Andrew Garcia
2/8/2022
ECE 5984 – Prof. Jones SP22

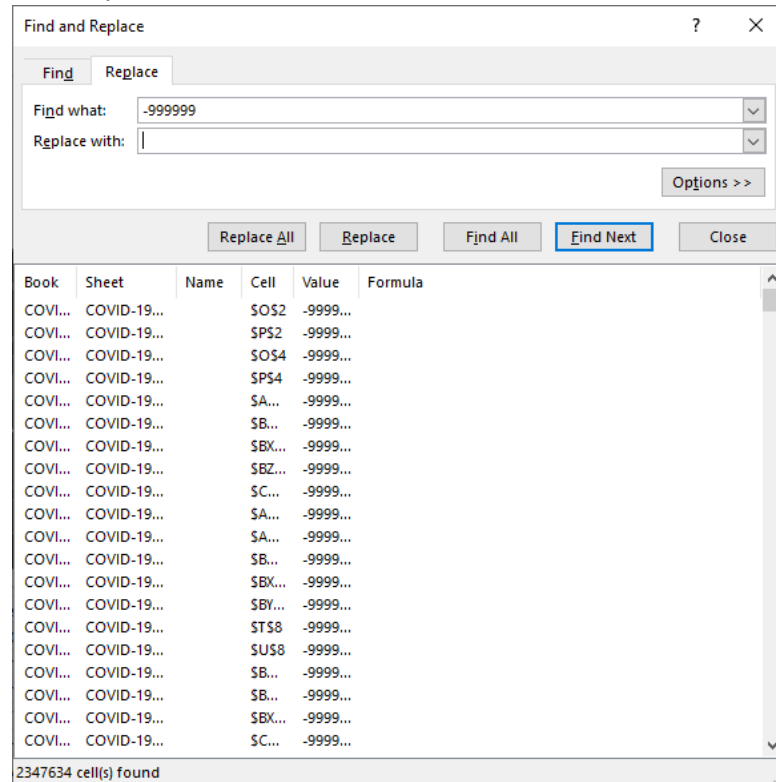# ECE 5984 Appl of Machine Learning – HW1

➢ Part 3:
  o Value in entire sheet: -999999
    ▪ Quantity deleted: 2347634

➢ Part 4:

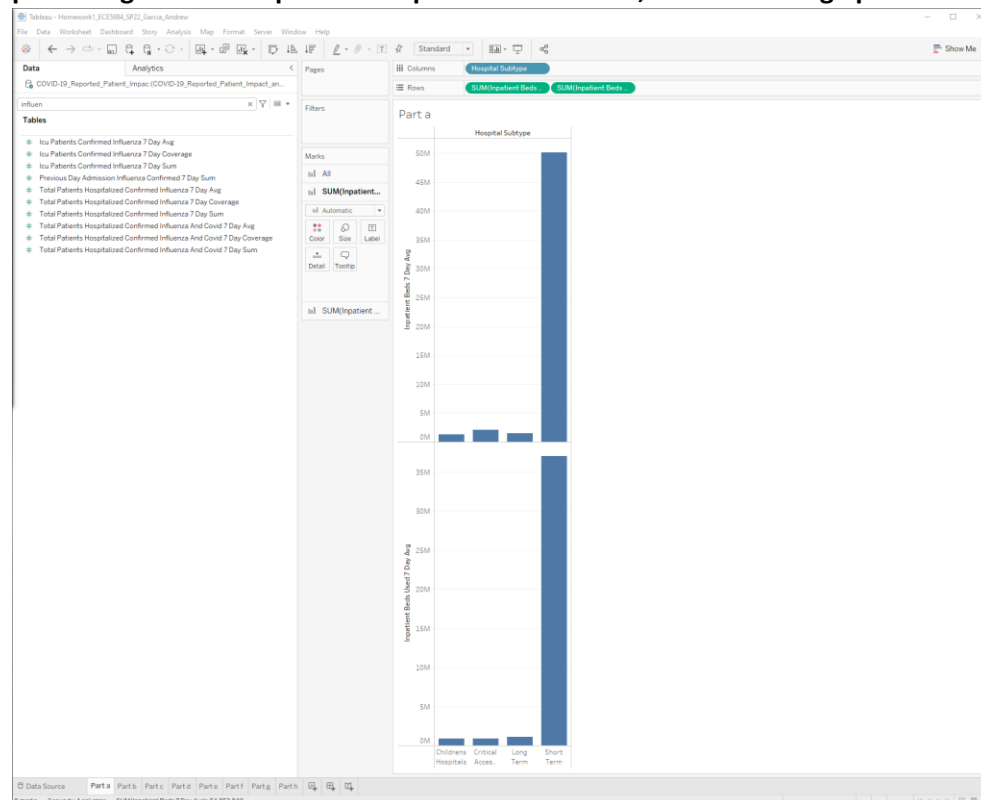| Statistics	hospital_pk	collection_week	state	ccn	hospital_name	address
Mean	267615.2708	44313.14773	#DIV/0!	267571.6	#DIV/0!	42071
Min	10001	44043	0	10001	0	42071
Max	677297	44582	0	677297	0	42071
Range	667296	539	0	667296	0	0
Median	260009	44316	#NUM!	260009	#NUM!	42071
Mode	10108	44190	#N/A	50515	#N/A	42071
Variance	24512671191	24737.22563	#DIV/0!	2.45E+10	#DIV/0!	0
Std Deviation	156565.2298	157.2807224	#DIV/0!	156579.7	#DIV/0!	0
Quartile 1	140172	44176	#NUM!	140167	#NUM!	42071
Quartile 2	260009	44316	#NUM!	260009	#NUM!	42071
Quartile 3	390265	44449	#NUM!	390265	#NUM!	42071

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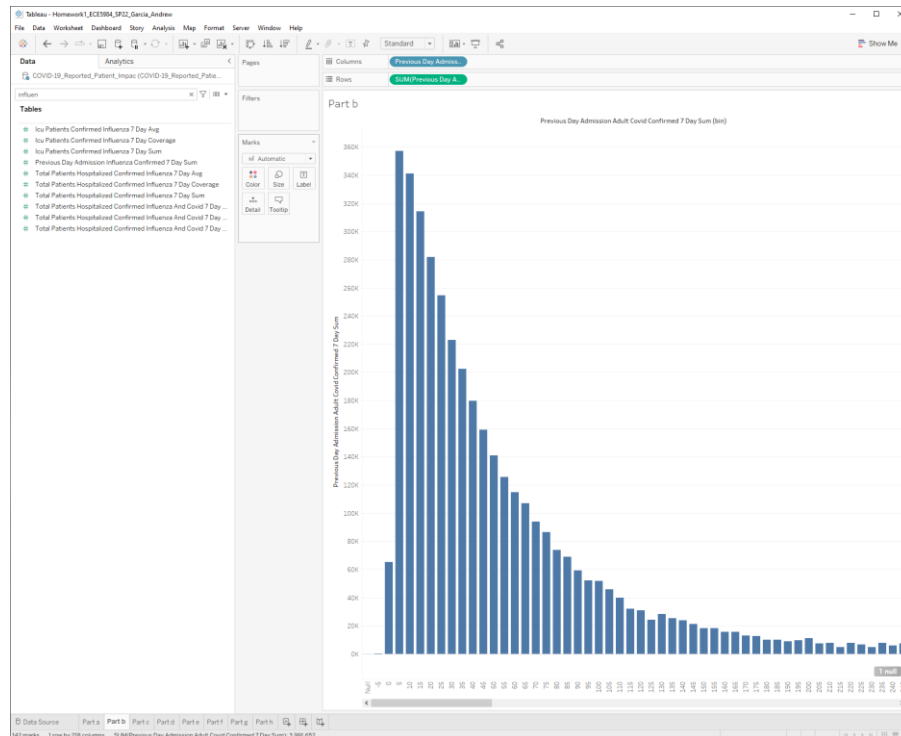ECE 5984 – Prof. Jones SP22

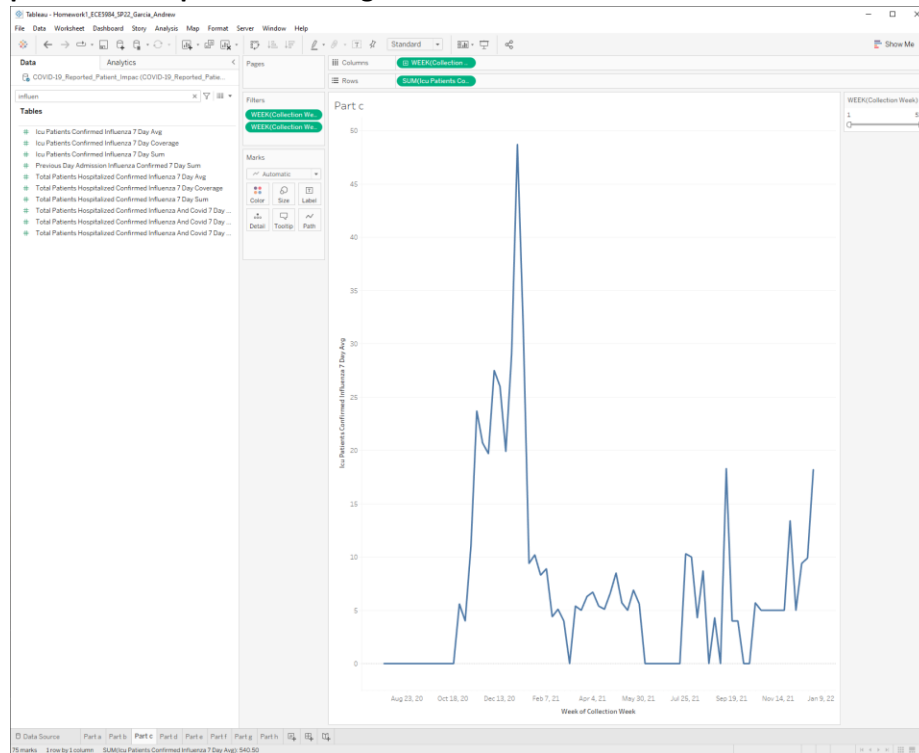| previous_week_personnel_covid_vaccinated_doses_administered_7_day	total_personnel_covid_vaccinated_doses_none_7_day	total_personnel_covid_vaccinated_doses_one_7_day	total_personnel_covid_vaccinated_doses_all_7_day	previous_week_patients_covid_vaccinated_doses_one_7_day	previous_week_patients_covid_vaccinated_doses_all_7_day
82.96971	381.6317	499.6591	794.8471	170.8779	165.9432
0	0	0	0	0	0
539270	520037	520037	520037	520037	520037
539270	520037	520037	520037	520037	520037
0	85	32	163	0	0
0	0	0	0	0	0
4070709	2854061	5172733	5974814	4416263	3692328
2017.6	1689.397	2274.364	2444.343	2101.491	1921.543
0	10	0	32	0	0
0	85	32	163	0	0
11	295	239	649	6	5

➢ Part 6:
   a) **There are several hospital subtypes in this data. Prepare a table showing the average percentage used of inpatient hospital beds for each, and the average percent overall.**

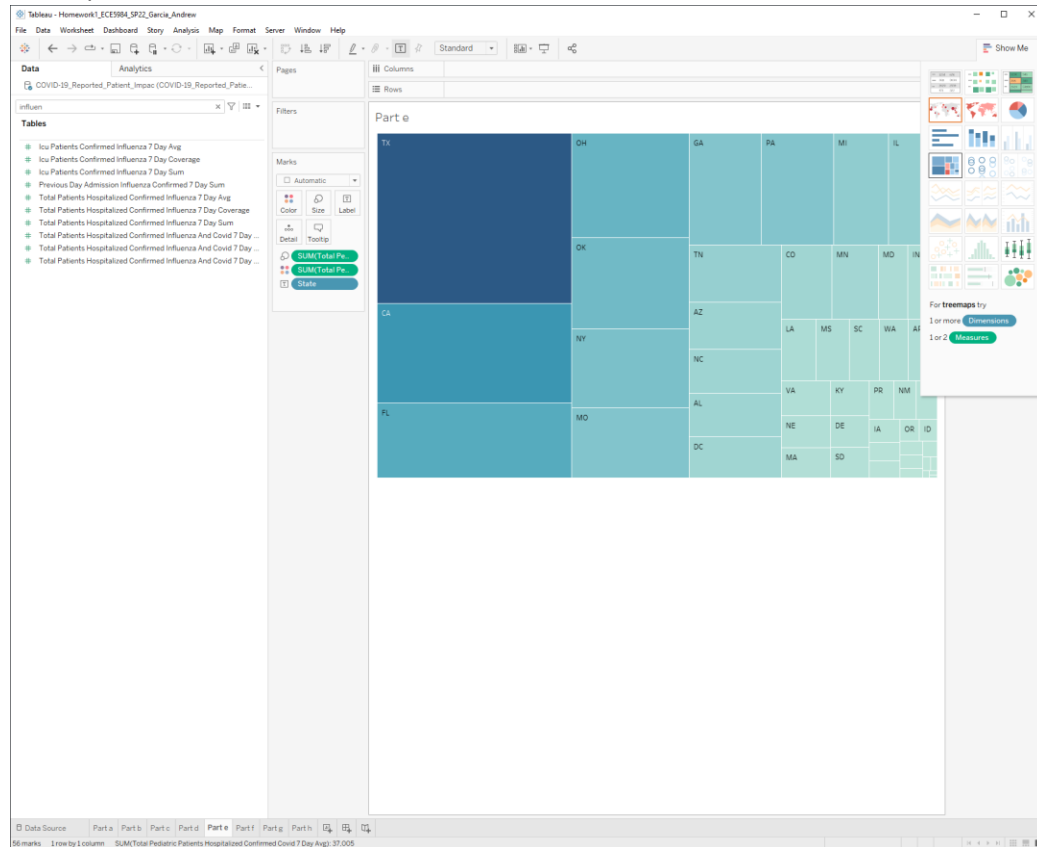b) **Display a histogram of "Previous Day Admission Adult Covid Confirmed 7 Day Sum"; use bin size of 5.**

c) **Display a line graph of "Icu Patients Confirmed Influenza 7 Day Avg" by week, for the period from April 2020 through December 2021.**

d) **Identify the five hospitals with the highest "Total Pediatric Patients Hospitalized Confirmed Covid 7 Day Avg".**

The top five are Texas Childrens Hosp, Childrens Medical CTR of Dallas, SSM Health St Anthony Hospital – Oklahoma City, Cook Childrens Medical Center, and Children's Hosp of Los Angeles.
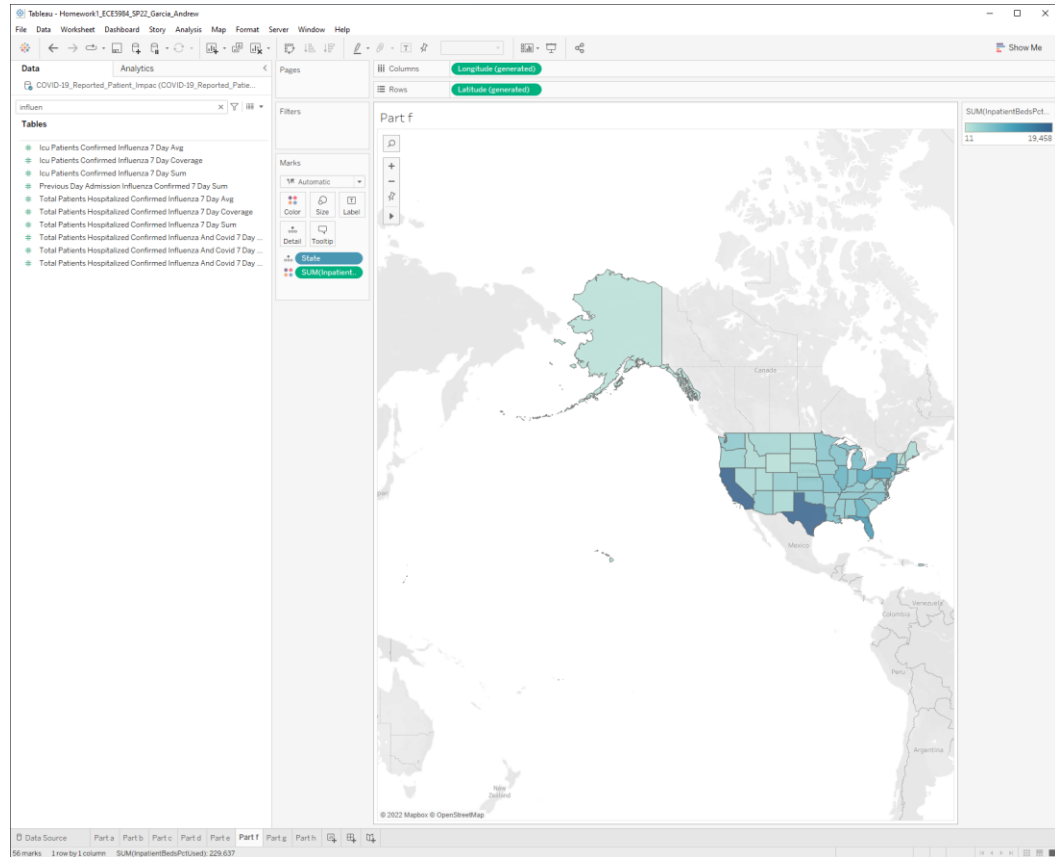
e) **Identify the five states with the highest "Total Pediatric Patients Hospitalized Confirmed Covid 7 Day Avg".**

The top 5 States are; TX, CA, FL, OH, and OK

f) **Create a calculated field called "InpatientBedsPctUsed" as the ratio of "Inpatient Beds Used 7 Day Avg" to "Inpatient Beds 7 Day Avg". Display a map of this ratio by state for the 50 US states and Puerto Rico.**

g) **Which hospital has the most inpatient beds?**

NEW YORK-PRESBYTERIAN HOSPITAL has the most inpatient beds with 1,641,118

h) **Which state has the highest number of influenza hospitalizations for the past seven days?**
California has the highest number of influenza hospitalizations with 1,228 and Texas in second place.