

# hamfest2018

October 1, 2018

```
In [1]: # Written by Chetan Mandloi (VU3ULH)
        # Importing the required libraries
        import pandas as pd                # For dataframes, reading html
        import matplotlib.pyplot as plt    # For Plotting

In [2]: #Get current Delegate list from hamfest website
        #Please use higher end number in the url in registered candidates go over 1500
        hams = pd.read_html('http://www.hamfestindia2018.com/Delegates/List?start=0&end=1500')

In [3]: #hams

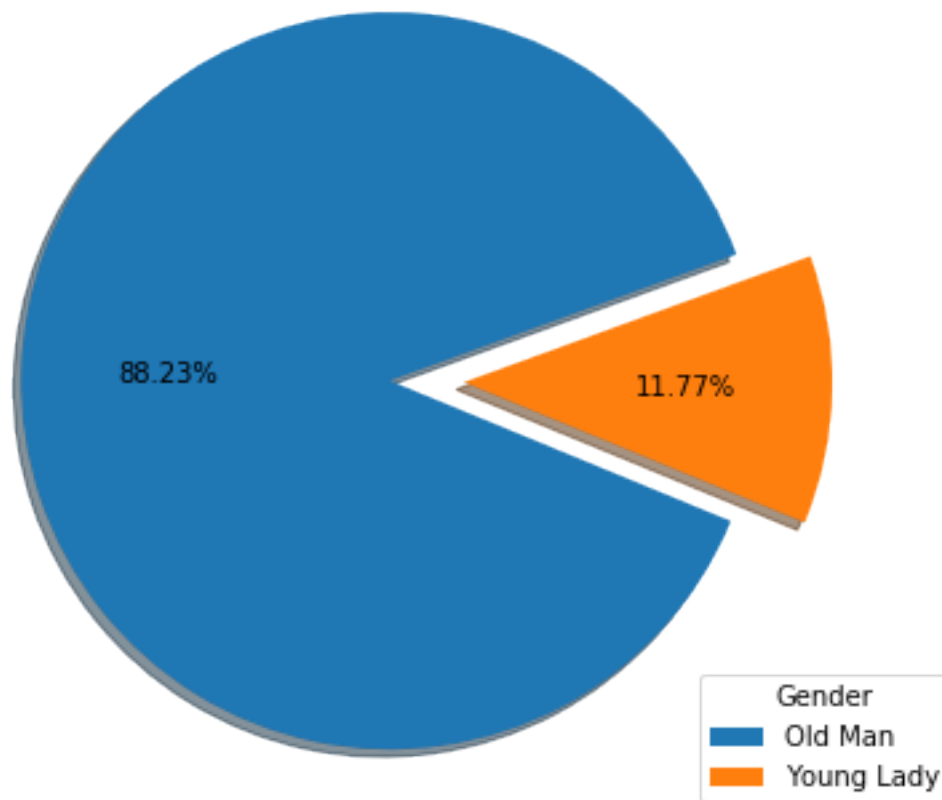
In [4]: #Just formatting the dataframe properly
        hams = hams.rename(columns=hams.iloc[0])
        hams = hams.drop([0])
        #hams

In [5]: #hams['Gender']

In [6]: # Pie Chart Showing gender breakdown
        gend = hams['Gender'].value_counts()
        fig1,ax1 = plt.subplots()
        ax1.pie(gend, explode = (0,0.2), autopct='%1.2f%%',
                shadow = True, startangle = 20)
        ax1.legend(('Old Man','Young Lady'),title = 'Gender', loc = 'lower right',bbox_to_anchor=
        ax1.axis('equal')
        fig1.set_figheight(6)
        fig1.set_figwidth(6)
        plt.title("Hamfest 2018 Gender Breakdown", fontdict= {'fontsize': 16,
                                                                'fontweight' : 5,
                                                                'verticalalignment': 'baseline','horizontalalignm

        plt.show()
```

## Hamfest 2018 Gender Breakdown



```
In [7]: # Correcting all the various conflicting state names,
# You might think why I didn't just convert everything to same case but just case corr
# would not have fixed other errors like spelling mistakes, and improper state names l
# people who made typos like tamilandu, TN, Gujrat etc
#
# NOTE SOME ENTRIES IN THE BEGINING ARE NaN. THESE ARE BEING IGNORED
#
refined_hams = hams['State'].replace(["Dharwad", "Tamilnadu","KARNATAKA","karnataka","I
    "TAMILNADU","Telengana","GUJRAT","GUJARAT","MAHAR
    "ANDHRAPRADESH","TELANGANA","KERALA STATE","Tamil
    "kerala","tamil nadu","KARANATAKA","Andhrapradesh
    "TN","Tamilnadu ,Trichy 620004.","ODISHA",'MAHARAS
    "MANGALAPURAM ROAD","Near Kerala Govt. NGO Quarter
    "Near Grindwell Norton","telangana",'BIHAR',"Mahar
    ["Karnataka", "Tamil Nadu","Karnataka","Karnataka","Kerala","And
    "Tamil Nadu","Telangana","Gujarat","Gujarat","Maharashtra","West
    "Andhra Pradesh","Telangana","Kerala","Tamil Nadu","Maharashtra",
```

```

        "Kerala","Tamil Nadu", "Karnataka","Andhra Pradesh","Tamil Nadu",
        "Tamil Nadu","Tamil Nadu","Odisha","Maharastra","Andhra Pradesh",
        "Kerala","Kerala",'Uttar Pradesh',"Delhi","Gujarat",
        "Karnataka","Telangana",'Bihar',"Maharastra","Delhi","Maharashtra",
    ])

    #refined_hams

In [8]: states = refined_hams.value_counts()
        states

Out[8]: Karnataka      688
        Kerala         161
        Tamil Nadu     160
        Maharashtra     77
        Andhra Pradesh  71
        Telangana       32
        Gujarat        26
        West Bengal     23
        Bihar          8
        USA             7
        Uttar Pradesh   6
        Rajasthan       5
        Puducherry      3
        Delhi           3
        Jharkhand       3
        Assam           3
        Goa             2
        Odisha          2
        ONTARIO         2
        Haryana         1
        Manipur         1
        Chicago         1
        Doha            1
        Tripura         1
        Madhya Pradesh  1
        Chhattisgarh    1
        India           1
        Name: State, dtype: int64

In [9]: major_states = states[:9]
        major_states["Others"] = states[9:].sum()
        #major_states.index

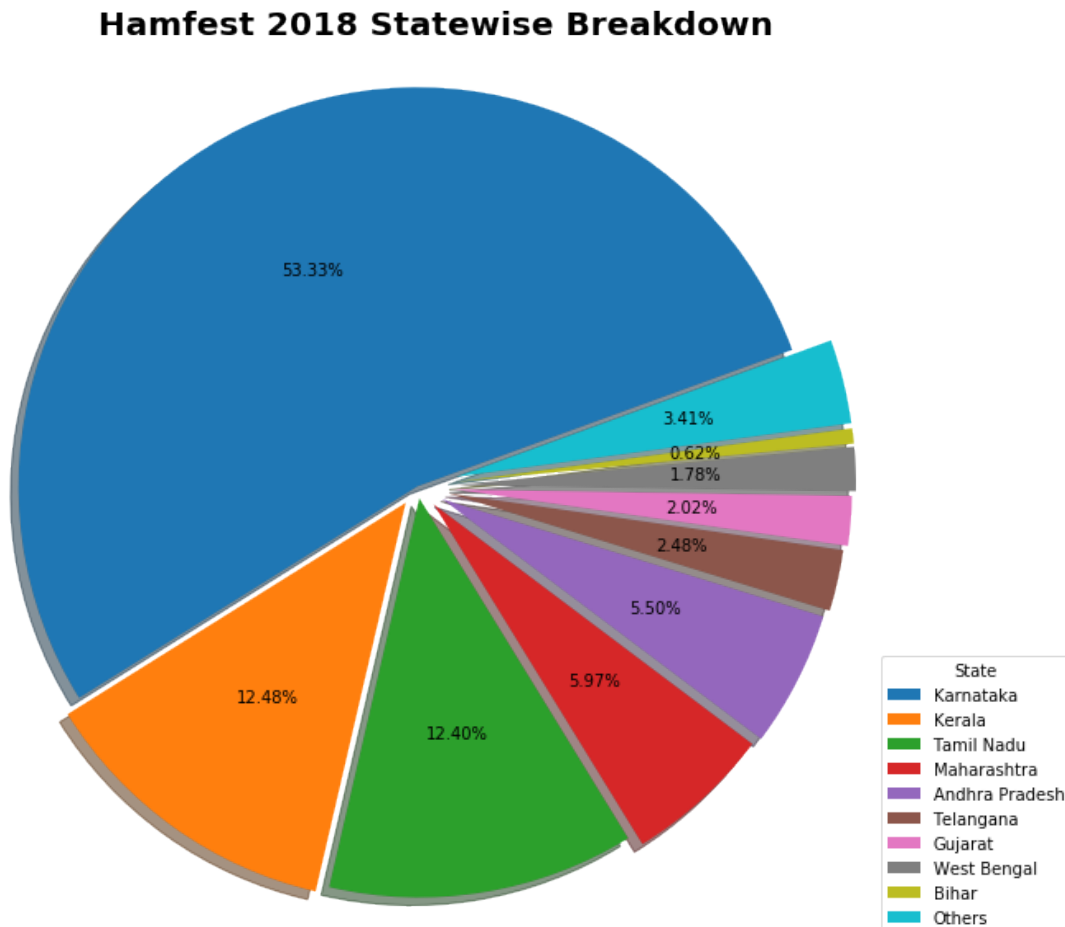
In [10]: # Pie Chart Showing statewide distribution
        fig1,ax1 = plt.subplots()
        ax1.pie(major_states, explode = (0,0.05,0.03,0.06,0.07,0.08,0.09,0.1,0.1,0.1), autopct='%1.1f%%',
                shadow = True, startangle = 20)
        ax1.legend(major_states.index,title = 'State', loc = 'lower right',bbox_to_anchor = (1.05, 0.5))
        ax1.axis('equal')

```

```

fig1.set_figheight(10)
fig1.set_figwidth(10)
plt.title("Hamfest 2018 Statewise Breakdown", fontdict= {'fontsize': 20,
                                                         'fontweight' : 1000,
                                                         'verticalalignment': 'baseline', 'horizontalalignn
plt.show()

```



```

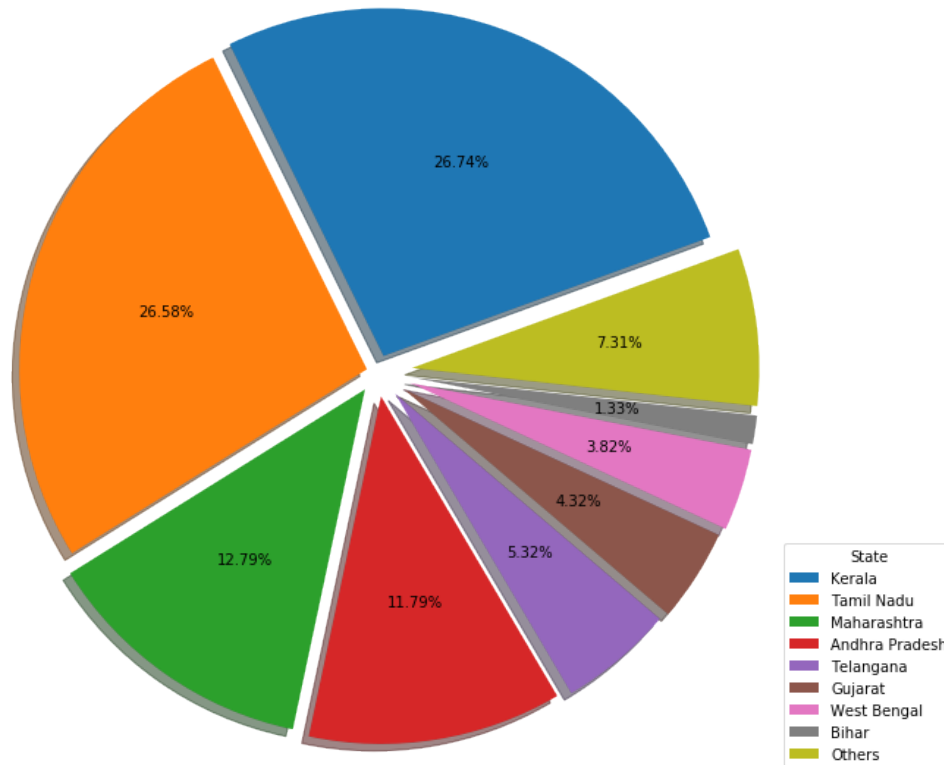
In [11]: # Pie Chart Showing statewide distribution
fig1,ax1 = plt.subplots()
ax1.pie(major_states[1:], explode = (0.05,0.03,0.06,0.07,0.08,0.09,0.1,0.1,0.1), autop
        shadow = True, startangle = 20)
ax1.legend(major_states[1:].index,title = 'State', loc = 'lower right',bbox_to_anchor =
ax1.axis('equal')
fig1.set_figheight(10)
fig1.set_figwidth(10)
plt.title("Hamfest 2018 Outside Visitors(Karnataka removed from the pie)", fontdict=
        'fontweight' : 1000,

```

```
plt.show()
```

```
'verticalalignment': 'baseline', 'horizontalalign'
```

### Hamfest 2018 Outside Visitors(Karnataka removed from the pie)



```
In [12]: calls = list(hams["Callsign"])
```

```
In [13]: #calls
```

```
In [14]: calls2 = calls[:]
```

```
for i in calls:
```

```
    if "VU3" in i or "VU2" in i or "SWL" in i or "SLW" in i or "SWK" in i or "SW" == :
        calls2.remove(i)
```

```
print("Notable callsigns not in VU2 and VU3 Series: ", calls2)
```

```
Notable callsigns not in VU2 and VU3 Series: ['N9SFK', 'KDONER', 'VA3UMA', 'VA3RNY', 'KDONFG']
```

```
In [15]: vu2 = 0
```

```
vu3 = 0
```

```
SWL = 0
```

```
for i in calls:
```

```
    if "VU2" in i:
```

```

        vu2 = vu2 + 1
    elif "VU3" in i:
        vu3 = vu3 + 1
    elif "SWL" in i or "SLW" in i or "SWK" in i or "SW" == i:
        SWL = SWL + 1
print("Hams with VU2 Callsigns:  ", vu2,"\nHams with VU3 Callsigns:  ",vu3,"\nShortw
    SWL,"\nHams with Other Callsigns: ",len(calls)-vu2-vu3-SWL)

```

```

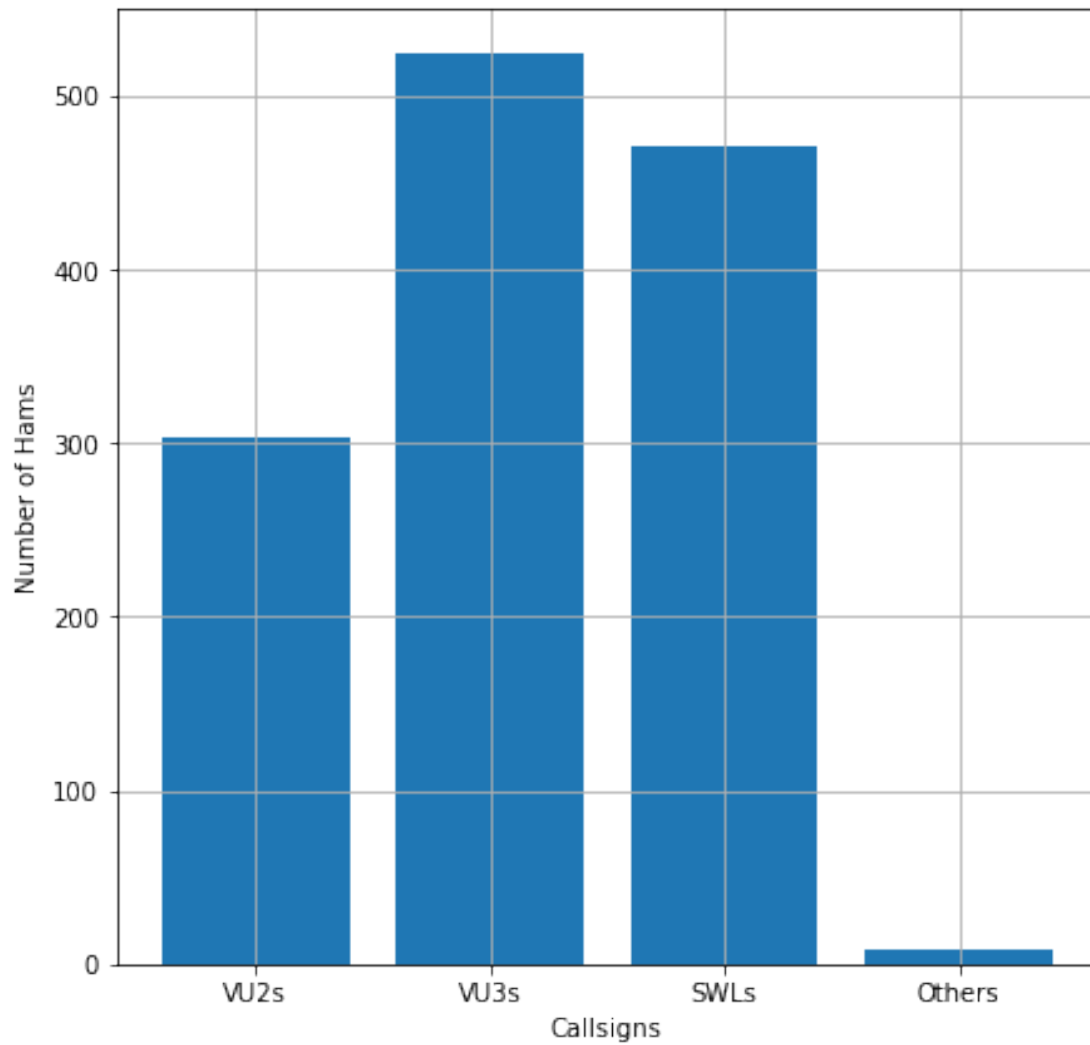
Hams with VU2 Callsigns:    304
Hams with VU3 Callsigns:    524
Shortwave listners(SWLs):   471
Hams with Other Callsigns:   9

```

```

In [16]: fig1,ax1 = plt.subplots()
        ax1.bar(["VU2s","VU3s","SWLs","Others"],[vu2,vu3,SWL,len(calls)-vu2-vu3-SWL])
        plt.xlabel("Callsigns")
        plt.ylabel("Number of Hams")
        fig1.set_figheight(7)
        fig1.set_figwidth(7)
        plt.grid(True)
        plt.show()

```



```
In [17]: cities = hams["City"]
cities = cities.replace(["BANGALORE","Bangalore","HYDERABAD","CHENNAI","MUMBAI","THIRUVANANTHAPURAM",
                        ["Bengaluru","Bengaluru","Hyderabad","Chennai","Mumbai","Thiruvananthapuram"])
print("      Top Cities: ")
print(cities.value_counts().head(20))
```

```
Top Cities:
Bengaluru      599
Chennai        42
Mumbai         32
Hyderabad      27
Thiruvananthapuram 24
Kolkata        17
Pune           14
```

|               |    |
|---------------|----|
| Coimbatore    | 13 |
| VIJAYAWADA    | 13 |
| NELLORE       | 10 |
| WEST GODAVARI | 9  |
| VELLORE       | 8  |
| KOLLAM        | 8  |
| SALEM         | 7  |
| TUMKUR        | 7  |
| Kalpetta      | 7  |
| MADURAI       | 7  |
| USA           | 7  |
| Cochin        | 6  |
| Patna         | 6  |

Name: City, dtype: int64