LAPD Crime Data Investigation
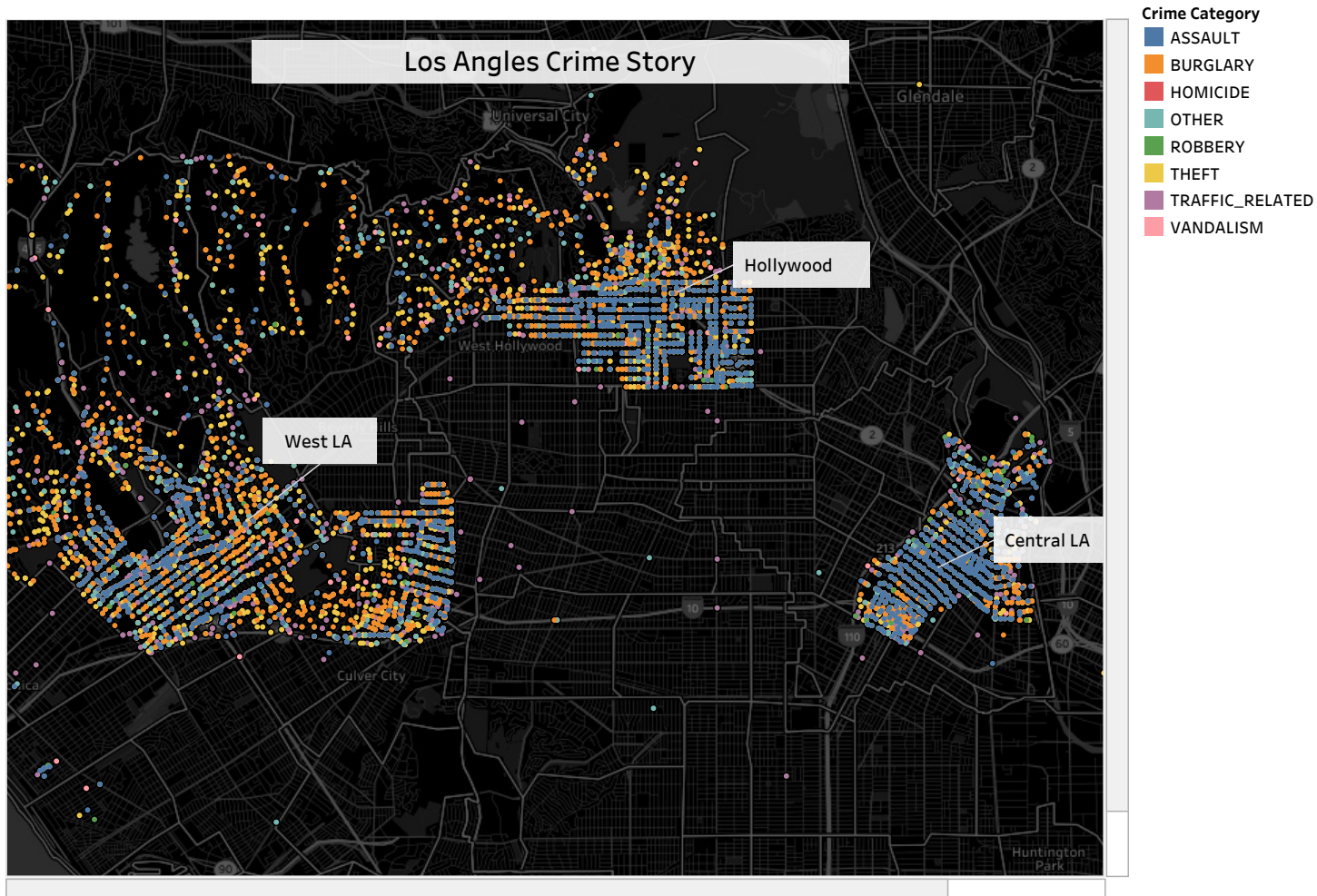
Los Angles Crime Story

Crime Category
- ASSAULT
- BURGLARY
- HOMICIDE
- OTHER
- ROBBERY
- THEFT
- TRAFFIC_RELATED
- VANDALISM

Hollywood

West LA

Central LA

This analysis is about the crimes at Los Angeles in the year 2015. The above graph is a representation of different types of crimes occuring in different region of LA. A total of 31,872 crimes occured in all the three regions together. We shall now delve into the data to see what, when and where these crimes occured.
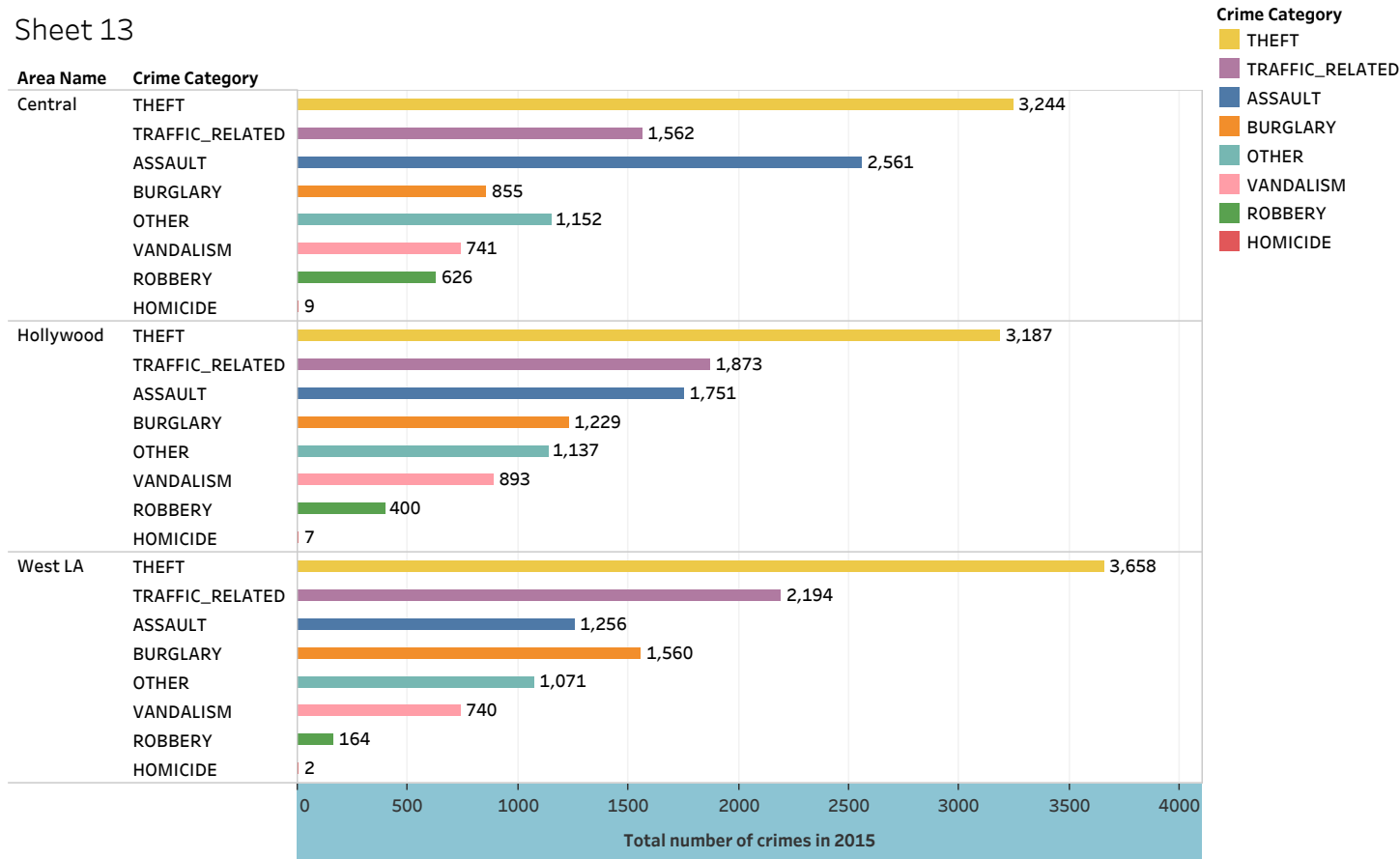
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Sheet 13

Crime Category
- THEFT
- TRAFFIC_RELATED
- ASSAULT
- BURGLARY
- OTHER
- VANDALISM
- ROBBERY
- HOMICIDE

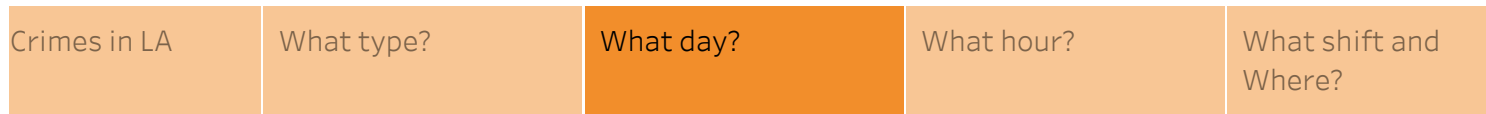| Area Name	Crime Category	
Central	THEFT	3,244
	TRAFFIC_RELATED	1,562
	ASSAULT	2,561
	BURGLARY	855
	OTHER	1,152
	VANDALISM	741
	ROBBERY	626
	HOMICIDE	9
Hollywood	THEFT	3,187
	TRAFFIC_RELATED	1,873
	ASSAULT	1,751
	BURGLARY	1,229
	OTHER	1,137
	VANDALISM	893
	ROBBERY	400
	HOMICIDE	7
West LA	THEFT	3,658
	TRAFFIC_RELATED	2,194
	ASSAULT	1,256
	BURGLARY	1,560
	OTHER	1,071
	VANDALISM	740
	ROBBERY	164
	HOMICIDE	2

Total number of crimes in 2015

From this graph we can see that there are around 8 types of crime categories which are mapped against each region . But actually there are 112 types of crimes which were categorized accordingly to generalize the type of crime which makes it easy to represent.
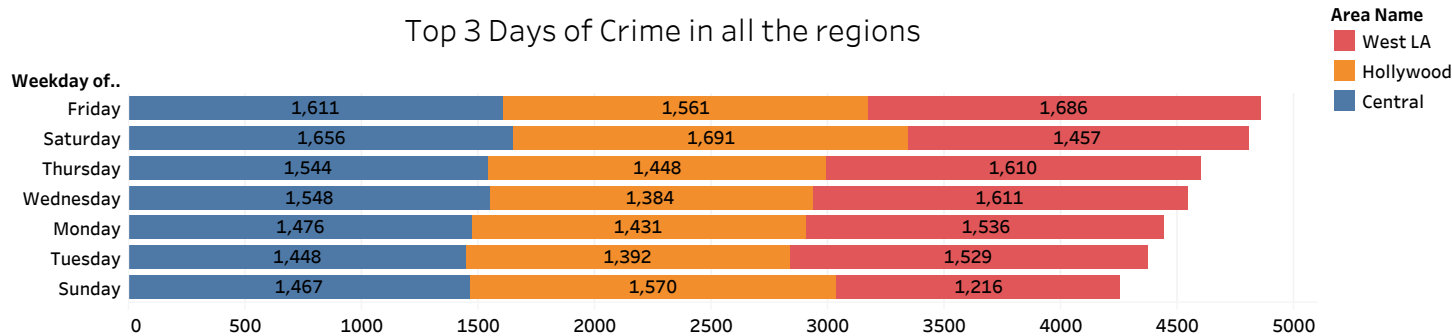We can infer that, the top 3 categories of crimes occruing in all the regions are Theft, Traffic related and Assualt among which Theft stands first among all with a total count of 10,089 .
 Now that we have seen the types of crime, let us see what day of the year has the highest crime rate.

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Top 3 Days of Crime in all the regions

Area Name
- West LA
- Hollywood
- Central

Weekday of..

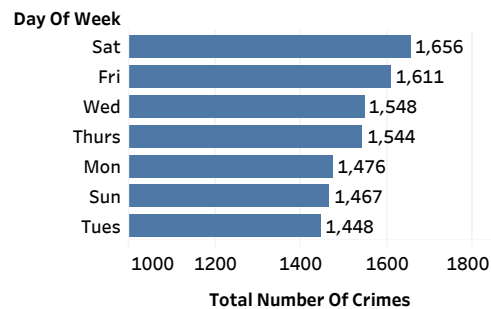| Day	Central	Hollywood	West LA
Friday	1,611	1,561	1,686
Saturday	1,656	1,691	1,457
Thursday	1,544	1,448	1,610
Wednesday	1,548	1,384	1,611
Monday	1,476	1,431	1,536
Tuesday	1,448	1,392	1,529
Sunday	1,467	1,570	1,216

This graph represents the total count of crimes occured in a day. As we can see, there is a clear pattern of high crime rate here of top 3 days being Friday, Saturday and Thursday for all the regions together.There is an increasing trend of crime rate from the weekdays to weekend till saturday and again there is a decrease on sunday.
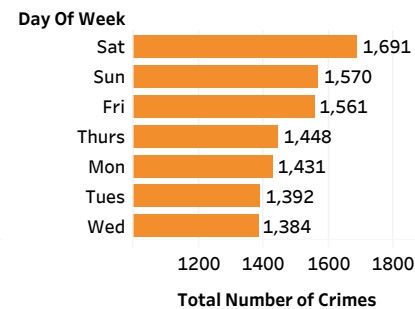 Below are three graphs separated into each region to further understand the top 3 days for each region.
we can infer that
- In Central region, Saturday, Friday and Wednesday are the top 3 days of crime
- In Hollywood, Saturday, Sunday and Friday are the top 3 days of crime
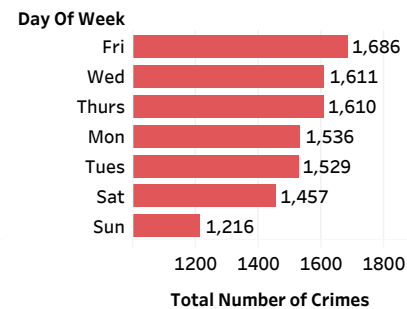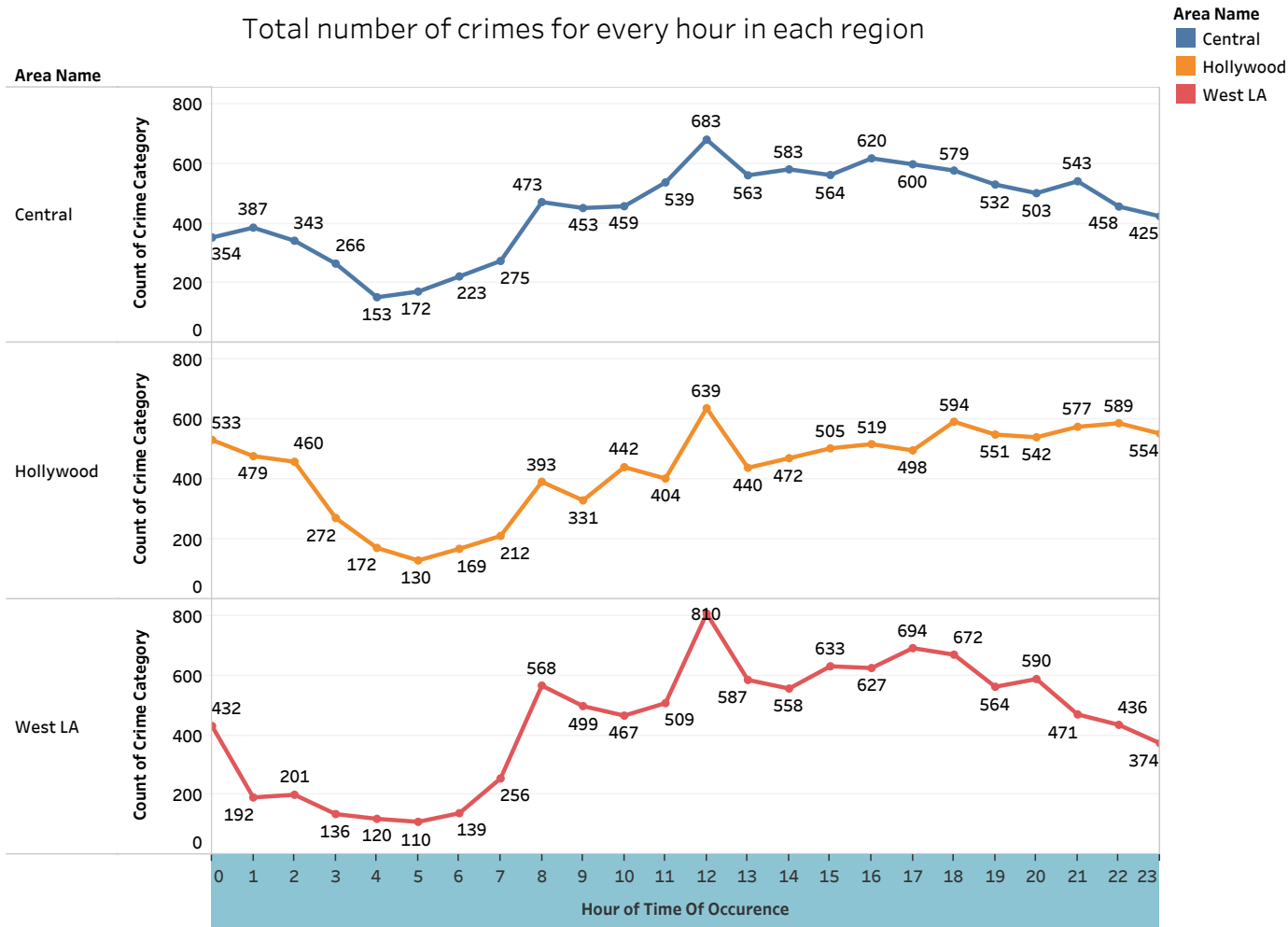- In West LA, Friday, Wednesday and Thursday are the top 3 days of crime..

Central LA

Day Of Week

Day	Total Number Of Crimes
Sat	1,656
Fri	1,611
Wed	1,548
Thurs	1,544
Mon	1,476
Sun	1,467
Tues	1,448

Total Number Of Crimes

Hollywood

Day Of Week

Day	Total Number of Crimes
Sat	1,691
Sun	1,570
Fri	1,561
Thurs	1,448
Mon	1,431
Tues	1,392
Wed	1,384

Total Number of Crimes

West LA

Day Of Week

Day	Total Number of Crimes
Fri	1,686
Wed	1,611
Thurs	1,610
Mon	1,536
Tues	1,529
Sat	1,457
Sun	1,216

Total Number of Crimes

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Total number of crimes for every hour in each region

Area Name
- Central
- Hollywood
- West LA

Let us look the ditributiong of crime by hour. As there is uneven distribution of crime occurence by each hour (no clear pattern seen) we are unable to determine right hour for patrolling.

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Let us now look at the data in a different way

Duration	Area Name	Sun	Mon	Tues	Wed	Thurs	Sat
7AM-12PM	Central	218	349	333	371	344	282
	Hollywood	205	292	266	241	278	225
	West LA	209	369	364	378	368	256
7PM-12AM	Central	321	309	300	324	347	405
	Hollywood	404	375	351	367	385	473
	West LA	290	345	347	335	357	368
12AM-7AM	Central	403	244	227	199	232	366
	Hollywood	501	255	228	218	253	462
	West LA	213	177	178	189	174	225
12PM-7PM	Central	525	574	588	654	621	603
	Hollywood	460	509	547	558	532	531
	West LA						

Day Of Week (column header)

Area Name
- ✔ Central
- ✔ Hollywood
- ✔ West LA

Crime Category
- ✔ ASSAULT
- ✔ BURGLARY
- ✔ HOMICIDE
- ✔ OTHER
- ✔ ROBBERY
- ✔ THEFT
- ✔ TRAFFIC_RELATED
- ✔ VANDALISM

Count of Crime Category
174 — 711

We divide the day into 5 hour class interval according to the day of the week for each region and look at the distribution as we couldn't find clear distribtuion for each hour.
It is now apparent that almost on all days for all regions, "12PM - 7PM" has the highest number of crimes followed by "7PM - 12AM".
This helps in recommending real time schedules of patrolling and we can staff patrol cars according to these trends.

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| What type? | What day? | What hour? | What shift and Where? | Recommendations |