An Analysis of The Use of Force by U.S. Law Enforcement Agencies
Summer 2022 Research: Report 2

Sajid Bin Mahamud

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1   Study Design

1.1   Data Cleaning

The Law Enforcement Officer Killed and Assaulted (LEOKA) data set reports monthly data in several categories including Law Enforcement Officer (LEO) killed feloniously, LEO assaulted with and without injury. Amongst the agencies that submit data, some agencies do not submit their own data, instead they do it through some other agency. Moreover, among those who submit data, some agencies do not submit data for all months. Therefore the **first stage**

1.1.1   Incidents Involving Multiple Agencies

Since a primary ambition of the analysis is to understand **how aggression or hostility against LEOs affect the use of force by LEOs acoross agencies.** A key factor of my initial assumption is that felonious death of LEO doesn't only affect the agency involved but may also influence neighboring agencies. Hence, when a killed suspect (KS) who involves multiple departments doesn't clearly tell us which agency was influenced how much by the recent events. However, if we look at a cluster of departments then it could be easier to identify effect of assault and killing on policing practices.

1.1.2   Is the data reliable?

I don't believe so. The reasons are very well evident in the patterns of reporting. The reporting of assault increases over time.

Olea et al. (2021)

```
knitr::opts_chunk$set(echo = TRUE)
library(readr)
library(dplyr)
library(kableExtra)
library(tidyverse)
library(kableExtra)
library(fbi)
```

```r
library(tidyverse)
library(lubridate)


### to abstain from confusing department names
### need to replace department with ORI code
### identify which department codes are missing
### from data from before 2022 (we don't want to work on 2022,
### because it might provide an incomplete picture)

mpvData <-
  read_csv("~/police-violence-study/reports/report2/mpv.csv")

# stage one data is filtered out data from before 2022
mpvData <-
  mpvData %>% filter(year <= 2021)

# identifying which row doesn't have a police department listed
mpvData[which(is.na(mpvData$ori)),]

# will fill in missing data for agencies via excel

##stage two data is filtered out


## Uncomment the following two lines of code.
## Run them once and comment it back.
# install.packages("devtools")
# devtools::install_github("jacobkap/fbi")

API_KEY = "UQdRQU5cN0hitFUs5BNelClg2OS6Vywd5jqPEqaa"
set_api_key(API_KEY)

#which agencies reported in 2012
#Agency_2012 <- agencies_2000_2020 %>% filter(data_year == 2012)

#which department had officers killed in the line of duty

##get rid of departments which didn't report data
#stageOne <- leoka_monthly_2012 %>%
 # filter(covered_by == "no, it is not covered by another agency") %>%
 # select(ori9, number_of_months_reported, month, date,
        # fips_state_county_code, fips_place_code,
        # msa, covered_by, month_indicator, covered_by, record_indicator,
        # report_indicator, )
```

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