

A 10x10 grid of dots forming a large square shape. The top two rows are missing the first two columns, creating a rectangular notch at the top-left corner. The remaining dots form a shape that is 8 columns wide at the top and 10 columns wide at the bottom.

TRAFFIC FLOWS:

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"The book of nature is written in mathematical language. Without its help it is impossible to comprehend a single word of it " Galileo.

"Transportation is a measure of the relations between areas and is therefore an essential part of geography". (Ullman). "The character of transportation as a whole and in detail, at any particular time and throughout its history, is altogether determined by its interrelations with physical and social forces and conditions. To understand transportation means simply to analyze these interrelations". This field has seen many changes; small and big during the past decades. They range from means of movement, character of flows to the use of quantitative methods and other techniques. But the basic concepts involved stand as they are: spatial interaction and/or areal differentiation^{ati}.

* SOURCES OF DATA *

Data may be obtained either from the primary source or from the secondary sources. For obtaining the data on the 'BLR', I had to adopt following methods :-

1) Direct Personal Observations:-

More than other things it developed an intimacy with this distinctive railroad of Maharashtra whose sleepers of saw wood are laid on Morum on which the track is constructed.

2) Mailed Questionnaire Method :

A set of questions pertaining to this railroad were sent to valuable informants. But the response was of a mixed nature.

3) Continuous or regular data :

It may be frankly admitted that the most important compilers and suppliers of this data was/is the Ministry of Railways Government of India. The author had to use "History of Railways" as well as Appendix 38 of "Railway Administration Report" for statistics on the working of "BLR" prior to 1913-14. The later was made available to me only at Railway Bhavan Library, New Delhi.

The data pertains to spatial, temporal and other variations. These variations simply "relative location" of stations on the "BLR". These railway stations are the Central Places. They possess unique locations in the geometry of the area which led it develop and develop characteristic relationships in this drought-prone-area. In terms of time, it gives statistical information from its inception in 1895 to the present day. Its sole purpose is to highlight following objectives:-

- (i) to add accuracy and precision to verbal descriptions,



- (ii) to offer objective criteria to facilitate comparisons between distributions, and
- (iii) to draw attention to characteristics which may otherwise go unescaped.

One may venture two observations, namely, it is really an uphill task not only in collecting and tabulating the data but also in making a meaningful picture out of it. Secondly the data on 'BLR' is rather simple, because it has been compiled from a commercial view point. It may be repeated that 'BLR' was a monopoly undertaking by the British for the British.

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* P A T T E R N O F F L O W S *

Ordinarily speaking 'BLR' means movement of trains from its point of origin-Kurduwadi to its destinations viz. Barsi Town and Latur on Kurduwadi-Latur Section and to Pandharpur and Miraj on Kurduwadi-Miraj Section. The frequency of train services on her may be arranged as in Table No.VII.

T A B L E - V I I

Sr.No.	From Station to Station	Frequency
1.	Kurduwadi to Barsi Town and Barsi Town to Kurduwadi	one one

2.	Kurduwadi to Latur	Three
	and	
	Latur to Kurduwadi	Three
3.	Kurduwadi to Pandharpur	Two
	and	
	Pandharpur to Kurduwadi	Two
4.	Kurduwadi to Miraj	Two
	and	
	Miraj to Kurduwadi	Two

(Source:- Table No.33,34 Down -Central Railway Time Table)

Note:-1. Extra trains are run to Pandharpur during the Fair periods.

2. Vehicles known as P³Ts (Pilgrim Thirds) are freely used for dealing with the heavy rush of pilgrims.

3. Total number of passenger Coaches including P³Ts has increased from 120 in 1-1-1954 to 190 in 31-3-75.

4. Goods Train have been stopped. Instead Mixed trains are being operated on both sides.

5. The number of coaches, perhaps, was five /train. It is now increased to 7/plus 5 Goods. Passenger.

Like all other railways, 'BLR' also implies change in location as well as carriage function. It gives them a place utility i.e. the value of flows is enhanced after there are transported. The reasons behind these are economic as well as non economic. The carriage function involves handling packing and storage etc. Nevertheless the purpose behind all these endeavours is to bridge distances, impediments and

hazards between the producer and the consumer.

The flows may be grouped as under :-

a) Passenger Flows

i) Regular Passenger Traffic:- They travel short and medium distances. It has increased on account of recent rise in S.T. fares.

ii) Pilgrim Traffic:- Their intensity is more in Ashadi and Kartika. Table No. VIII gives duration of Fair Period (normal and Peak) inward and outward pilgrim traffic with sources of Pilgrims attending.

T A B L E - VIII

Name of the Fair	Fair Period	Peak Period	Places of Pilgrim Traffic 1980-81		
			origin of Pilgrims.	Inward	Outward
Ashadi	21 days	From four days before to five days after the principal day i.e. Ekadashi.	Khandesh, Vidarbha, Marathwada, Pune and Bombay Division	56499	56634
Kartika	15 days	From 3 days before to 4 days after the Principal day.	Konkan, Bombay- Raichur Section Belgaum and Bijapur Districts.	40161	35523
Meghi	9 days	From 2 days before and second and fifth day after the principal day	Marathwada, Belgaum and Bijapur Dist.	23214	24532
Chaitri	11 days	- " -	- " -	33049	30043

- Notes:- 1) The attendance of Pilgrims, mostly following "Warakari" cult is regular because they are bound by a vow to have an audience of ~~Ward~~ Lord Vitthoba.
- 2) Adhiki is held once in three years, and about 30,000 pilgrims visit Pandharpur.
- 3) The dates of these fairs are governed by the Hindu Calendar.

B) Commodity Flow:

It comprises the carriage of goods in bulk and bulky commodities. These may be differentiated into inward and outward commodity flows as under:-

i) Inward Commodity Flow:- Salt, Cement, Chemical manures, General Goods, Iron, Steel, Coal, Firewood are included in it.

ii) Outward Commodity Flow:- Foodgrains, Oilseeds, Oilcake, ginggery, sugar, fodder etc. build it up.

Most of the traffic is accounted by Latur, Barsi Town, Pandharpur, Miraj, Jath Road; the other stations have relatively small freight-generating and absorbing capacities. Secondly the outward traffic shows regional differentiation i.e. Groundnuts, and turmeric from Miraj; Cotton and Pulses from Barsi Town, Sugar from Dhoki and Cotton, Pulses and Oil from Latur. Thirdly the rates at the time of 'BLR' were twice as high as in other

railways, viz.

Passenger Fares.	First Class	24 paise/mile
	Second Class	12 paise/mile
	Third class	8 paise/mile
	Fourth class	3 paise/mile
	00000 Luggage	4 paise/mile/mand
	Horses each	24 paise/mile
	Carriages each	4 annas/mile
	Dogs each	3 annas/mile(50)
	Parcels under 7 seers for 50 miles	6 annas
	Goods rates :-	
	Fifth Class	54 paise/Ton
	Fourth Class	36 paise/Ton
	Third Class	24 paise/Ton
	Second Class	18 paise/Ton
	First Class	12 paise/Ton
	Foodgrains	12 paise/Ton/miles
	Coal	10 paise/Ton/mile.

Notes:-The rate structure and ~~is not only~~ classification of goods ^{has} ^{and} changed but has become uniform all over India.

* V A R I A T I O N I N F L O W S *

Flows are the very activity of transport and these differ in degree as well as in type. Hence a standardised method of measurement is difficult to attain. Some of these flows, however, can be analysed by application of Transport

flow models, such as, the Gravity Model, Intervening opportunity model, and transportation (Linear Programming) in a temporal or regional frame-work. Perhaps 'BLR' did not keep or preserve a detailed or elaborate account of flow data. As such one is really handicapped in making a detailed analysis.

Table No. IX shows the statistics of working from 1895 to 1954

T A B L E - IX.

Year	Total Capital outlay, including suspense to end of each year, i.e. outlay on (i) lines open (ii) lines partly or wholly under construction.	Gross earnings	Net earnings	Percentage of net earnings on total capital outlay given in column (2)	Earnings per route mile per week	Proportion of expense to earnings
1	2	3	4	5	6	7
1895	2,357	-	-	-	-	-
1896	10,06,657	-	-	-	-	-
1897	13,40,891	1,07,778	21,550	1.90	115	60.00
1898	13,42,592	1,30,521	24,599	1.83	130	81.15
1899	13,56,800	1,56,118	64,475	4.73	139	58.03
1900	13,36,011	1,24,440	42,440	3.13	111	63.90
1901	12,90,589	1,69,298	70,588	6.13	130	52.09
1902	12,18,342	1,50,275	32,879	4.02	114	64.81
1903	13,78,320	1,30,694	53,423	4.34	116	59.12
1904	11,88,238	1,60,934	64,352	4.30	140	61.09
1905	28,80,007	2,99,478	130,678	4.96	105	36.29
1906	39,44,877	2,10,204	190,620	2.78	96	40.90
1907	47,47,096	5,41,039	224,080	4.77	133	58.76
1913	71,46,903	13,18,673	846,882	11.85	219	35.33
1914	79,83,731	11,17,797	628,070	7.87	186	43.81

1	2	3	4	5	6	7
1915	85,69,232	10,66,669	596,646	6.96	175	44.06
1916	85,47,194	11,24,923	644,262	7.54	184	42.73
1917	86,82,814	8,60,524	415,205	4.83	144	51.75
1918	82,28,186	10,10,444	523,007	0.06	169	48.24
1919	86,22,046	15,95,756	987,956	11.46	266	38.09
1920	87,11,340	14,31,896	770,133	8.84	244	46.22
1921	88,50,554	14,40,516	710,583	80.03	245	50.67
1922	89,54,648	18,13,619	978,455	10.93	297	46.05
1923	90,70,770	18,64,895	953,031	10.50	311	48.98
1924	94,27,684	17,79,805	892,897	9.47	303	49.83
1925	93,23,492	17,97,600	874,888	9388	306	51.33
1926	1,49,65,366	17,49,585	799,989	5.35	297	54.27
1927	1,67,65,967	18,66,622	930,288	5.55	311	49.84
1928	1,72,01,862	25,29,028	1136,846	6.61	239	55.05
1929	1,75,61,743	25,62,696	1185,408	6.75	243	53.74
1930	1,85,31,992	20,95,024	727,656	3.92	199	65.27
1931	1,85,31,992	20,95,024	733,353	3.94	193	63.91
1932	1,85,97,279	20,35,032	707,607	3.78	184	63.43
1933	1,86,69,485	20,02,325	807,095	4.35	190	59.60
1934	1,86,50,451	18,10,335	676,085	3.62	172	62.65
1935	1,86,03,615	19,26,216	791,486	5.25	183	58.91
1936	1,85,91,238	15,34,964	447,949	2.41	146	70.82
1937	1,85,18,099	14,45,082	786,703	4.25	175	57.36
1938	1,83,78,303	18,54,664	798,532	4.34	176	56.94
1939	1,85,78,664	16,94,283	661,986	3.56	161	60.93
1940	1,85,09,662	22,48,396	1195,116	6.45	213	46.84
1941	1,84,78,983	22,09,310	1113,116	6.02	210	49.62
1942	1,84,60,543	29,42,639	1944,073	8.91	279	44.13
1943	1,84,27,020	35,36,571	2088,371	11.33	336	40.95
1944	1,85,20,871	35,97,716	1872,121	10.11	342	47.96
1945	1,84,10,682	43,36,447	2208,405	12.00	412	49.07
1946	1,86,00,919	44,12,228	1848,179	9.93	419	58.11
1947	1,88,86,147	45,48,332	1381,398	7.31	432	69.63
1948	1,90,50,806	51,13,960	1139,503	5.89	486	77.72
1949	1,97,26,685	53,86,428	945,863	4.79	511	82.41
1950	2,86,26,779	52,51,377	866,146	4.20	499	83.51
1951	2,86,03,003	50,34,599	1421,388	6.90	573	76.45
1952	2,87,71,969	56,39,778	1227,189	5.91	535	78.22
1953	2,88,21,421	38,86,308	-2,80,380	-1.35	368	107.21

Purchased and merged with the Central Railway with effect from 1 January 1954.

