



ಕರ್ನಾಟಕ Data Lake

Data Story on factors affecting Elementary Gross Enrolment Ratio (GER)

5

JUL 2023



This data story considers different factors from multiple sources that have a high correlation with Gross Enrolment Ratio (GER) across taluks, and builds predictive models of expected impact of changing each factor for each district and taluk. Based on the correlations, the recommended budget allocation for different schemes/factors is also given. At the bottom, you can also see an interactive dashboard where you can perform a particular intervention and see whether it is stable or not.

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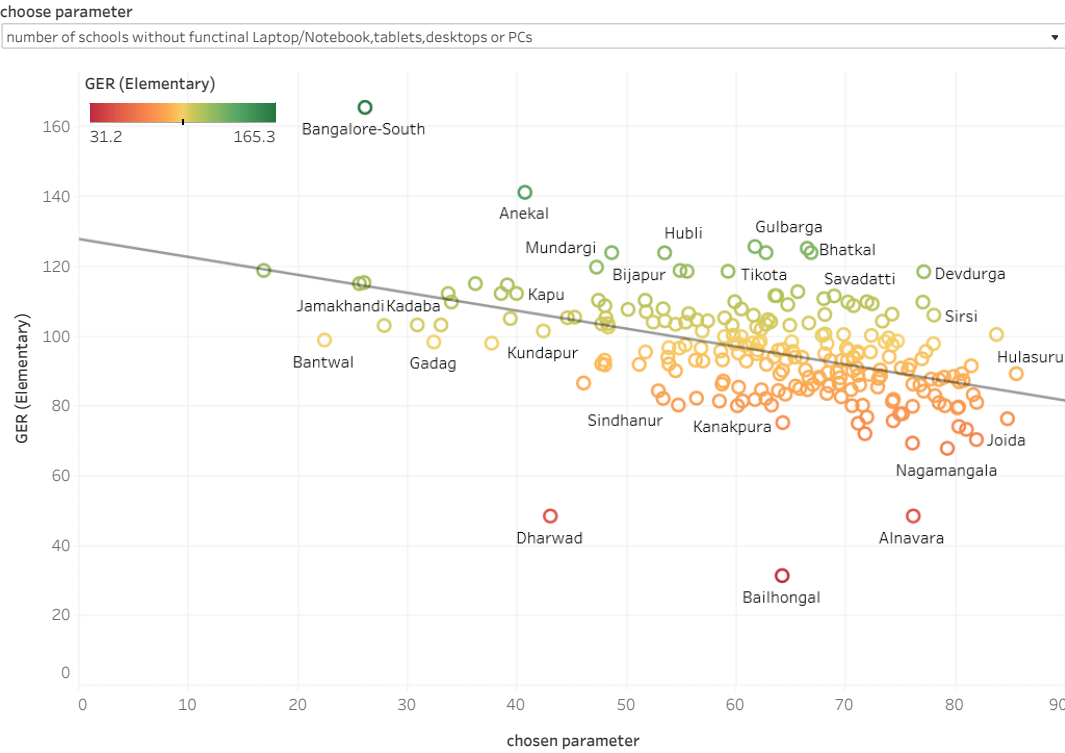
GER Factors

You can select the variable for which you want to see correlation with GER, from the dropdown menu.

If the p-value for a variable is less than 0.05, then that variable has a significant correlation with GER. While many factors have significant correlation to GER, the following have been identified as impact factors in consultation with the domain experts.

Impact Factors

1. number of schools without functional CAL lab
2. number of schools without functional Laptop/Notebook, tablets, desktops or PCs
3. number of schools with secondary SCR above 30
4. number of schools with secondary PTR above 30
5. number of schools without internet(%)



Predictive Impact Analysis

The dashboard has a slider using which, you can change the factor of interest. Initially, the slider is at 0%. If you want to decrease the factor by 10%, you can move the slider to the left. Similarly, if you want to increase the factor by 10%, you can move the slider to the right.

For example, say you want to increase the number of households having access to electricity by 20% of the current value, you can do it by moving the slider two times to the right (which corresponds to +20%)

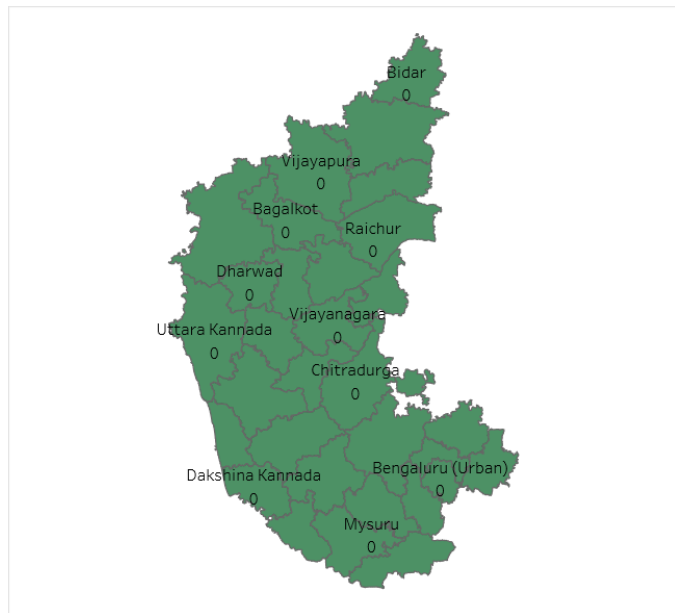
The dashboards has district level map as well as taluk level map. The colours on these maps represent the change in GER after making the desired change in the factor of interest. If you hover over a particular district in the district level map, you get a magnified image of those taluks belonging to that district.

Below the maps, you can see the score of each taluk sorted in descending order. The scoring is based on how good each taluk has performed in changing yield after changing the factor.

At the very bottom, you can see the dataset that is being used for making this interactive visualization

number of schools without functional Laptop/Notebook,tablets,desktops or PCs

Predicted Change In GER (%):
0



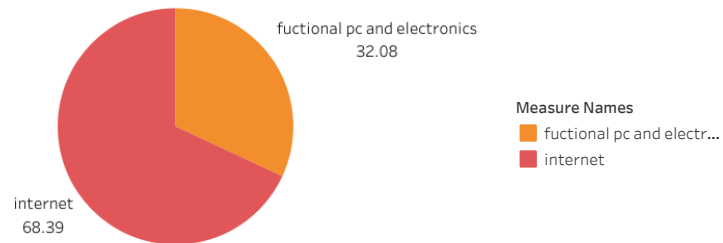
Yadgir
Vijayapura
Vijayanagara
Uttara Kannada
Udupi
Tumakuru
Shivamogga
Ramanagara
Raichur
Null
Mysuru
Mandya
Koppal
Kolar
Kodagu
Kalburgi
Haveri
Hassan
Gadag
Dharwad

C

Avg. change in GER =

District	Taluka	GER (Elementary)	chosen parameter	change in GER	taluk score
Bagalkot	Rabakavi Banahatti	104.8	39.4	0.0	
	Mudhol	106.8	51.8	0.0	
	Jamakhandi	102.8	27.9	0.0	
	Ilkal	93.8	53.8	0.0	
	Hungund	93.8	66.0	0.0	
	Guledagudda	91.7	51.2	0.0	
	Bilagi	97.2	55.4	0.0	
	Bagalkote	97.8	61.5	0.0	
	Badami	91.7	62.8	0.0	
Ballari	Sonduru	108.5	48.1	0.0	
	Siraguppa	97.2	60.8	0.0	

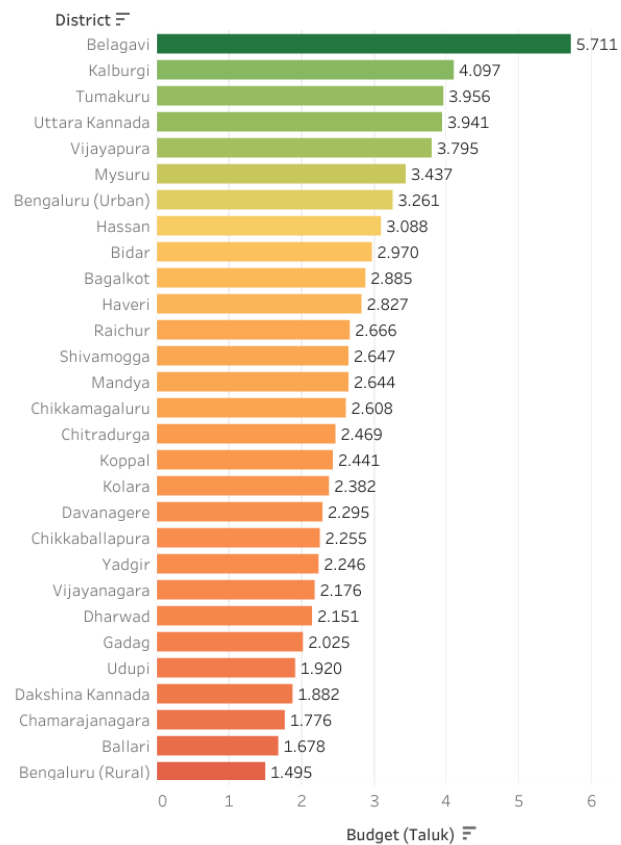
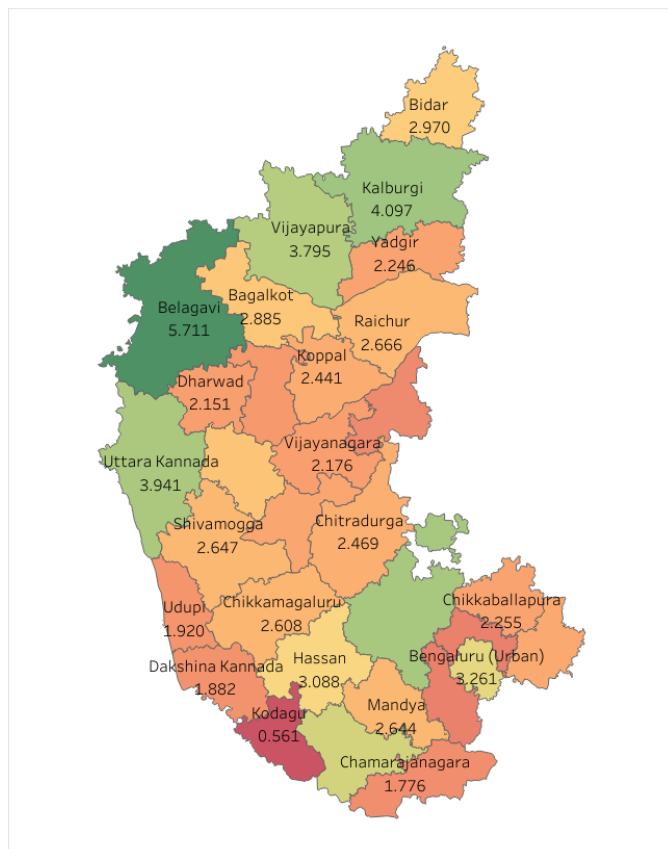
The budget allocation is calculated based on the correlation of the various significant factors with GER. If a factor has high correlation with GER, then that factor has to be allocated more budget than others. The method also takes into account the population of each district/taluk and distributes the budget in such a way that if a particular district/taluk has more people who are affected by a factor x, then we allocate more amount to that district/taluk in order to control that factor.



District wise allocation of total budget (in lakhs)

Budget (In crores) for the state

1



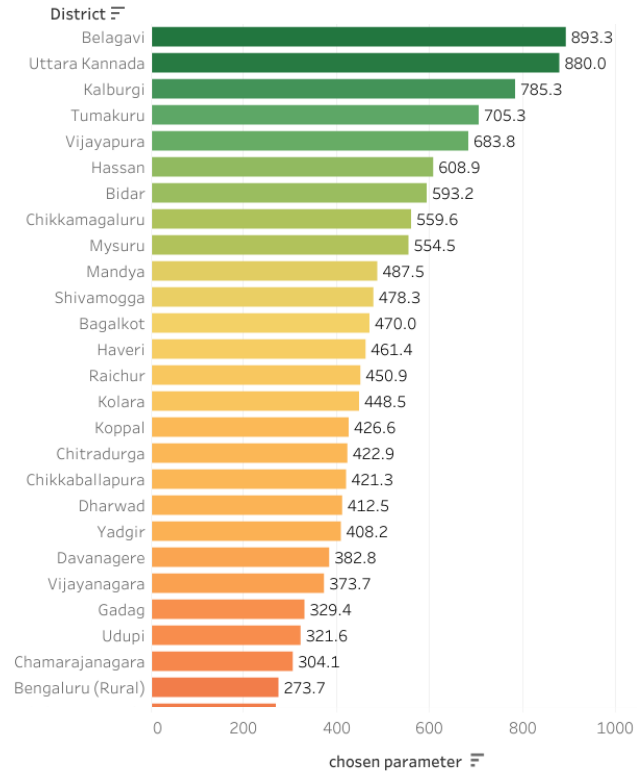
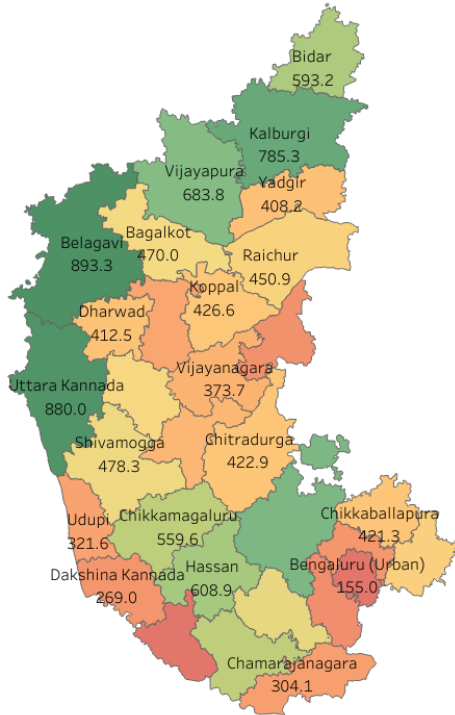
District Level Scheme Wise Budget Allocation (In Lakhs)

choose parameter

number of schools without fuctional Laptop/Notebook,tablets,desktops or PCs

Total amount allocated to schools without functional Laptop/Notebook,tablets,desktops or
Lakhs): 26

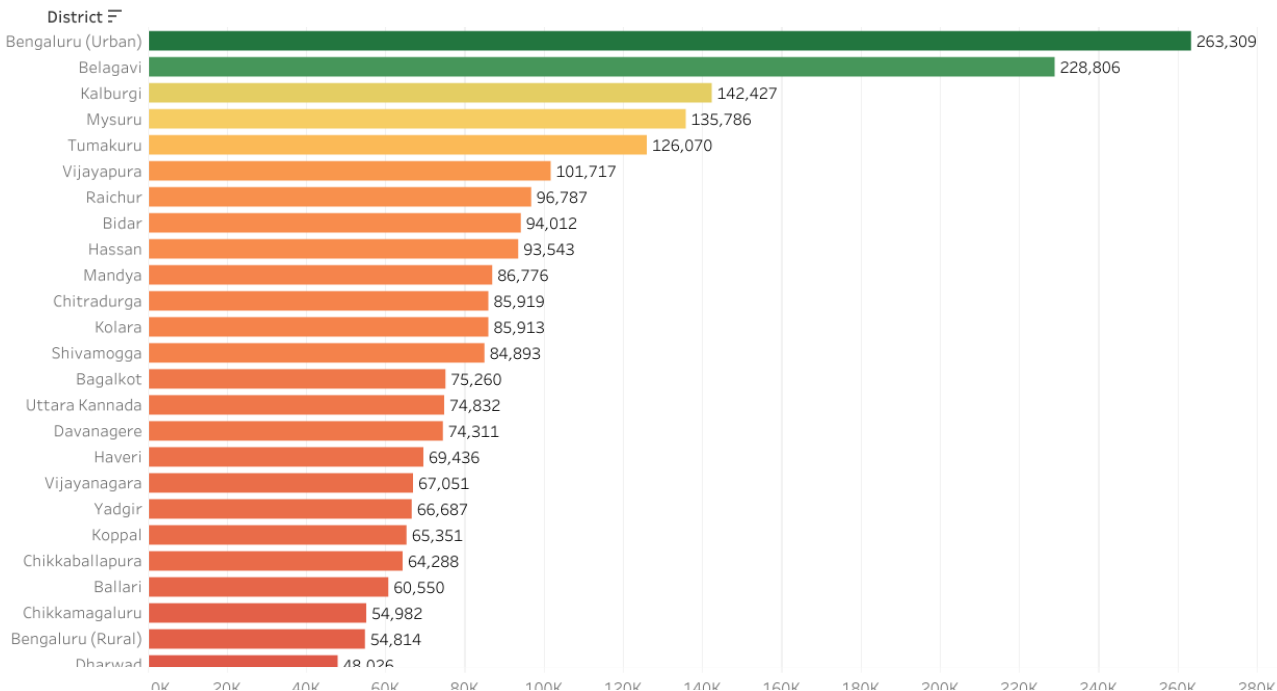
English



Total Number of functional Laptop/Notebook,tablets,desktops or PCs to be provided : 2623445

Enter the unit cost

1



UN EVN TVN VVN VVN TVN EVN EVN EVN EVN EVN EVN EVN EVN EVN

number

English

District Dataset (In Lakhs)

District	Budget (In Lakhs)	fuctional pc (%)	internet (%)
Bagalkot	2.885	0.753	2.132
Ballari	1.678	0.606	1.073
Belagavi	5.711	2.288	3.422
Bengaluru (Rural)	1.495	0.548	0.947
Bengaluru (Urban)	3.261	2.633	0.628
Bidar	2.970	0.940	2.030
Chamarajanagara	1.776	0.449	1.327
Chikkaballapura	2.255	0.643	1.612
Chikkamagaluru	2.608	0.550	2.058
Chitradurga	2.469	0.859	1.610
Dakshina Kannada	1.882	0.455	1.427
Davanagere	2.295	0.743	1.552
Dharwad	2.151	0.480	1.671
Gadaq	2.025	0.343	1.682

Taluk Dataset (In Lakhs)

Taluka	Budget (In Lakhs)	fuctional pc (%)	internet (%)
Afzalpur	0.342	0.119	0.222
Ajjampura	0.321	0.055	0.266
Aland	0.413	0.170	0.243
Alnavara	0.270	0.020	0.249
Alur	0.315	0.043	0.272
Anekal	0.346	0.179	0.167
Ankola	0.337	0.063	0.274
Annigeri	0.265	0.035	0.230
Arkalgud	0.389	0.112	0.277
Arsikere	0.447	0.171	0.276
Athani	0.419	0.170	0.249
Aurad	0.373	0.098	0.275

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