

An exploration of London Crime

By Mamima and Tom

Introduction to the Data

Fortunately for us, Crime data in the UK is extremely open to the general public. There is a government run central database, which is updated constantly, providing APIs for general queries about crime. The one we used, at <https://data.police.uk/docs/>, returned all crimes that occurred at a particular location, in a specified month and year.

We also accessed data through archive CSV files put out by the Metropolitan police in London, giving us all the crimes in the occurred in any particular borough. They were massive files, of course, that required some cleaning.

We also had a look into some excel files put together by other data scientists working on similar projects to try help put some of the data into context

```
[
  {
    "category": "violent-crime",
    "location_type": "Force",
    "location": {
      "latitude": "52.643950",
      "street": {
        "id": 884227,
        "name": "On or near Abbey Gate"
      },
      "longitude": "-1.143042"
    },
    "context": "",
    "outcome_status": {
      "category": "Unable to prosecute suspect",
      "date": "2017-02"
    },
    "persistent_id": "4d83433f3117b3a4d2c80510c69ea188a145bd7e94f3e98924109e70333ff735",
    "id": 54726925,
    "location_subtype": "",
    "month": "2017-02"
  }
]
```

Our Hypotheses

With such massive data, it was hard to know where to start!

1. Bicycle crime is less common in 2016 than it was in 2015 in London ($H_0: p_1=p_2$)
2. Crime got proportionately less violent in Camden in October to November 2011 ($H_0: p_1=p_2$)
3. Unemployment improved between 2009 and 2010 in London ($H_0: p_1=p_2$)
4. Robberies in Westminster went down from Jan 2011 and Jan 2013 ($H_0: p_1=p_2$)

Hypothesis 1

