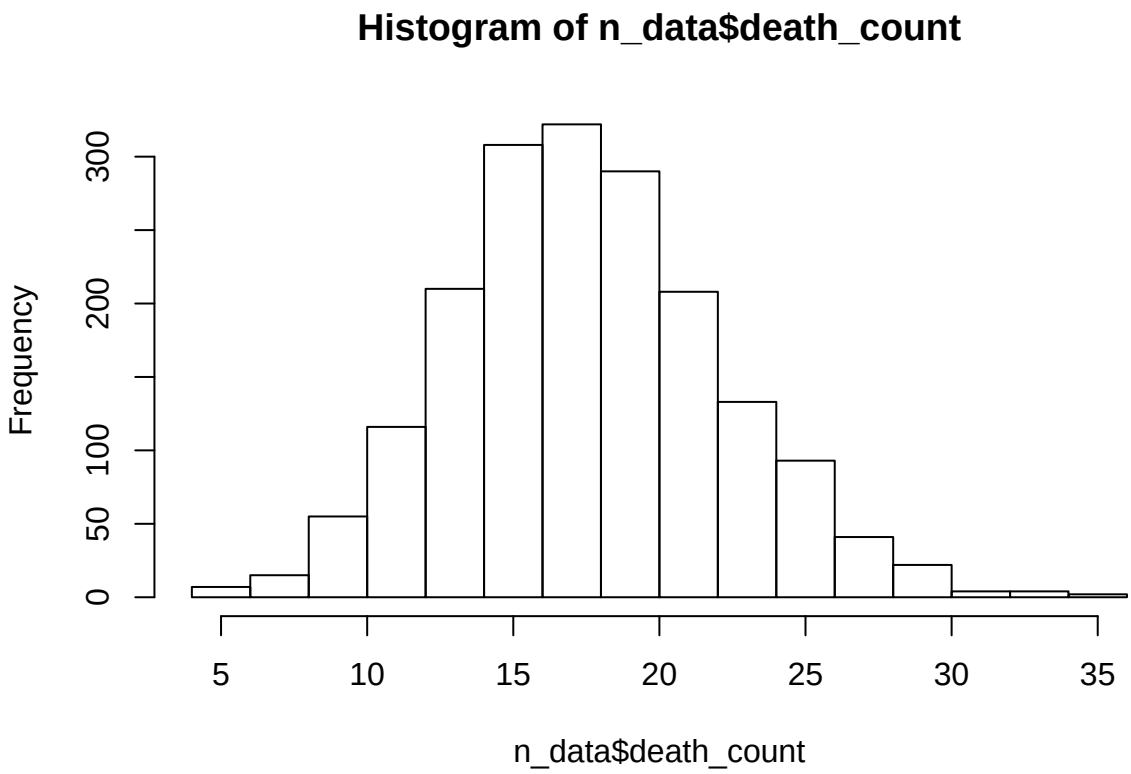


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plot(n_data$tmmx_f, n_data$death_count)
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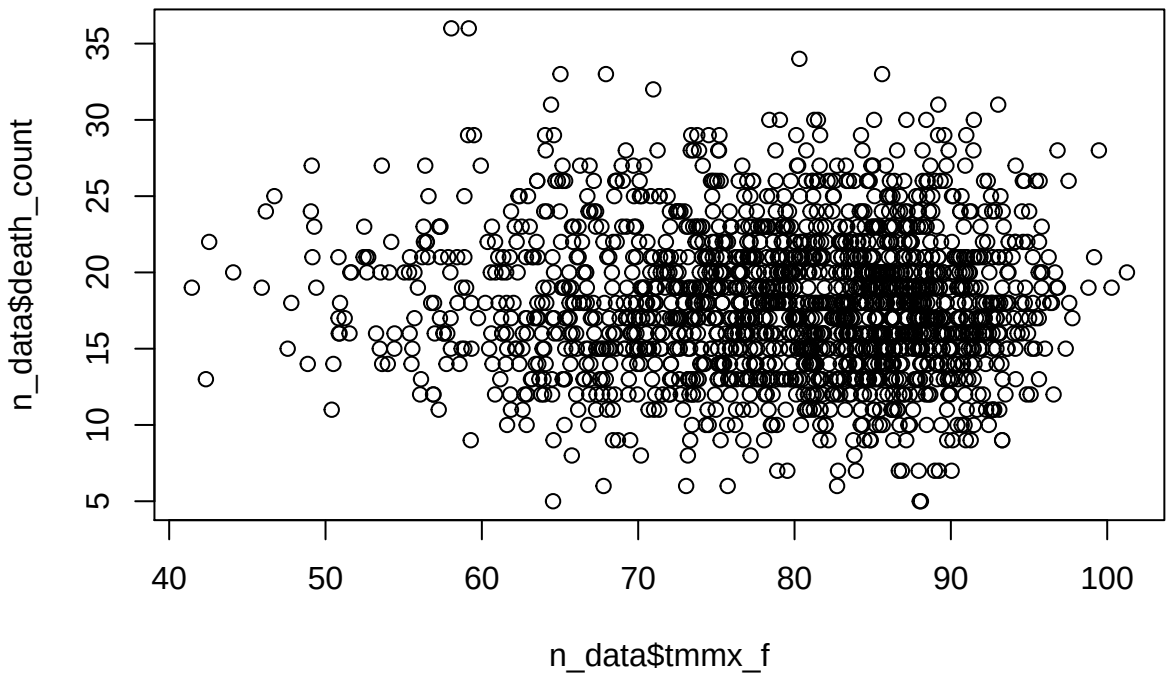


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stargazer(n_data, keep=c("tmmx_f", "rmax", "death_count"), covariate.labels=c("Daily Maximum Temperatur
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% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Mon, Mar 04, 2019 - 10:53:50 PM

Table 1:

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Daily Maximum Temperature(F)	1,830	79.193	10.281	41.449	73.190	86.821	101.263
Daily Maximum Relative Humidity	1,830	91.066	10.552	47.740	85.915	99.385	100.000
Daily Non-Accidental Death Count	1,830	18.015	4.624	5	15	21	36
rmax_lag_1	1,830	90.992	10.590	47.740	85.825	99.355	100.000
rmax_lag_2	1,830	90.901	10.656	47.740	85.548	99.341	100.000
rmax_lag_3	1,830	90.808	10.726	47.740	85.391	99.316	100.000
rmax_lag_4	1,830	90.739	10.776	47.740	85.160	99.317	100.000
rmax_lag_5	1,830	90.640	10.843	47.740	84.929	99.299	100.000
rmax_lag_6	1,830	90.548	10.921	47.740	84.642	99.290	100.000
rmax_lag_7	1,830	90.467	10.987	47.740	84.569	99.286	100.000
rmax_lag_8	1,830	90.374	11.022	47.740	84.422	99.264	100.000
rmax_lag_9	1,830	90.244	11.085	47.740	84.006	99.239	100.000
rmax_lag_10	1,830	90.105	11.165	47.740	83.628	99.205	100.000