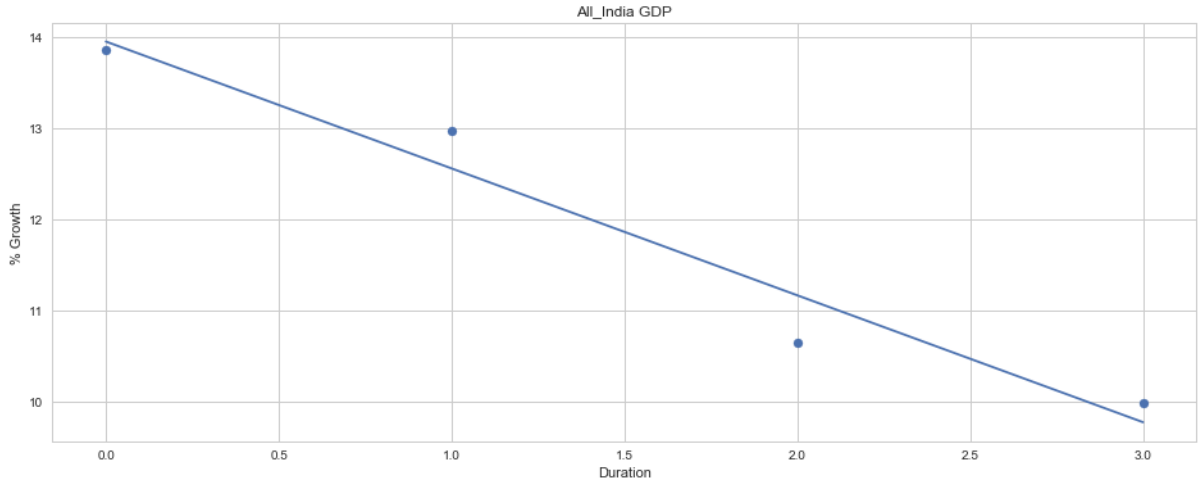
GDP Assignment
PGDDS September Cohort

-Aniket Verma

The following Scatter Plot Represent the GDP Growth Trend for each state. (Refer to Page 10 for key observations).

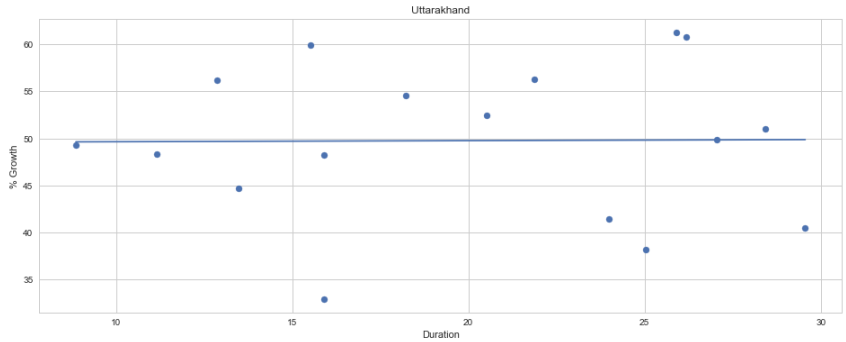
Nation' GDP Growth Trend:



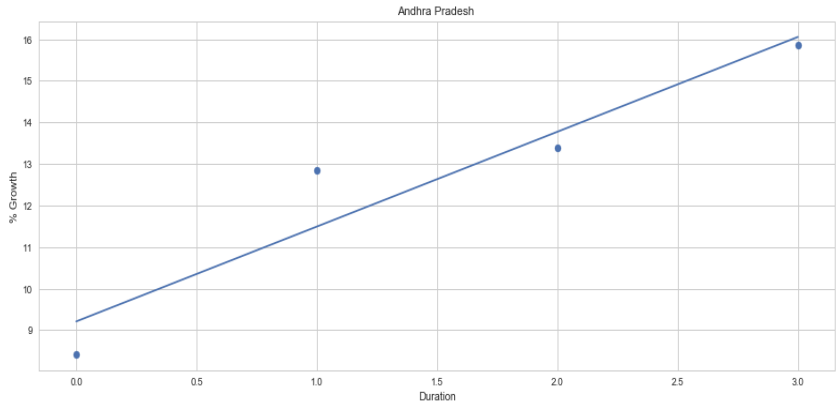
- The nation's cumulative GDP is on a decline since last 5 years.

State-Wise GDP Growth Trend:

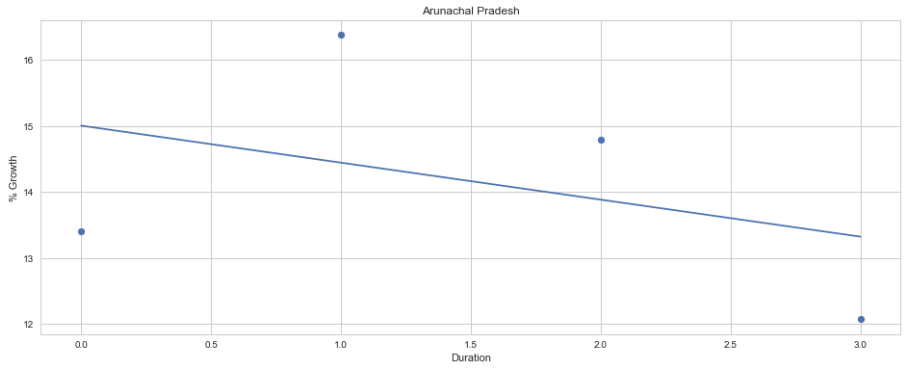
- Uttarakhand:



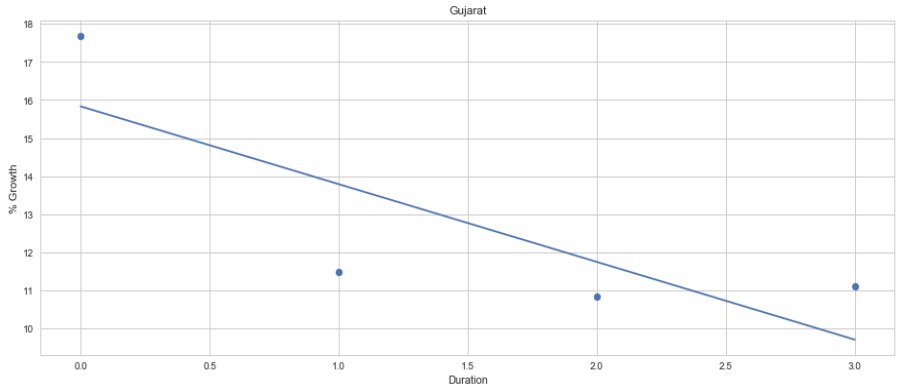
- Andhra Pradesh:



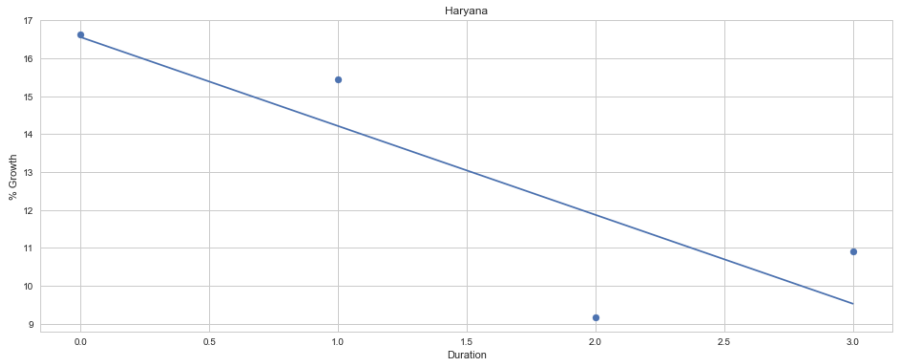
- Arunachal Pradesh:



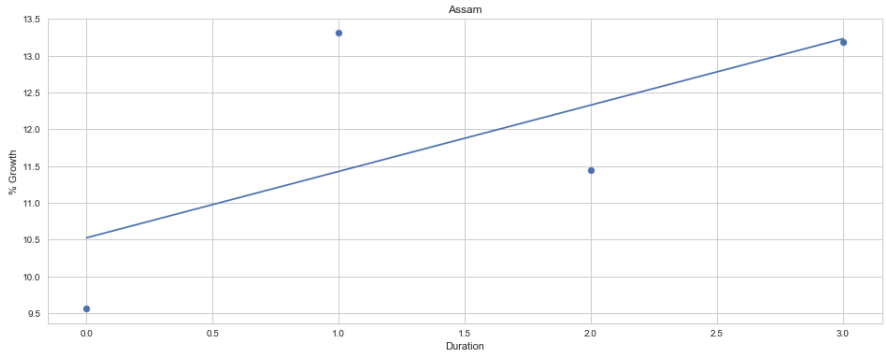
- Gujarat



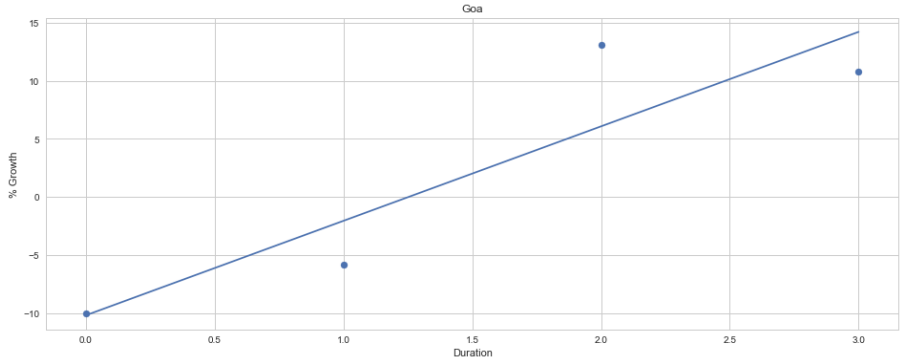
- Haryana:



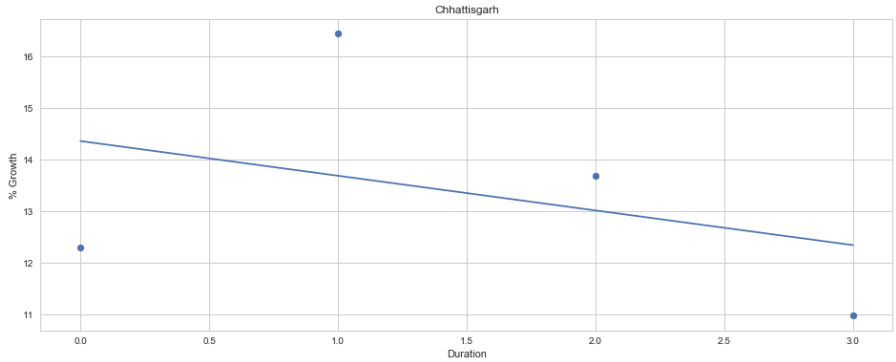
- Assam:



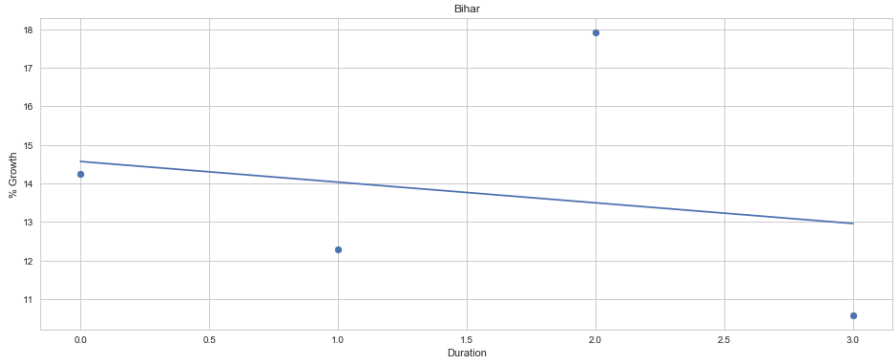
- Goa:



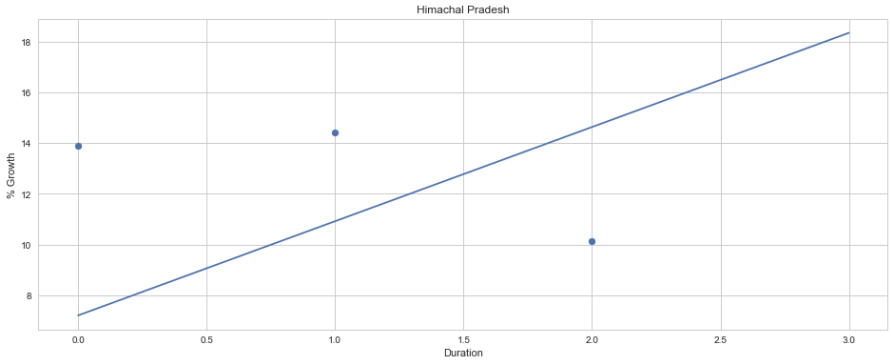
- Chattisgarh:



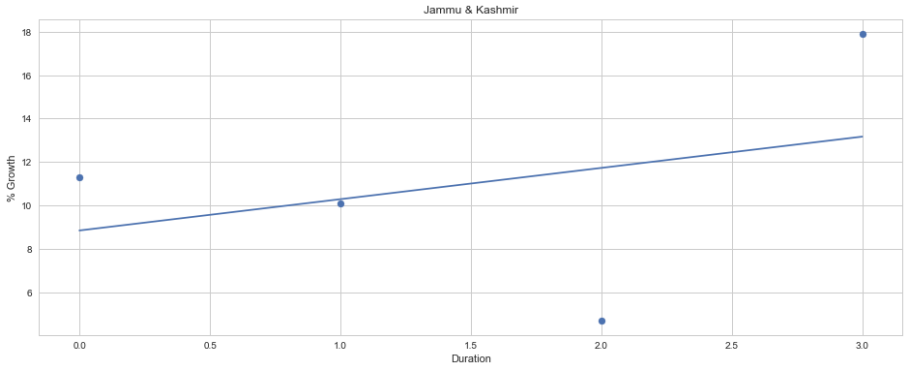
- Bihar:



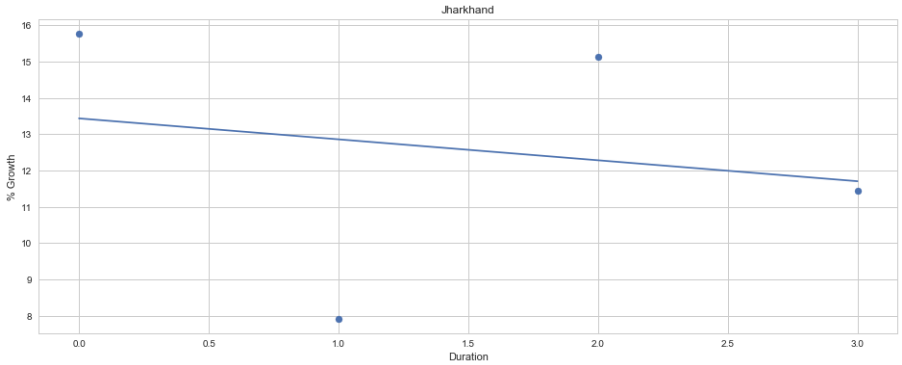
- Himachal Pradesh:



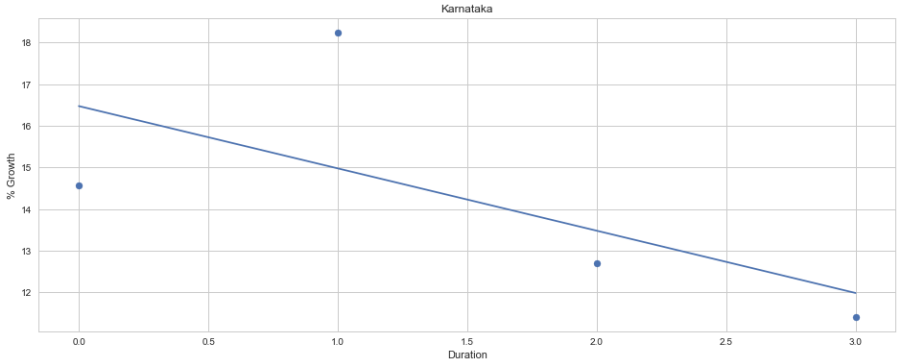
- Jammu and Kashmir:



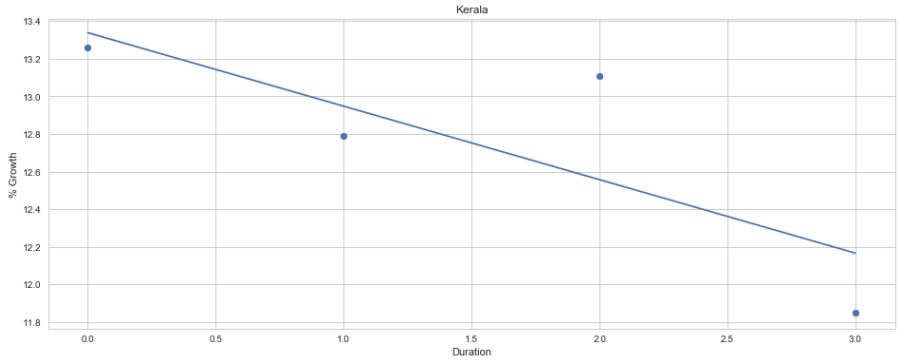
- Jharkhand:



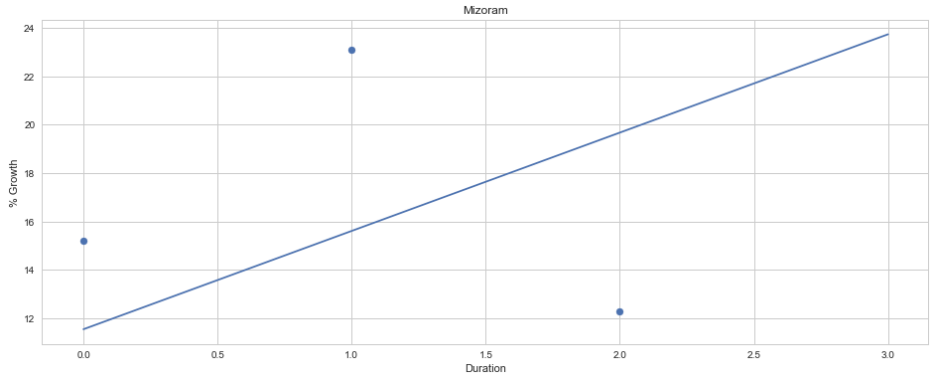
- Karnataka:



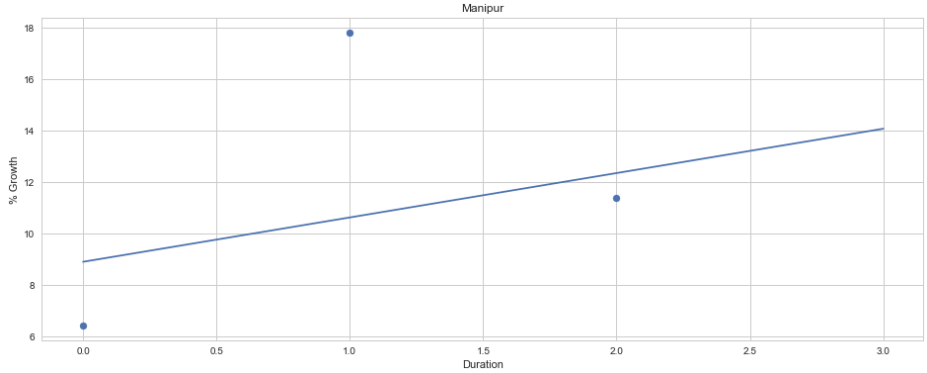
- Kerela:



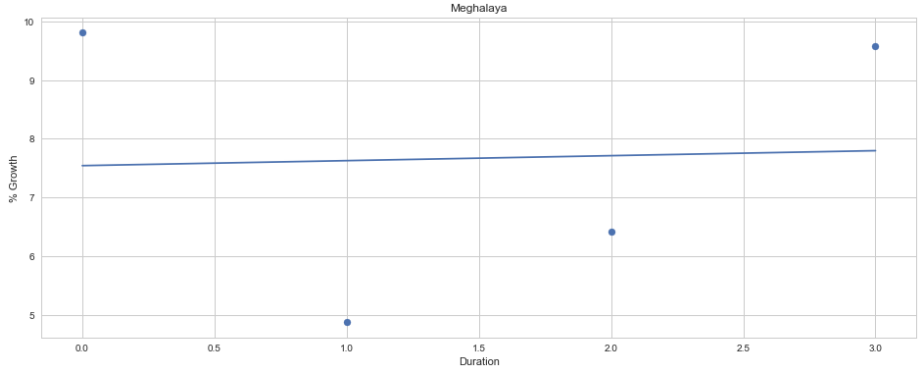
- Mizoram:



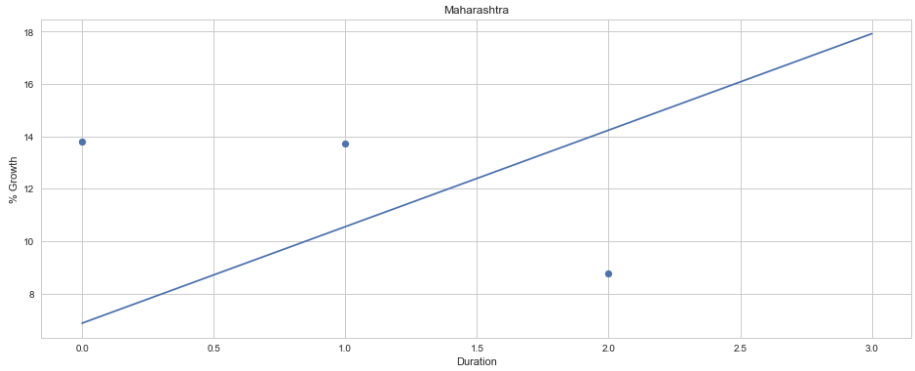
- Manipur:



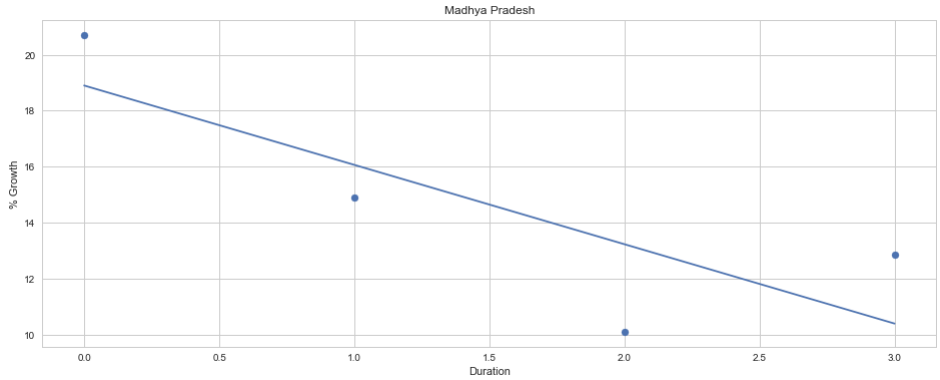
- Meghalaya:



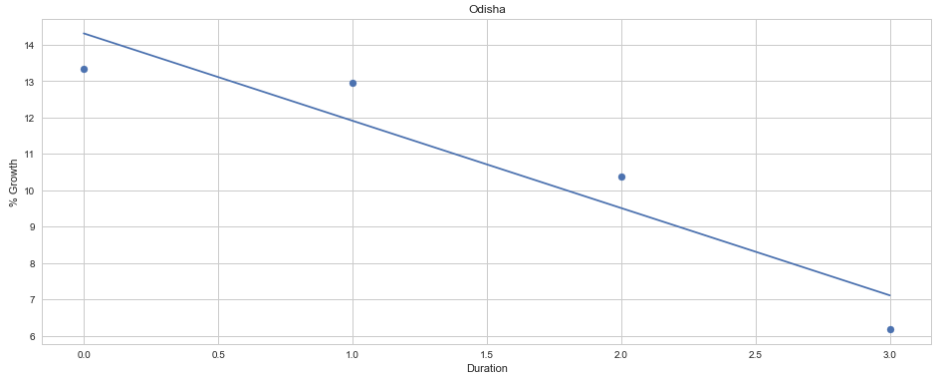
- Maharashtra:



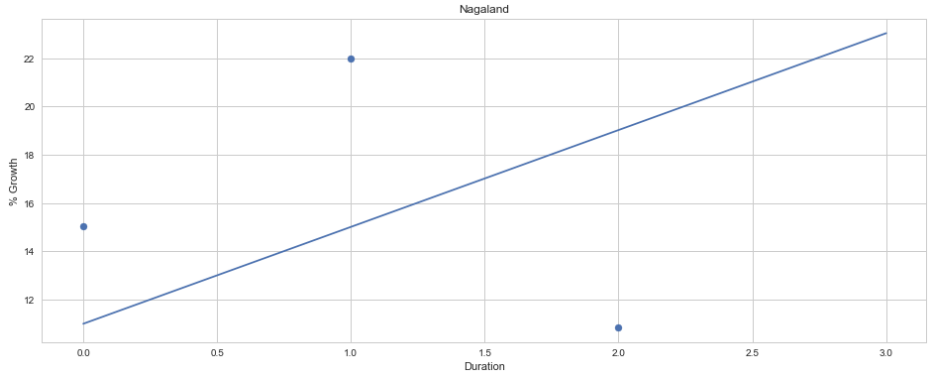
- Madhya Pradesh:



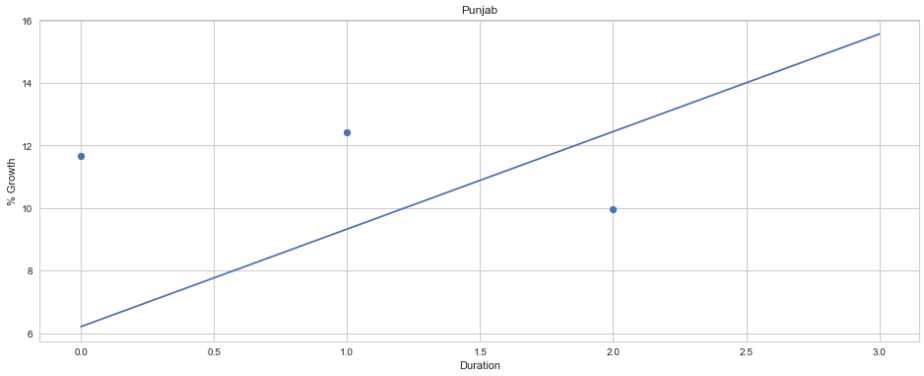
- Odisha:



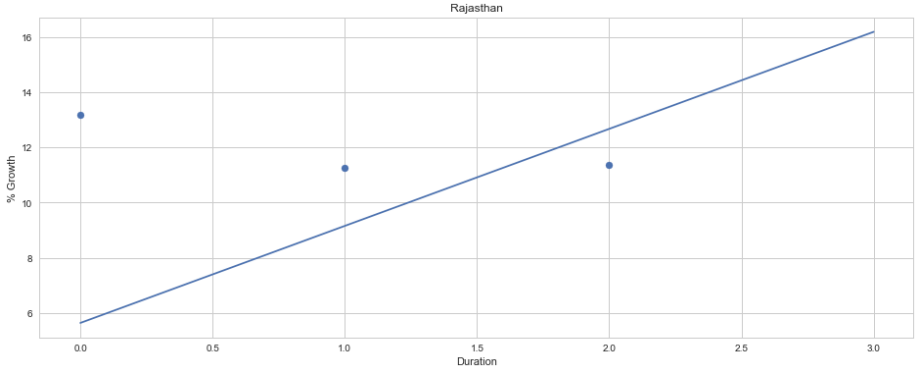
- Nagaland:



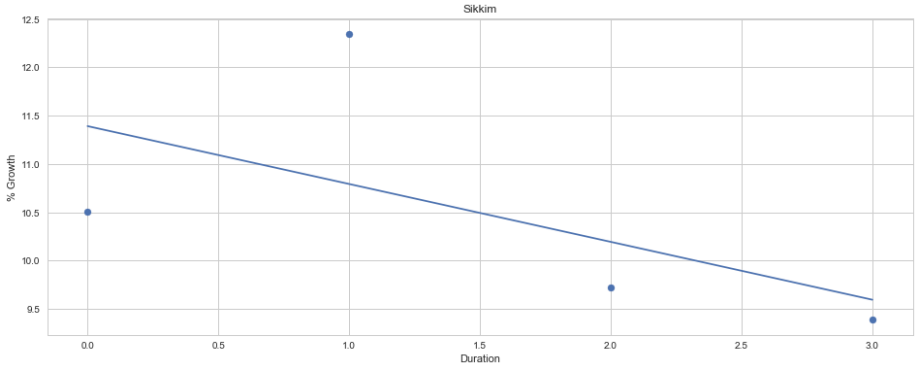
- Punjab:



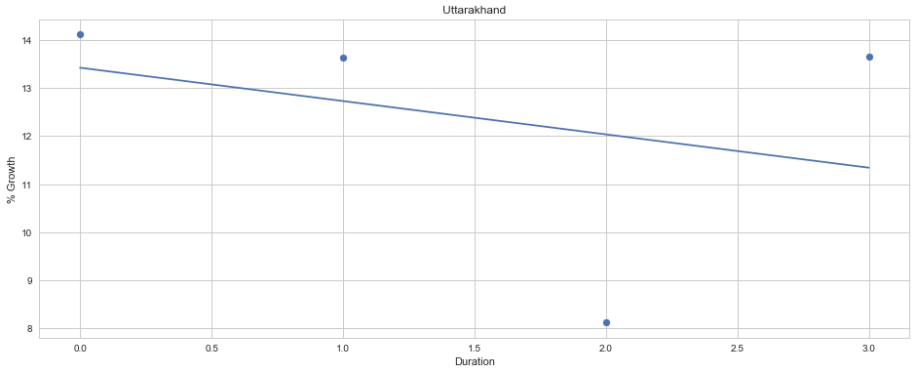
- Rajasthan:



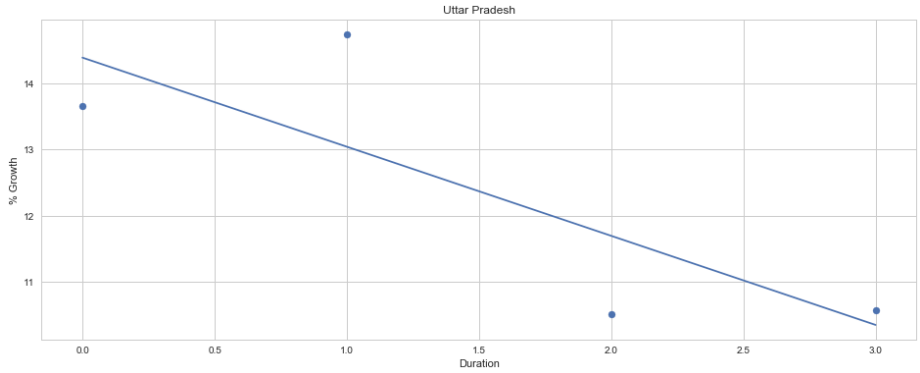
- Sikkim:



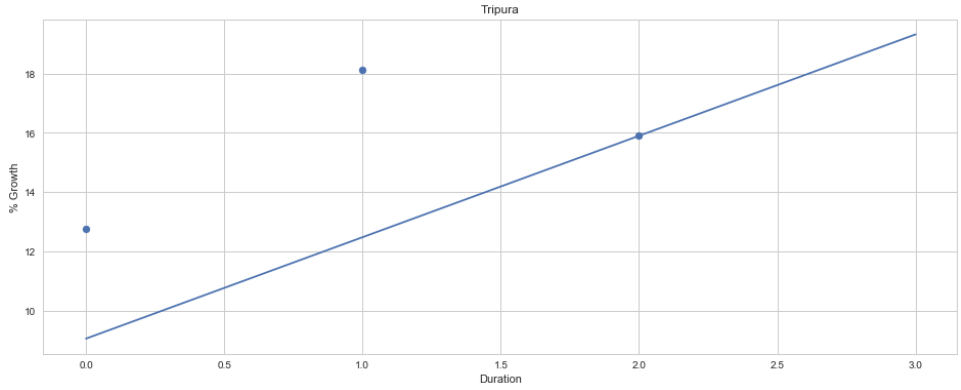
- Uttarakhand:



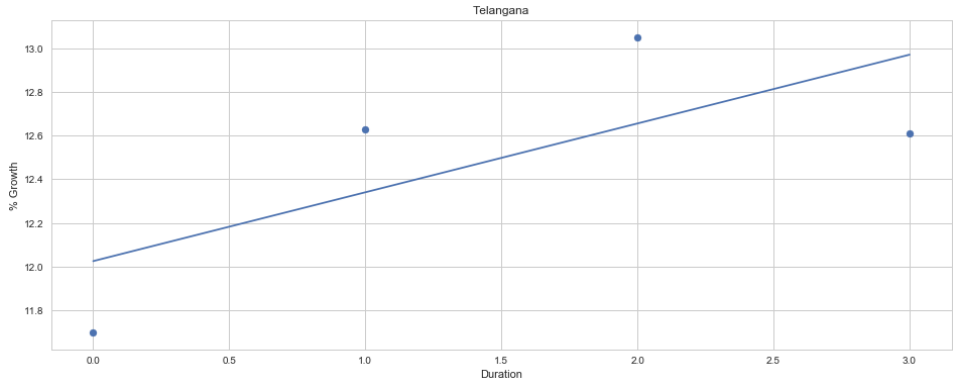
- Uttar Pradesh:



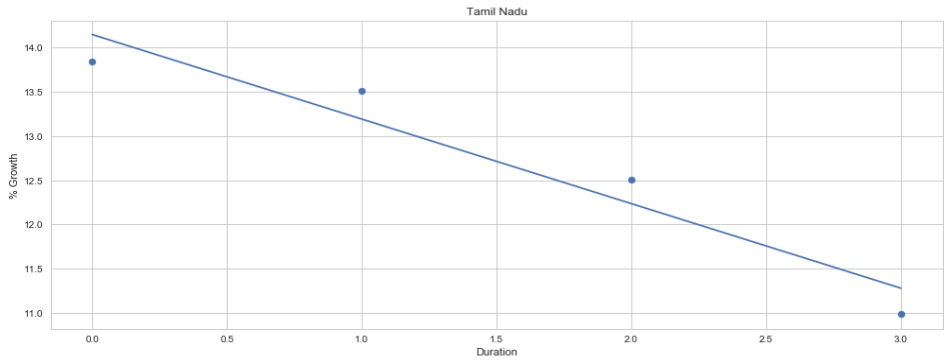
- Tripura:



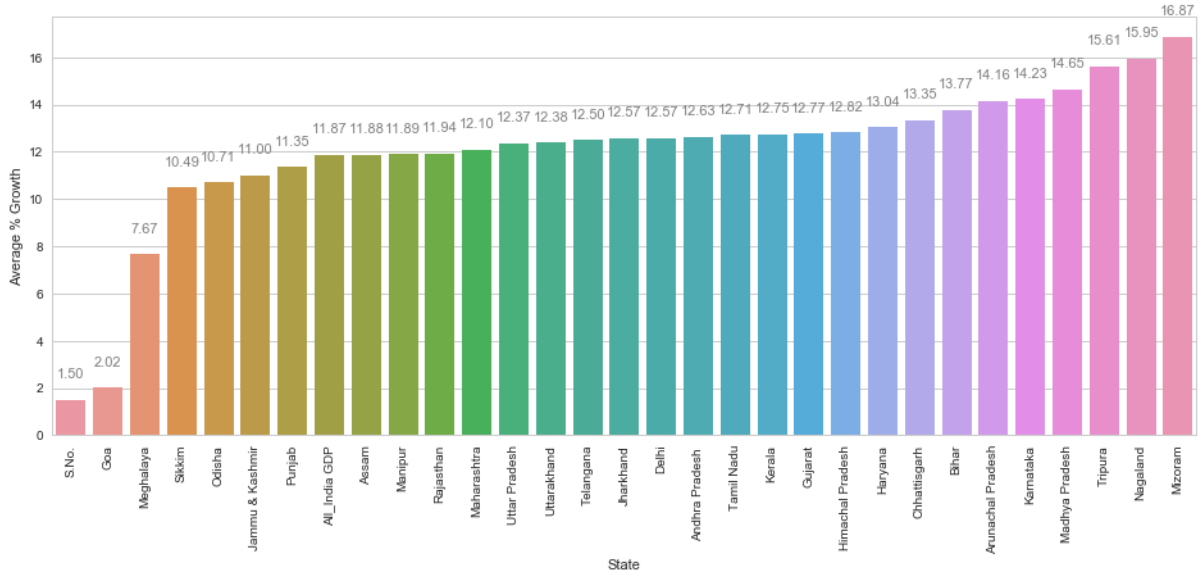
- Telangana:



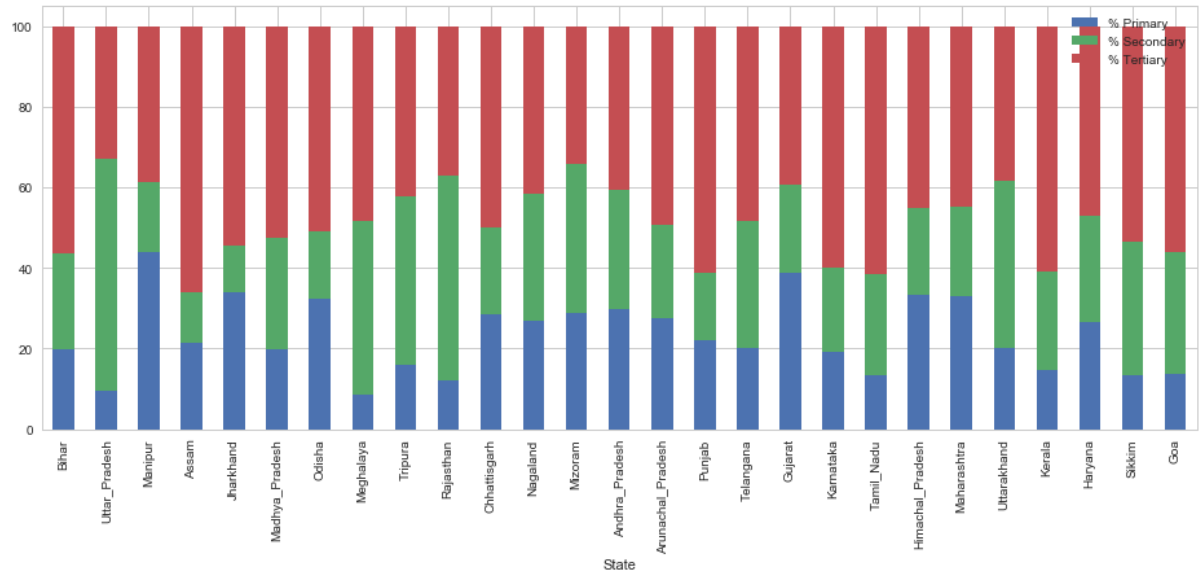
- Tamil Nadu:



Average Growth Rate of All States:



% Contribution of Primary, Secondary and Tertiary Sector Industries in Overall GDP (State-Wise):



Combining the GSDP and the growth in GSDP of states.

	State	2015-16	Growth
0	Sikkim	16637	-0.599
1	Arunachal Pradesh	18784	-0.561
2	Meghalaya	26745	0.085
3	Goa	45002	8.120
4	Jammu & Kashmir	118387	1.441
5	Uttarakhand	184091	-0.693
6	Assam	224234	0.903
7	Jharkhand	241955	-0.577
8	Chhattisgarh	260776	-0.671
9	Odisha	341887	-2.403
10	Bihar	413503	-0.536
11	Haryana	485184	-2.343
12	Madhya Pradesh	543975	-2.835
13	Telangana	575631	0.315
14	Kerala	588337	-0.391
15	Andhra Pradesh	609934	2.281
16	Gujarat	994316	-2.045
17	Karnataka	1.02707e+06	-1.496
18	Uttar Pradesh	1.1538e+06	-1.343
19	Tamil Nadu	1.21267e+06	-0.955
20	All_India GDP	1.36753e+07	-1.393

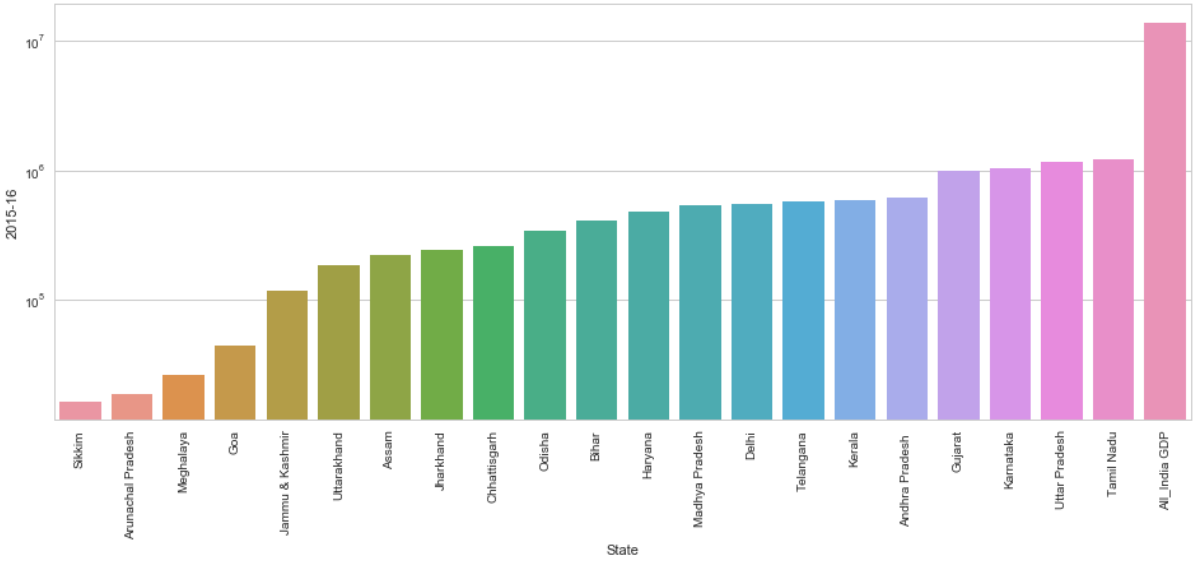
Key Observations and Insights

- Some States have low GSDP but are consistently improving. Ex-Goa.
- Some States have low GSDP but aren't showing much improvement. Ex-Meghalaya.
- Some States have a high GSDP but are on a decline. Ex-Gujarat, Karnataka.
- Year 2015-16 haven't been growth years for the nation as a whole as most of Indian States have declining GDP.
- Goa as a state has been showing exemplary growth, a possible reason could be tourism industry. The tertiary sector has the maximum contribution.
- The growth rate of any two states can be seen from the scatter plot. The higher the slop of the line the more is the growth. Ex-Goa has a higher growth rate than Rajasthan.
- The Top 3 fastest growing states are: Goa, Mizoram and Nagaland.
- The Top 3 slowest growing states are: Madhya Pradesh, Odisha and Haryana.
- Nation's growth rate is 11.87%.
- GSDP of most states are above National GDP.
- North Eastern states outperform other states in terms of GSDP.
- The growth rate of Uttar Pradesh is slightly better than national average.
- The Top 5 and Bottom 5 states in terms of total GDP are:

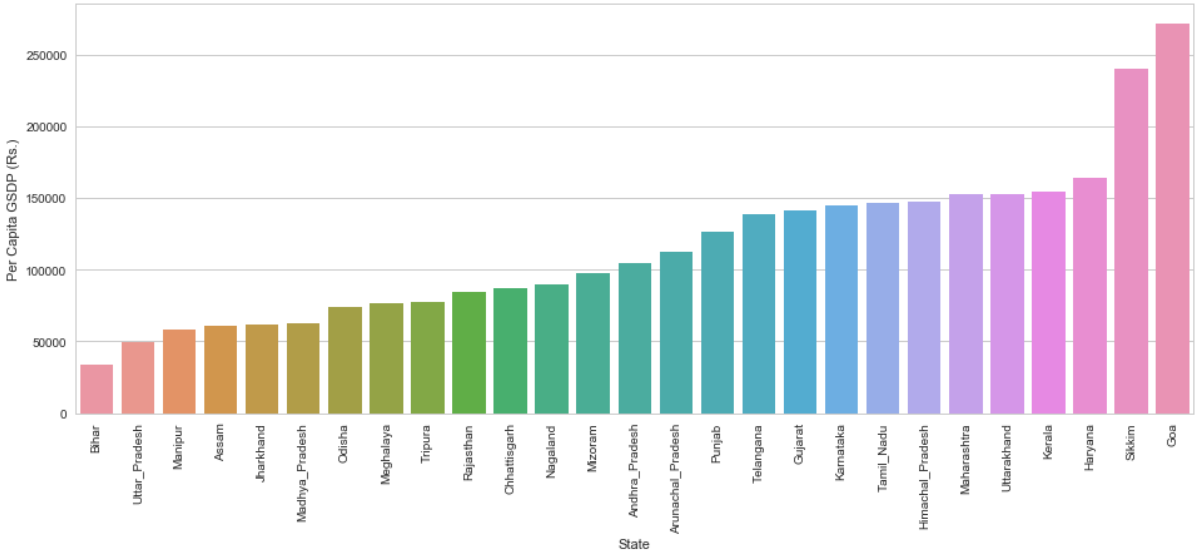
	State	2015-16
23	Sikkim	16637
2	Arunachal Pradesh	18784
17	Meghalaya	26745
6	Goa	45002
10	Jammu & Kashmir	118387

	State	2015-16
1	Andhra Pradesh	609934
7	Gujarat	994316
12	Karnataka	1.02707e+06
27	Uttar Pradesh	1.1538e+06
24	Tamil Nadu	1.21267e+06

Total GDP for each state:



Per Capita GSDP for all states:



Key Observations and Insights:

- The Top 5 and Bottom 5 states in terms of per-capita GDP are:

	State	Per Capita GSDP (Rs.)
4	Bihar	33954
17	Uttar_Pradesh	49450
12	Manipur	58442
3	Assam	60621
29	Jharkhand	62091

	State	Per Capita GSDP (Rs.)
23	Uttarakhand	153076
7	Kerala	154778
16	Haryana	164077
21	Sikkim	240274
6	Goa	271793

- The ratio of the highest to lowest per capita GDP is 8.003.
- The sum of primary, secondary and tertiary sectors is different from the total GDP due to taxes and subsidiaries.

Classification of States based on Per Capita GSDP:
Category 1: (Highest)

	State	% Primary	% Secondary	% Tertiary
7	Kerala	13.4543	25.0243	61.5214
16	Haryana	20.1877	31.5388	48.2735
21	Sikkim	9.45899	57.6126	32.9284
6	Goa	8.67535	43.0124	48.3122

Category 2:

	State	% Primary	% Secondary	% Tertiary
11	Arunachal_Pradesh	43.8161	17.5695	38.6144
15	Punjab	27.4068	23.3054	49.2877
1	Telangana	19.2165	20.88	59.9035
25	Gujarat	20.077	41.7327	38.1903
24	Karnataka	14.5305	24.6677	60.8018
20	Tamil_Nadu	13.3947	33.0018	53.6035
28	Himachal_Pradesh	15.7983	42.0286	42.1731
27	Maharashtra	13.7856	30.0601	56.1544
23	Uttarakhand	12.2438	50.6928	37.0634

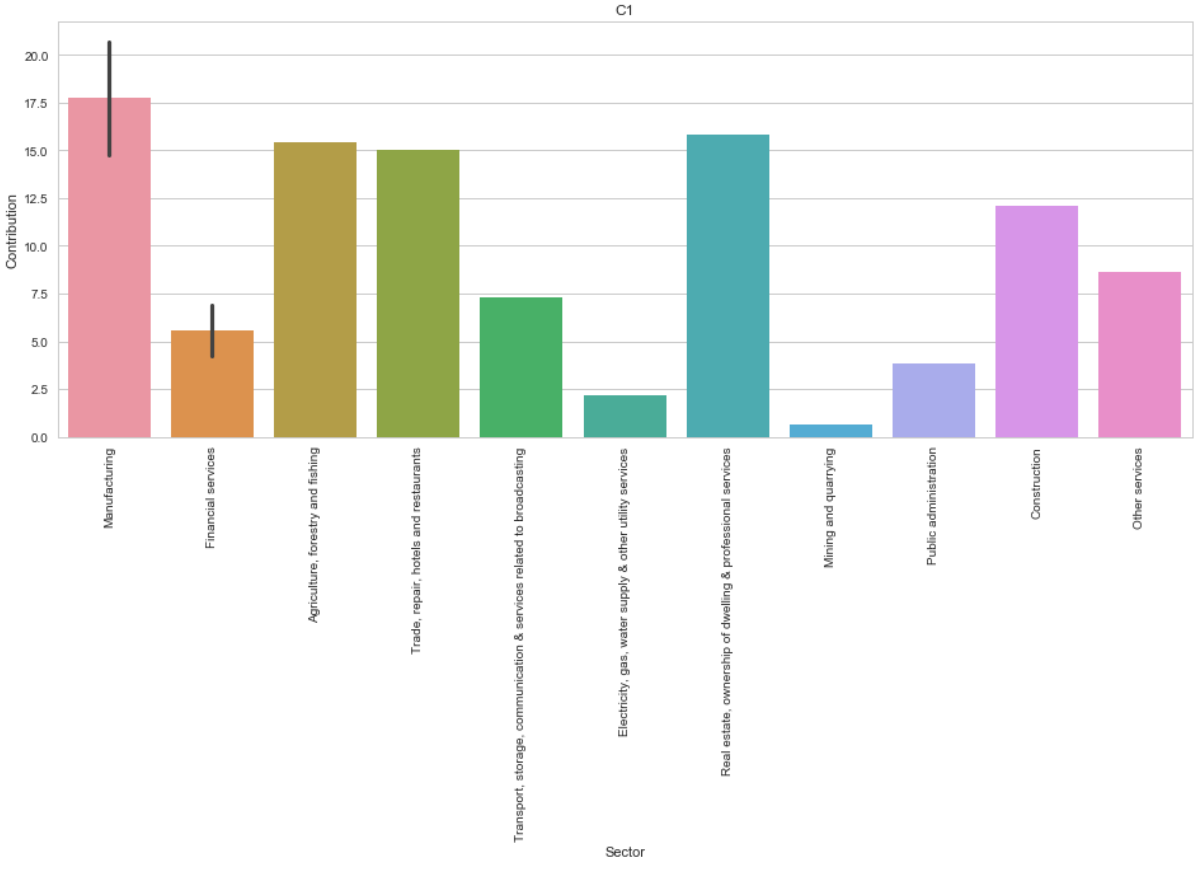
Category 3:

	State	% Primary	% Secondary	% Tertiary
2	Odisha	29.7777	29.7128	40.5095
14	Meghalaya	19.6995	27.862	52.4384
13	Tripura	32.3639	16.6383	50.9978
0	Rajasthan	32.865	22.4023	44.7327
10	Chhattisgarh	28.7956	37.0645	34.1399
5	Nagaland	33.8281	11.6586	54.5132
9	Mizoram	19.9065	23.8308	56.2627
18	Andhra_Pradesh	33.3918	21.4824	45.1259

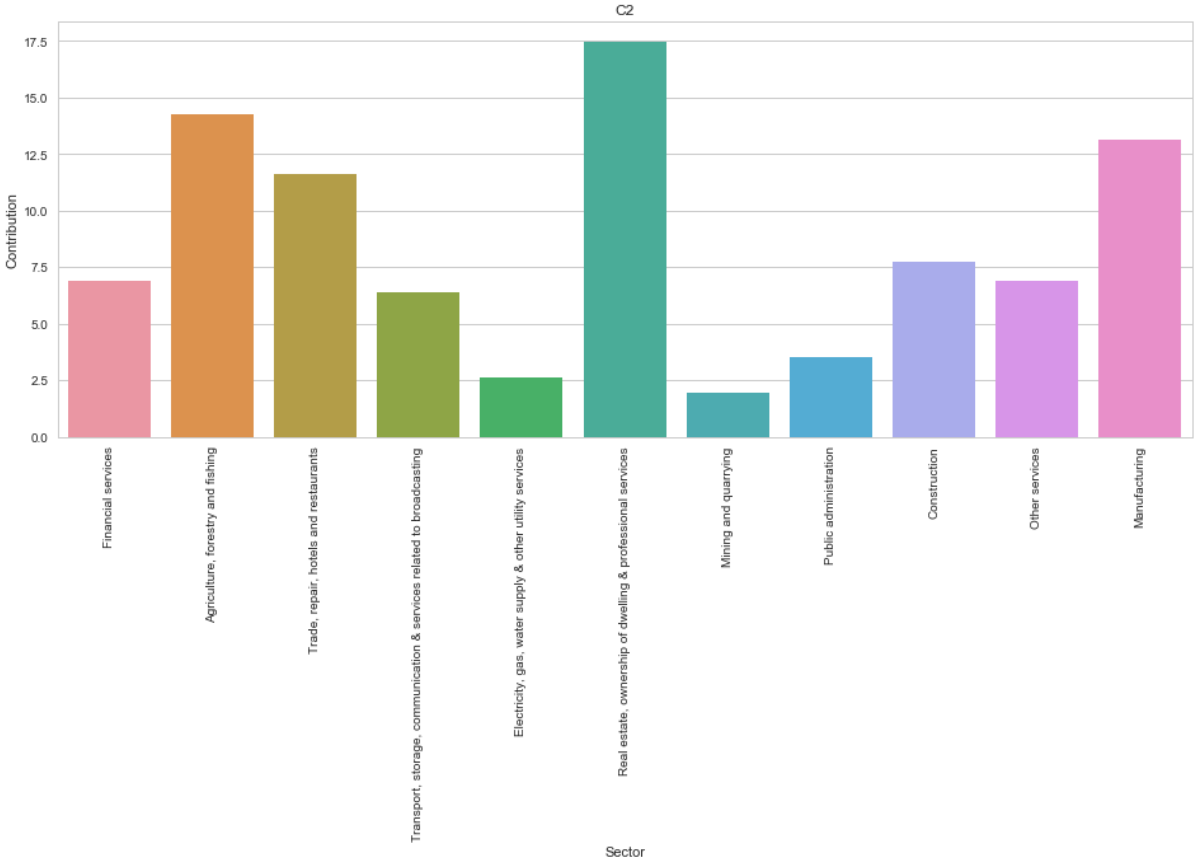
Category 4: (Lowest)

	State	% Primary	% Secondary	% Tertiary
4	Bihar	22.164	16.5398	61.2963
17	Uttar_Pradesh	26.6613	26.1993	47.1395
12	Manipur	21.5169	12.3648	66.1183
3	Assam	28.5355	21.6056	49.8589
29	Jharkhand	26.7457	31.8066	41.4476
8	Madhya_Pradesh	38.7994	21.829	39.3716

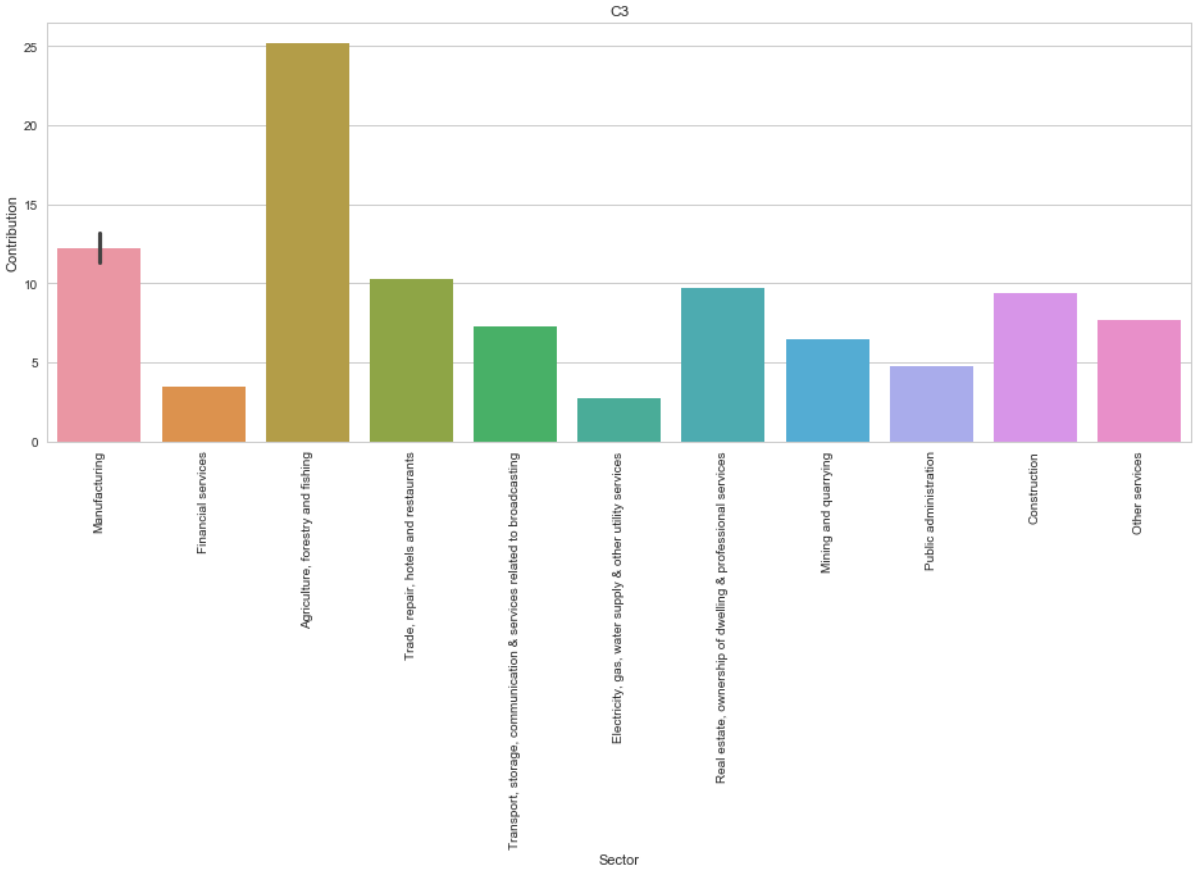
Sector wise contribution for states of each category:
Category 1:



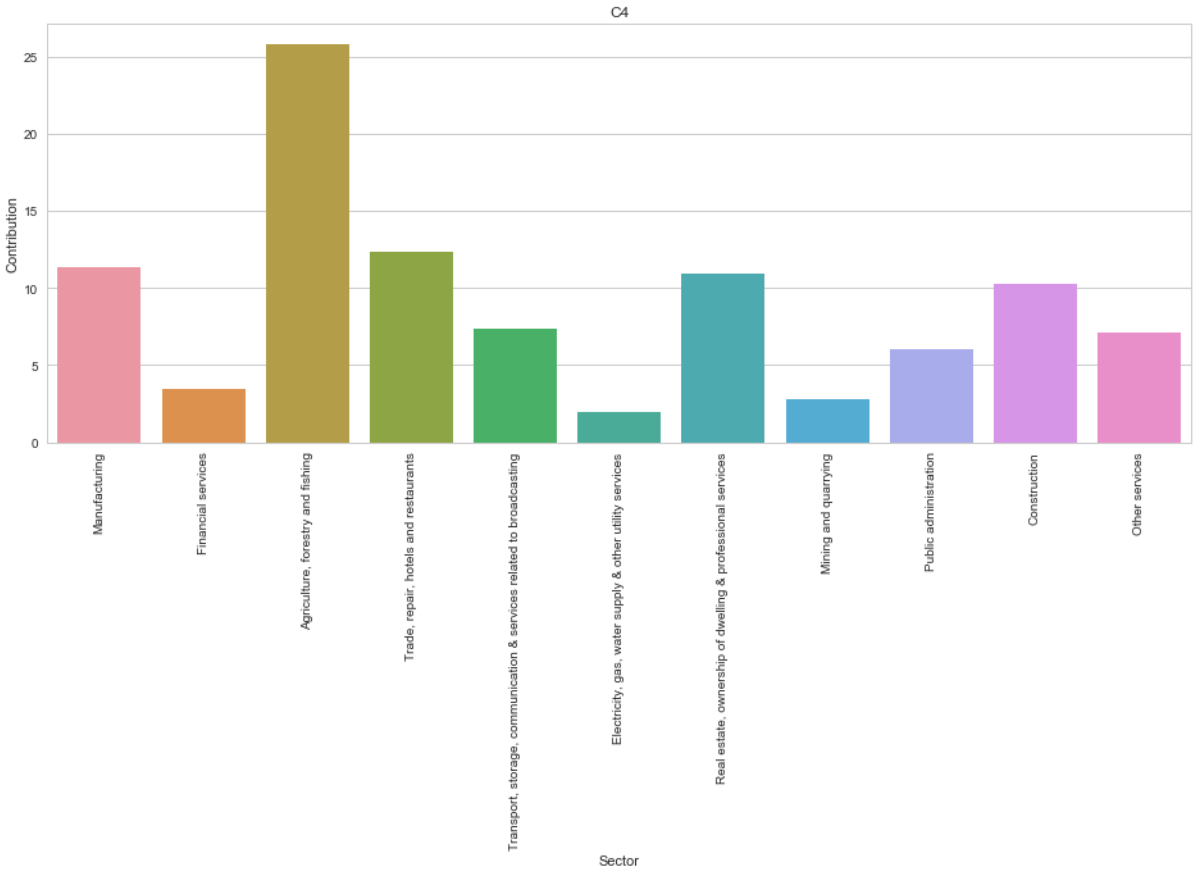
Category 2:



Category 3:



Category 4:

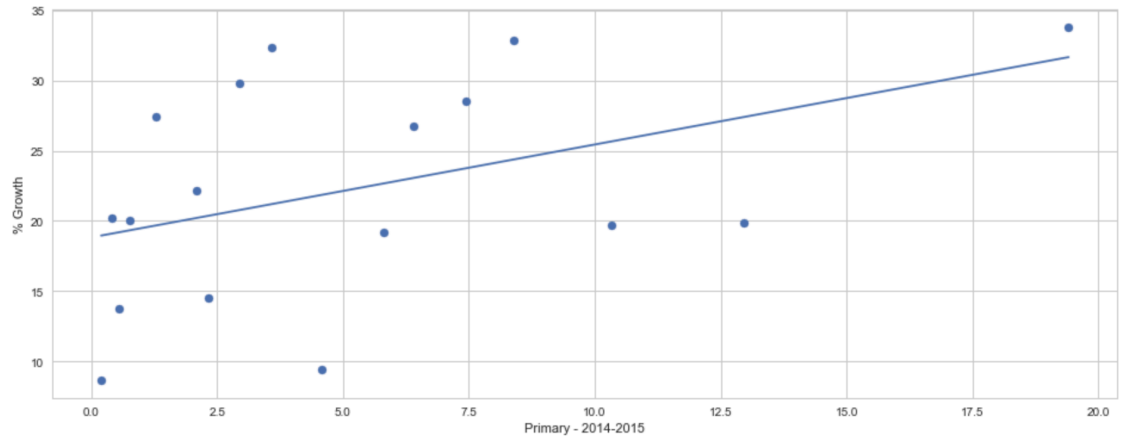


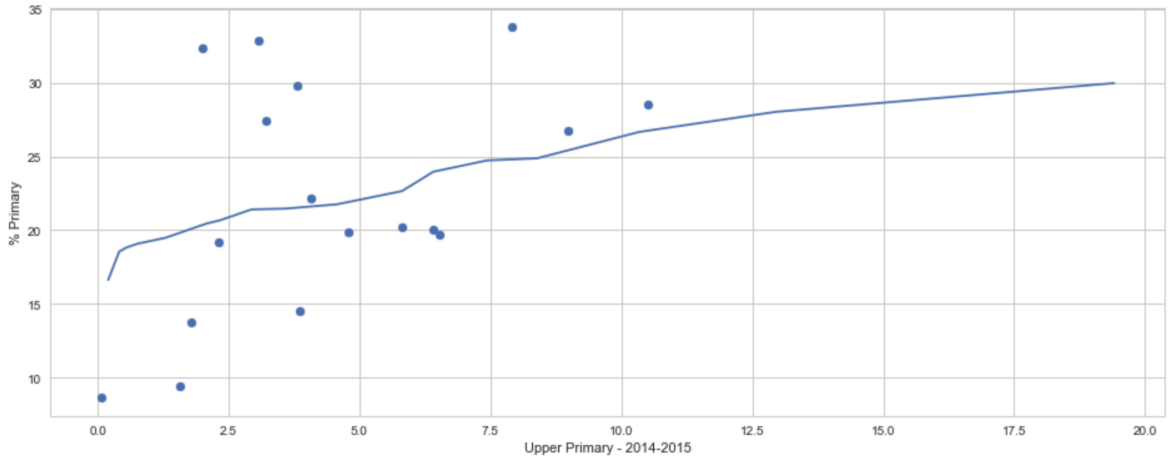
Key Observation and Insights:

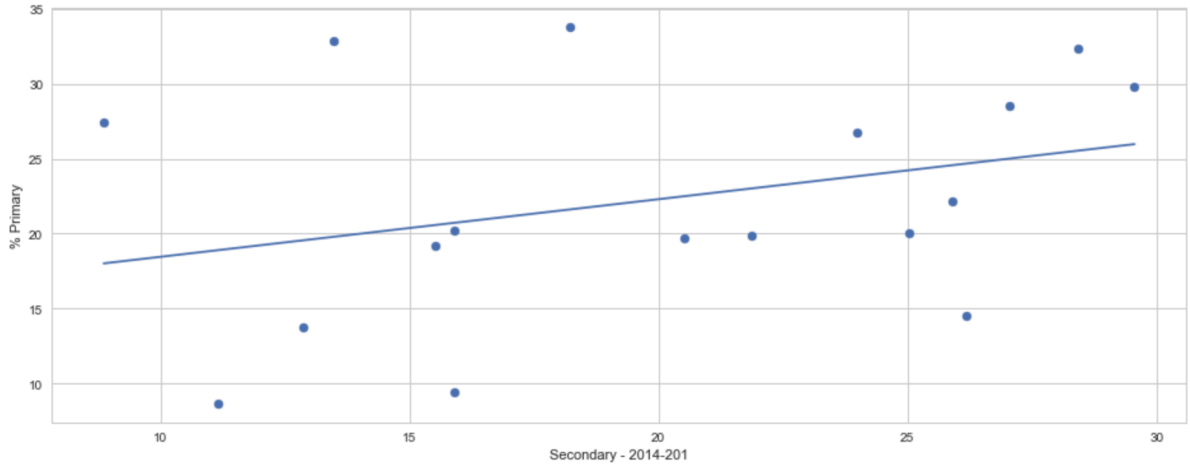
- C1 category states should continue investing in Manufacturing and should focus on agriculture, trade and real Estate as it is a next potential candidate.
- C2 category states should continue investing in Real Estate and should focus on trade, agriculture and manufacturing as it is a next potential candidate.
- C3 category states should continue investing in Agriculture and should focus on agriculture, manufacturing and trade as it is a next potential candidate.
- C4 category states should continue investing in Agriculture and should focus on trade, manufacturing and real estate as it is a next potential candidate.
- Category 1 states have Manufacturing, Category 2 have Real Estate, Category 3 and 4 have Agriculture as their strong areas and should focus more on them.

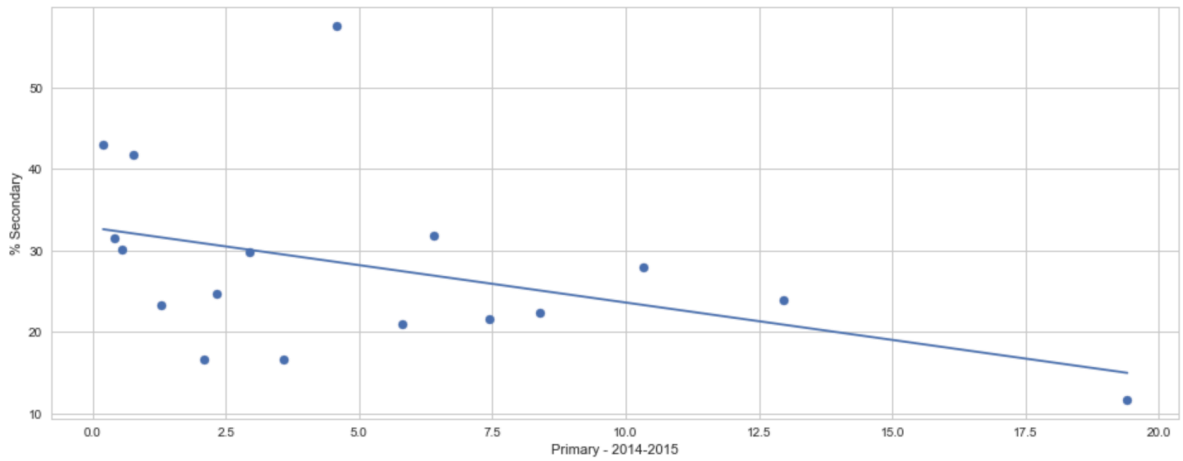
Correlation plot between Sectors and educational dropout.

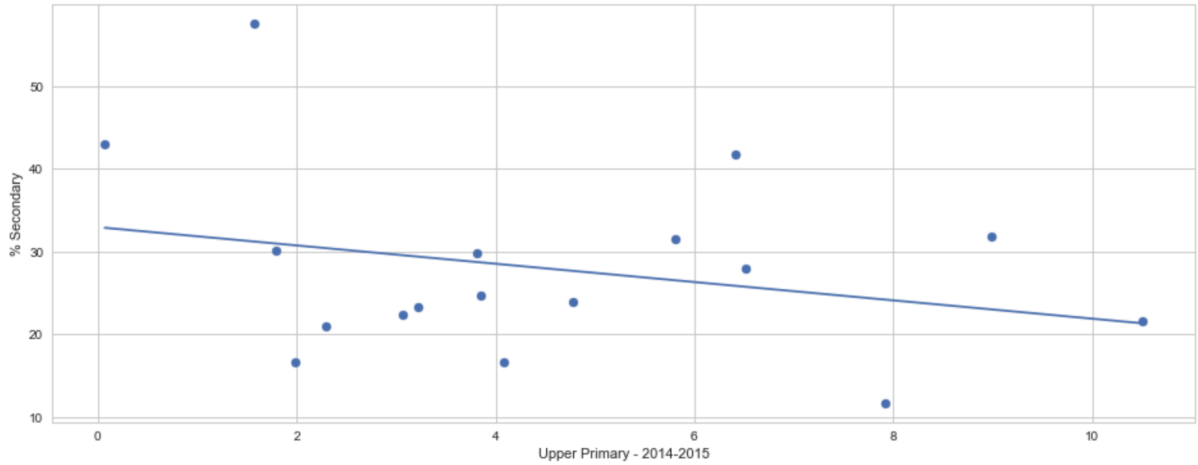
Positive slope indicates that the dropout rate is directly proportional to population in that segment while negative slope indicates otherwise.

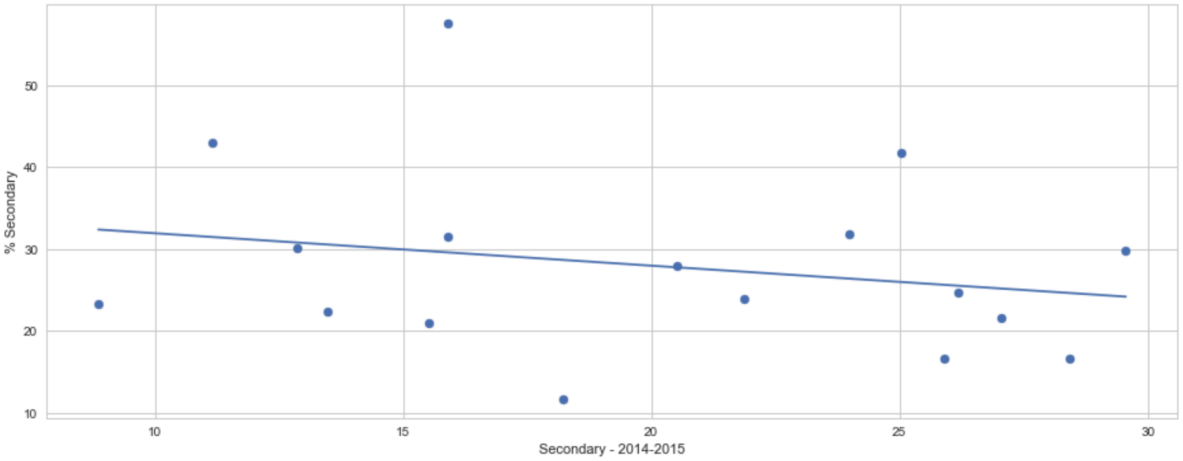

% Growth
Primary - 2014-2015

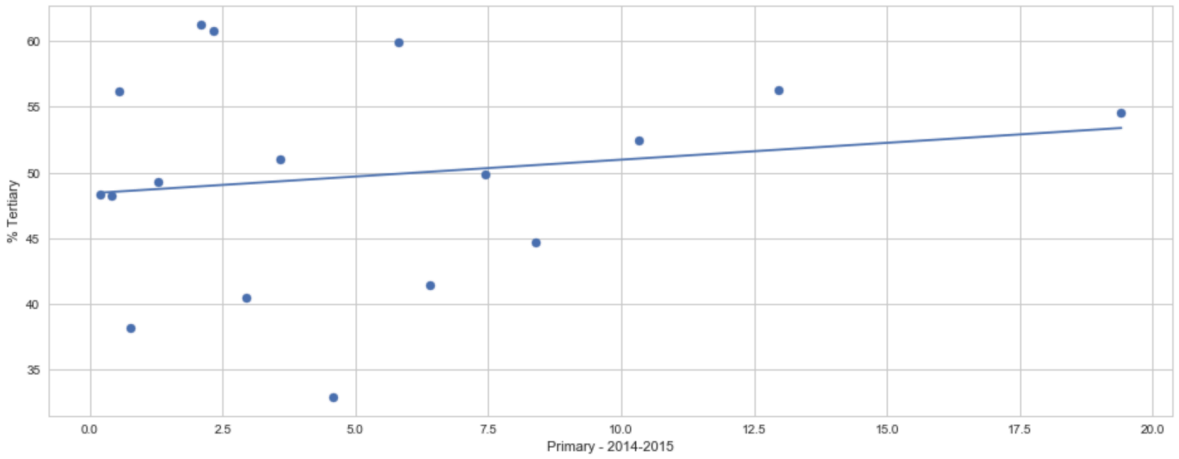

% Primary
Upper Primary - 2014-2015

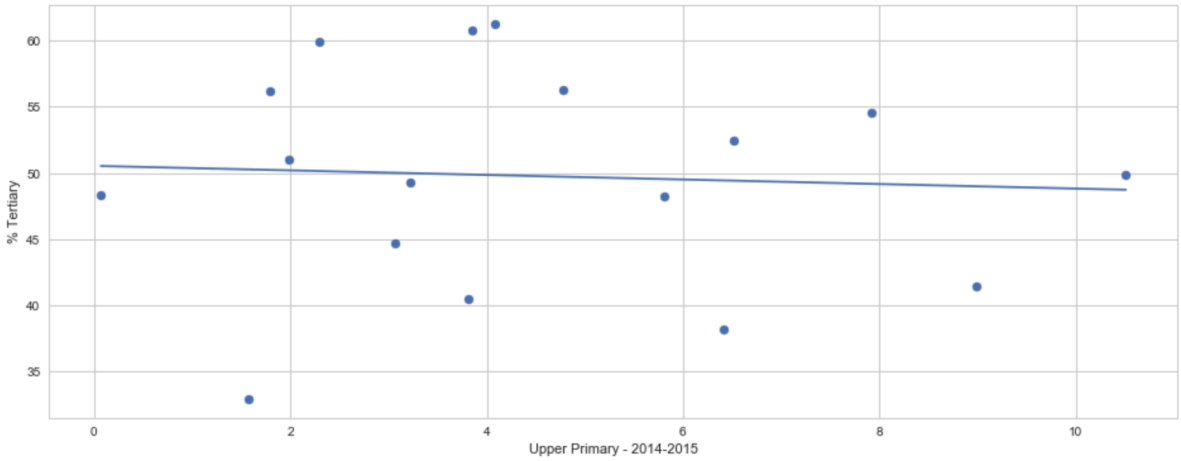

% Primary
Secondary - 2014-201

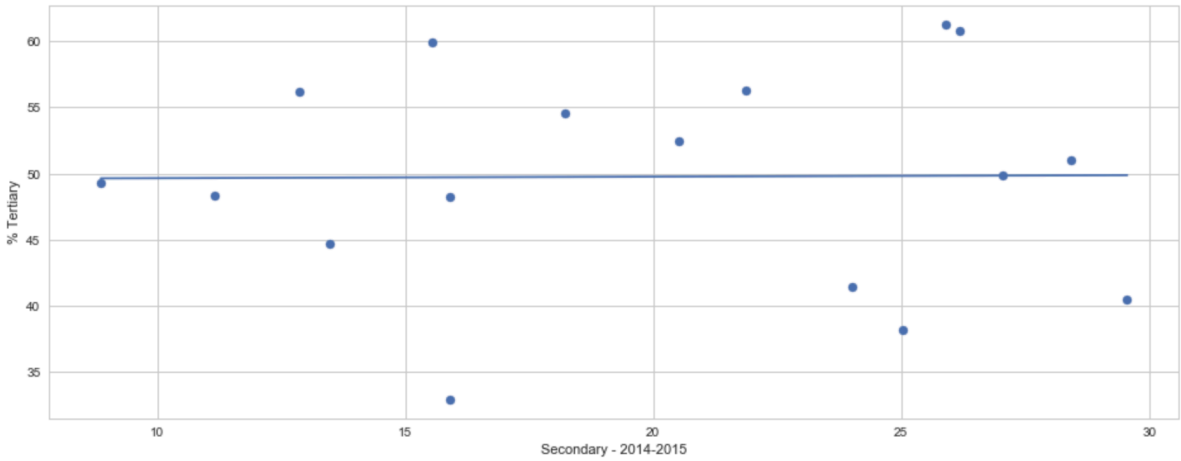

% Secondary
Primary - 2014-2015


% Secondary
Upper Primary - 2014-2015


% Secondary
Secondary - 2014-2015







Key Observations and Insights:

- Different sectors % contribution varies differently with education.
- Secondary education doesn’t effect Tertiary sector contribution much.