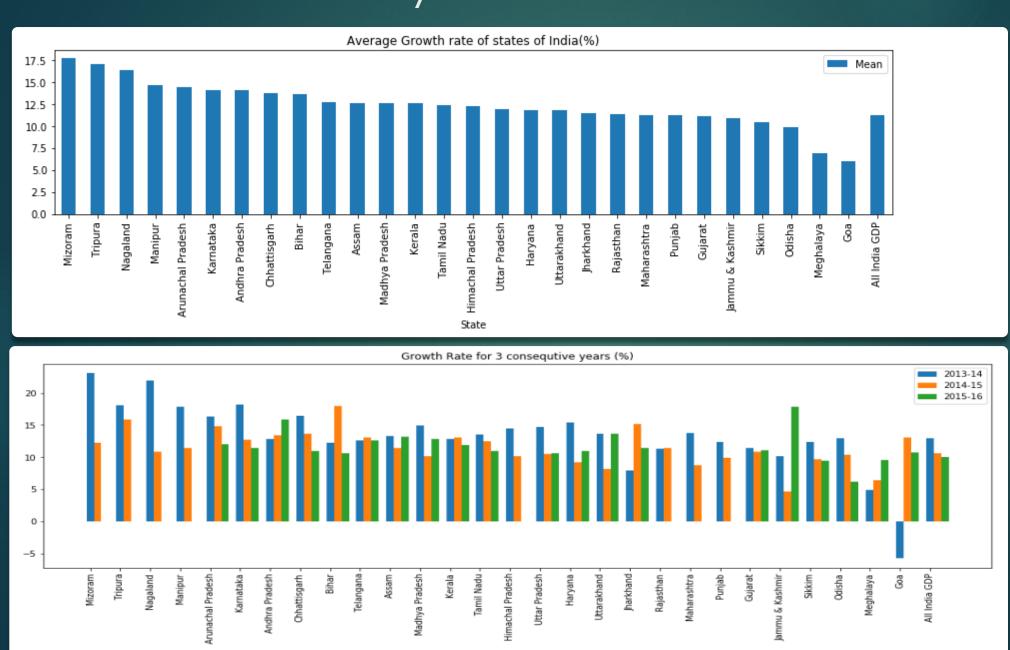
GDP Analysis

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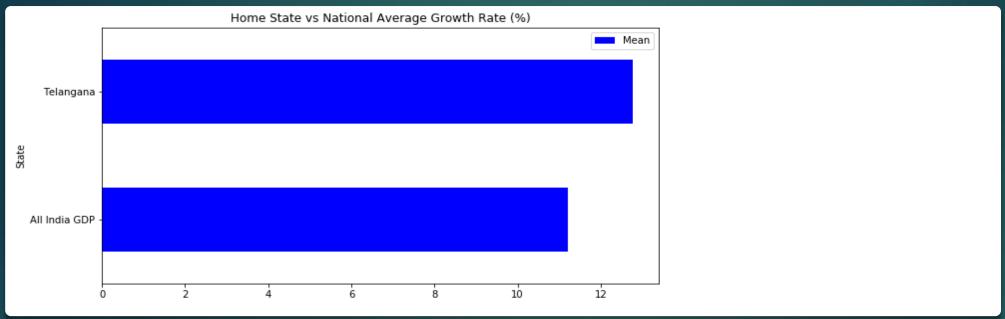
Key Points:

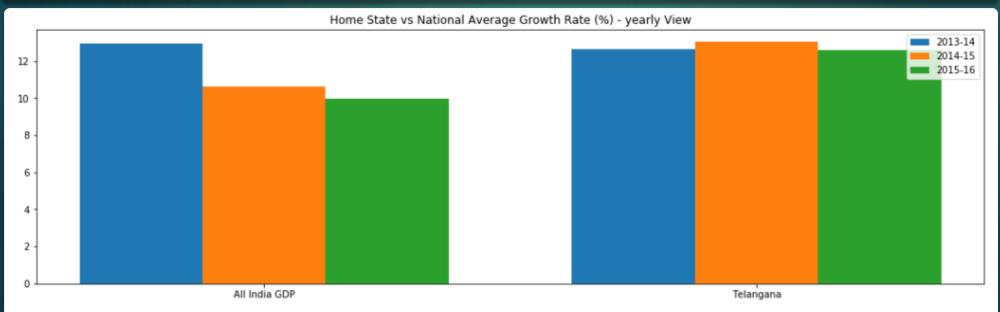
- Analyse And Compare The GDPs Of Various Indian States (Both Total And Per Capita)
- Divide the states into four categories based on GDP per capita, and for each of the categories, analyse the sectors that contribute the most to the GDP

Part - I-A:

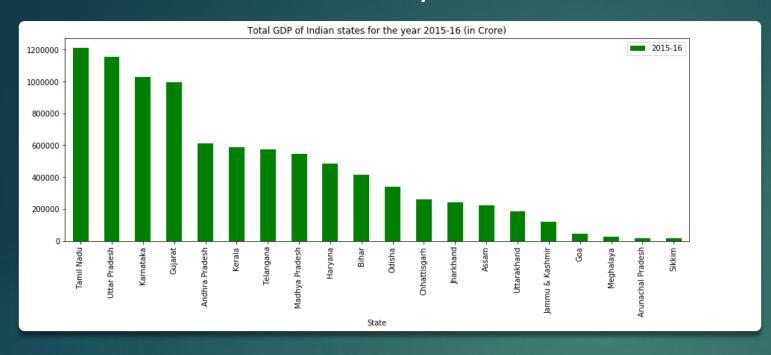


- Average growth rate (for the years from 2013 to 2016) of all states is plotted on the first graph in descending order. As per the first graph, Mizoram is highest in terms of average growth Rate followed by Tripura, Nagaland & Manipur
- However, if we further drill-down to the second graph, it is clear that there is a sharp decrease in growth rate for Mizoram where 2013-14 had seen a huge Growth compare to previous year, which is actually making the state to top the list though they do not have latest year data available. This trend can be seen for Nagaland & Manipur too
- > States, which are growing consistently are Andhra Pradesh (15.85% in 2015-16;+2.45 Percentage Point YoY) & Meghalaya (9.58% in 2015-16; +3.17 Percentage Point YoY). Though there was a dip in growth rate in 2014-15, Jammu & Kashmir has shown a huge increase in 2015-16 (17.91%, +13.21 Percentage Point YoY)
- For most of the state's growth is in struggling phase.
- States where continuing decline in growth is in place: Goa, Odisha, , Sikkim, Tamil Nadu, Chhattisgarh, Karnataka
- States where the trend is inconsistent: Bihar, Telangana, Assam, Madhya Pradesh, Kerala, Haryana, Uttarakhand, Jharkhand





As our own home state, Telangana (12.76%) is doing comparatively little good in terms of average growth rate when compared to a national growth rate (11.20%). However, if we look further in detail by month wise growth rate view, the national average is continuously decreasing while Telangana is unstable.



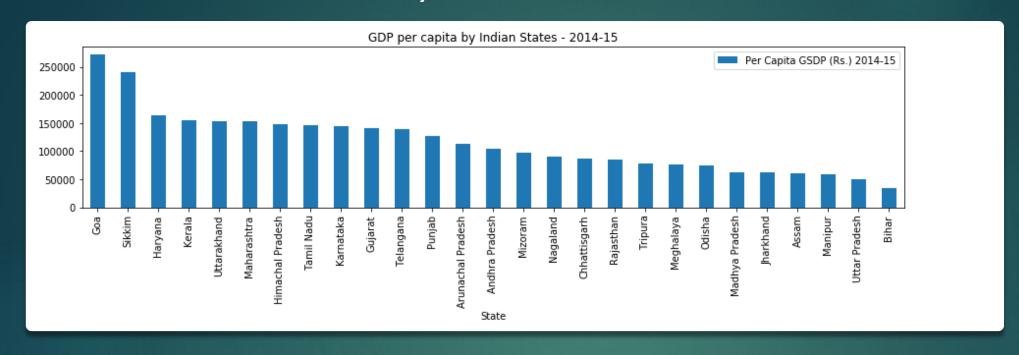
- Tamil Nadu is highest in total GDP followed by Uttar Pradesh and Karnataka. However, Sikkim & Arunachal Pradesh are at last.
- Hence, there is a lot of opportunity of progress and betterment for the states which are at bottom at the list

Top 5 States on Total GDP (2015-16)

Bottom 5 States on Total GDP (2015-16)

SI#	State	Total GDP(in Crore)	SI#	State	Total GDP(in Crore)
1	Tamil Nadu	1212668	1	Sikkim	16637
2	Uttar Pradesh	1153795	2	Arunachal Pradesh	18784
3	Karnataka	1027068	3	Meghalaya	26745
4	Gujarat	994316	4	Goa	45002
5	Andhra Pradesh	609934	5	Jammu & Kashmir	118387

Part - I-B:



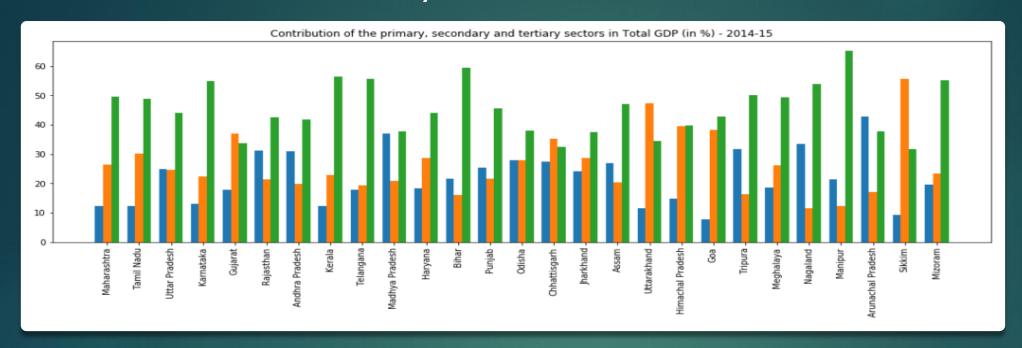
In 2014-15, highest GDP per Capita is from Goa where as lowest is from Bihar

Ratio of per capita GDP for Goa against Bihar was 8:1

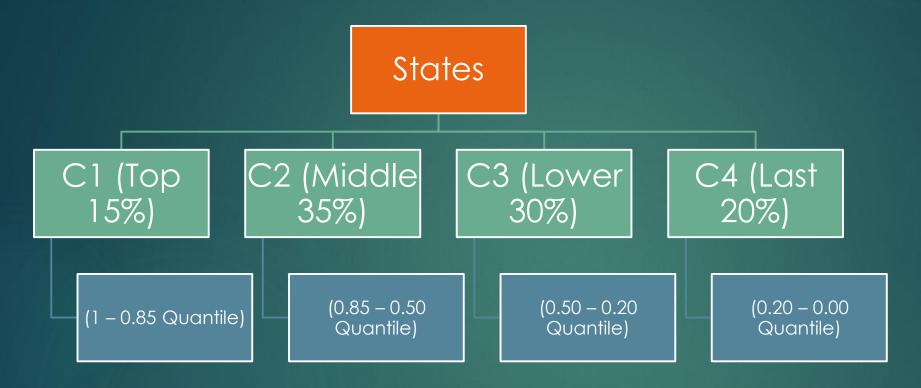
Top 5 States on Total GDP (2014-15)

Bottom 5 States on Total GDP (2014-15)

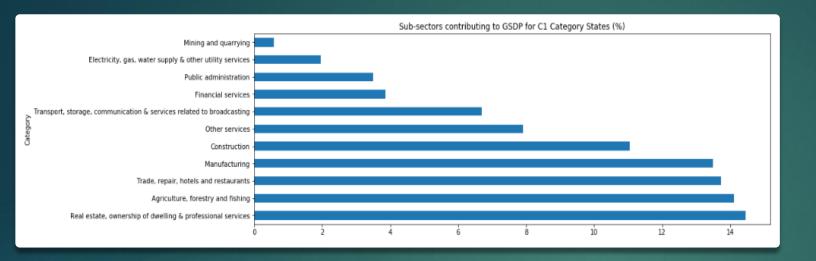
SI#	State	Total GDP(in Crore)	SI#	State	Total GDP(in Crore)
1	Goa	271793	1	Bihar	33954
2	Sikkim	240274	2	Uttar Pradesh	49450
3	Haryana	164077	3	Manipur	58442
4	Kerala	154778	4	Assam	60621
5	Uttarakhand	153076	5	Jharkhand	62091



- In 2014-15, Tertiary sector had a major contribution in GDP. Which means service sector had dominated more on GDP contribution where Agricultural sector or Primary sector was least productive. However, secondary or Industry sector was performing in between.
- Hence, it can be seen that Service Industry is growing in India rapidly compared to other two sectors. However, it also indicates that workforce from other sectors may moved to this industry in terms of for better opportunity which further can decrease the contribution of Primary and Secondary Sector's contribution.
- Hence, there are opportunity to grow in primary sector by developing agricultural sector in rural India and also there are opportunity in Mining sector to increase productivity



For further analysis of the data let us categorize the states into 4 categories as per the GDP per capita as C1,C2,C3 & C4



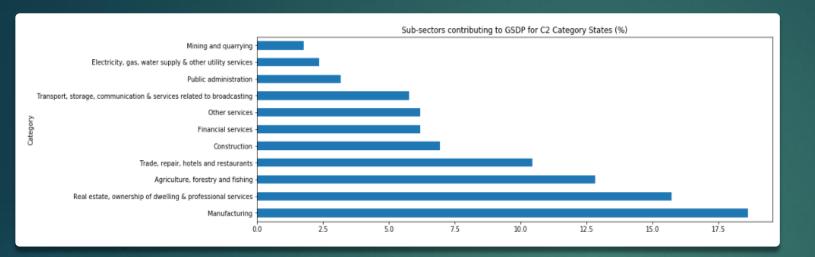
C1 States (Top 15%)
Goa
Sikkim
Haryana
Kerala

Category	Category	C1	Cumulative_SUM
0	Real estate, ownership of dwelling & professio	14.461049	14.461049
1	Agriculture, forestry and fishing	14.119213	28.580261
2	Trade, repair, hotels and restaurants	13.730076	42.310337
3	Manufacturing	13.498187	55.808524
4	Construction	11.051090	66.859614
5	Other services	7.907258	74.766872
6	Transport, storage, communication & services r	6.689409	81.456281
7	Financial services	3.861928	85.318209
8	Public administration	3.503648	88.821857
9	Electricity, gas, water supply & other utility	1.963097	90.784954
10	Mining and quarrying	0.577805	91.362759

- For C1 states or the states with highest per capita GDP, Tertiary sector is majorly contributing.
- > However, Primary and Secondary sectors are also present towards this contribution.
- Categories those are contributing ~80% to the total GDP are majorly from tertiary sector.

Recommendation:

- Subsectors like 'Mining and quarrying',' Electricity, gas, water supply & other utility services',' Public administration' & services required more attention
- Financial Service needs boost up as Tertiary sector is already leading in this states. Thus improved financial service might help them to grow more faster



Category	Category	C2	Cumulative_SUM
0	Manufacturing	18.622130	18.622130
1	Real estate, ownership of dwelling & professio	15.710184	34.332314
2	Agriculture, forestry and fishing	12.825977	47.158291
3	Trade, repair, hotels and restaurants	10.443537	57.601828
4	Construction	6.932967	64.534795
5	Financial services	6.189947	70.724742
6	Other services	6.182617	76.907359
7	Transport, storage, communication & services r	5.755616	82.662975
8	Public administration	3.166513	85.829489
9	Electricity, gas, water supply & other utility	2.357408	88.186896
10	Mining and quarrying	1.769047	89.955943

Most contributing sub sector for C2 category states is Manufacturing. However, towards the ~80% contribution for total GDP, most of the sub sectors are from Tertiary sectors

Recommendation:

- Subsectors like 'Mining and quarrying',' Electricity, gas, water supply & other utility services',' Public administration' & services required more attention
- Improvement in Transport will further help to grow sub sectors like Real Estate as well as Trade, repair, hotels and restaurants

C2 States (Mid.35%)

Uttarakhand

Maharashtra

Himachal Pradesh

Karnataka

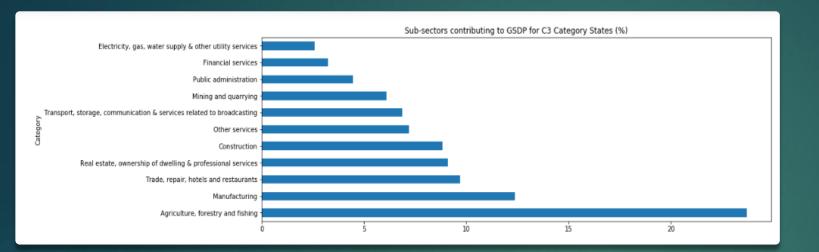
Gujarat

Telangana

Punjab

Arunachal Pradesh

Tamil Nadu



Category	Category	C3	Cumulative_SUM
0	Agriculture, forestry and fishing	23.727451	23.727451
1	Manufacturing	12.383423	36.110875
2	Trade, repair, hotels and restaurants	9.690206	45.801080
3	Real estate, ownership of dwelling & professio	9.116395	54.917475
4	Construction	8.826341	63.743816
5	Other services	7.201032	70.944849
6	Transport, storage, communication & services r $% \label{eq:communication} % eq:communicati$	6.872918	77.817767
7	Mining and quarrying	6.088662	83.906428
8	Public administration	4.454309	88.360737
9	Financial services	3.240065	91.600802
10	Electricity, gas, water supply & other utility	2.587440	94.188242

- For C3 states, Primary and Secondary sectors are majorly contributing.
- In this category of states we have opportunity to increase or provide growth option for Service sectors or Tertiary sector.

Recommendation:

- This states are majorly contributing by Agriculture & Manufacturing. Hence better Electricity, gas, water supply & other utility services help to grow Agriculture and Production.
- Public admin. And Financial Services needs to be taken care to grow

C3 States (low 30%)

Andhra Pradesh

Mizoram

Nagaland

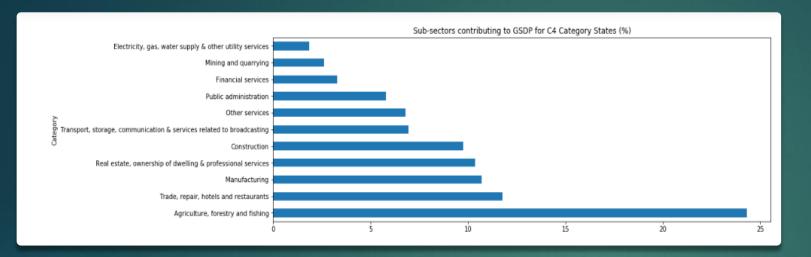
Chhattisgarh

Rajasthan

Tripura

Meghalaya

Odisha



Category	Category	C4	Cumulative_SUM
0	Agriculture, forestry and fishing	24.323490	24.323490
1	Trade, repair, hotels and restaurants	11.783216	36.106707
2	Manufacturing	10.712459	46.819166
3	Real estate, ownership of dwelling & professio	10.365410	57.184576
4	Construction	9.764521	66.949097
5	Transport, storage, communication & services r	6.941761	73.890858
6	Other services	6.799089	80.689947
7	Public administration	5.781998	86.471945
8	Financial services	3.294504	89.766449
9	Mining and quarrying	2.613661	92.380110
10	Electricity, gas, water supply & other utility	1.847900	94.228010

Again for C4 category states Agriculture or Primary sector is majorly contributing followed by Tertiary and Secondary sectors

Recommendation:

- Like C3 Category, these states also required attention for Electricity, gas, water supply & other utility services.
- Financial Sectors needs to grow in order to help Agriculture

C4 States (last 20%)

Madhya Pradesh

Jharkhand

Assam

Manipur

Uttar Pradesh

Bihar

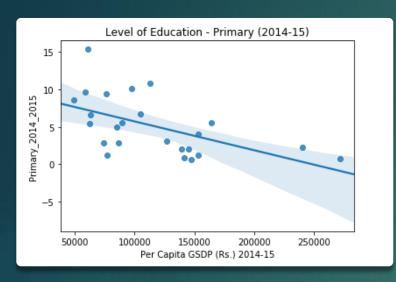
- Tertiary sectors specially 'Real estate, ownership of dwelling & professional services', 'Trade, repair, hotels and restaurants' are majorly contributing to the total GDP
- > Through out all the categories of the states, 'Electricity, gas, water supply & other utility services', 'Financial services', 'Public administration' and 'Mining and quarrying' are very poorly performing in terms of contributing towards the total GDP.

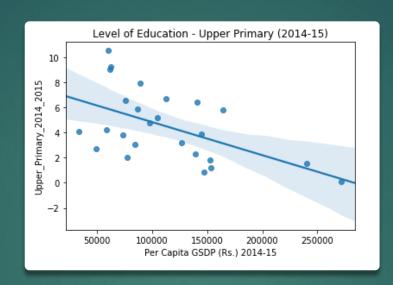
Part – II:GDP and Education Dropout Rates

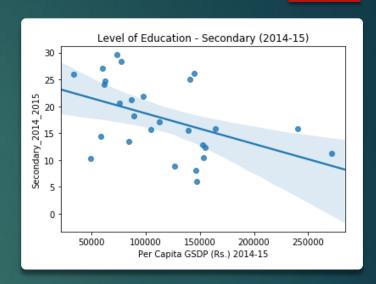
Key Points:

Analyse the relationship between dropout rates in education and per capita GDP

Part – II: GDP and Education Drop Out







- For all Primary, Upper Primary and Secondary grade, drop put rate is more when per capita GDP is less.
- Hence drop out from school is negatively correlated with GDP. Along with economical growth literacy rate will also grow.

Thank You