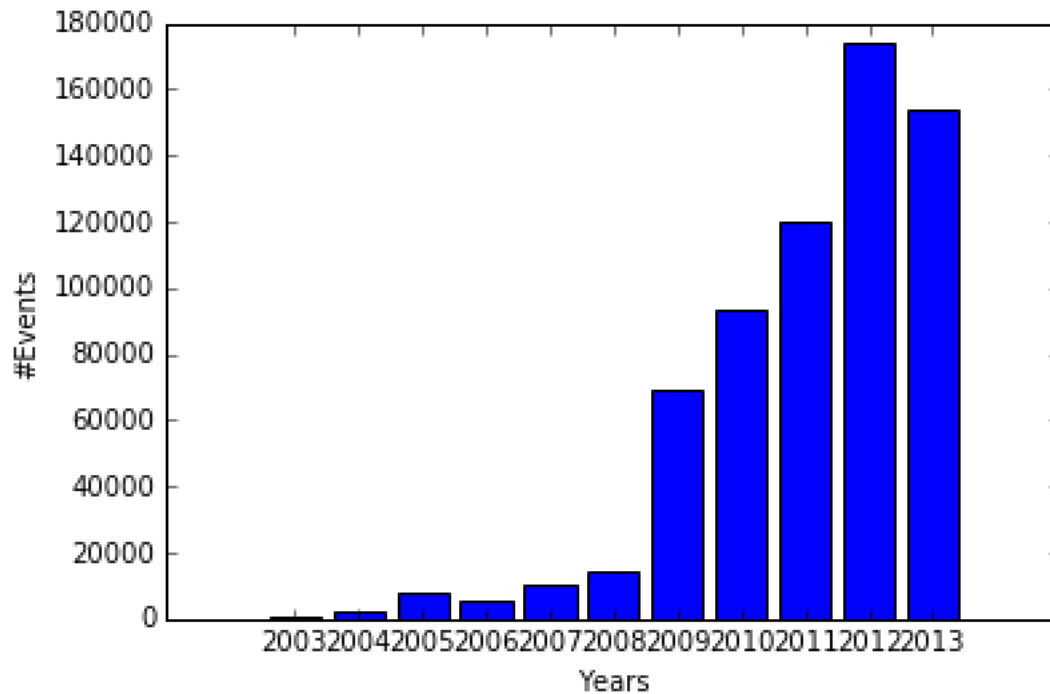


## Q2 Plot of Years vs Number of events



### Code

```
#closed_tstamp 3889 null val
#created_tstamp 169286 null
#start_tstamp 204946 null
#confirmed_tstamp 227843 null

from pandas import read_csv
import matplotlib.pyplot as plt
import numpy as np

#df = read_csv("events_train_holdout.tsv", sep="\t", error_bad_lines=False)

df['year'] = df.closed_tstamp.str[:4]
grouped=df.groupby('year')
xval = ['2003', '2004', '2005', '2006', '2007', '2008', '2009', '2010', '2011', '2012', '2013']
yval = [419, 2501, 7693, 5300, 10630, 14259, 68909, 93181, 120376, 174405, 154082]
plt.bar(np.arange(len(xval)), yval, align='center', alpha=2.0)
plt.xticks(np.arange(len(xval)), xval)

plt.ylabel('#Events')
plt.xlabel('Years')

plt.show()
```

```
In [161]: grouped.size()
Out[161]:
year
2003      419
2004     2501
2005     7693
2006     5300
2007    10630
2008    14259
2009    68909
2010    93181
2011   120376
2012   174405
2013   154082
acci      1966
devi      168
dist         4
obst        49
road        37
spec         4
traf        13
dtype: int64
```