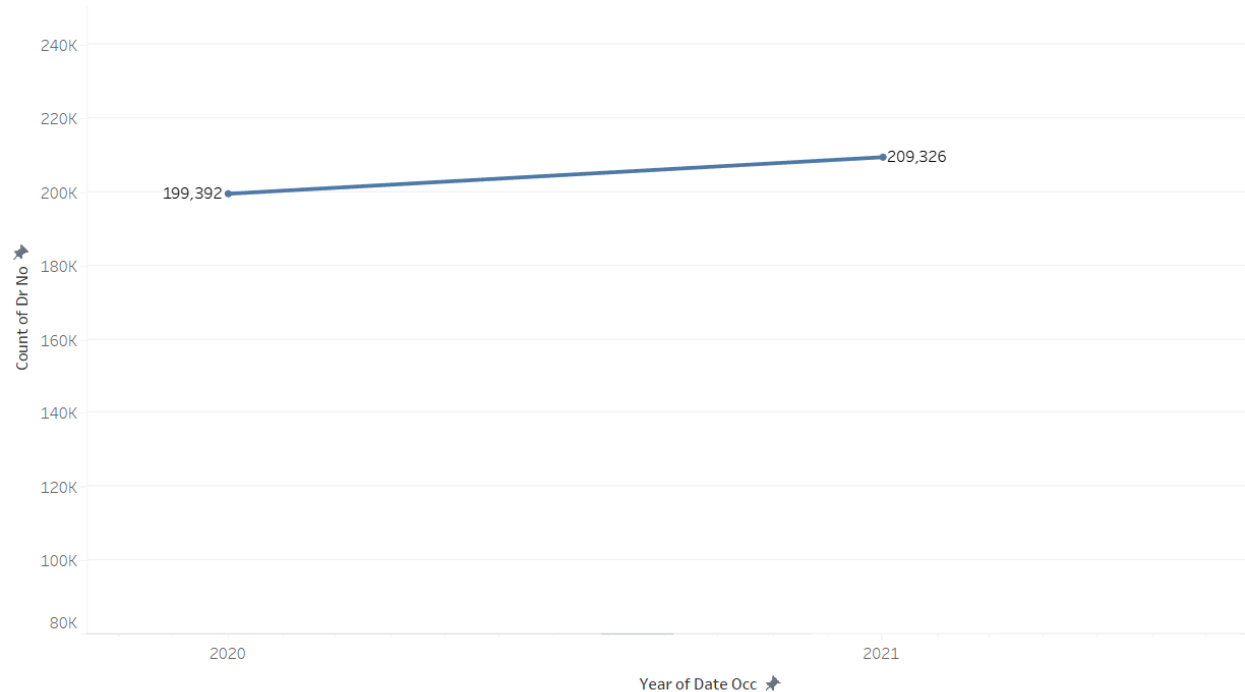


## Individual Project 1: LA Crime Data (Part 2)

### Crime Rates Over Time:

- What is the overall trend in crime rates over the years?

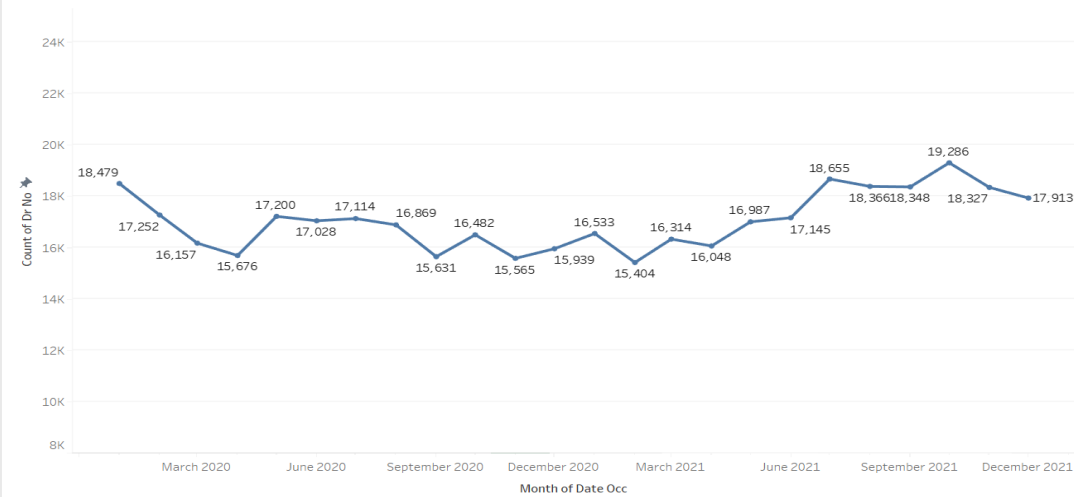
What is the overall trend in crime rates over the years?



The overall trend in crime rates has increased as shown above. The crime rate was approx. 199K. in 2020 which increased to 209K by 2021.

- How have crime rates changed on a monthly basis?

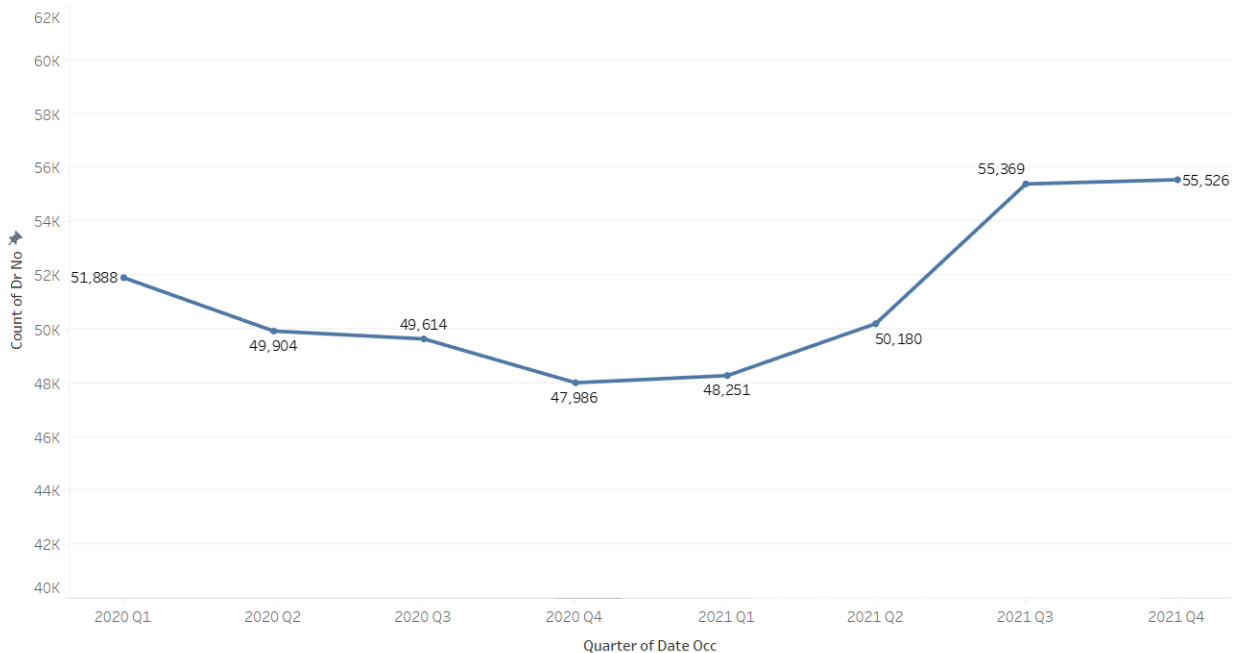
How have crime rates changed on a monthly basis?



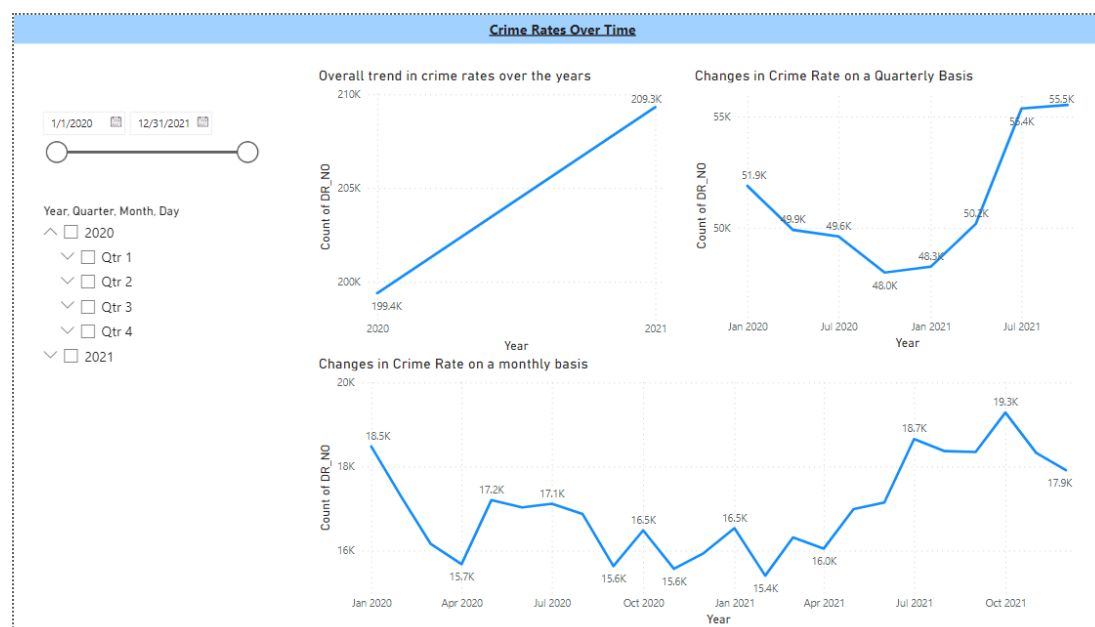
The monthly crime rates vary every month. There was a decrease in crime rates from January 2020 to March 2020, but an increase in crime rates till August 2020 and so on. We can see an almost continuous rise in crime in LA from February 2021 till December 2021.

- How have crime rates changed on a quarterly basis?

How have crime rates changed on a quarterly basis?



The crime rates dropped from Q1 2020 till Q4 2020 but there has been an increase in the crime rate from Q4 2020 TO Q4 2021.

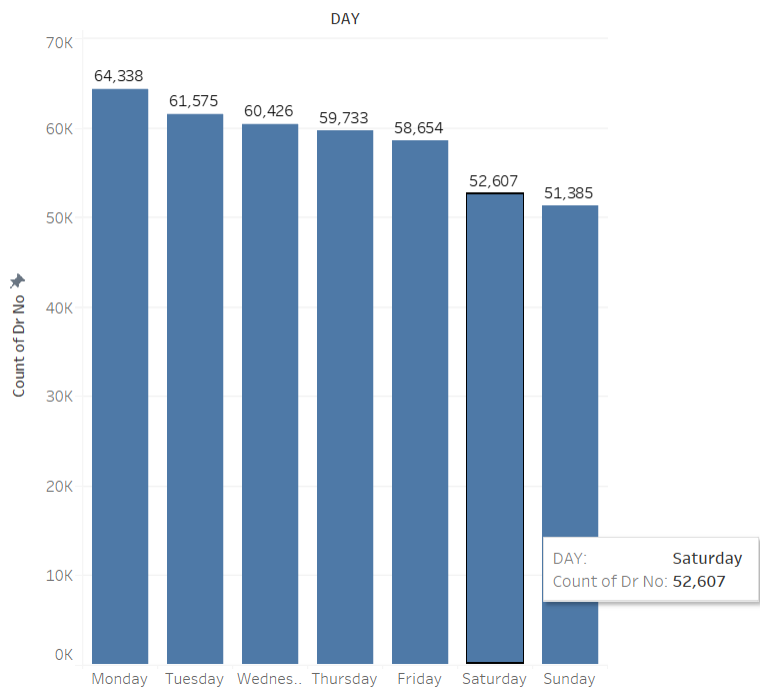


The overall trend in Crime Rate over time could be seen above.

Day Time and Week Factors:

- Is there a correlation between the day of the week and the number of reported crimes?

Is there a correlation between the day of the week and the number of reported crimes?



According to the dataset, we can see that the most crimes happen on Monday and it reduces through the week, Sunday being on the lowest end. Therefore, it can be said that there is a correlation between the day of the week and the number of crimes reported.

- Do certain types of crimes tend to occur at specific times of the day?

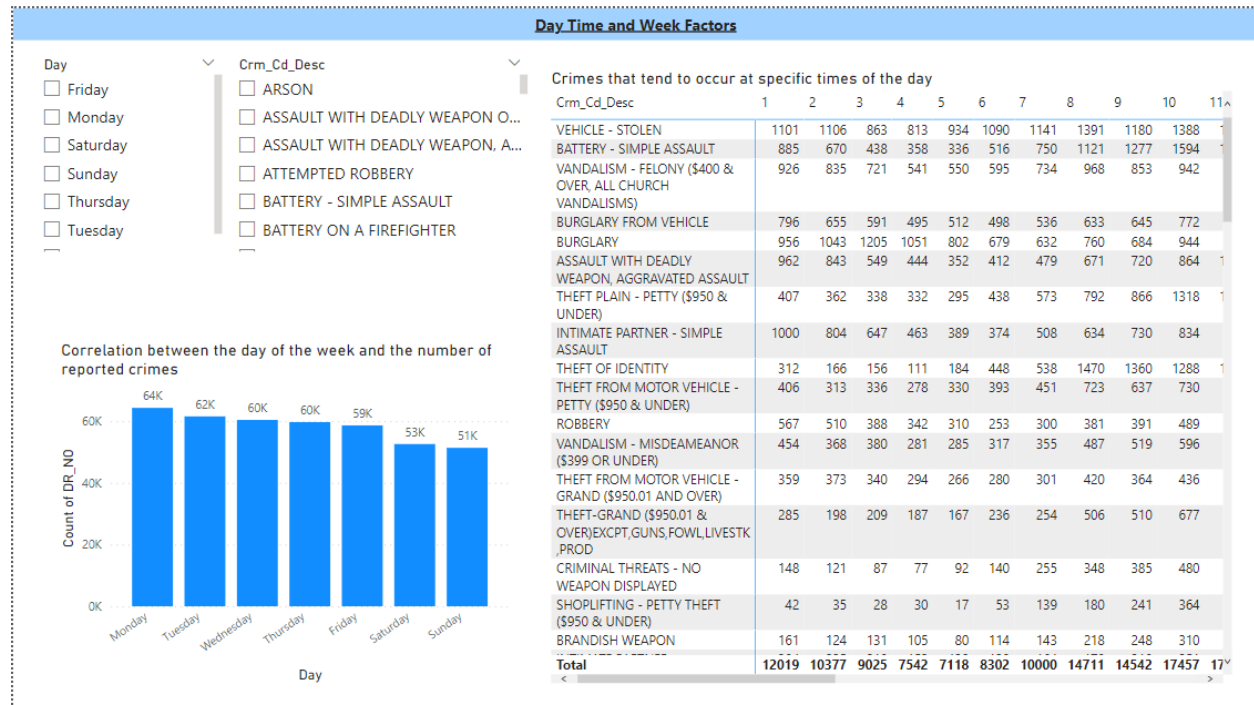
Do certain types of crimes tend to occur at specific times of the day?

Crm Cd Desc	TIME FIELD												
	7	8	9	10	11	13	14	15	16	17	18	19	
VEHICLE - STOLEN	1,141	1,391	1,180	1,388	1,229	1,437	1,650	1,991	2,244	2,942	3,405	3,15	
BURGLARY	632	760	684	944	803	916	1,112	1,335	1,390	1,589	1,585	1,17	
ASSAULT WITH DEADL..	479	671	720	864	1,002	1,164	1,154	1,207	1,320	1,339	1,429	1,42	
VANDALISM - FELONY ..	734	968	853	942	991	1,016	1,177	1,266	1,316	1,529	1,592	1,54	
INTIMATE PARTNER - ..	508	634	730	834	860	810	871	892	877	1,017	1,049	1,14	
BATTERY - SIMPLE AS..	750	1,121	1,277	1,594	1,697	1,899	1,856	1,954	1,997	2,079	1,997	1,89	
BURGLARY FROM VEH..	536	633	645	772	767	808	905	1,075	1,339	1,759	2,078	2,00	
ROBBERY	300	381	391	489	564	677	765	756	780	819	807	81	
THEFT FROM MOTOR ..	301	420	364	436	408	392	525	619	619	752	911	78	
VANDALISM - MISDEA..	355	487	519	596	571	503	606	667	716	788	749	71	
THEFT PLAIN - PETTY (..	573	792	866	1,318	1,420	1,611	1,592	1,550	1,402	1,308	1,216	98	
THEFT FROM MOTOR ..	451	723	637	730	561	630	741	950	934	1,319	1,385	1,20	
INTIMATE PARTNER - ..	164	170	218	251	241	180	206	212	236	267	256	29	
THEFT-GRAND (\$950...	254	506	510	677	688	765	816	921	778	686	599	59	
THEFT OF IDENTITY	538	1,470	1,360	1,288	1,158	1,154	1,078	1,044	896	839	662	51	
TRESPASSING	185	255	274	324	306	267	291	285	261	253	227	23	
BRANDISH WEAPON	143	218	248	310	341	332	359	393	417	380	363	39	
CRIMINAL THREATS - ..	255	348	385	480	496	491	507	494	528	502	496	46	
VIOLATION OF RESTR..	171	201	228	254	275	295	281	296	295	325	292	33	
RAPE, FORCIBLE	23	40	16	32	41	32	38	54	53	50	57	6	
BURGLARY, ATTEMPT..	52	48	44	45	52	50	62	94	59	97	88	9	
OTHER MISCELLANEO..	79	134	148	129	125	138	152	147	142	179	168	13	
BIKE - STOLEN	97	125	162	166	193	185	215	234	239	291	283	23	
ARSON	38	41	39	43	33	46	55	52	39	56	63	6	
DISCHARGE FIREARM	12	16	16	21	28	36	41	34	44	42	57	8	

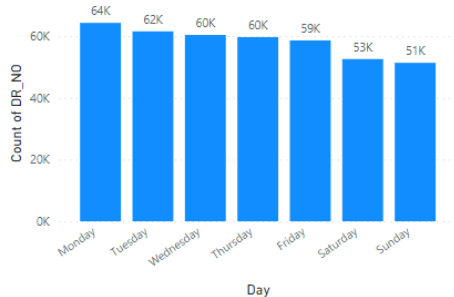
From the above visualization, we can see that Crime – ‘Vehicle Stolen’ occurs the max at 6:00 PM in the evening and it follows a similar pattern of the said crime happening during the evening times the most.

We can also observe that The crime – ‘Battery – Simple Assault’ also takes place from the afternoon to maximum of the times during the evening.

Crime Rates are the least during the morning times.



Correlation between the day of the week and the number of reported crimes



Overall visualization for Day, Time and Week Factors.

## Crime by Location:

- Where are the high-crime areas in Los Angeles?

We want to know (your inferences on):

- o By seeing the geo map, what are the crime hotspots?
- o Can you identify areas where Los Angeles performs better or worse in terms of crime rates?

Where are the high-crime areas in Los Angeles?



The areas where the crime is higher in LA is represented by dark blue color and the gradient reduces with the decrease in number of crimes for the areas in LA.



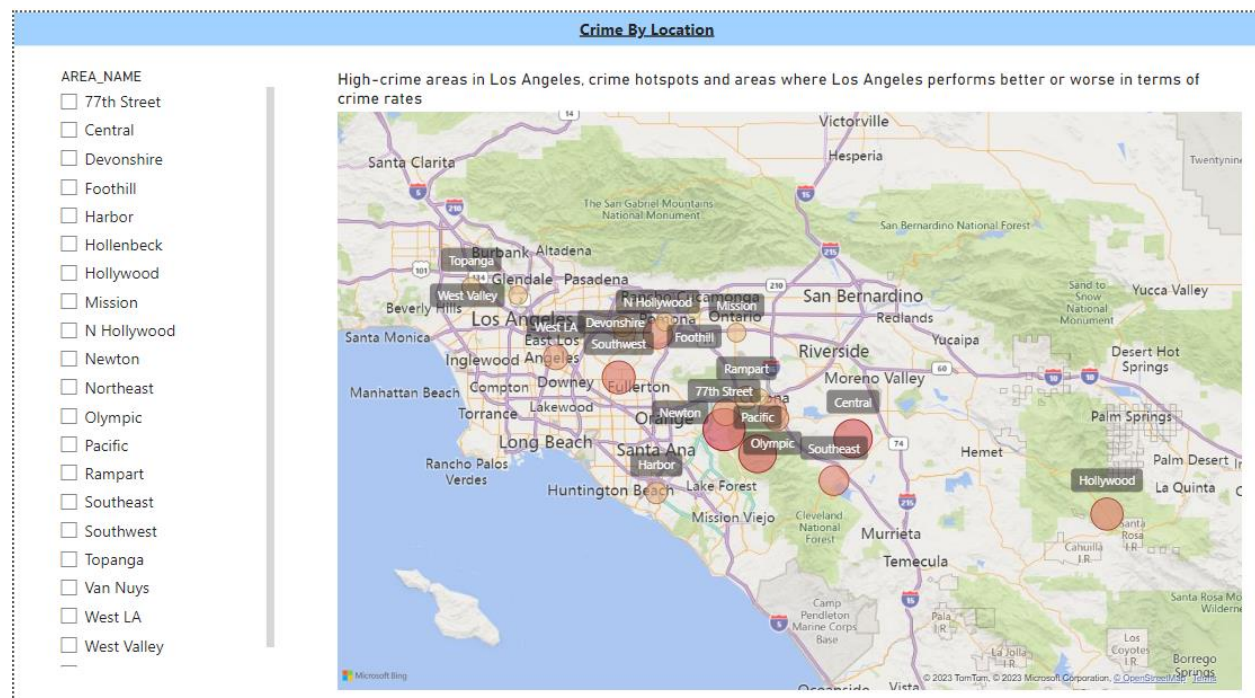
We can see by the above visualization that 77<sup>th</sup> Street in LA has the most number of crimes, ie. 26K crimes. The highest value showed in the legend is 26K and the lowest value shown in the legend in 14K.

Some of the crime hotspots are: 77<sup>th</sup> Street, Central, Pacific, Southwest, Hollywood to name a few.

The areas that perform better on crime rates in LA are –

Better: Mission, West Valley, Topanga, Devonshire.

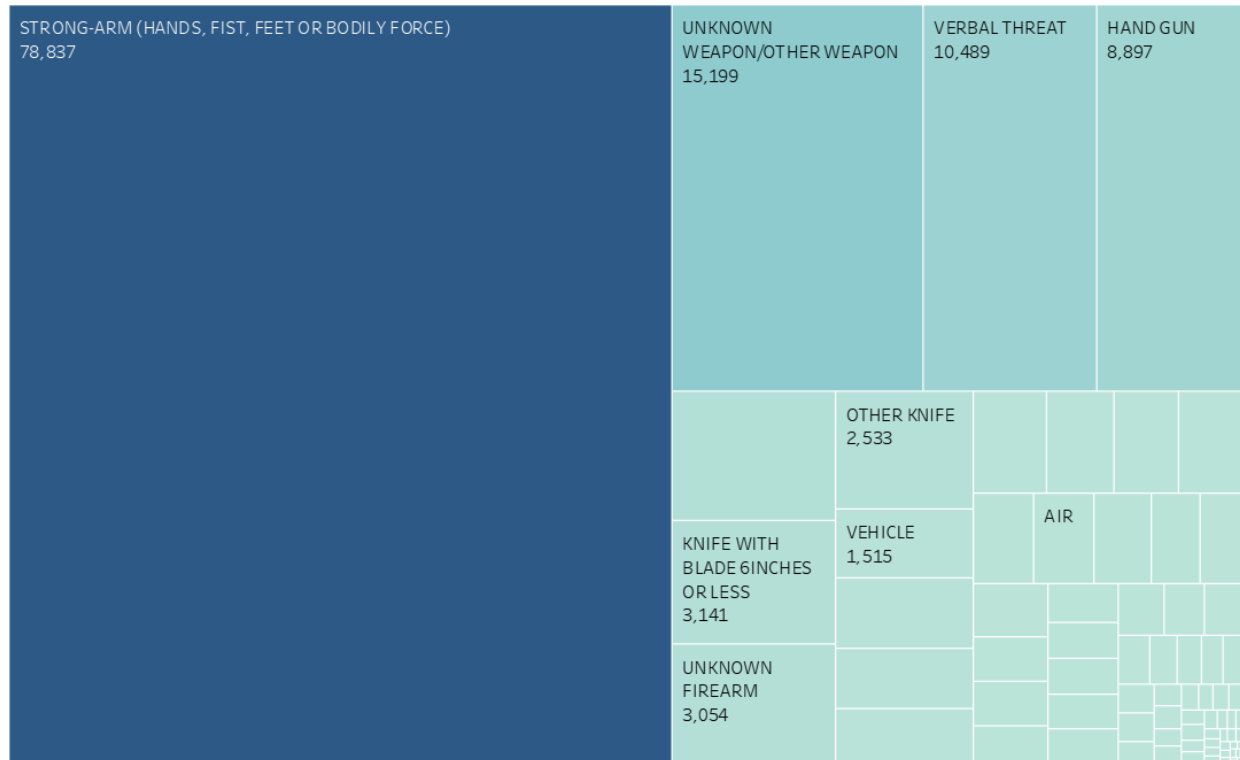
Worse: 77<sup>th</sup> Street, Central, Pacific, Southwest, Hollywood



### Types of Crime:

- What are the most commonly used weapons in reported crimes?

What are the most commonly used weapons in reported crimes?

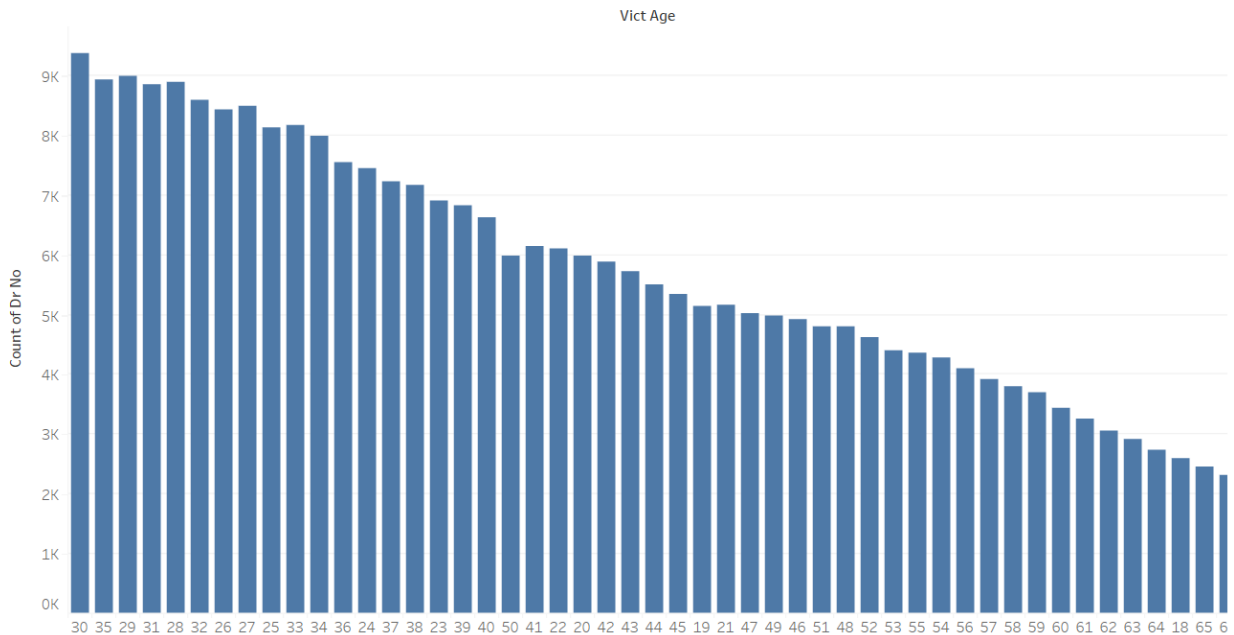


The most common used weapon is the use of Hands, fist or bodily force – which corresponds to 78K, Other Weapon/ Unknown weapon corresponds to 15K, Verbal Threat corresponds to 10k, hand gun – 8k and semi-automatic pistol is around 3k, so on and so forth.

## Demographic Analysis:

- Show in the visualization the age patterns in crime.

Show in the visualization the age patterns in crime.

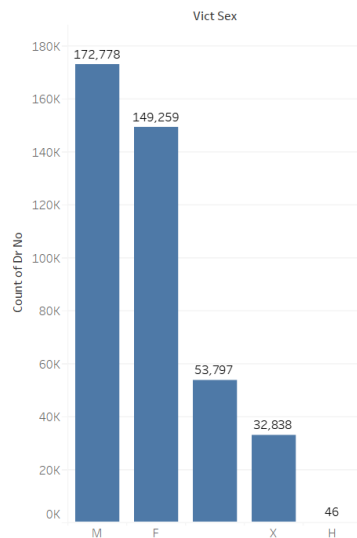


The most amount of Victims are of the age 30 followed by 35, 29, 31, 28.

Therefore we can say that the victim ages corresponds between mid-20s to higher 40s.

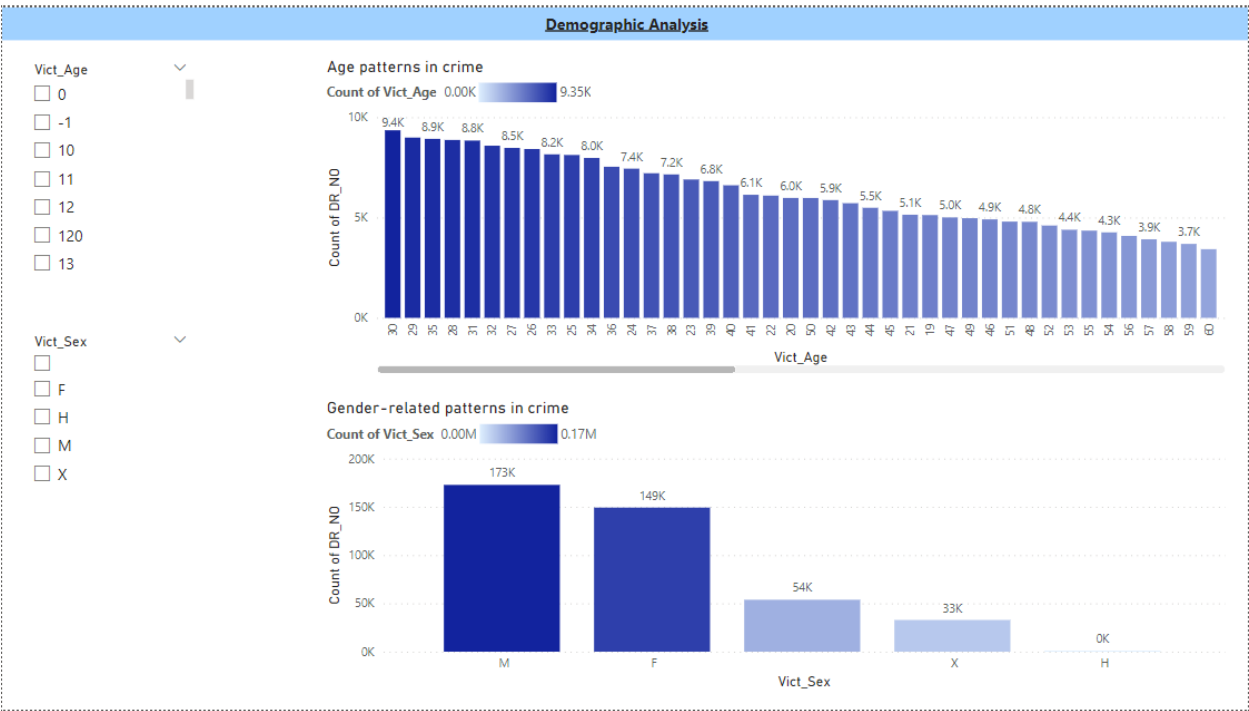
- Show in the visualization the gender-related patterns in crime.

Show in the visualization the gender-related patterns in crime.



The data shows that there are 172K male victims and around 149K Female Victims, therefore we can conclude that there are a lot more male victims in LA than female victims.



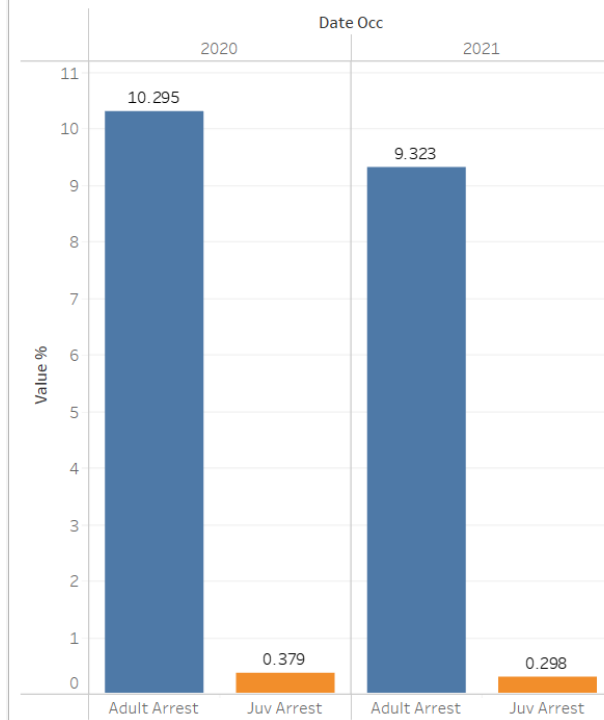


Overall visualization for Demographic analysis.

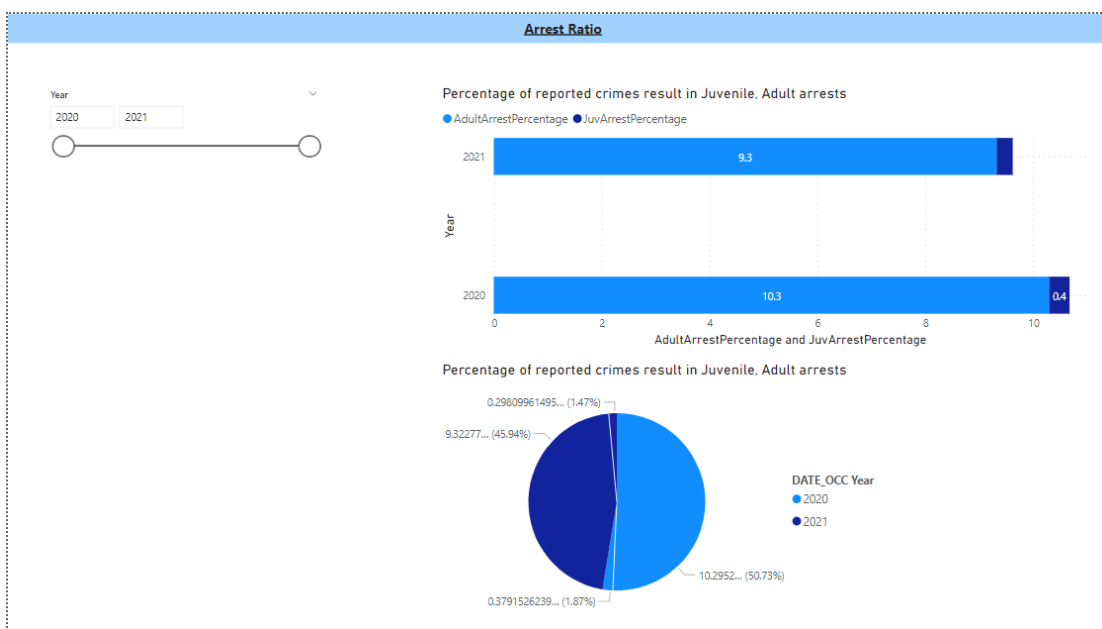
## Arrests Ratio:

- What percentage of reported crimes result in Juvenile, Adult arrests?

What percentage of reported crimes result in Juvenile, Adult arrests?



For the year 2020, there were around 0.37% Juvenile arrests and 10.29% Adult arrests. We can see a decrease in the arrest percentage to 0.29% for Juvenile and 9,32% for Adults in the year 2021. This shows that there was an overall decrease in the arrest percentage for these 2 categories.



Overall visualization for Arrest Ratio