

# **Texas COVID 19 cases analysis from March 2020 to March 2021**

**SANDIP REGMI**

**INTRODUCTION TO  
SCIENTIFIC COMPUTING**

# Introduction

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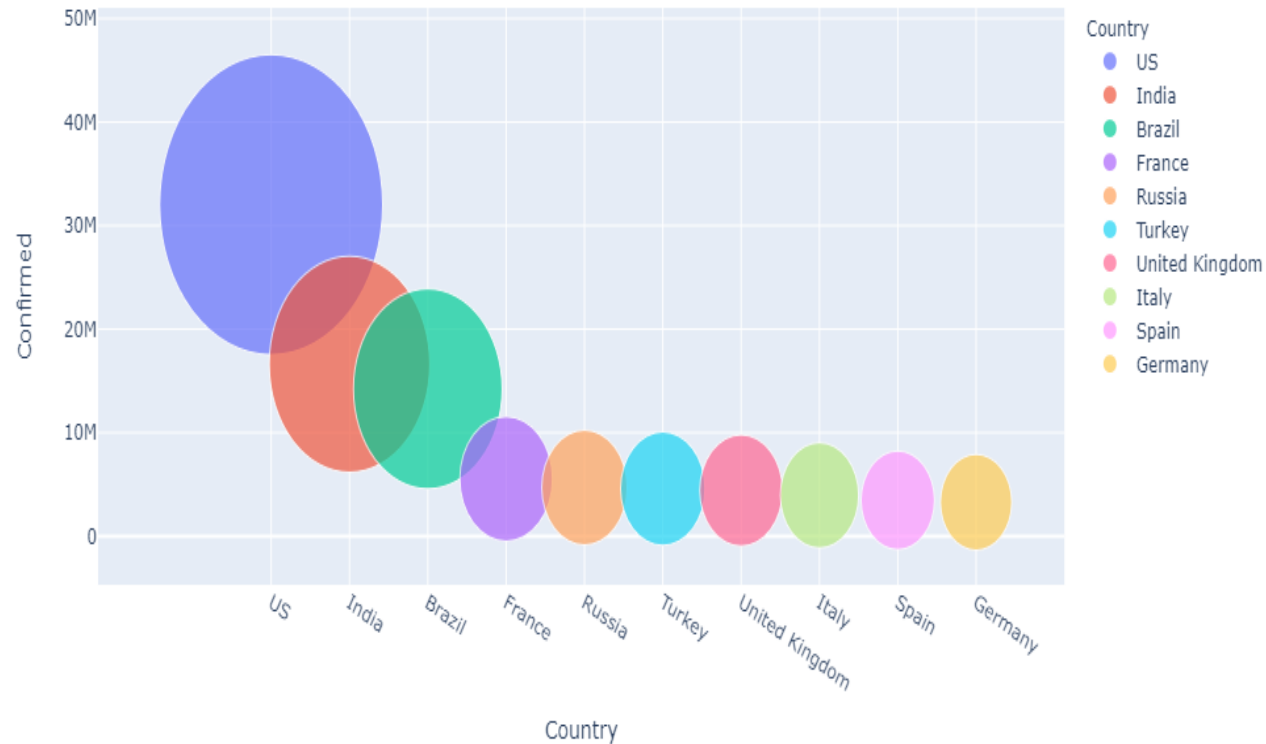
1. COVID 19 OUTBREAK IN THE WORLD HAS BEEN DISASTROUS SINCE LAST YEAR.
2. THE UNITED STATES IS AN EPICENTER AND RECORD THE HIGHEST NUMBER OF CASES

THE STATE OF TEXAS REPORTS MORE THAN 2.5MILLIONS + CASES AND 45,000+ FATALITIES.

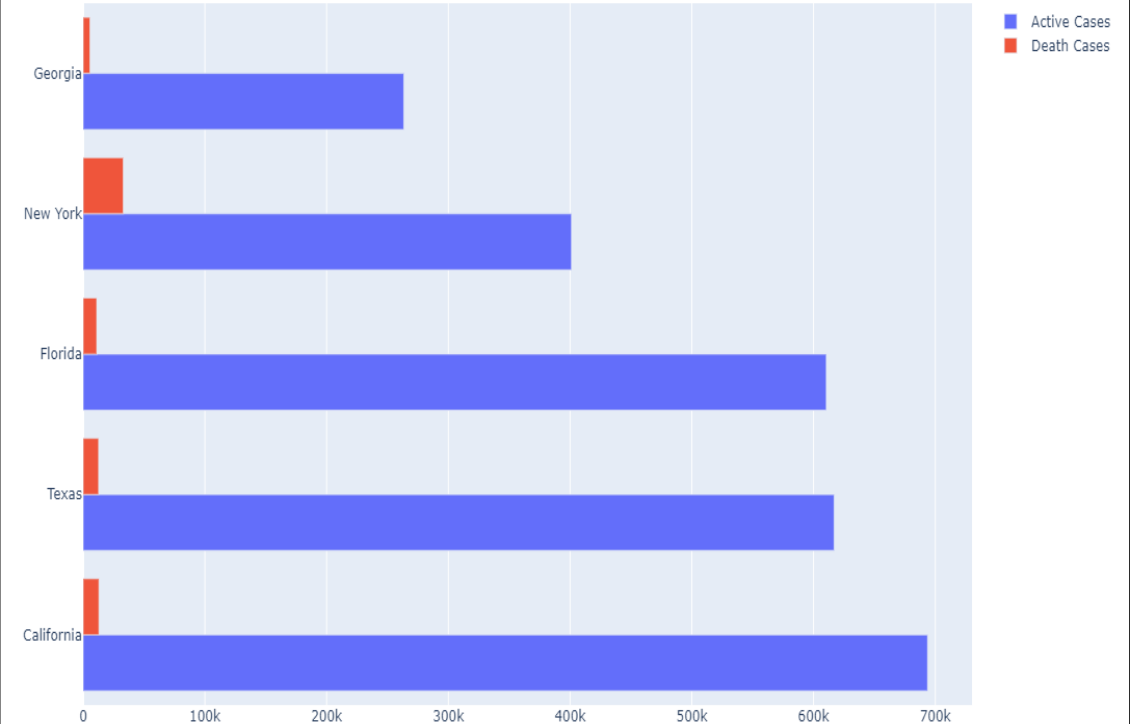


# Total Confirmed Cases & The U.S. Status

Top 10 Confirmed Cases Countries



Most Affected States in USA





# OBJECTIVE

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1. THIS STUDY WILL ANALYZE AND TRACK THE COVID 19 OUTBREAK IN THE 254 COUNTY OF TEXAS.
2. ASCERTAIN THE MAJOR EVENT SUCH AS LOCKDOWN, POST LOCKDOWN, FESTIVAL, ELECTION CAMPAIGN, AND THE VACCINATION.
3. CORRELATING THE GOVERNMENT DECISION AND COVID CASES TRACK

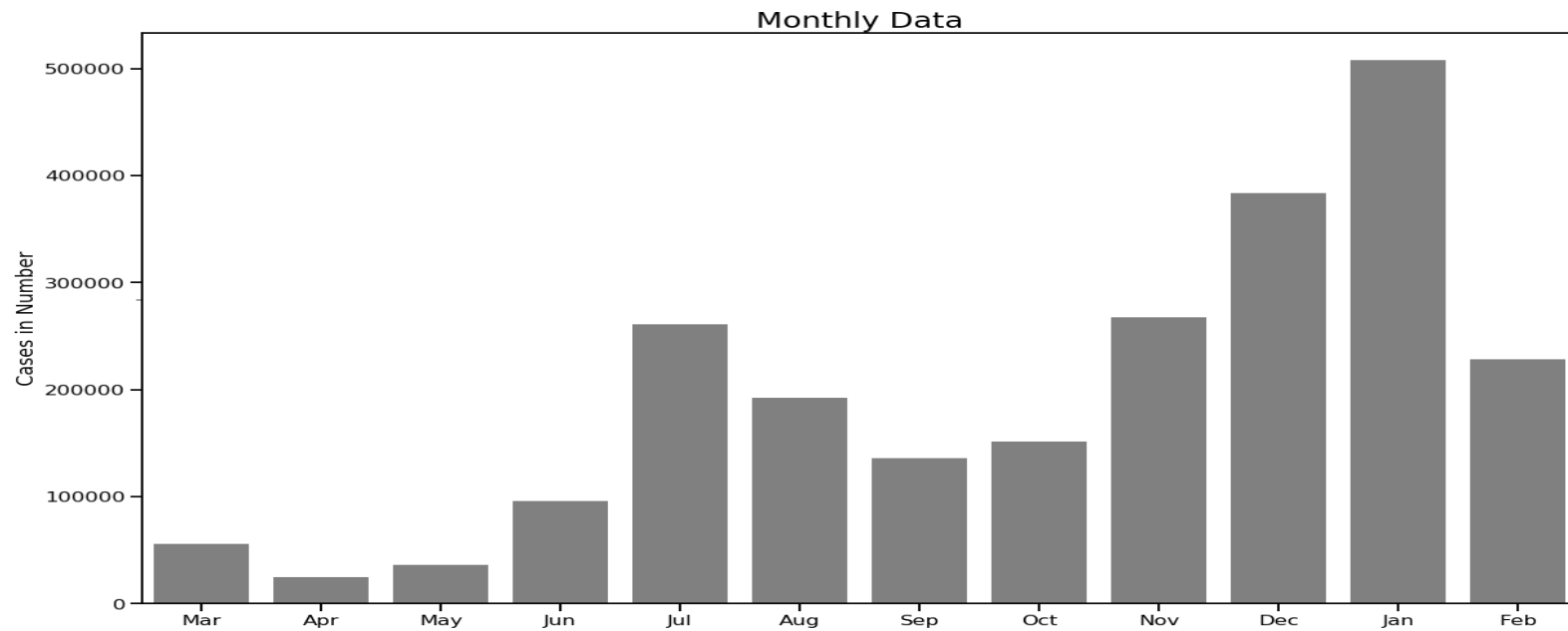
# DATA COLLECTION

1. DATA WILL BE COLLECTED FROM TEXAS DEPARTMENT OF STATE HEALTH SERVICES WEBSITE AND CDC.GOV
2. THE MAJOR EVENT SOURCES IS FROM OFFICE OF THE GOVERNOR WEBSITE.
3. DATA ARE ALSO IMPORTED FROM COVIDTRACKING.COM

## METHODS:

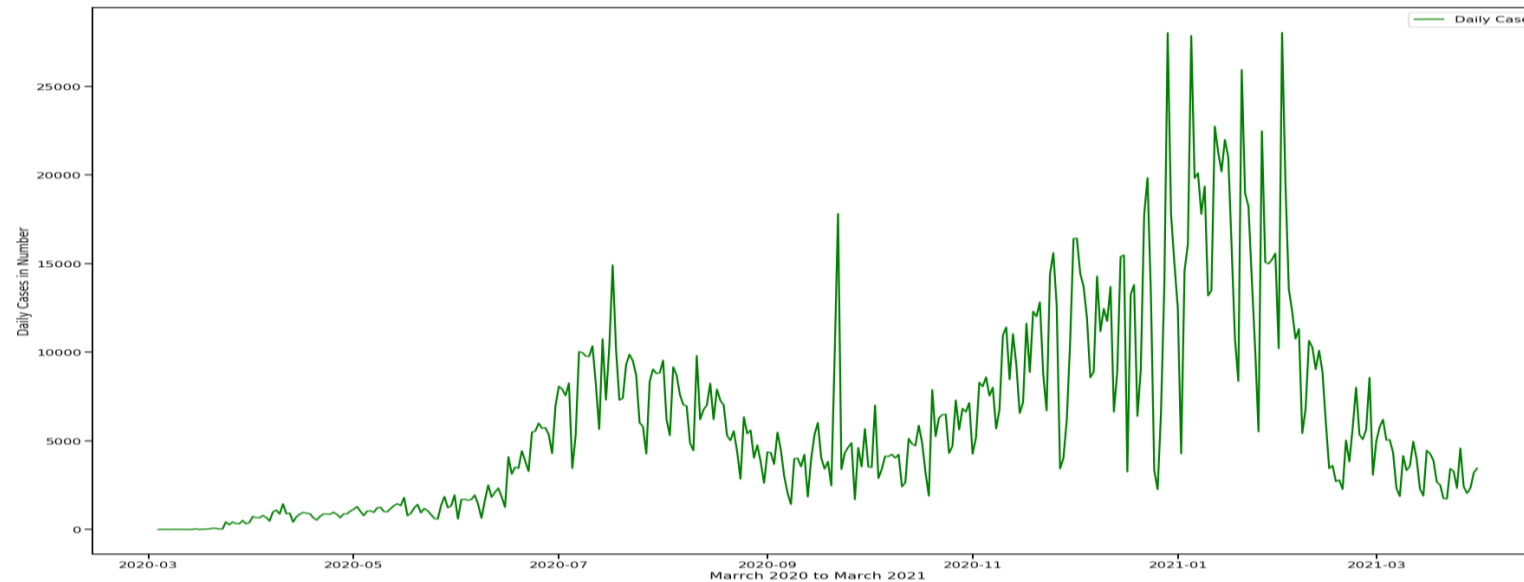
1. IMPORTING THE DATA ON PYTHON
2. CLEANING AND PROCESSING DATA
3. CREATING PLOT AND COMPARING THE DATA WITH TIMELINE OF EVENT.

	KU	KV	KW	KX	KY	KZ	LA	LB	
Cases 01-06-2021	Cases 01-07-2021	Cases 01-08-2021	Cases 01-09-2021	Cases 01-10-2021	Cases 01-11-2021	Cases 01-12-2021	Cases 01-13-2021	Cases 01-14-2021	
4472	4471	4471	4485	4508	4508	4445	4520	4520	
1438	1486	1486	1523	1523	1523	1558	1558	1558	
3692	3692	3790	3851	3851	3851	3851	3851	3851	
579	589	596	598	607	607	615	628	628	
544	565	573	574	574	574	599	602	602	
79	80	81	82	82	82	82	83	83	
2457	2608	2644	2666	2666	2666	2662	2855	2855	
1033	1044	1049	1067	1087	1106	1124	1155	1155	
547	548	550	550	550	550	552	552	552	
528	561	572	585	585	585	588	626	626	
3082	3124	3136	3177	3193	3193	3198	3225	3225	
98	98	99	101	101	101	105	105	105	
2512	2506	2517	2543	2565	2565	2595	2622	2622	
14125	14561	14891	15111	15111	15111	15605	15874	15874	
103455	105091	105866	106616	107783	110501	111856	113878	113878	
242	244	248	250	254	254	254	257	257	
12	12	12	12	12	12	12	12	12	
728	732	734	759	776	776	775	778	778	
3144	3179	3199	3223	3248	3274	3303	3346	3346	
20647	20883	21070	21246	21438	21682	21903	22049	22049	
12487	12649	12824	12824	12824	12824	12824	13486	13486	
857	857	877	878	881	886	888	889	889	
57	58	61	62	62	62	63	64	64	
549	549	550	553	555	555	565	569	569	
1423	1443	1479	1506	1506	1506	1532	1588	1588	
830	837	846	862	867	867	872	881	881	
1876	1889	1907	1928	1931	1954	1955	1964	1964	
2411	2432	2450	2473	2475	2475	2477	2512	2512	



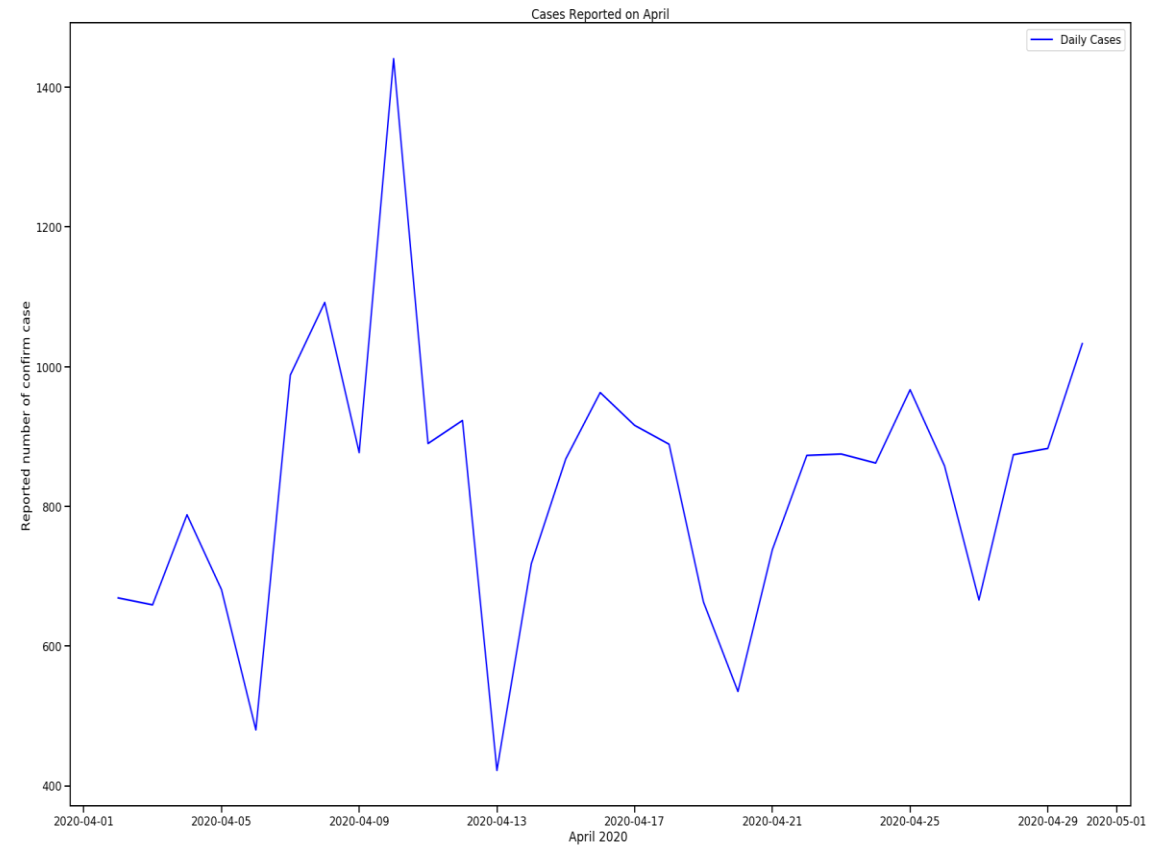
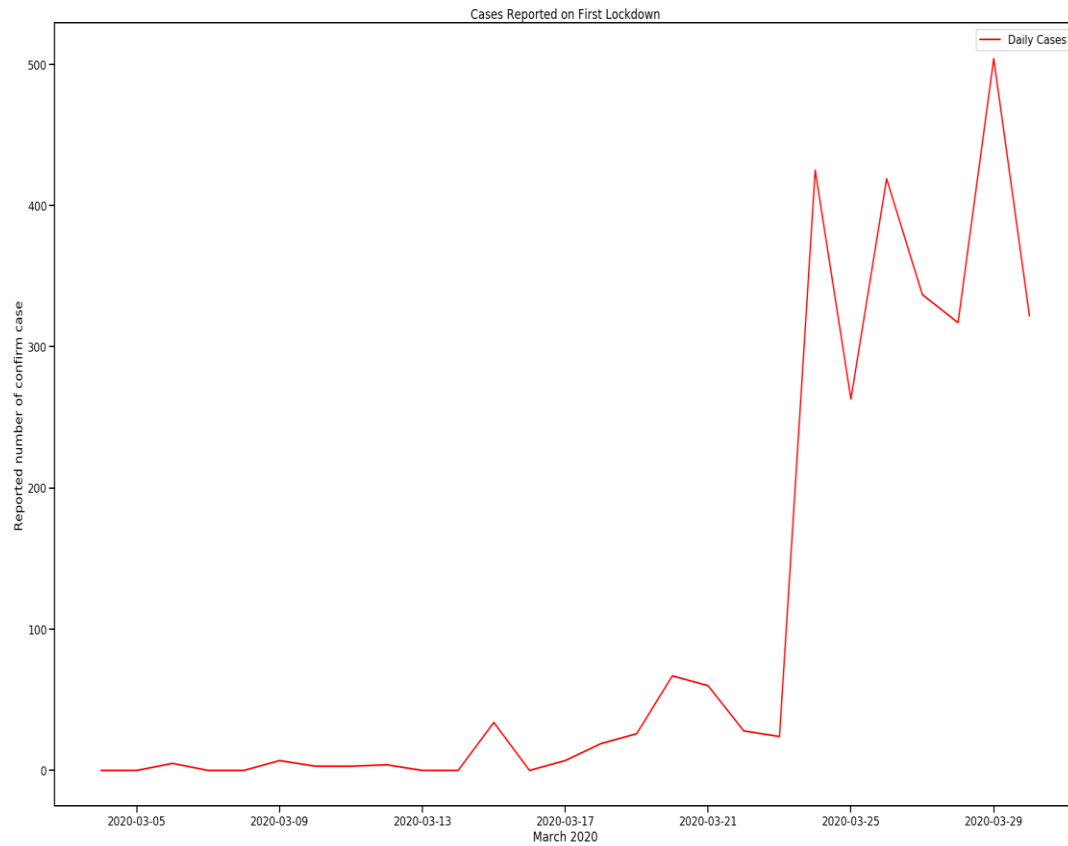
## TEXAS MONTHLY AND DAILY PLOT

1. Spiked during mid July, October 2020 and January 2021
2. Reports 28027 cases on
3. Cases are below 5000 in March 2021



# Lockdown Effect

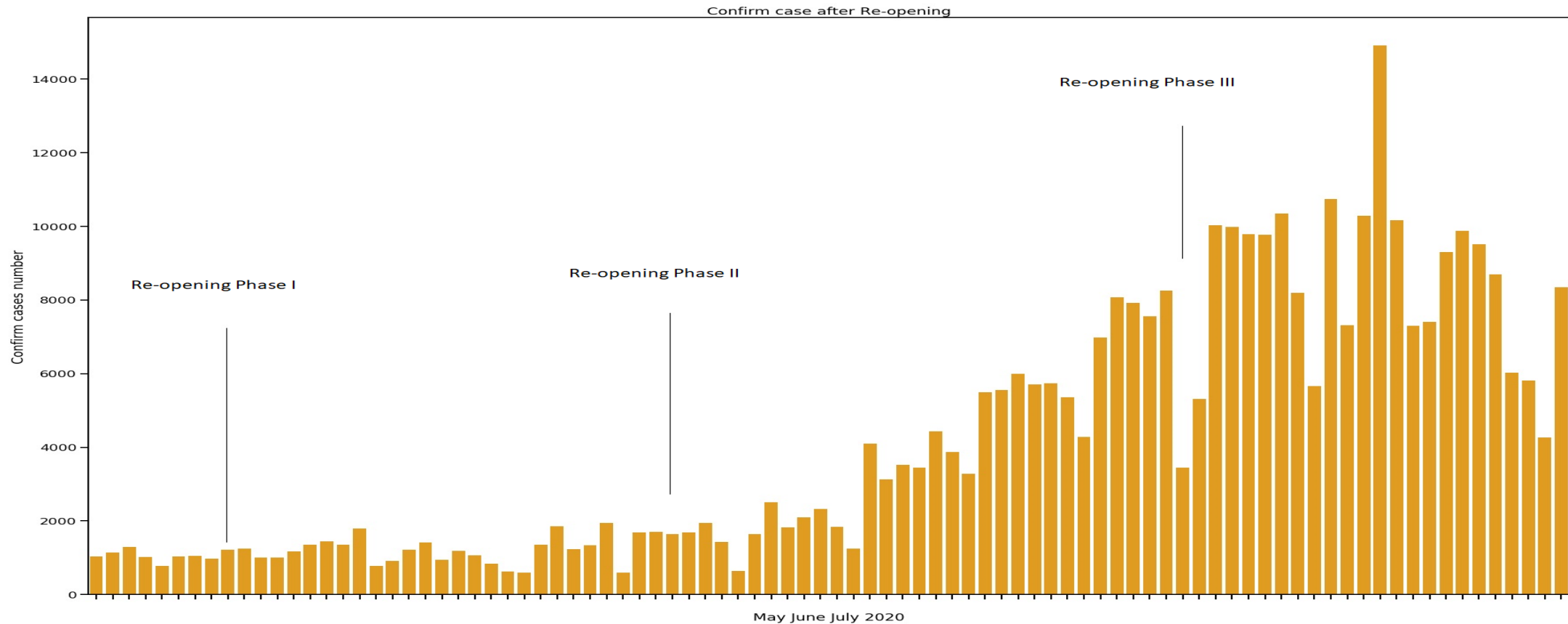
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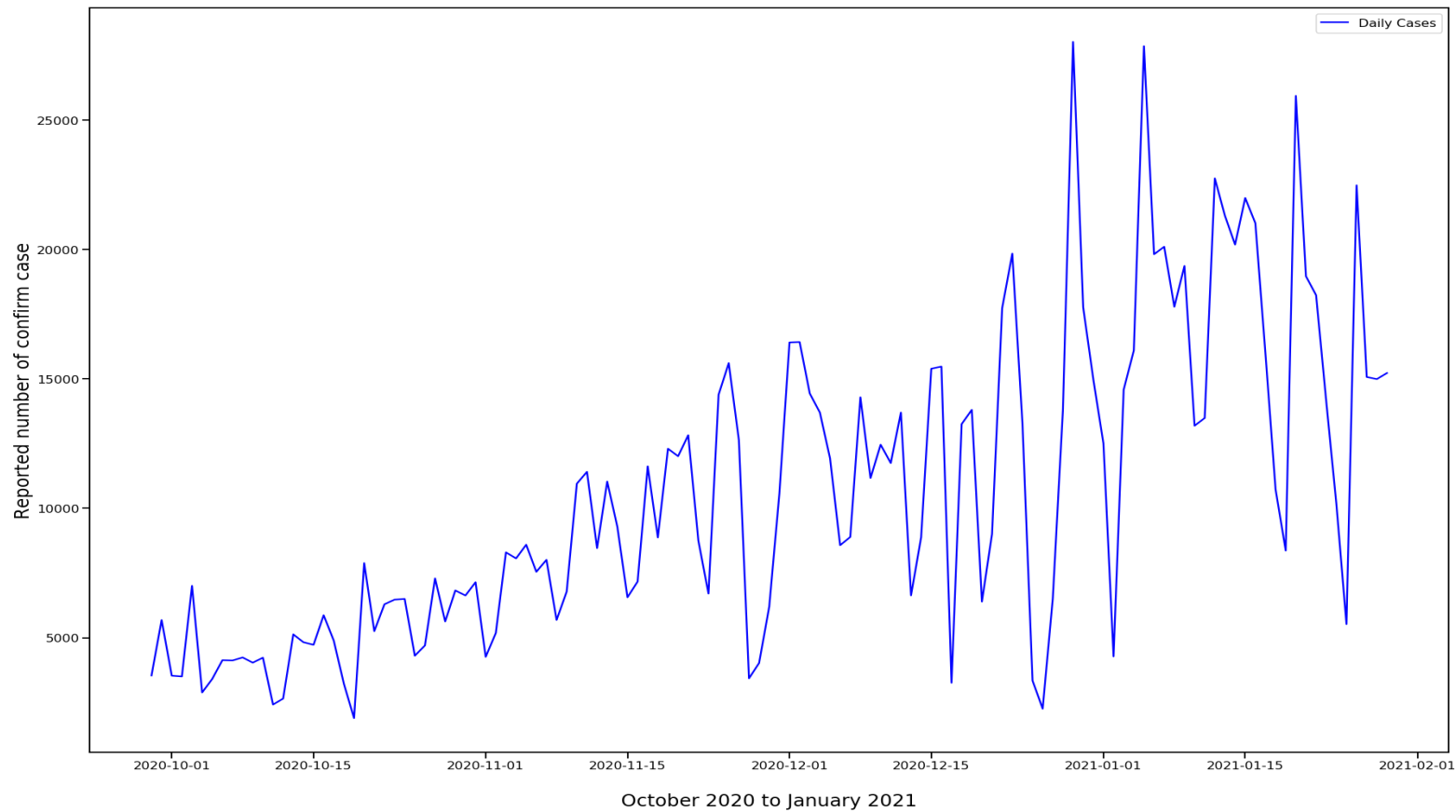
# Re-opening Phase I,II,III

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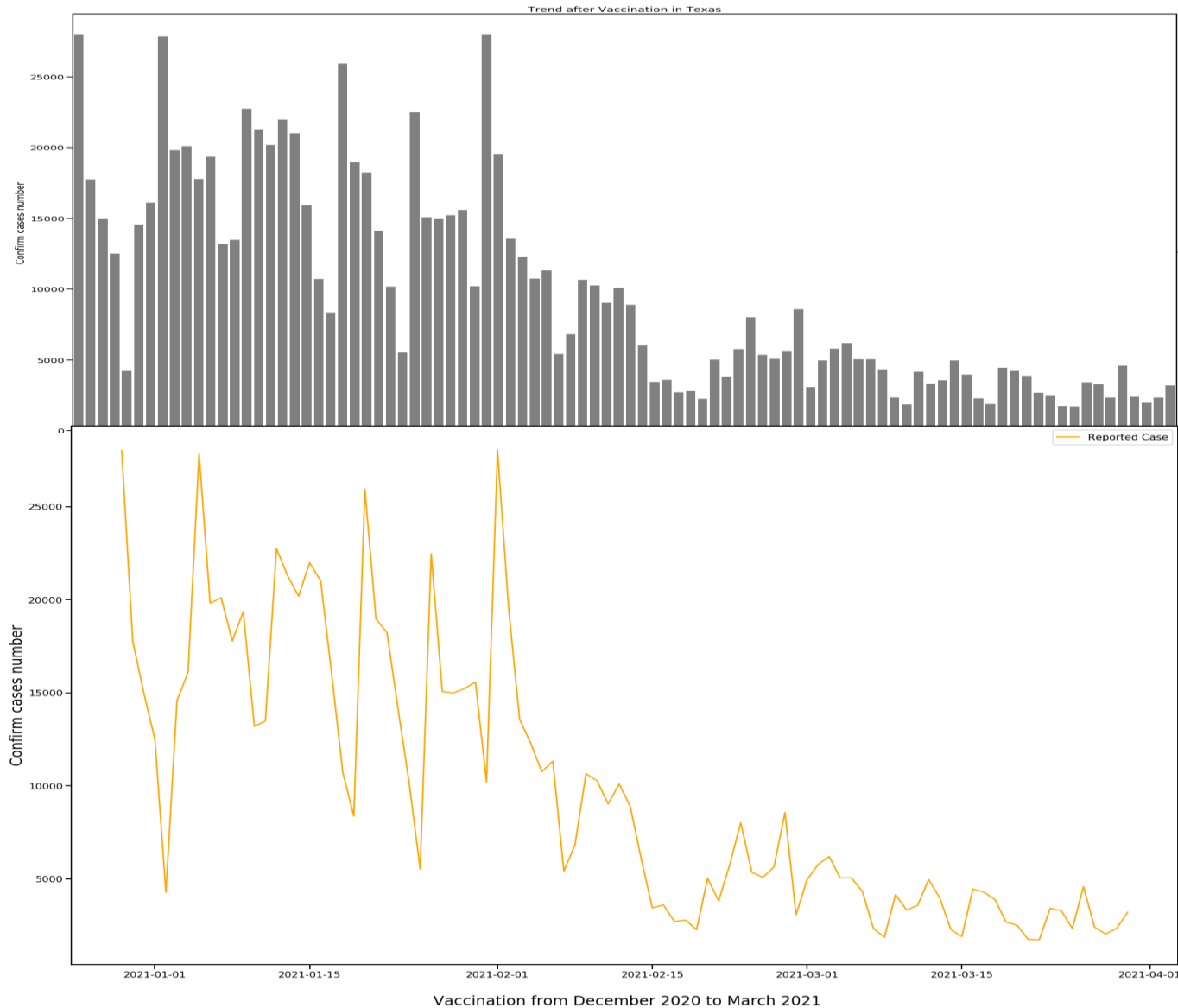


# Election and Festive Season



1. The election campaign has direct impact on increasing cases.
2. Most results of spike are seen after election (Nov 3, 2020)
3. Social gathering and celebrating festival also shows record increment in cases
4. 'No lockdown' statement by Gov. Abbot on Nov 18, 2020

# Vaccination



Lifting of mask mandate order

The line and bar plot support the argument of vaccine impact on decreasing number of cases.

Cases are below 5000 reported till March 2021

# Conclusion

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- Stay home order, mask mandate or lockdown orders of government are most influencing on controlling the disease spread. However, they are not only capable of handling the pandemic.
- Social gathering without preventive measures are mainly responsible for spreading disease
- Government decision played crucial role. An early monitoring system is required which allows prompt detection of disease threat, epicenter, track, or clear threats.
- Communication system, information circulation and prompt execution by individuals or organization, as a system may help on reducing the threat of pandemic.



THANK YOU !



QUESTIONS??

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