MIS 632 Team Final Project

Group 10
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I. MySQL

1. List the top 10 states by number of complaints (descending order)

```
1  select state as 'State', count(complaintid) as 'Complaints'
2  from complaints
3  group by state
4  order by count(complaintid) desc
5  limit 10 ;
```

34:4

Result Grid | Filter Rows: Search | Export: | Fetch rows:

State	Complaints
CA	76149
FL	49816
TX	38447
NY	35595
GA	22762
NJ	20897
PA	18665
IL	18306
VA	16856
MD	16527

2. List the top 10 states by number of complaints per capita (descending order)

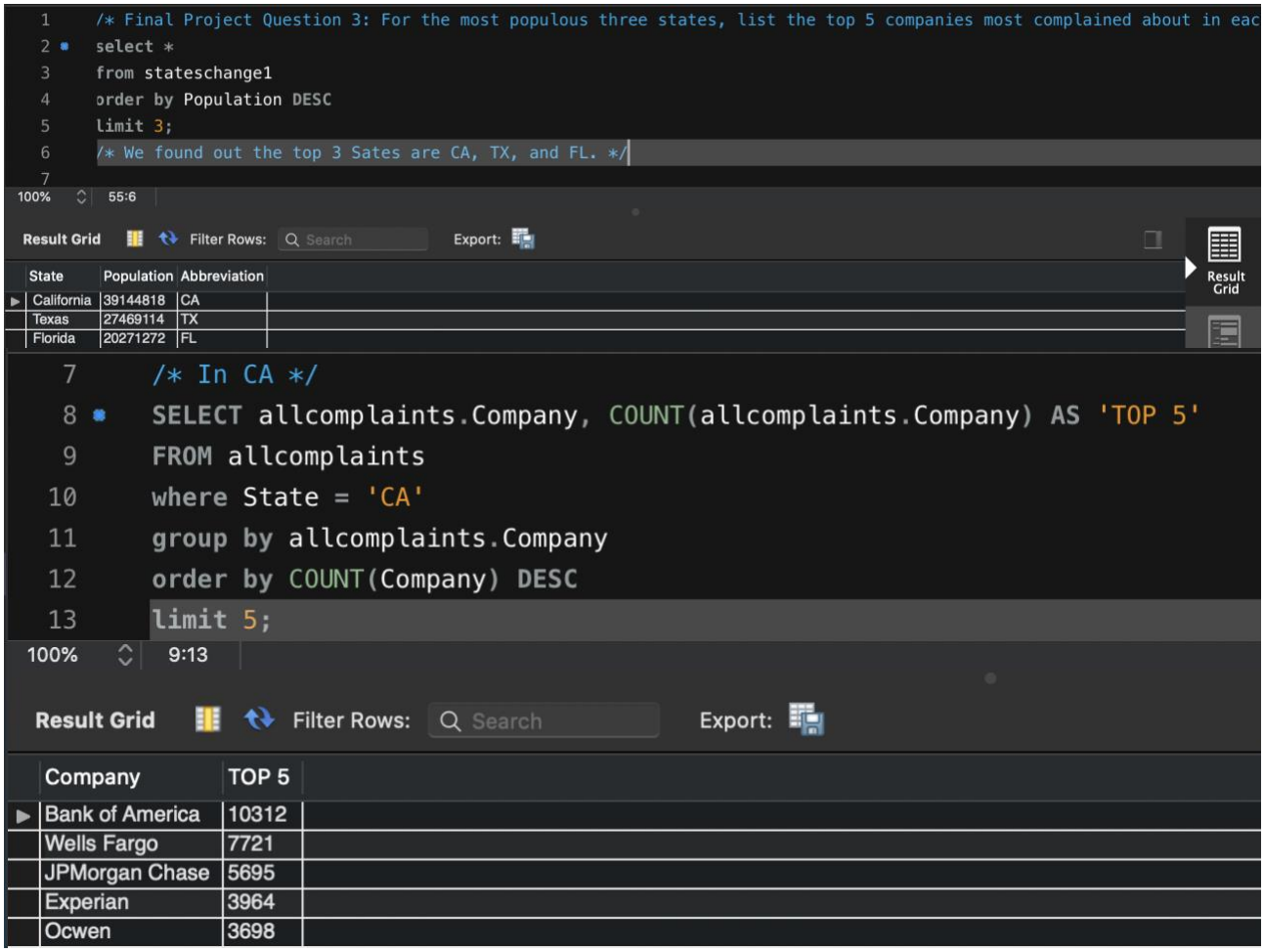
```
1  select complaints.state as 'State', count(complaints.complaintID)/states.`Population-in-2015`as 'Complaints Per Capita'
2  from complaints
3  join states on complaints.state = states.Abbreviation
4  group by complaints.state, `Population-in-2015`
5  order by count(complaints.complaintid)/states.`Population-in-2015`desc
6  limit 10 ;
```

100% 1:7

Result Grid | Filter Rows: Search | Export: | Fetch rows:

State	Complaints Per Capita
DC	0.0045
DE	0.0029
MD	0.0028
FL	0.0025
NJ	0.0023
NV	0.0022
GA	0.0022
NH	0.0020
VA	0.0020
CA	0.0019

3. For the most populous three states, list the top 5 companies most complained about in each state.



```
/* Final Project Question 3: For the most populous three states, list the top 5 companies most complained about in eac
select *
from stateschange1
order by Population DESC
limit 3;
/* We found out the top 3 Sates are CA, TX, and FL. */
```

100% 55:6

Result Grid Filter Rows: Search Export:

State	Population	Abbreviation
California	39144818	CA
Texas	27469114	TX
Florida	20271272	FL

```
/* In CA */
SELECT allcomplaints.Company, COUNT(allcomplaints.Company) AS 'TOP 5'
FROM allcomplaints
where State = 'CA'
group by allcomplaints.Company
order by COUNT(Company) DESC
limit 5;
```

100% 9:13

Result Grid Filter Rows: Search Export:

Company	TOP 5
Bank of America	10312
Wells Fargo	7721
JPMorgan Chase	5695
Experian	3964
Ocwen	3698

```
14    /* In TX */
15    SELECT allcomplaints.Company, COUNT(allcomplaints.Company) AS 'TOP 5'
16    FROM allcomplaints
17    where State = 'TX'
18    group by allcomplaints.Company
19    order by COUNT(Company) DESC
20    limit 5;
```

100% 9:20

Result Grid Filter Rows: Search Export:

Company	TOP 5
Experian	3659
Equifax	3306
TransUnion	2892
Bank of America	2792
Wells Fargo	2288

```
21    /* In FL */
22    SELECT allcomplaints.Company, COUNT(allcomplaints.Company) AS 'TOP 5'
23    FROM allcomplaints
24    where State = 'FL'
25    group by allcomplaints.Company
26    order by COUNT(Company) DESC
27    limit 5;
```

100% 9:27

Result Grid Filter Rows: Search Export:

Company	TOP 5
Bank of America	6151
Wells Fargo	4329
JPMorgan Chase	3006
Equifax	2849
Experian	2488

4. List for all states, the income per capita plus the number of complaints for the state

```sql
/* Final Project Question 4: List for all states, the income per capita plus the number of complaints for the state*/
select Part1.STATE, count(complaints.complaintid), `State Total`, `Income per capita`
from
(select demo.STATE, st.Population, SUM(`Total Income`) AS 'State Total', SUM(`Total Income`)/st.Population AS 'Income per capita'
from demographics AS demo
join states AS st
on demo.STATE = st.Abbreviation
group by demo.STATE, st.Population) AS Part1
join complaints on Part1.STATE = complaints.State
group by complaints.State, Part1.Population;
```

STATE	count(complaints.complain...	State Total	Income per capita
AK	595	51017632	69.0891
AL	5264	228593858	47.0457
AR	2228	136227470	45.7415
AZ	11548	357553172	52.3652
CA	76149	2855239444	72.9404
CO	8838	390708822	71.6033
CT	6072	341041328	94.9741
DC	3003	66006532	98.1907
DE	2762	58712182	62.0679
FL	49816	1277576412	63.0240
GA	22762	548910136	53.7364
HI	1820	85719198	59.8764
IA	2106	180940293	57.9213
ID	1796	82047828	49.5778
IL	18306	906403940	70.4824
IN	5689	353892978	53.4607
KS	2499	171959876	59.0594
KY	3689	209991768	47.4548
LA	5011	232130954	49.6991
MA	10414	610620664	89.8709
MD	16527	453430226	75.4912
ME	1820	72925664	54.8590
MI	13679	566306090	57.0725
MN	5973	395281576	72.0056
MO	6753	333489689	54.8172
MS	2390	121615192	40.6423
MT	841	57101612	55.2802
NC	14540	536829856	53.4542
ND	442	52368233	69.1853
NE	1619	113680144	59.9519
NH	2669	100513226	75.5393
NJ	20897	752178716	83.9671
NM	2530	95940984	46.0125
NV	6283	173035768	59.8565
NY	35595	1617332720	81.7008
OH	16250	659321414	56.7724

	OK	3396	196725906	50.2963
	OR	6155	242259052	60.1292
	PA	18665	822403838	64.2377
	RI	1792	68101600	64.4720
	SC	6434	244665260	49.9710
	SD	705	52141016	60.7372
	TN	7847	346010648	52.4235
	TX	38447	1669694680	60.7844
	UT	2746	163822500	54.6819
	VA	16856	591128464	70.5152
	VT	895	38862696	62.0768
	WA	10759	527556258	73.5747
	WI	5729	356248502	61.7272
	WV	1356	80190390	43.4842
	WY	524	42646894	72.7630

5. List the top 10 companies appearing in the complaints table by count of complaints in the top 3 most populous states.

```
/* Final Project Question 5: List the top 10 companies appearing in the complaints table by count of complaints
in the top 3 most populous states. */
select *
from stateschange1
order by Population DESC
limit 3;
/*From above we have CA, FL, and TX as the top 3 populous state*/
```

```
/*From above we have CA, FL, and TX as the top 3 populous state*/
SELECT allcomplaints.Company, COUNT(allcomplaints.Company) AS 'TOP 10'
FROM allcomplaints
where State = 'CA'or'FL'or'TX'
group by allcomplaints.Company
order by COUNT(Company) DESC
limit 10;
```

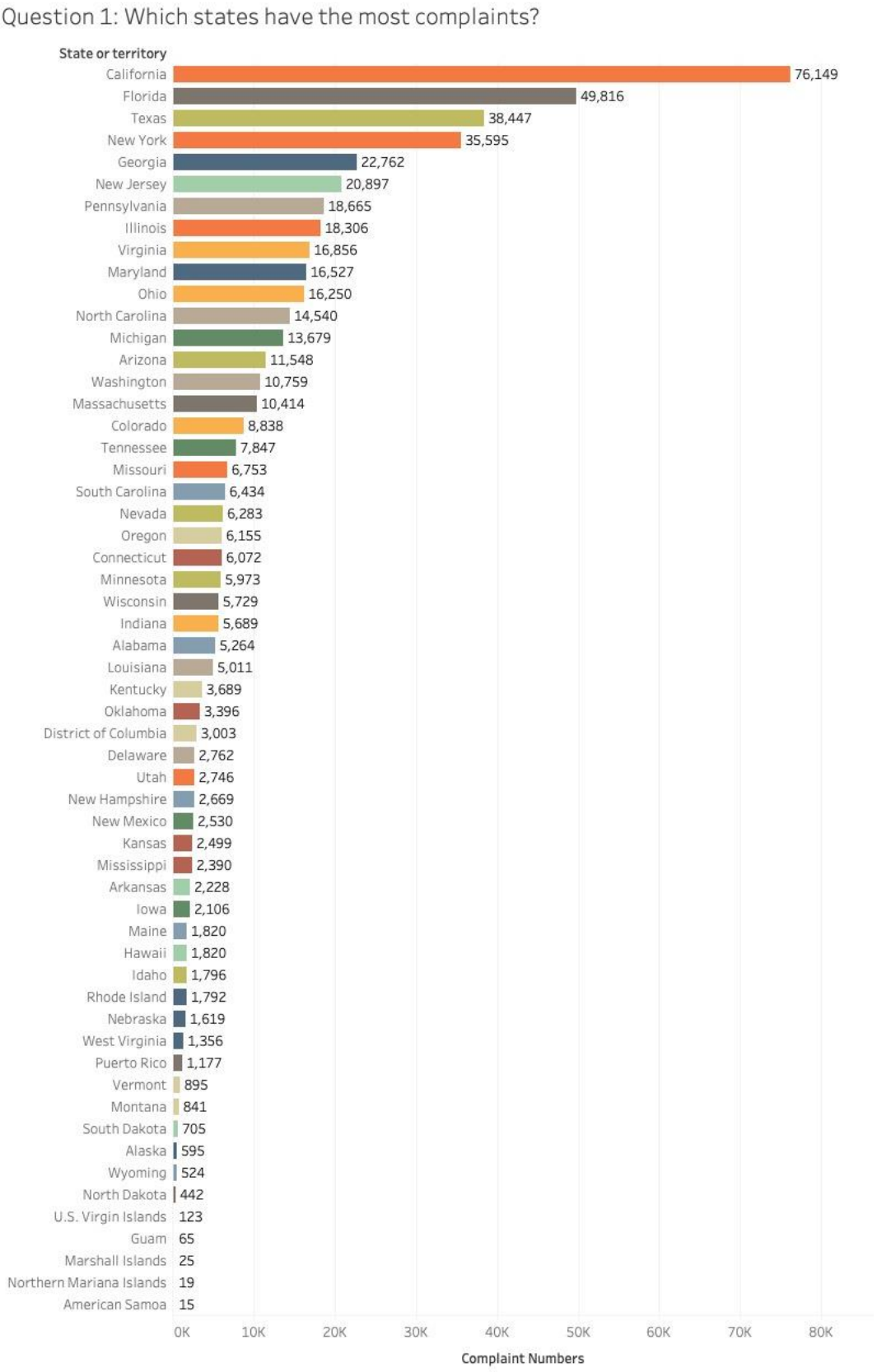
100% 10:41

Result Grid Filter Rows: Search Export:

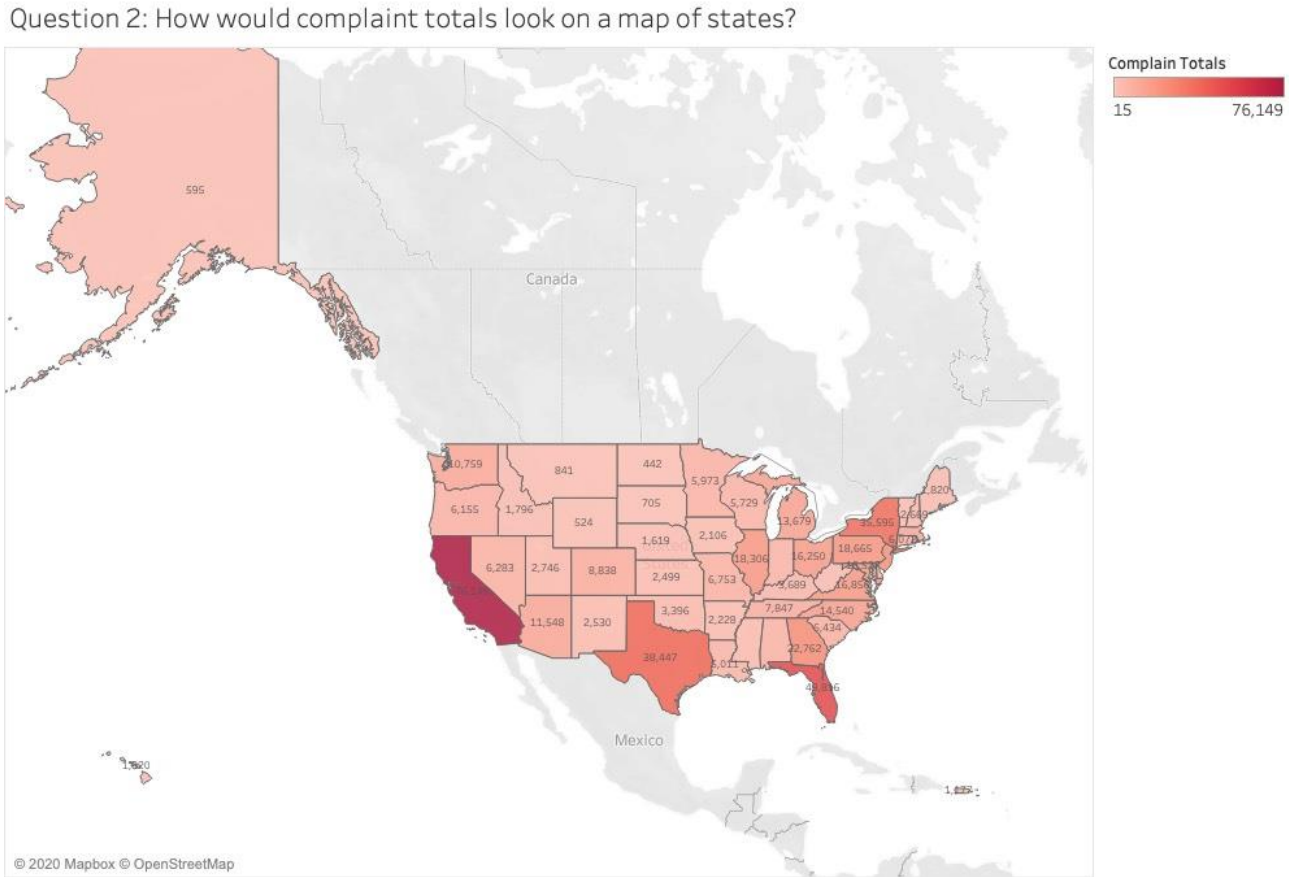
Company	TOP 10
Bank of America	10312
Wells Fargo	7721
JPMorgan Chase	5695
Experian	3964
Ocwen	3698
Equifax	3449
Citibank	3430
TransUnion	2823
Nationstar Mortgage	2594
Capital One	1812

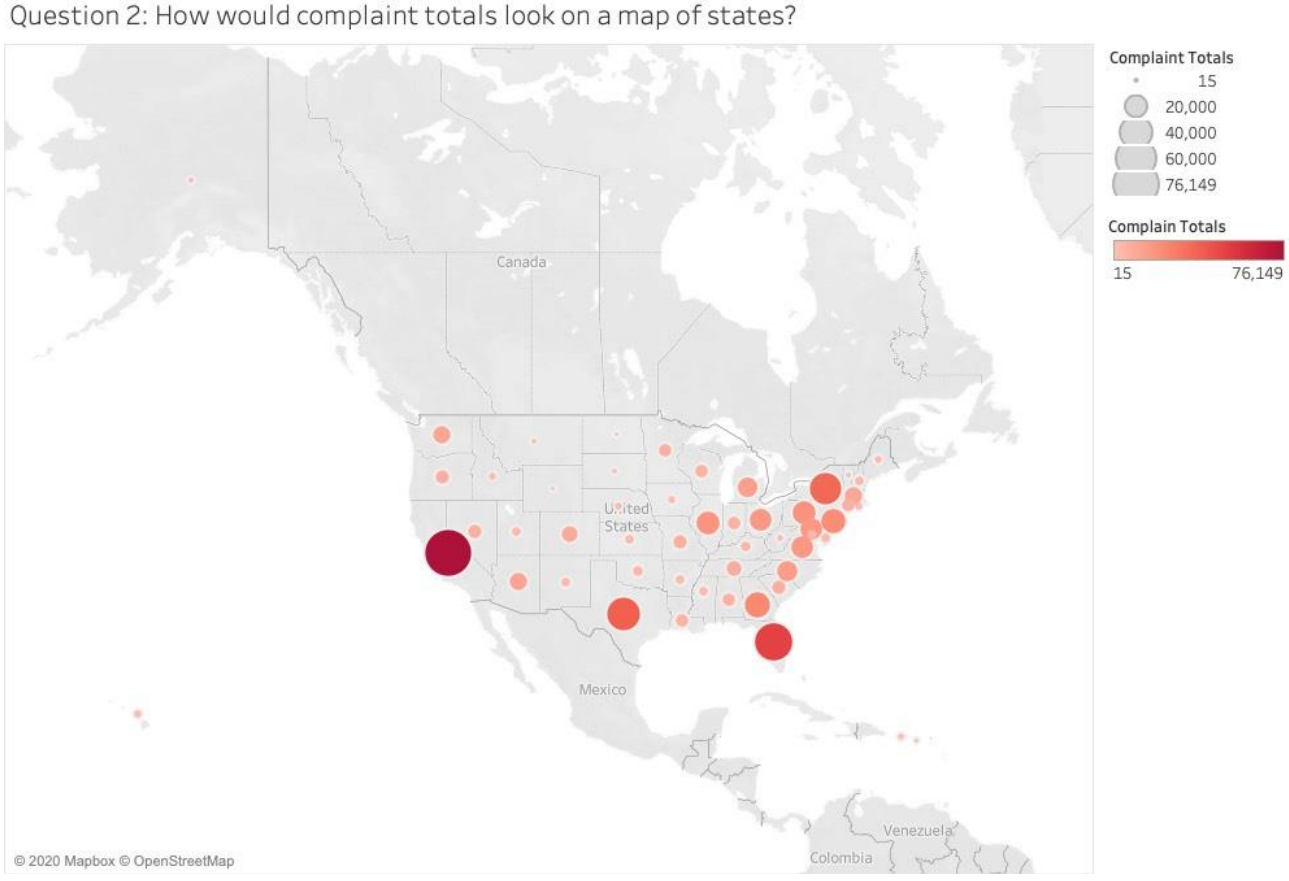
II. Tableau

1. Which states have the most complaints?



2. How would complaint totals look on a map of states?

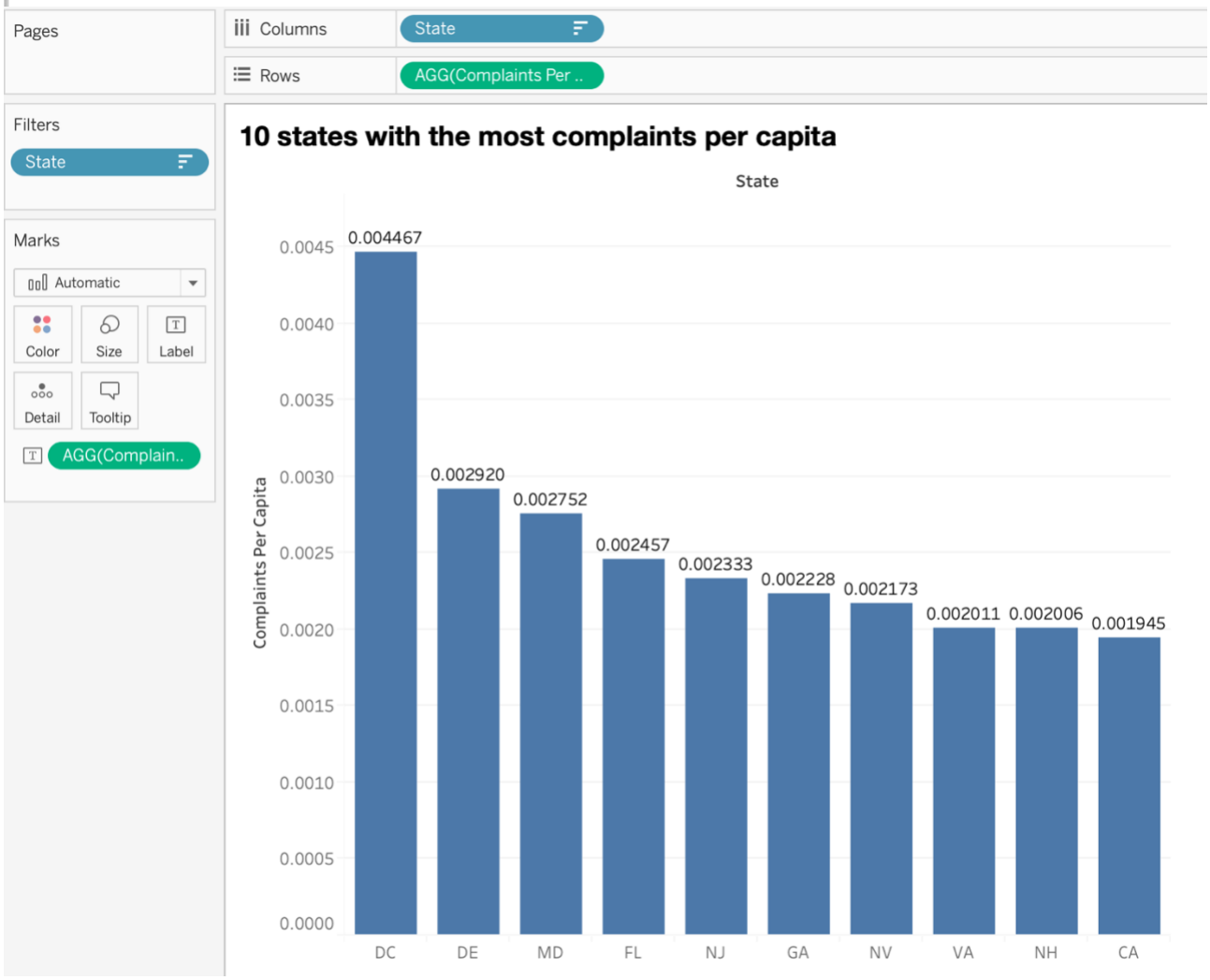


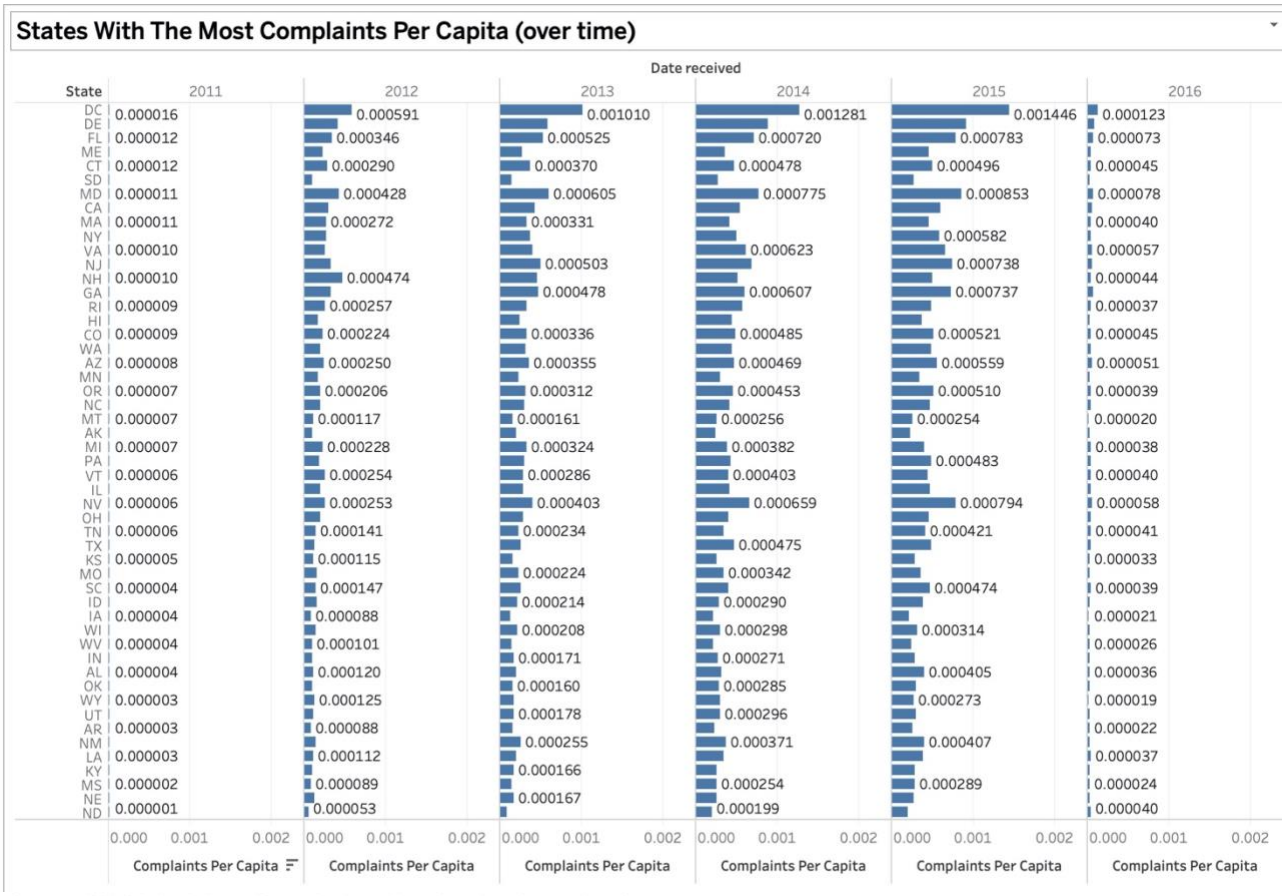


3. Which states have the most complaints per capita (total and over time)?

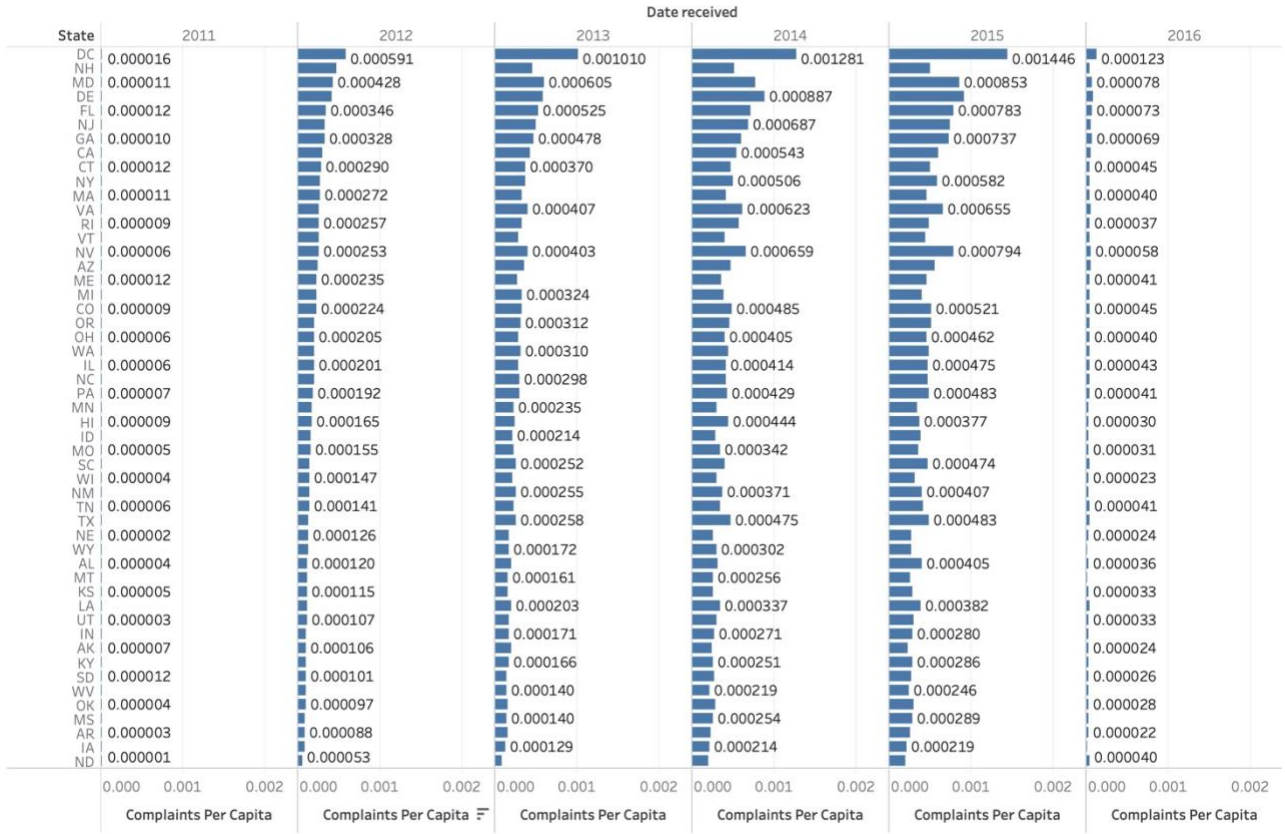
Complaints Per Capita

```
COUNTD([Complaint ID])/AVG([Population in 2015])
```

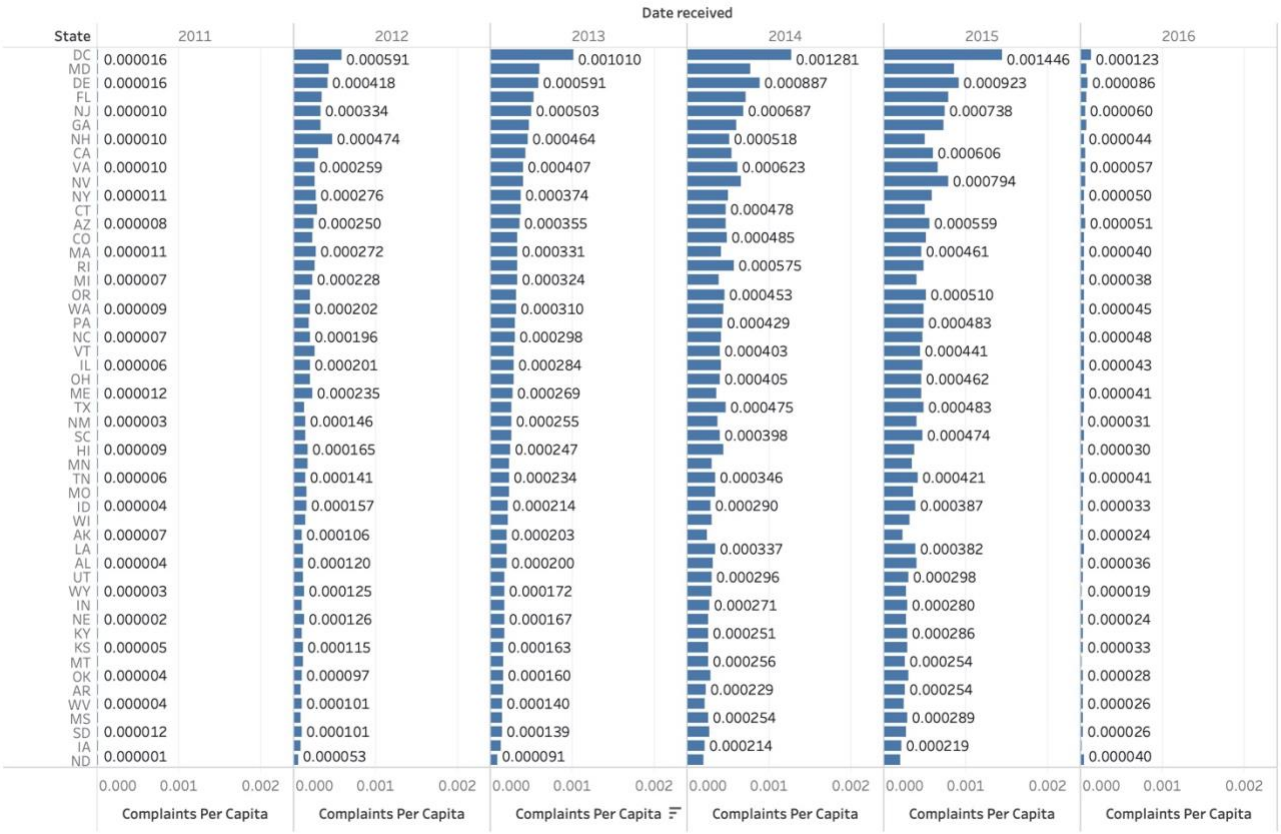




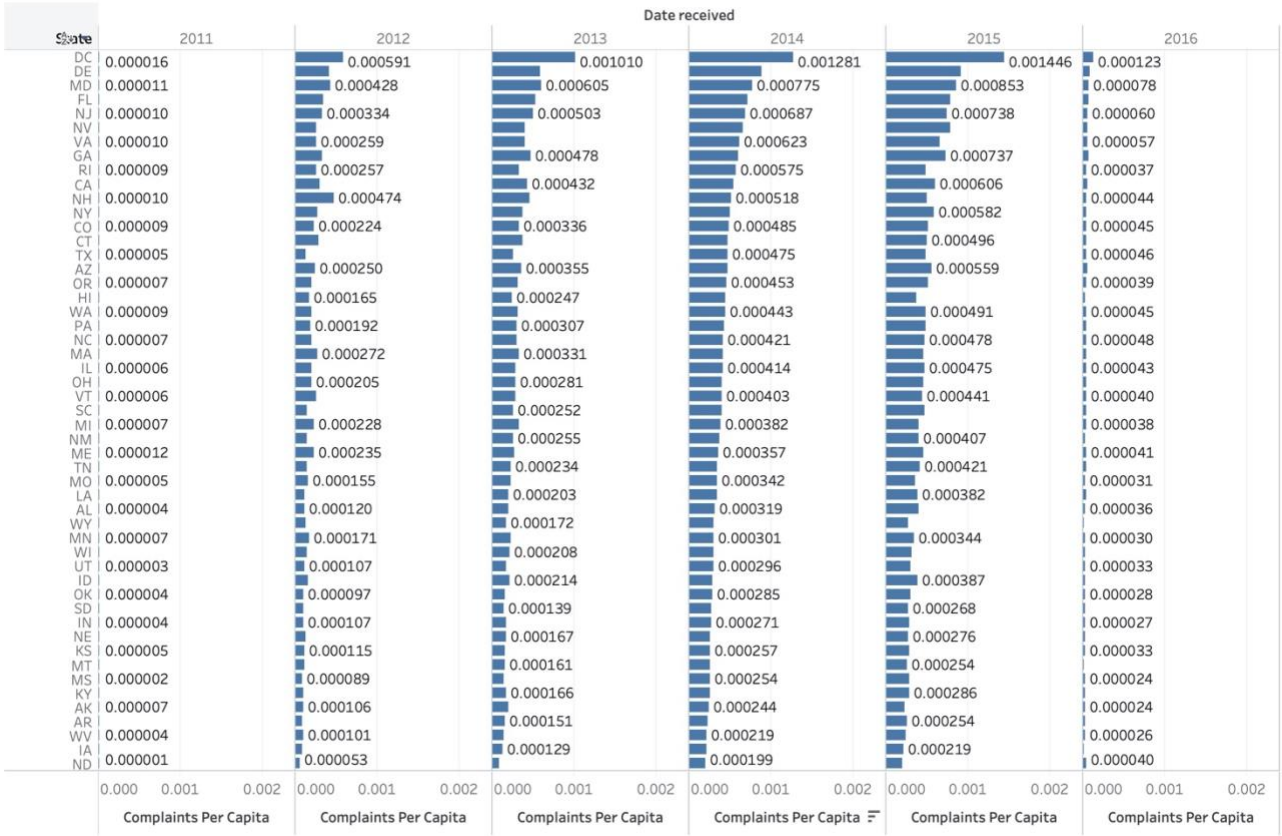
States With The Most Complaints Per Capita (over time)



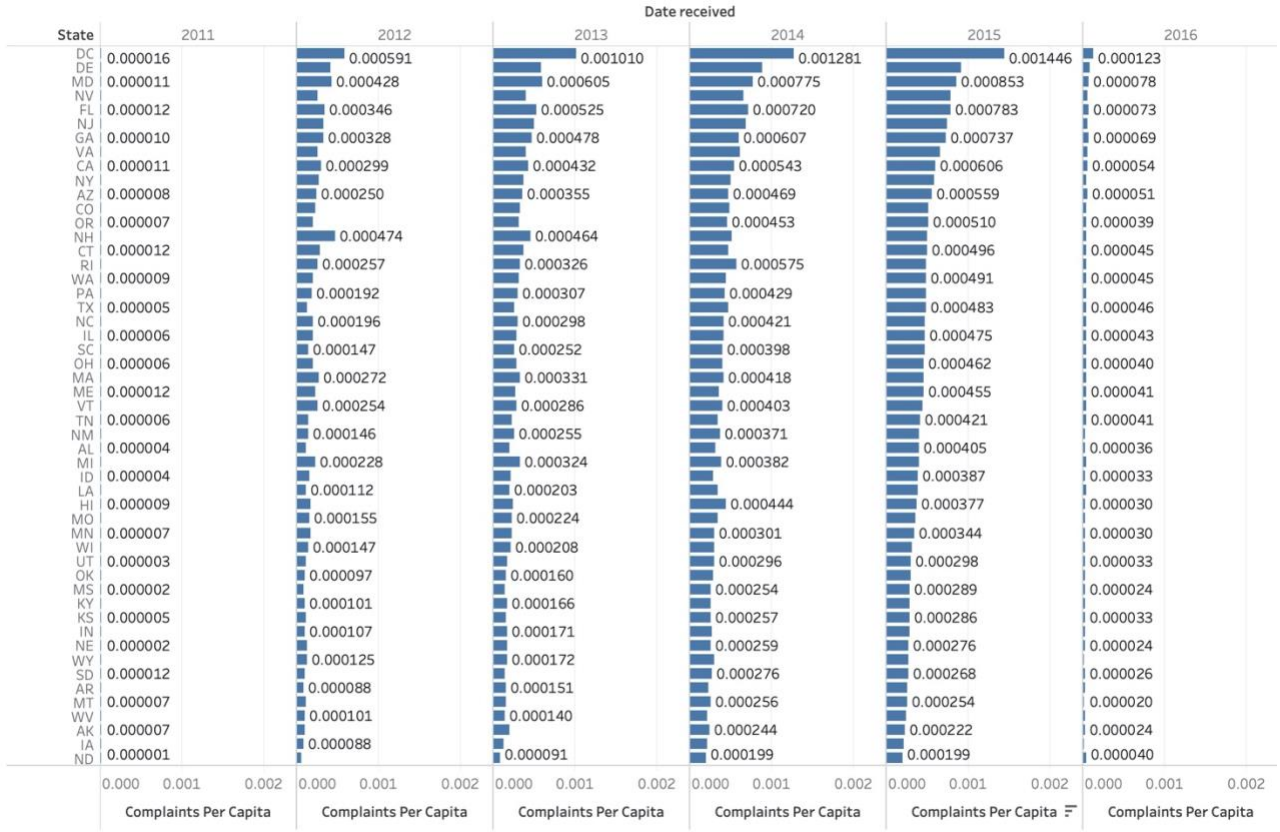
States With The Most Complaints Per Capita (over time)



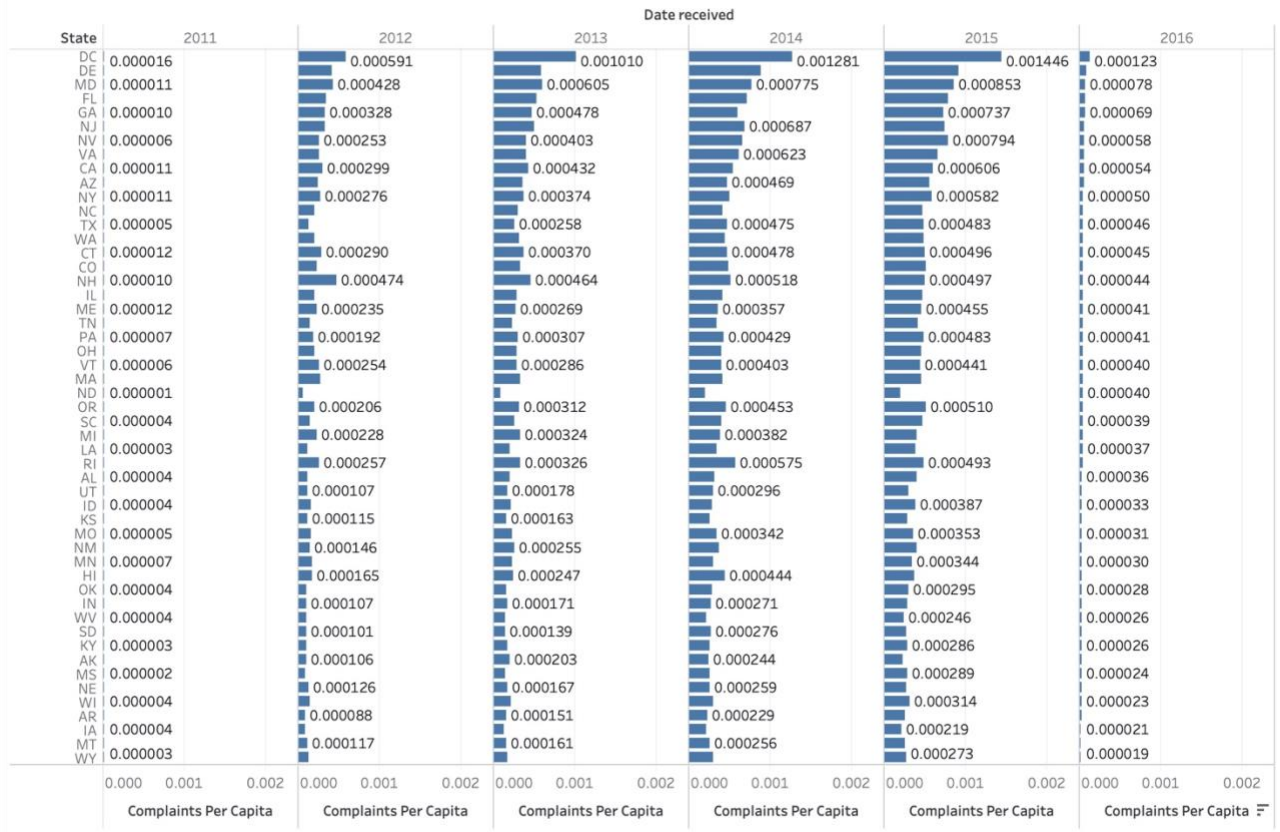
States With The Most Complaints Per Capita (over time)



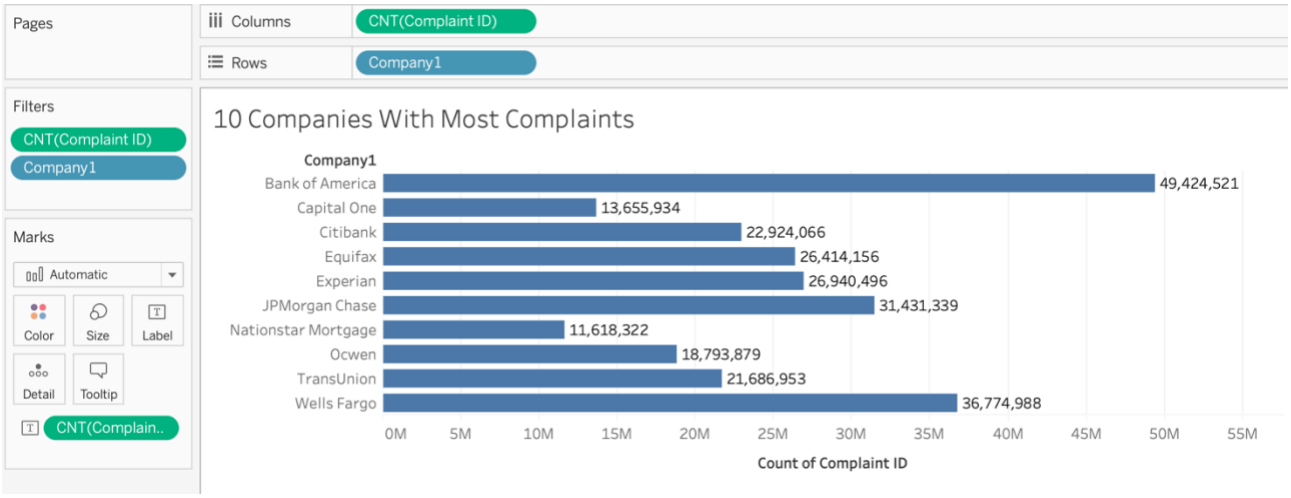
States With The Most Complaints Per Capita (over time)



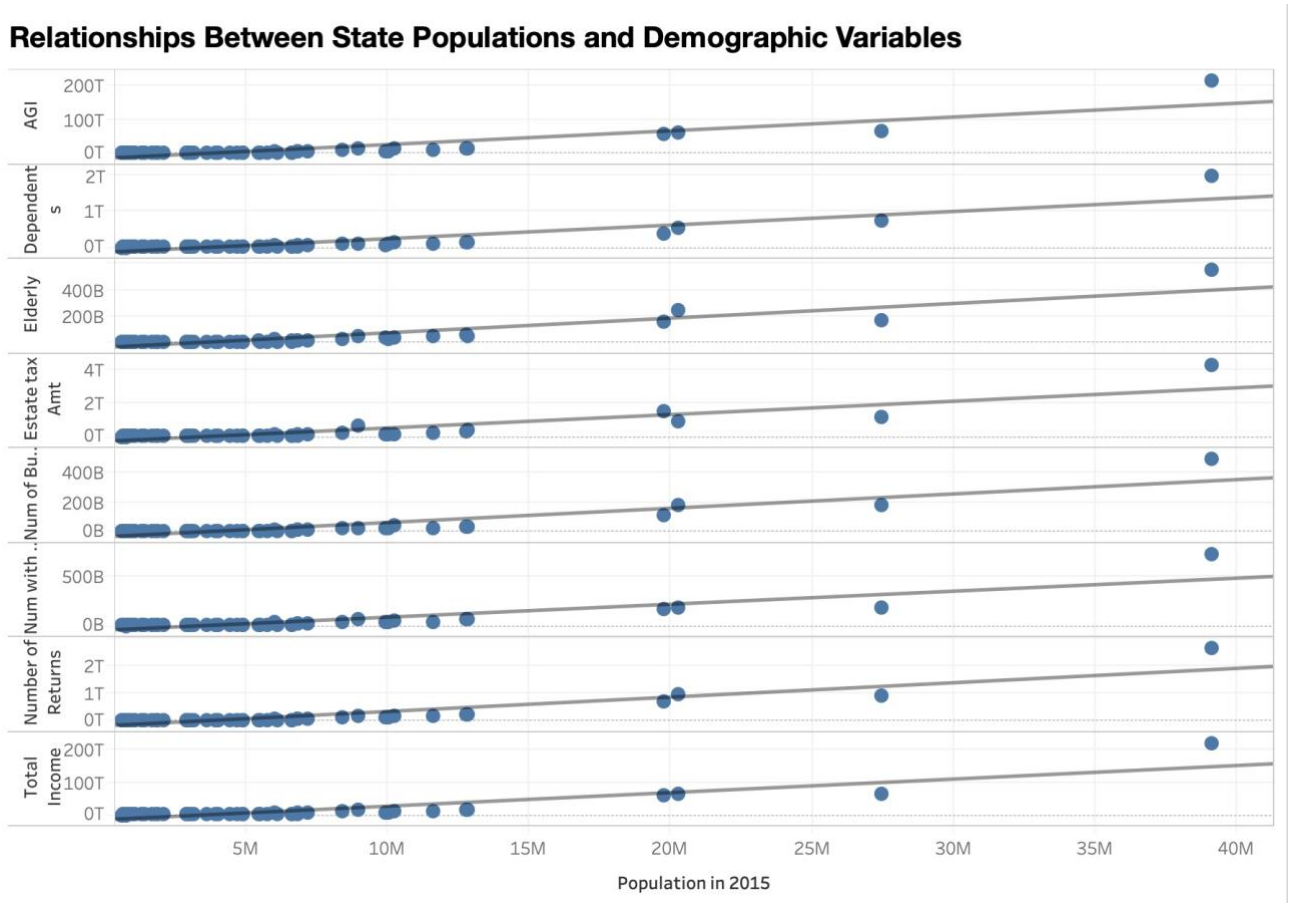
States With The Most Complaints Per Capita (over time)

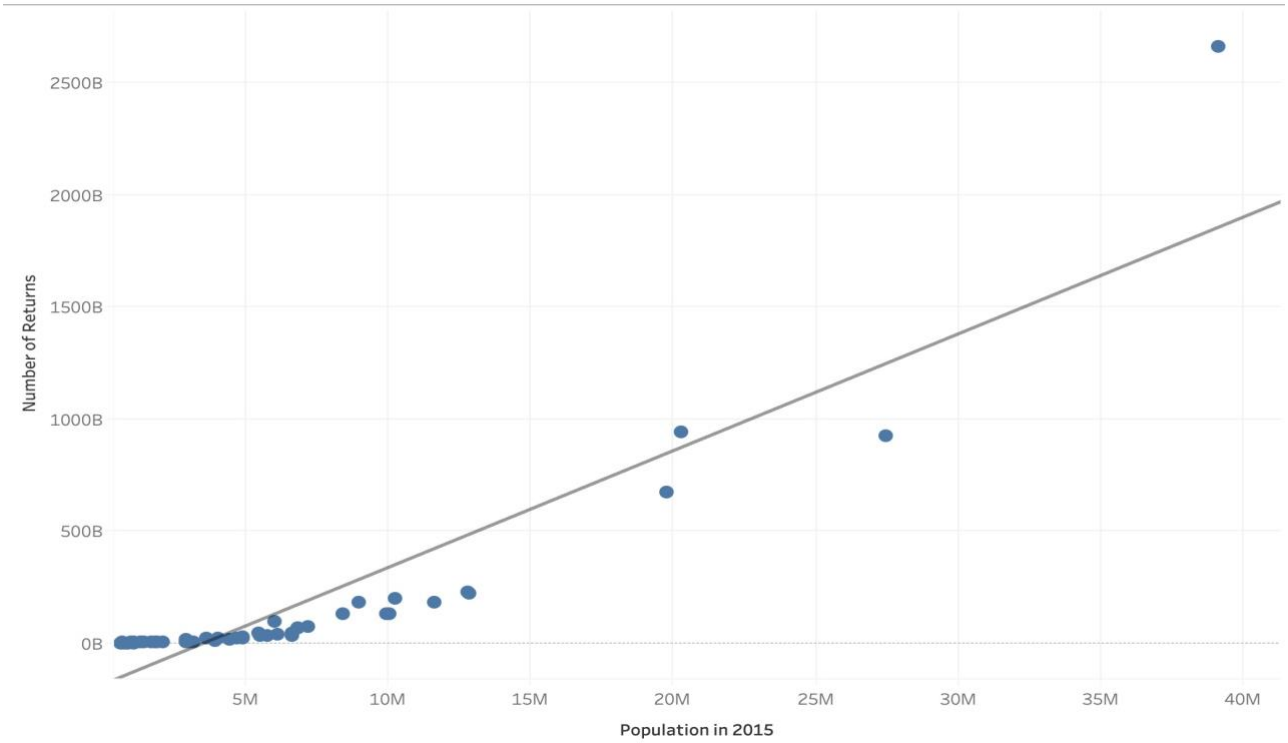


4. Which companies have the most complaints against them? Allow a user-selected number.



5. Are there any significant relationships between state populations and any demographic variables?





From two graphs above, we can see there is a positive relationship between state population and demographic variables. As the population goes up, the relative demographic variables increase along with the population number. Apparently, a state with more population would generate more jobs, and more jobs mean to have more income. So, the chain would lead to more tax amount, number of businesses, etc.