Join outcomes to officers' work assignments

Changes to the stops, arrests, and uses of force - Risi & Zhao

- **civ.race**: I combine Asian American/Pacific Islanders and Native Americans/Alaskan Natives into their own category.

    - For **stops**, 21937 (1.29%) rows are affected.
    - For **arrests**, 2494 (0.77%) rows are affected.
    - For **uses of force**, 77 (0.83%) rows are affected.

- **civ.gender** (renamed to **civ.sex**): Any civilians whose gender is categorized as **X** gets re-coded as missing.

    - For **stops**, 953 (0.06%) rows are affected.

Pre-join totals

- Number of officer work assignments: 3507730
- Number of officer-stops: 1703158

    - Number of stops: 946912

- Number of officer-arrests: 321872

    - Number of arrests: 164802

- Number of uses of force: 9293

Join stops, arrests, and uses of force to officer work assignments.

We use a non-equi join to join stops, arrests, and uses of force to officer work assignments. Specifically, we use a right non-equi join where we keep all officer work assignments, and we keep only those stops/arrests/uses of force which match to a work assignment. A stop/arrest/use of force matches with an officer assignment if the time when it happened falls between the start time and end time of the corresponding officer's work assignment.

Join results

- **STOPS**

  - 249195 (14.63%) officer-stops did not match to an officer's work assignment.
  - 11713 (1.24%) stops did not match to an officer's work assignment. These are stops where **none** of the officer-stops matched to an officer's work assignment.

- **ARRESTS**

  - 56072 (17.42%) officer-arrests did not match to an officer's work assignment.
  - 2450 (1.49%) arrests did not match to an officer's work assignment. These are arrests where **none** of the officer-arrests matched to an officer's work assignment.

- **USES OF FORCE**

  - 95 (1.02%) uses of force did not match to an officer's work assignment.

- Number of **stops** captured: 1453964

  - Number of **unique stops** captured: 940403

- Number of **arrests** captured: 163525

  - Number of **unique arrests** captured: 265801

- Number of **uses of force** captured: 9199

Missings

- **Officers**: 8502 officers

  - 0 officers are missing their age.
  - 0 officers are missing their age.
  - 2 officers are missing their age.
    * 7 officer work assignments are affected.
    * 5 officer stops are affected.
    * 3 officer arrests are affected.
    * 0 officer uses of force are affected.
  - 0 officers are missing their age.
  - 0 officers are missing their age.

- **Officer work assignments**: 3507730 officer work assignments.

  - 53581 officer work assignments are missing the rank of the officer.
    * 277 officers are affected.
    * 3599 officer stops are affected.

          ∗ 465 officer arrests are affected.

          ∗ 53 officer uses of force are affected.

    – 777 officer work assignments are missing the amount of work experience for the officer. This is due to a data error where the officer's appointment date is **AFTER** their work assignment date. I.e., they began working before they were officially a police officer.

          ∗ 6 officers are affected.

          ∗ 0 officer stops are affected.

          ∗ 0 officer arrests are affected.

          ∗ 0 officer uses of force are affected.

- **Stops during an officer's work assignment**

  - 0 (0%) officer stops are missing the stop type.
  - 0 (0%) officer stops are missing the race of the civilian who was stopped.
  - 828 (0.06%) officer stops are missing the sex of the civilian who was stopped.
  - 16845 (1.16%) officer stops are missing the age of the civilian who was stopped.
  - 213065 (14.65%) officer stops are missing the latitude/longitude of the stop.

- **Arrests during an officer's work assignment**

  - 0 (0%) officer arrests are missing the arrest type.
  - 558 (0.21%) officer arrests are missing the race of the civilian who was arrested.
  - 29 (0.01%) officer arrests are missing the sex of the civilian who was arrested.
  - 20 (0.01%) officer arrests are missing the age of the civilian who was arrested.
  - 49296 (18.55%) officer arrests are missing the latitude/longitude of the arrest.

- **Uses of force during an officer's work assignment**

  - 0 (0%) officer uses of force are missing if the civilian was injured.
  - 105 (1.14%) officer uses of force are missing the race of the civilian who had force used against them.
  - 8 (0.09%) officer uses of force are missing the sex of the civilian who had force used against them.
  - 30 (0.33%) officer uses of force are missing the age of the civilian who had force used against them.
  - 1728 (18.79%) officer uses of force are missing the latitude/longitude of the use of force.