

# Clearance Rate Project - Included Variables

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## Murder Parameters

Our data from the Murder Accountability Project (MAP) contains a number of parameters related to each murder. Below is a brief explanation of each.

### Solved/Unsolved

**Solved:** Each murder was either solved (“Yes”) or unsolved (“No”). This is our response variable.

### Agency Type

**Agentye:** There’re a number of different agency types. We created n-1 dummy variables for each agency type.

Municipal Police (**excluded variable**) Sheriff

Primary State LE

County Police

Special Police

Regional Police

Tribal

### Situation

**Situation:** Each murder had certain characteristics relating to the numbers and types of victims and offenders. We created n-1 dummy variables for each situation.

Single Victim/Single Offender (**excluded variable**)

Single Victim/Unknown Offender(s)

Multiple Victims/Multiple Offenders

Single Victim/Multiple Offenders

Multiple Victims/Single Offender

Multiple Victims/Unknown Offender(s)

### Sex

**Sex:** Each murder consisted of the sex of victim(s) and offender(s) (or unknown). We created n-1 dummy variables for each.

**Victim Sex**

Male (**excluded variable**)

Female

Unknown

## Race

**Victim Race:** Each murder contains the race of the victim (or unknown). We created n-1 dummy variables for each.

### Victim Race

Black (**excluded variable**)

White

Indian or Alaskan Native

Asian or Pacific Islander

Unknown

## Weapon

**Weapon Used:** Each murder observation contains the weapon used. We created n-1 dummy variables for each.

Handgun- pistol, revolver, etc. (**excluded variable**) Firearm, type not stated

Knife or cutting instrument

Personal weapons, includes beating

Other or type unknown

Blunt Object - hammer, club, etc.

Rifle

Shotgun

Asphyxiation - includes death by gas

Strangulation - hanging

Drowning

Other gun

Fire

Poison - does not include gas

Narcotics or drugs, sleeping pills

Explosives

Pushed or thrown out window

## Time

We have included data from the years 2012 to 2017. Our data also identifies the month each murder happened in. For each of these parameters we created two n-1 sets of dummy variables.

**2012 is the excluded variable for years January is the excluded variable for months**

## Geography Parameters

We have included every county in the United States in our dataset. Of note, however, is an exclusion of Alaska, as they are considered “boroughs” and “Census areas.” Indeed, whenever, instead of a county, there is a different geographical jurisdiction, we have excluded it.

In addition, we have included all states (with the exception of Alaska and territories).

Since each state can have a county of the same name in another state, we have created a set of n-1 dummy variables deemed County\_State. In other words, each dummy variable represents one county in one state to ensure that there is no conflation between counties of the same name in different states.

As there are several thousand county\_states, we have decided not to list them here. Of note, however, is that we excluded **Jefferson, Alabama** as our excluded dummy variable.

## Demographic Parameters

We have included a number of demographic parameters for each county\_state. Drawn from the Census Bureau's 5-Year ACS, we have included the following:

County Education Rate

County Poverty Rate County % Hispanic

County % Multiracial

County % Other Race

County % Pacific Islander

County % Asian

County % Native American

County % African American

County % White

## Complete List of Included Parameters