Collected Data:-

State	Total Cases	Active Cases	Total Deaths	Population density(/km^2)	Sex Ratio	Total Population	Rural Population	Urban Population	Percentage Of Total Indian Population(%)	Rural Percentage(%)	Urban Percentage(%)	NSDP Per Capita 2018-19 (₹)	Migrants
Andhra Pradesh	1887	1004	41	303	993	49577103	34966693	14610410	4.08	70.53	29.47	151173	38360644
Arunachal Pradesh	1	0	0	17	938	1383727	1066358	317369	0.11	77.06	22.94	139588	630831
Assam	59	24	1	397	954	31205576	26807034	4398542	2.58	85.90	14.10	82078	10644234
Bihar	571	269	5	1102	918	104099452	92341436	11758016	8.60	88.71	11.29	43822	27244869
Chandigarh	150	128	1	9252	818	1055450	28991	1026459	0.09	2.75	97.25	329209	678188
Chhattisgarh	59	21	0	189	991	25545198	19607961	5937237	2.11	76.76	23.24	96887	8888075
Delhi	6318	4230	68	11297	868	16787941	419042	16368899	1.39	2.50	97.50	365529	7224514
Goa	7	0	0	394	973	1458545	551731	906814	0.12	37.83	62.17	458304	1140690
Gujarat	7402	5081	449	308	919	60439692	34694609	25745083	4.99	57.40	42.60	197447	26898286
Haryana	647	360	8	573	879	25351462	16509359	8842103	2.09	65.12	34.88	236147	10585460
Himachal Pradesh	50	10	2	123	972	6864602	6176050	688552	0.57	89.97	10.03	179188	2647067
Jammu and Kashmir	823	450	9	98	890	12267032	9064220	3202812	1.01	73.89	26.11	91882	2809629
Jharkhand	132	77	3	414	948	32988134	25055073	7933061	2.73	75.95	24.05	76019	9659702
Karnataka	753	347	30	319	973	61095297	37469335	23625962	5.05	61.33	38.67	210887	26463170
Kerala	503	15	4	859	1,084	33406061	17471135	15934926	2.76	52.30	47.70	204105	17863419
Manipur	2	0	0	122	992	2570390	1793875	776515	0.21	69.79	30.21	69978	686935
Meghalaya	12	1	1	132	989	2966889	2371439	595450	0.25	79.93	20.07	89024	759554
Mizoram	1	1	0	52	976	1097206	525435	571771	0.09	47.89	52.11	168626	387370
Madhya Pradesh	3341	1792	200	236	931	72626809	52557404	20069405	6.00	72.37	27.63	90998	24735119
Odisha	271	206	2	269	979	41974219	34970562	7003656	3.47	83.31	16.69	95164	15421793
Puducherry	9	3	0	2598	1,037	1247953	395200	852753	0.10	31.67	68.33	220461	712401
Punjab	1731	1550	29	550	895	27743338	17344192	10399146	2.29	62.52	37.48	154996	13735616
Rajasthan	3579	1562	101	201	928	68548437	51500352	17048085	5.66	75.13	24.87	110606	22071482
Tamil Nadu	6009	4364	40	555	996	72147030	37229590	34917440	5.96	51.60	48.40	193750	31274107
Tripura	118	116	0	350	960	3673917	2712464	961453	0.30	73.83	26.17	113102	1299623
Uttar Pradesh	3214	1761	66	828	912	199812342	155317278	44495063	16.51	77.73	22.27	66512	56452083
Uttarakhand	63	16	1	189	963	10086292	7036954	3049338	0.83	69.77	30.23	198738	4317454
West Bengal	1678	1154	160	1029	953	91276115	62183113	29093002	7.54	68.13	31.87	109491	33448472

Data collected from the links mentioned in the bibliography.

The table provides the total covid cases (Total Cases), details regarding the population distribution in each state, the per capita GDP and the total migrant population per state

ANALYSIS: -

The table below shows the correlation of the different factors but is difficult to analyse. Picking the specific factors that have a high correlation with the total cases, the next table was made.
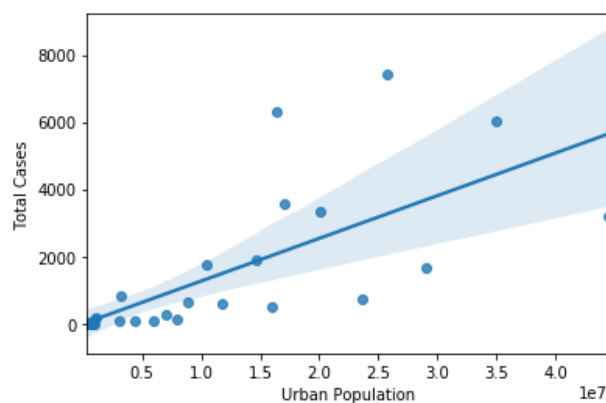
	Total Cases	Active Cases	Total Deaths	Population density(/km^2)	Total Population	Rural Population	Urban Population	Rural Percentage(%)	Urban Percentage(%)	NSDP Per Capita 2018-19 (₹)	Migrants
Total Cases	1.000000	0.986905	0.735039	0.276460	0.435592	0.315845	0.705694	-0.275145	0.275145	0.152968	0.520723
Active Cases	0.986905	1.000000	0.714773	0.290691	0.372173	0.247770	0.666615	-0.305587	0.305587	0.184425	0.463989
Total Deaths	0.735039	0.714773	1.000000	-0.022224	0.361281	0.282843	0.525134	-0.042368	0.042368	-0.013679	0.434879
Population density(/km^2)	0.276460	0.290691	-0.022224	1.000000	-0.138534	-0.175938	-0.006897	-0.808069	0.808069	0.552522	-0.157774
Total Population	0.435592	0.372173	0.361281	-0.138534	1.000000	0.985283	0.870264	0.281366	-0.281366	-0.367225	0.930405
Rural Population	0.315845	0.247770	0.282843	-0.175938	0.985283	1.000000	0.773260	0.357384	-0.357384	-0.431948	0.881358
Urban Population	0.705694	0.666615	0.525134	-0.006897	0.870264	0.773260	1.000000	0.013857	-0.013857	-0.117487	0.911582
Rural Percentage(%)	-0.275145	-0.305587	-0.042368	-0.808069	0.281366	0.357384	0.013857	1.000000	-1.000000	-0.803505	0.225001
Urban Percentage(%)	0.275145	0.305587	0.042368	0.808069	-0.281366	-0.357384	-0.013857	-1.000000	1.000000	0.803505	-0.225001
NSDP Per Capita 2018-19 (₹)	0.152968	0.184425	-0.013679	0.552522	-0.367225	-0.431948	-0.117487	-0.803505	0.803505	1.000000	-0.281948
Migrants	0.520723	0.463989	0.434879	-0.157774	0.930405	0.881358	0.911582	0.225001	-0.225001	-0.281948	1.000000

Strong correlation observed between number of cases of Covid19 and the total urban population
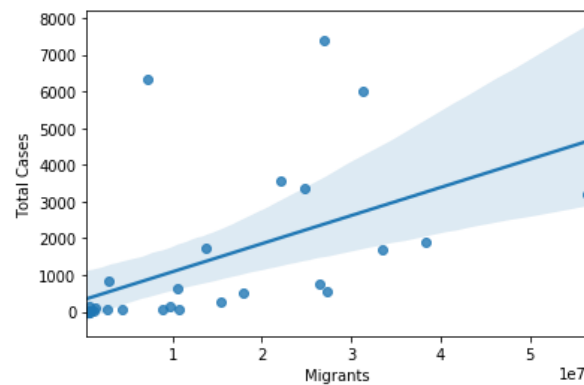
Moderately strong correlation observed between Migrant population and Total cases of Covid19

	Variables Compared	Pearson Correlation	P value
0	Total Covid Cases vs Urban Population	0.705694	0.000027
1	Total Covid Cases vs Total Population	0.435592	0.020509
2	Total Covid Cases vs Migrant Population	0.520723	0.004498

Regression between urban population and total cases shows strong linear relationship

Regression between the migrant population and total covid19 cases shows a moderately strong linear relationship

Since these two variables seem to show the greatest influence on the total cases from the parameters ive used for the analysis, the different states were ranked on the basis of the two factors where 0 indicates the state has the highest value for that factor. Using this, the states that have the highest value of both factors can be given additional importance which passing lockdown legislation.

(eg 5 states have a greater total population than tamil nadu but tamil nadu has a high value of urban population.)

	State	Urban Population	Migrants	Rank by urban population	Rank by migrant population
0	Uttar Pradesh	44495063	56452083	0	0
1	Tamil Nadu	34917440	31274107	1	3
2	West Bengal	29093002	33448472	2	2
3	Gujarat	25745083	26898286	3	5
4	Karnataka	23625962	26463170	4	6
5	Madhya Pradesh	20069405	24735119	5	7
6	Rajasthan	17048085	22071482	6	8
7	Delhi	16368899	7224514	7	16
8	Kerala	15934926	17863419	8	9
9	Andhra Pradesh	14610410	38360644	9	1
10	Bihar	11758016	27244869	10	4
11	Punjab	10399146	13735616	11	11
12	Haryana	8842103	10585460	12	13
13	Jharkhand	7933061	9659702	13	14
14	Odisha	7003656	15421793	14	10
15	Chhattisgarh	5937237	8888075	15	15
16	Assam	4398542	10644234	16	12

Bibliography:-

https://en.wikipedia.org/wiki/List_of_states_and_union_territories_of_India_by_population

https://en.wikipedia.org/wiki/List_of_Indian_states_and_union_territories_by_GDP_per_capita

https://www.mygov.in/covid-19/

https://censusindia.gov.in/2011census/d-series/d-2.html