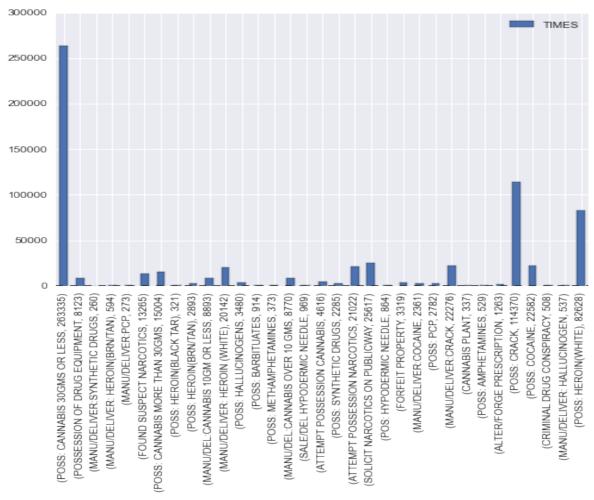
Tabor Beaudry CS591 Data Mining 4/16/2015 HW 6

## Criminal Activity: Chicago

For my project I chose to analyze public data hosted by the City of Chicago. The City database of Criminal Incident reports from 2001 to the present contains nearly 6 million entries of criminal incidents uploaded from police reports. There is a variety of information contained in each report (a row from a csv file). Each row contains the basic incident information: ID (int), case number (object), and date reported (which can be a datetime object), location information: block, geographical location (longitude, latitude), and a variety of community info (beat, district, ward, location description), and the details of the crime: Description and associated code, Booleans Arrest and Domestic (an arrest was made? And domestic incident? Respectively). Further the data is very well formatted with no missing or corrupted elements per a cursory examination. Distribution of crimes matches what you would roughly expect. Ritual mutilation, 5 incidents, possession of marijuana 263,000 incidents. For narcotics related crimes specifically we have a distribution as follows for values greater than 250:



One aspect of my research will be to explore narcotic activity via these crime reports in chicago. I will attempt to compare the geographical location of certain drug offenses over the course of the 14 year span of data and look for changes in frequency or location. I hypothesize that for some of these drugs there will be clear shifts potentially correlating to potentially the introduction and spread of

particular narcotics, however for cannabis I suspect it will show general usage with no major deviations in geographical location over time. I will also incorporate other criminal activity in regions prone to narcotic abuse of different substances to try and find overlap between certain crimes committed and a certain narcotic (though I havent yet decided which). Additionally using the general data I plan to find the worst street in chicago to park your car. There will likely be a worst district or ward specifically concerning damage or theft to vehicles however there may be interesting outliers such as spots commonly targeted by criminals. This is the basis for my report, I may extend it further but I will try to analyze a variety of different facets of this information in a variety of different depths.