

Calling All Kia Boyz

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2024-10-05

Audience My audience for this newsletter is the rank-and-file members of my Kia/Hyundai auto theft ring called the Kia Boyz.

Purpose I want to encourage the group with the recent success we've enjoyed with stealing Kias and Hyundais, and urge them to expand their focus into areas that are as-yet untapped.

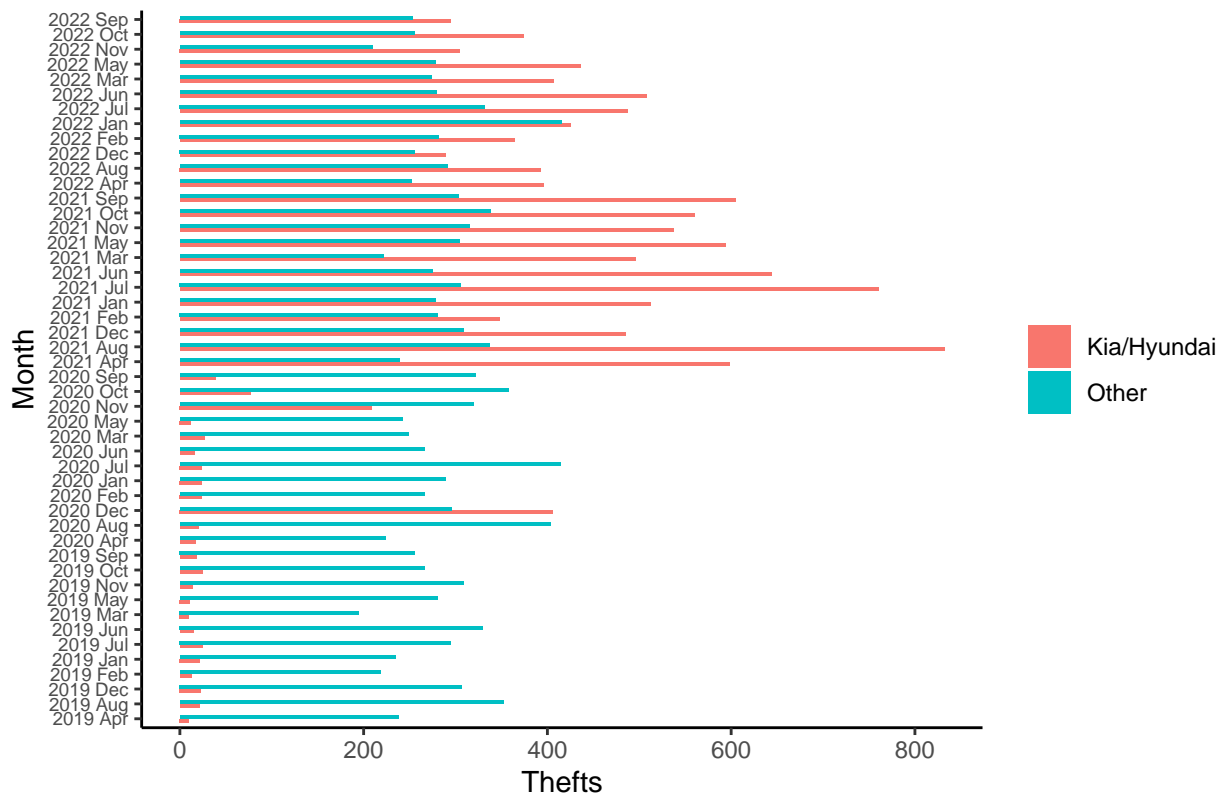
Medium This is meant to be similar to business newsletter e-mail, like a periodic update and exhortation to bigger and better things.

Design With the first part of my purpose in mind, I needed simple graphics that clearly indicate the recent success of the group to reinforce that business is good. As for the second part, I wanted an easy-to-read graphic that showed areas of the country that have reported fewer auto thefts, hoping to encourage the group to expand into new territory to both increase opportunity and decrease risk. I feel like very simple graphics are likely to be accessible to more people, and I'm assuming that there are at least some members of the ring that might not grasp anything too complex. I liked the color scheme of the theme I used in the stacked bar chart, so I tried to maintain it throughout the other graphics. I used an alpha in the map because it helps highlight the density of reports in various areas of the country, but solid colors felt appropriate in the other graphics for clarity and readability. I absolutely loved finding the US map and couldn't resist including it, just because it's so cool. I think the stacked bar chart looks very busy, but I like that the contrast of the colors still makes it easy to understand the message that thefts of Kias and Hyundais have been out of proportion recently. The two pie charts together also tell that story, and the area charts emphasize it well.

Ethical Considerations I don't find any ethical concerns with the collection of the data. It's been gathered from published sources. I did substitute zeroes for missing data in some theft reports, which has the potential to under-represent the car theft totals and damage my message slightly, but I think it would have been much worse to inflate the numbers. There's really no question that my use of the data to encourage car thieves is unethical, but the data itself is publicly available and verifiable.

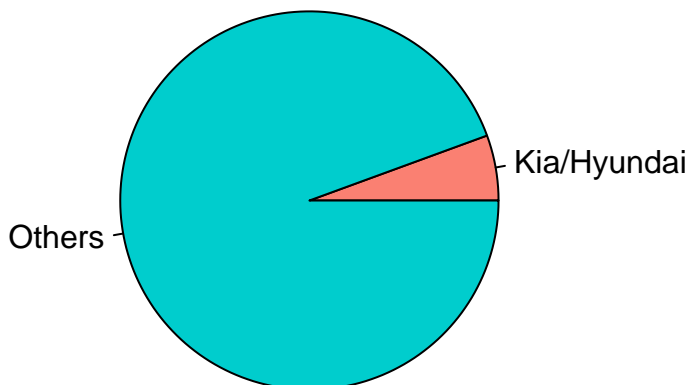
Congratulations! Kia Boyz, we've had a couple of really good years. Just look at the numbers in Milwaukee since the middle of 2021 to see what an impact we've made there. I know you see the numbers dropping a little bit toward the end of last year, but that's I want to talk about why that is and what it means.

Car Thefts in Milwaukee

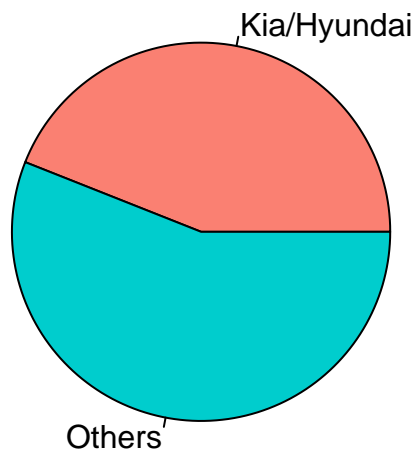


We're having a major impact We're not only standing out in Milwaukee, we're making a difference nationwide. Check out how many of the car thefts reported across America were Kia and Hyundais in early 2019, and how many of them were Kias by the end of last year.

Percentage of Car Thefts, selected cities, Jan 2019

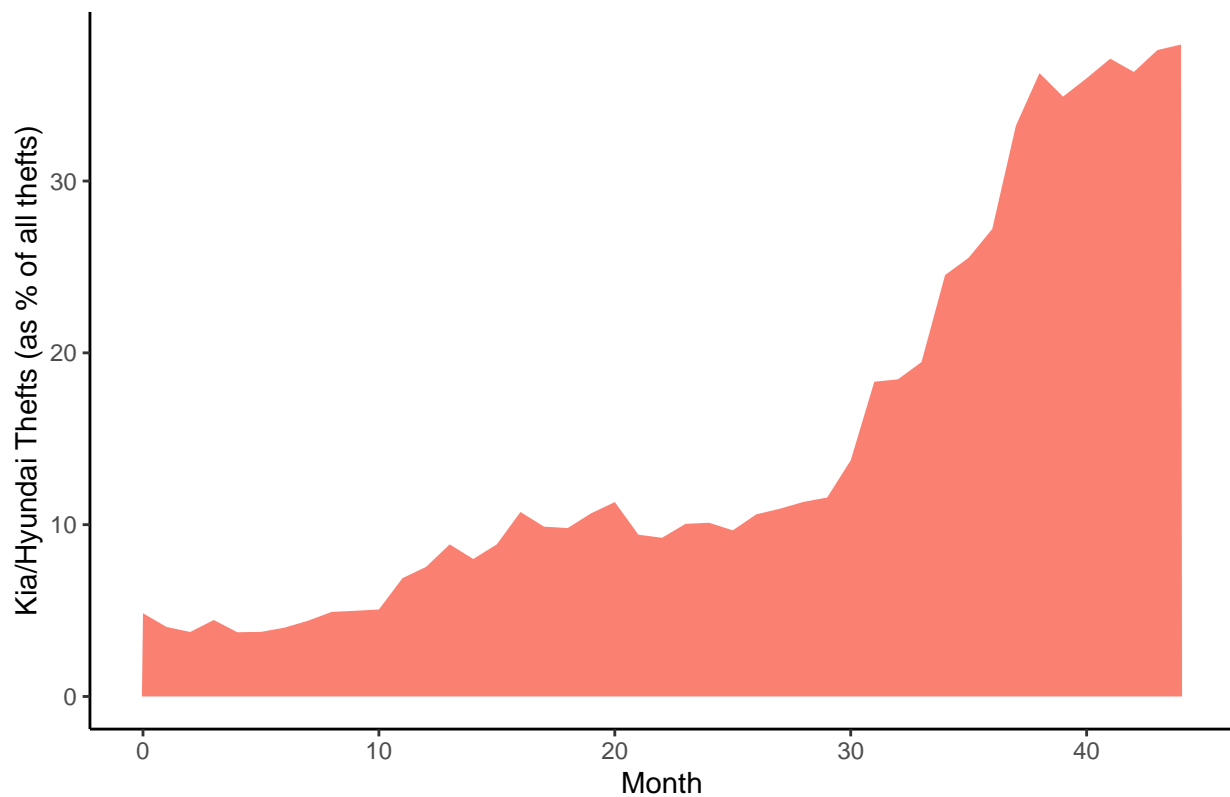


Percentage of Car Thefts, selected cities, Dec 2023

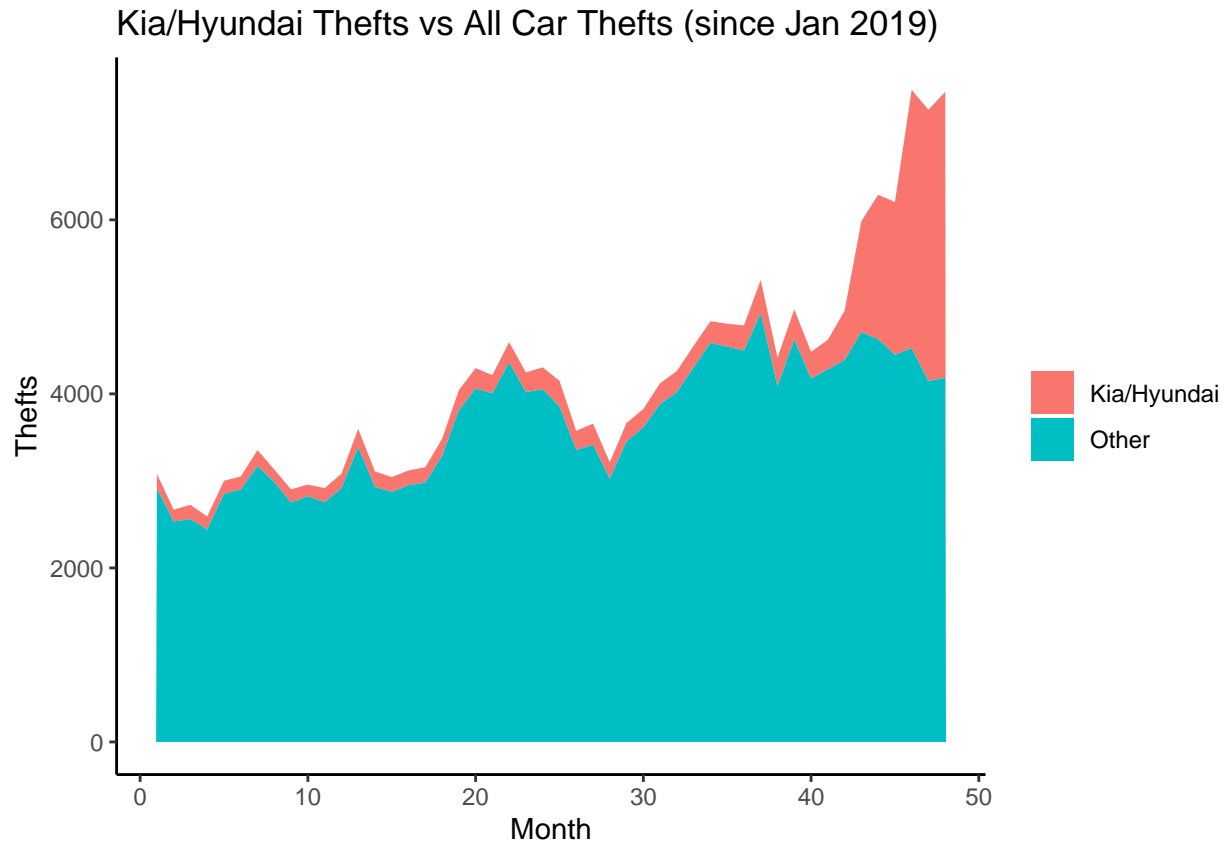


It hasn't been that weak "slow and steady" climb, either. We're absolutely crashing onto the scene. You can see from this chart that our market share really took off in late 2022 across the US.

Kia/Hyundai Thefts as % of All Car Thefts (since Dec 2019)

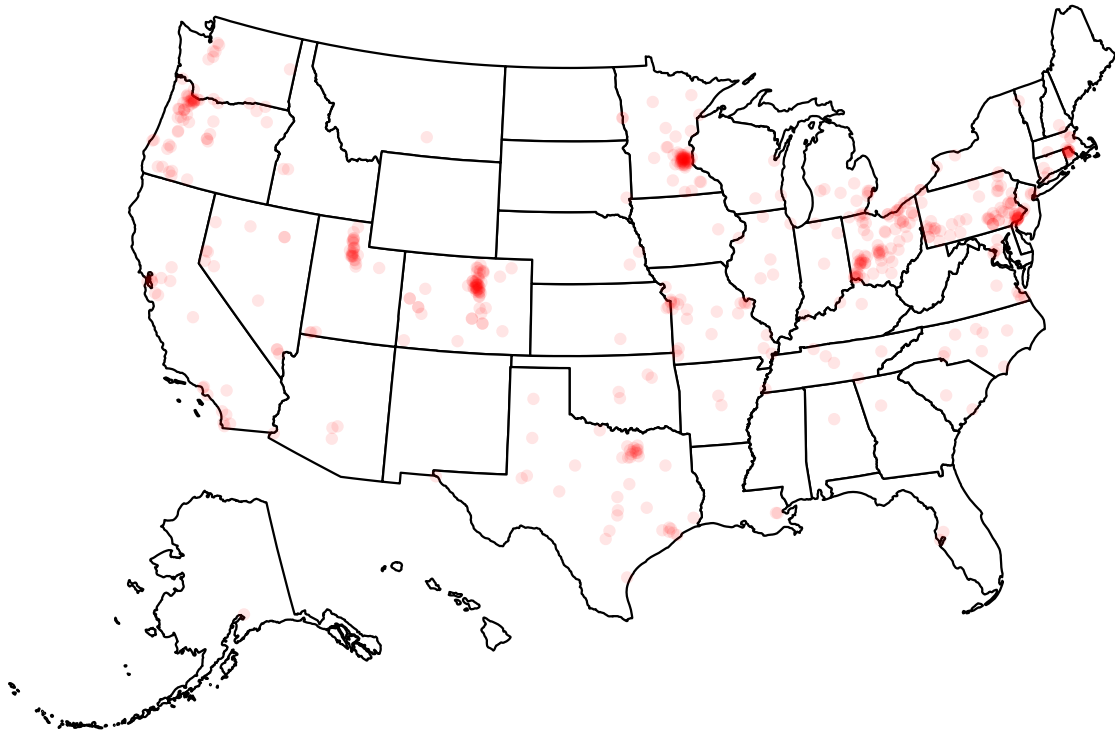


Almost 40% of auto thefts last year were Kias and Hyundais! Everybody else is barely holding steady while we're growing by leaps and bounds.



Let's go! Boyz, it's time to go out and get yours RIGHT NOW. And here's the best part. We made our mark in Minnesota and we changed the game in Pennsylvania, sure, but we've barely even scratched the surface of what's available. This map shows a ton of virtually untouched area in Florida, in southern Texas, in the Chicago area, and out in California. There's wide open space in the midwest. It's time for us to get in on the "remote work" craze and branch out!

Kia / Hyundai thefts reported

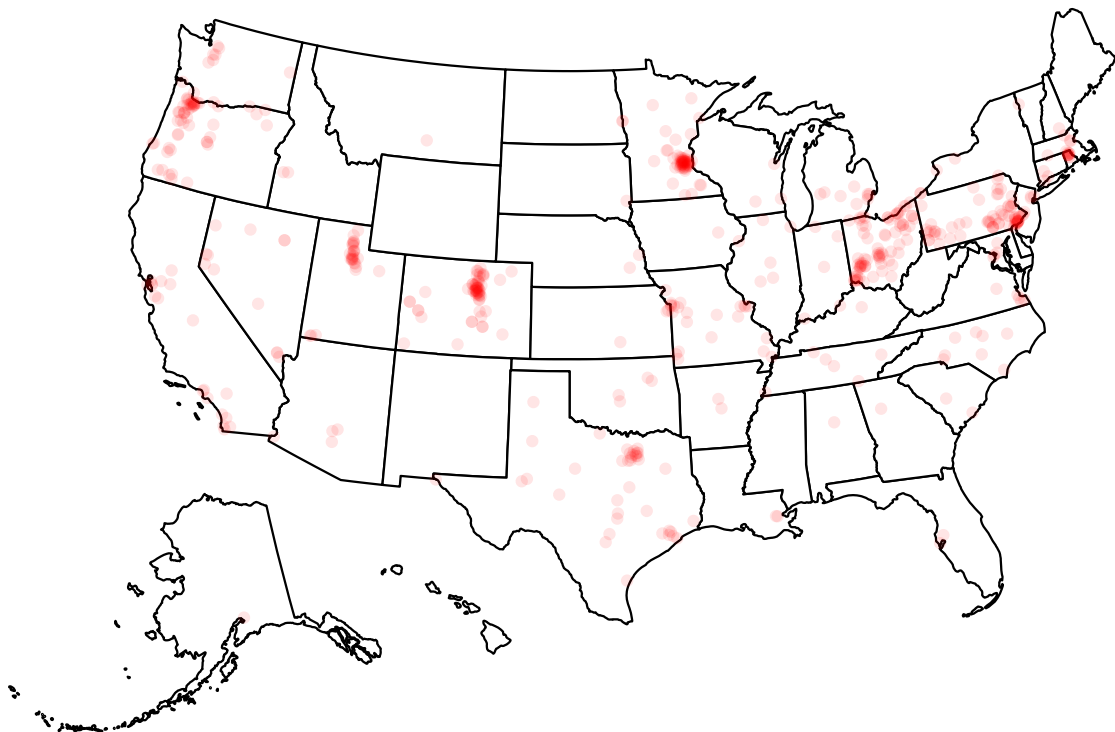


Claim your territory Let us know where you're headed, and we'll connect you with the fences and chop shops in the area. Call the office at 1-800-542-2699 (that's 1-800-KIA-BOYZ) to register your franchise and get a list of leads in your new area. The time is now to grab your piece of the American dream!

Graphics Here are the R code blocks for the graphics included in the newsletter.

```
##  
## draw a map of the concentration of reported Hyundai/Kia thefts  
##  
  
# pull just the lat/lon coordinates out of the map  
df_latlon <-  
  df_map[c('longitude','latitude')] |>  
  usmap_transform(input_names = c('longitude','latitude'))  
  
# plot a US map and add the locations from the data  
plot_usmap(regions = 'states') +  
  labs(  
    title = 'Kia / Hyundai thefts reported'  
  ) +  
  theme(panel.background = element_blank()) +  
  geom_sf(  
    data = df_latlon,  
    color = 'red',  
    alpha = 0.1  
  )
```

Kia / Hyundai thefts reported

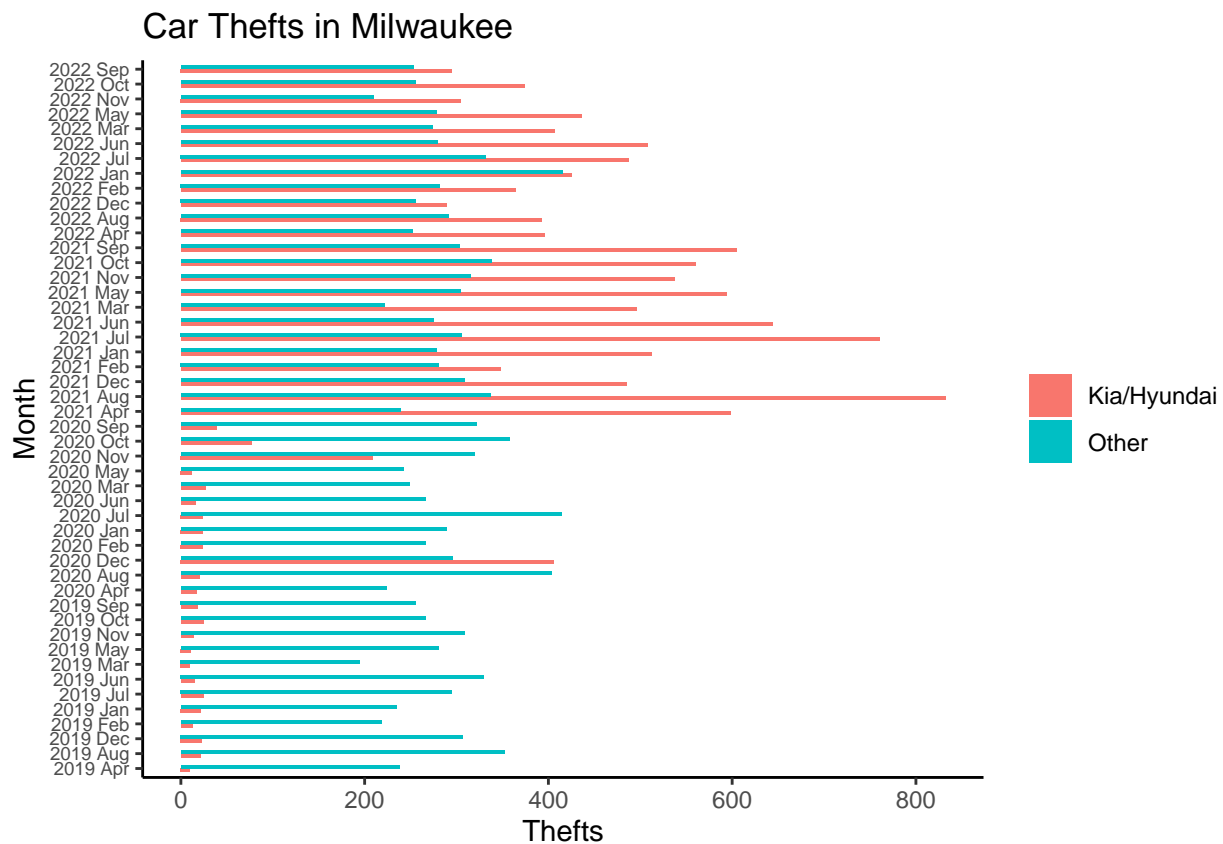


```
##  
## in Milwaukee, compare all car thefts vs. Hyundai/Kia thefts over time  
##  
  
# pull just the chart info out of the dataframe
```

```
df_mke2 <- data.frame(
  Month = paste(df_mke$year, df_mke$month),
  kia_hyundai = df_mke$countKiaHyundaiThefts,
  others = df_mke$countOtherThefts
)

# melt the data together
data.m <- melt(df_mke2, id.vars='Month')

# create grouped bar plot by month
ggplot(data.m, aes(x = Month, y = value)) +
  geom_bar(
    aes(fill = variable),
    width = 0.5,
    position = position_dodge(width = 0.5),
    stat = "identity"
  ) +
  labs(title = "Car Thefts in Milwaukee ") +
  labs(x = "Month", y = "Thefts") +
  theme_classic() +
  theme(legend.title = element_blank()) +
  theme(axis.text.y = element_text(size = 7)) +
  scale_fill_discrete(labels = c("Kia/Hyundai", "Other")) +
  coord_flip()
```



```
##
## across the nation, look at percentages of car thefts at beginning of data
##

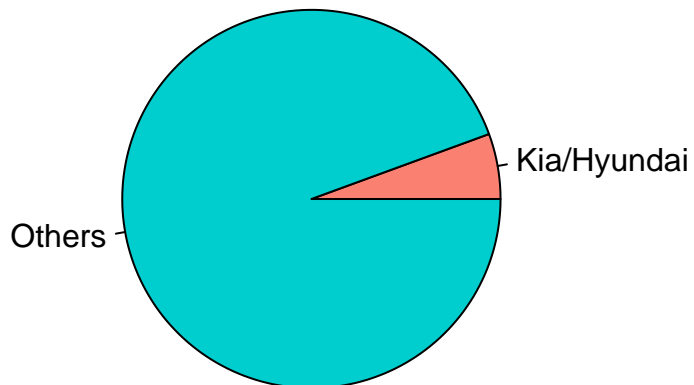
# build an array to translate month abbreviations
months <- 1:12
names(months) <- month.abb

# translate month abbreviations into number of months since beginning
df_gta$month_number <- months[df_gta$month]
df_gta$months <- (df_gta$year - 2019) * 12 + months[df_gta$month]

# sum theft data by month
df_gta2 <-
  df_gta |>
  group_by(months) |>
  summarize(
    kia_hyundai = sum(countKiaHyundaiThefts),
    others = sum(countOtherThefts)
  ) |>
  as.data.frame()

# create pie chart
pie(
  as.numeric(df_gta2[c('kia_hyundai', 'others')][1,]),
  c('Kia/Hyundai', 'Others'),
  main = 'Percentage of Car Thefts, selected cities, Jan 2019',
  col = c('salmon', 'cyan3')
)
```

Percentage of Car Thefts, selected cities, Jan 2019



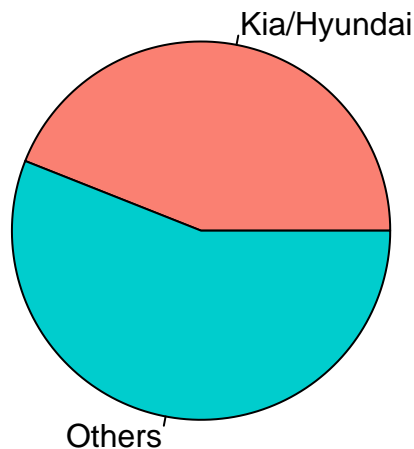
```
##
## across the nation, look at percentages of car thefts at end of data
##

# create pie chart
```



```
pie(
  as.numeric(df_gta2[c('kia_hyundai', 'others')][48,]),
  c('Kia/Hyundai', 'Others'),
  main = 'Percentage of Car Thefts, selected cities, Dec 2023',
  col = c('salmon', 'cyan3')
)
```

Percentage of Car Thefts, selected cities, Dec 2023



```
##
## across the nation, compare all car thefts vs. Hyundai/Kia thefts over time
##

# initialize dataset for the stacked area chart
df_gta3 <- data.frame(matrix(nrow=0, ncol=3))
colnames(df_gta3) = c('months', 'make', 'thefts')

# for each row in the data set
for (row in 1:nrow(df_gta2)) {

  # add a row to the charting data set for Kias
  df_gta3 <-
    rbind(
      df_gta3,
      data.frame(
        months = df_gta2[row, 'months'],
        make = 'Kia/Hyundai',
        thefts = df_gta2[row, 'kia_hyundai']
      )
    )

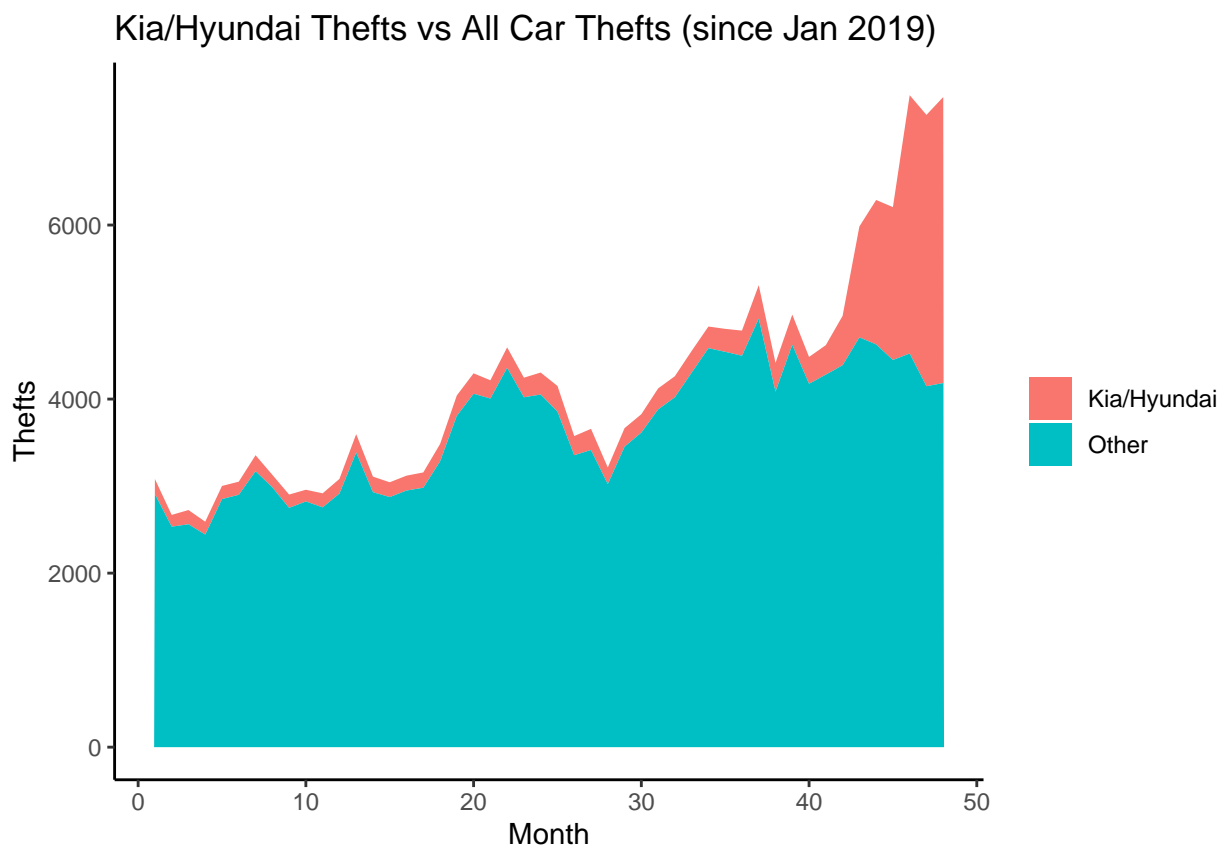
  # add a row to the charting data set for others
  df_gta3 <-
    rbind(
      df_gta3,
      data.frame(
        months = df_gta2[row, 'months'],
```

```

    make = 'Other',
    thefts = df_gta2[row, 'others']
  )
}

# create a stacked area chart
ggplot(df_gta3, aes(x=months, y=thefts, fill=make)) +
  geom_area() +
  labs(title = "Kia/Hyundai Thefts vs All Car Thefts (since Jan 2019)") +
  labs(x = "Month", y = "Thefts") +
  theme_classic() +
  theme(legend.title = element_blank())

```



```

##
## compare Hyundai/Kia thefts as percentage of all (over time)
##

# use the second row of column names as the column names
df_vice2 <-
  row_to_names(df_vice, row_number = 1) |>
  clean_names()

# initialize dataset for the area chart
df_vice3 <- data.frame(matrix(nrow=0, ncol=4))

```

```

colnames(df_vice3) <- c('months', 'kia_hyundai', 'all', 'percent')

# for each row in the data set
for (row in 1:nrow(df_vice2)) {

  # reset the values for the row
  row_months <- 0
  row_kia_hyundai <- 0
  row_all <- 0

  # for each column in the row
  for (col in 1:ncol(df_vice2)) {

    # if it's column 1 (the month & year)
    if (col == 1) {

      # get the actual value
      cell_value <- deframe(df_vice2[row,col])

      # get the year and month
      row_year <- as.numeric(substr(cell_value, 1, 4))
      row_month <- as.numeric(substr(cell_value, 6, 7))

      # calculate the number of months since the beginning
      row_months <- (row_year - 2019) * 12 + row_month - 12

    }

    # if this column holds Kia theft data
    if (substr(colnames(df_vice2[row,col]), 1, 12) == 'kia_hyundais') {

      # get the actual value
      cell_value <- as.numeric(df_vice2[row,col])

      # if it's not NA
      if (!is.na(cell_value)) {

        # add it to the total Kia thefts for this month
        row_kia_hyundai <- row_kia_hyundai + cell_value

      }

    }

  }

  # if this column holds the total number of thefts
  if (substr(colnames(df_vice2[row,col]), 1, 3) == 'all') {

    # get the actual value
    cell_value <- as.numeric(df_vice2[row,col])

    # if it's not NA
    if (!is.na(cell_value)) {

```

```

    # add it to the total number of thefts for this month
    row_all <- row_all + cell_value

  }

}

# add a row to the charting data set
df_vice3 <-
  rbind(
    df_vice3,
    data.frame(
      months = row_months,
      kia_hyundai = row_kia_hyundai,
      all = row_all,
      percent = row_kia_hyundai * 100.0 / row_all
    )
  )

}

# create an area chart
ggplot(df_vice3, aes(x=months, y=percent)) +
  geom_area(fill='salmon') +
  labs(title = 'Kia/Hyundai Thefts as % of All Car Thefts (since Dec 2019)') +
  labs(x = 'Month', y = 'Kia/Hyundai Thefts (as % of all thefts)') +
  theme_classic()

```

