131

T. R. NO.131

Technical Report

विद्याविनियोगाद्विकासः
IIM
AHMEDABAD

INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD

PATTERN OF INDUSTRIAL LOCATION IN GUJARAT

(An Analysis of New Factories 1960 - 70)

by

T.S. Papola

T.R.No. 131
August 1976

Indian Institute of Management
Ahmedabad

ABSTRACT

This study portrays the locational pattern of the new factories started during 1960-70 in Gujarat among its districts. The aspects examined are: shares of incremental industrial activity going to each districts, in aggregate as well as at the level of individual industry groups, relationship between initial and incremental shares and association of certain characteristics of districts with their share in new industrial activity. An attempt is then made to identify (i) the trends in spatial diversification of industries (ii) industries which show high/low potential for diversification and (iii) the role of certain district characteristics and institutional efforts in changing the locational pattern.

In the short span of a decade covered here, the manufacturing activity has not only shown a high potential for spatial diversification, but has also actually got diversified to a significant extent. Quite a few industrially backward districts have attracted significant shares of new industrial activity; most of the industries have shown considerable locational flexibility and the structure of industries is changing in favour of such industries. Infra-structure is found to be a necessary, but not a sufficient condition for favour of location, but the effectiveness of the efforts of public institutions have further supported the view that there is nothing specific in an area that prohibits industries from going there.

PATTERN OF INDUSTRIAL LOCATION IN GUJARAT*

(An Analysis of new factories - 1969-70)

T.S. Papola

The organised manufacturing sector has registered a fast growth in Gujarat during 1960-70; the number of factories have practically trebled; the factory employment has nearly doubled; and, the output in this sector has increased by over 100 per cent during this period. What is attempted in this paper is a portrait of the distribution pattern of the additional industrial activity among different districts of the State. The portrayal is in terms of the new factories and the number of workers employed in them. Some analysis has also been attempted by relating the shares of districts in the addition to some of their economic characteristics and to distribution of activities of some statewide public financial and industrial development institutions among the districts.

I : Major Structural Changes

During the decade 1960-70, a total number of 5669 new factories were registered which were reported to be employing a total of 2.9 lakh workers (Table 1). It may be noted that with 2973 factories and 2.9 lakhs of employment, the average size of employment per factory worked out 100 in 1960 whereas in case of the new factories the average size of employment works out around 50. This change in average factory size is a reflection of the structural change that has been taking place in the manufacturing sector of the state during the decade. One single indicator of such change is to be found in the fact

*This study was supported financially by the Indian Institute of Management, Ahmedabad, under its 'Seed Money Projects' Scheme. The information on factories was collected from the Office of the Chief Inspector of Factories, Gujarat, Ahmedabad and that on district characteristics from the District Census Handbooks. The assistance rendered by RG Jape, Krishna Guha and R. Padmanabhan in compilation and tabulation of data is gratefully acknowledged.

that textiles with an average factory size of 200 workers contributed 29.30 per cent of factories and 64.84 per cent of factory employment in 1960, whereas among the new factories textile units make only 22.10 per cent and their employment makes only 35.71 per cent (Table 2). On the other hand, food products, non-metallic mineral products, machinery and miscellaneous manufacture groups with smaller average factory size have much larger share in the new factories and new employment than what they had in 1960; the share of these four industry groups in the total employment of factories started during 1960-70 is 10.01, 20.95, 7.18 and 4.11 per cent respectively against 7.44, 5.57, 3.22 and 1.14 per cent in the total factory employment in 1960. The other industries which had a significantly larger employment share in the incremental than in the initial, are electrical machinery, basic metals and metal products while chemicals and transport equipment seems to be losing their relative shares.

In 1960, the five largest industries, namely, Textiles, Food Products, Non-mineral metallic products, Chemicals and chemical products and Transport Equipment accounted for around 87% of the total factory employment in the State; in the incremental employment due to new factories their share is only 71 per cent. In fact, by 1970, transport equipment had gone out of the group and machinery group has become the fifth largest industry. The ratio of employment between the broad groups of consumer and capital goods industries has come down from 80:20 in 1960 to 70:30 in 1970.

II : Location of Aggregate Manufacturing Activity

a) Factories

The largest share of the new factories went to Ahmedabad district: it claimed 29.58 per cent of them as against its share of 29.36 per cent in the State's factories in 1960 (Table 3).

Surat (including Bulsar which claimed 6.30%) comes next with a 24.01% share in the incremental against 29.97% in the initial. Baroda, Kaira, Rajkot, Bhavnagar, Jamnagar and Junagadh, with 8.66, 7.74, 7.41, 4.67, 4.07 and 3.49 per cent shares were the other major claimants of the new factories. All these districts except Jamnagar were among the top seven claimants of share in the State's factories in 1960 as well. The districts which have lost relatively in terms of the share of State's factories located in them are: Surat (including Bulsar), Kaira, Surendranagar, Mehsana, Panchmahals and Banaskantha. On the other hand, Jamnagar's share has risen to 4.07 in 1970 from 0.17% in 1960, Baroda's 8.66 from 6.80, Rajkot's 7.41 from 5.94, Kutch's 1.36 from 0.24 and Amreli's 0.71 per cent from 0.10 per cent. The top five districts Ahmedabad, Surat, Baroda, Kaira and Rajkot accounted for 78.71 per cent of the State's factories in 1970 as against 81.73 in 1960.

b) Employment

The sizes of the new factories seem to differ significantly among districts and, therefore, there is significant variation between factory share and employment share of different districts (Table 4). Ahmedabad claimed 41.31 per cent of the new employment in 29.58 per cent of new factories, while Surat claimed only 14.91 per cent employment in the 24.01 per cent new factories. Baroda, Kaira, Jamnagar and Rajkot are other districts with sizeable share in employment in new factories, each claiming over 5 per cent. Baroda and Jamnagar seem to have bagged more of the large sized factories as compared to Kaira and Rajkot.

Of the districts with relatively larger industrial activity, Ahmedabad has a significant decline in its share of factory employment from 55.09 per cent in 1960 to 46.87 per cent in 1970; but, Surat, Baroda, Kaira, Rajkot, had an increase in their shares.

Of the districts with relatively low levels of industrial activity Jamnagar secured a significant gain: its share in factory employment of the state went up from 1.06 in 1960 to 3.29 in 1970. Kutch, Broach and Junagadh also registered similar trends. Surendranagar, however, received only 1.89 per cent of the new factory employment as against 3.53 per cent share in 1960 and consequently experienced a decline in its share of factory employment over the period.

The four districts - Ahmedabad, Surat, Kaira and Baroda, which continued to remain topmost in the employment shares accounted for 79.21 per cent of state's factory employment in 1960; their share was 75.42 per cent in 1970. Jamnagar and Rajkot with their shares of 5.69 and 5.06 per cent became the fifth and the sixth districts to employ largest number of factory workers in 1970, whereas they had only 1.06 and 2.60 per cent of total employment and ranked eleventh and seventh in 1960. On the whole, thus, there seems some tendency towards reduction in disparities in the levels of industrial activity during the decade.

III. Location Pattern : Industrywise

a) Factories :

Let us try to look at the pattern of location of each industry and attempt to answer the question: which industries went where? The answer may be sought first in terms of the factories (Table 5) and then employment (Table 6). As pointed out earlier, the largest number of factories - 1252 - started during 1960-70 were in Textiles. Surat bagged the largest number of them making 38.82 per cent of total new factories in this industry, followed by Ahmedabad with 29.31 per cent. Rajkot, Bhavnagar, Kaira and Baroda are the other significant claimants each having at least 3 per cent of the new factories. The second largest number of factories (763) were started in the industry group of Food products. The factories in this industry were more evenly distributed and each district claimed some factories: the higest being by Junagadh (18.35%), followed by Rajkot (15.47%), Bhavnagar (9.44%), Ahmedabad (8.65%), Mehsana (6.55%) and Surat (6.29%)..

The machinery and non-metallic mineral products groups of industries are the next most important ones in terms of the new factories added during the decade; the former added 678 and the latter 675 factories during the period. Over half (52%) of the new machinery units got located in Ahmedabad district alone. Rajkot, Baroda and Surat accounted for another 27 per cent; the rest 21 per cent got distributed into other districts where again Bulsar, Kaira, Surendranagar and Bhavnagar accounted for another 15%; Amreli and Panchmahals getting no factory at all. The factories in the non-meta llic mineral group were, however, distributed less unevenly. Ahmedabad had 23.41 per cent of the new factories, Baroda 15.26, Surat 12.89, Kaira 12.44, Rajkot 8.0; Panchmahals also got 5.04 per cent and Sabarkantha 3.11 of the new factories.

The fifth, six and seventh ranks in terms of the number of new factories (leaving out miscellaneous group) go to metal products (320 factories), basic metals (234 factories) and tobacco products (230 factories). In case of metal products group, Ahmedabad does claim well over one-third of new factories (37.50 per cent to precise), but Baroda, Bhavnagar, Bulsar, Kutch, Rajkot and Surat each also had between 5 to 8 per cent of them; and, all other districts, except Banaskantha has some share. The distribution of the basic metal factories is somewhat more unequal. Ahmedabad claims 39.24 per cent, Surat 17 per cent, Baroda, Bhavnagar, Bulsar and Rajkot between 5 to 10 per cent each and Amerli, Banaskantha and Panchmahals got no factory in this group. The tobacco factories have, of course, much more concentrated pattern: Kaira alone accounts for 78.70 per cent of the new factories. The other districts which got a significant share of them are Baroda (10.43%) and Mehsana (7.37%). In as many as 10 districts no new tobacco factory was located.

The other industry groups in which at least 100 new factories were added during 1960-70 are : Chemicals and chemical products (181), Printing & Publishing (166), Wood & Cork (158) and Electrical Machinery (111). Chemical factories did not favour Amerli, Banaskantha, Sabarkantha and Surendranagar for new location, but, besides Ahmedabad claiming 38.12 per cent of new factories, a number of other districts like Baroda, Bhavnagar, Bulsar, Junagadh, Kaira, Rajkot and Surat also had a fair share of them. Wood and Cork industry yields a highly concentrated distribution of its new factories among districts. Ahmedabad alone claims over one-half (53.80%), Bulsar 18.35 per cent, Surat 12.66 per cent and Bhavnagar 5.70 per cent; rest of the districts have either no new units or a very think sprinkling of them. Of the new units in electrical machinery Ahmedabad claims only 29.73 per cent, but, Baroda, Kaira and Surat put together claim another 47 per cent.

b) Employment

In terms of employment the new factories added most, again in Textiles (119,000) followed by non-metallic mineral products, food products, machinery, tobacco products, chemicals and metal products each adding over 10000 workers. Ahmedabad claimed 61.76 per cent of the employment in new factories in textiles, Surat came next with 11.64 per cent, the other significant claimants being Baroda, Broach, Mehsana and Rajkot. In non-metallic mineral products Kaira shared over half the employment of the new factories, rest got dispersed among all other districts except Banaskantha, the districts with a significant share being Baroda (10.58%) and

Surat (7.72%). Employment in the new factories in food products group is probably the most evenly distributed the highest share being that of Jamnagar at 28.01 per cent followed by Junagadh at 14.60 per cent. The developed districts like Ahmedabad, Baroda and Surat had a share around 5 per cent each, but districts like Surendranagar, Amreli and Bhavnagar also had a similar share.

Employment in new machinery units, however, got concentrated primarily in Ahmedabad, Baroda and Rajkot, the three together claimed 72 per cent, Ahmedabad alone 45.29 per cent. Other districts which received a significant share are Surat, (5.69%), Kaira (4.77%), Sabarkantha (4.47%), Bulsar (4.37% and Surendranagar (3.54%). The three-fourths of the new factory employment in tobacco products was claimed by Kaira alone and Baroda and Mehsana together claimed another 23.50 per cent. Chemicals showed a less uneven distribution of employment in new factories. Baroda had the highest share, but only 30.73 per cent, Ahmedabad was next at 22.48 per cent. But Junagadh also got 11.28%, Bulsar 10.11% and Panchmahals 6.10 per cent.

Metal products is another industry with greater dispersal of its new employment. While Ahmedabad did claim 30.47 per cent, Jamnagar claimed 19.76, Kutch 8.19, Bulsar 6.32 and Bhavnagar 5.72 per cent. The next important industry in terms of size of employment in new factories is basic metals which again has shown good dispersal with Ahmedabad's share at 36.67%, Surat's 13.95, Bulsar's 12.41, Rajkot's 8.69 and Baroda's 10 per cent. In transport equipment Ahmedabad, Baroda and Kaira together claim over 75 per cent of the new factory employment, each claiming more or less equal share; the other districts getting a significant share are Bulsar 9.10% and Surat 5.29%. Strangely, an industry like printing using primarily ubiquities shows one of the highly concentrated locational pattern of new employment. Ahmedabad, Baroda and Surat together account for over 93 per cent of the new factory employment.

c) General Trends :

Let us recapitulate the above account of locational pattern of new factories and their employment with a view to answering the following two questions : first, which districts tend to attract concentration of which industries? and two, which industries demonstrate a potential for diversification?

Although Ahmedabad claimed 41.31 per cent of the employment in new factories, in 13 out of the 21 industry groups its share was below this figure. The industries in which it claimed a large share are: Furniture and Fixtures, Printing & Publishing and Beverages, in each of which it claimed over two-thirds of the total new factory employment; in textiles, footwear and wood and cork, it claimed between one half and two thirds. None of these industries seem to have at least any significant endowment advantage in Ahmedabad. Surat is the next most favoured location district having bagged 17.71 per cent of the new factory employment. The highest share (36.27%) that it has claimed in the new employment is in the industry group paper and paper products; basic metals and textiles are the other groups where it has more than 10% share in new employment. In most of the other industries Surat's share in the new employment is not very much above what would have been if the new industrial activity were equally distributed among all the districts. Surat is, however, the only district other than Ahmedabad which had a significant share in new employment in all the industry groups except tobacco products in which both Ahmedabad and Surat got an insignificant share.

Of the other relatively larger claimants of the new industrial activity, Baroda, claimed the highest share (59.59%) of the new employment in Petroleum products group; it also had a significantly large share (over 20 per cent) in chemicals, electricity and gas, electrical machinery, rubber products, and transport equipment. It got none of the new factories in footwear industry. The next major recipient of the new factory employment is Kaira. The industries which had a high concentration of location of new employment in Kaira are tobacco products (74.94%), non-metallic mineral products (51.30%) and transport equipment (24.56%). It did not get any new factory in Beverages and Petroleum products. Rajkot is the next district in the order of new employment; it did not get a unduly high proportion of new employment in any industry though it had between 10 and 12 per cent share in machinery, food products and leather and leather products. Bulsar is the last district in the group which have received a higher share in new employment than an equal distribution would yield. Besides the miscellaneous group of industries, the industries which Bulsar has attracted in a significant measure (claiming above 10% of new factory employment in the state) are: footwear, wood and cork, basic metals, chemicals, and rubber products, all material-based industries.

Let us now see if the industrially less developed districts have demonstrated any strong attraction for some group of industries. All of them excepting Dang, have received some factories in different industries during 1960-70, but, in terms of their having attracted greater than equalising share the preferences emerge as follows: rubber and rubber products, metal products and petroleum products in Kutch; food products, petroleum products and metal products in Jamnagar; and leather and leather products in Broach. Amreli shows some potential in food products and Banaskantha a little in transport equipment and paper and paper products.

Which are the industries which have shown a potential for dispersed location? The detailed account of how the employment of new factories has got distributed among various districts has been given earlier. Let us here just mention industries which have their new factories and employment well distributed and those which have them highly concentrated in a few districts. Industries which show the greatest potential for diversification, as evidenced by the location of new factories during 1960-70 are the following in a discending order: food products, metal products, basic metals, machinery non-metallic mineral products, textiles and paper and paper products. Those with a tendency of highly getting concentrated in a few districts are : tobacco, footwear, furniture and fixtures, printing and publishing, petroleum products and electricity and gas.

IV : Some Factors in Location

In this section we attempt identification of certain characteristics of districts and relate them with the locational pattern of new factories. The idea is primarily to explore if there is any association between the two. The locational pattern is identified in terms of the share of employment each district had out of the employment of the new factories established during 1960-70. The characteristics chosen relate to, besides the relative magnitude of industrial activity in the initial year, to the level of agricultural development, elements of infrastructure and public institutional investment.

a) Relation between Initial and Icremental

(i) All Industries

In the first instance let us see if the districts' shares in new employment merely accord with the corresponding shares in 1960 (Table 7). We find that the four districts with the highest share in 1960 (Ahmedabad, Surat, Baroda and Kaira) also had highest share in new employment. But the fifth position was held by

Surendranagar in 1960, while in new employment Jamnagar got promoted from the twelfth rank in 1960 to fifth rank in the new employment. The other districts which moved significantly upwards in the ranking order in the incremental situation, as compared to 1960 order, were Sabarkantha, Broach, Junagadh and Rajkot; and those which went down in the ranking are: Mehsana, Panchmahals and Banaskantha. Thus, it looks that the additions of industrial activity during 1960-70 did not faithfully follow the districtwise pattern of location in 1960. The trend towards concentration or diversification was not, however, very clear - top districts held their positions but less industrialized districts exchanged positions among themselves. Looking at the actual shares, however, one finds that there is a slight tendency towards reduction in concentration. The top four districts had about 79% of 1960 factory employment, their share in employment of new factories was 75 per cent. The bottom seven districts (Dang, Amreli, Jamnagar, Kutch, Banaskantha, Broach and Sabarkantha in ascending order) claimed only 3.45 per cent of the 1960 factory employment, their share in the employment of factories started during 1960-70 was 11.90 per cent. The middle order districts (Rajkot, Bhavanagar, Surendranagar, Junagadh, Mehsana and Panchmahals) had to be content with a 13 per cent share in new employment as against 17.5 per cent in the initial.

(ii) Individual Industries

Let us also examine the relationship between initial and incremental shares in employment of districts in some major industries. New employment in Textiles seem to have got distributed more or less in the same pattern as existed in 1960 except that Ahmedabad's share in incremental was substantially lower than its share in the initial and those who gained in incremental are: Broach, Kaira and Surat. In food products, the share of Surendranagar declined drastically from 31 per cent in 1960 to 6.58 per cent in the incremental, similar trends was found in the case of Kutch and Panchmahals; but, Jamnagar's share in incremental was 28 per cent against 0.07 per cent in the initial.

The machinery units seem to have found many new grounds during 1969-70; Banaskantha, Broach, Bulsar, Jamnagar, Junagadh, Kutch, Sabarkantha and Surendranagar are districts which had no factories in this industry in 1960, but, they all have some units by 1970. Of the incremental employment in this industry, some of these districts claimed a significant share - Sabarkantha 4.47%, Bulsar 4.37% and Surendranagar 3.54%. Among the more industrialised districts Ahmedabad and Surat have relatively lost their share in employment over the period, Ahmedabad has 45 per cent in incremental against 66% in initial employment, Surat 5.69 against 10.06; while the percentages for Baroda are 14.79 against 2.77 and for Rajkot 11.56 against 5.77. The location of new units in machinery industry seems to have thus shown least consistency with the initial distribution of employment in this industry.

The allocation of new employment in tobacco products has followed the pattern existing in 1960; Kaira, had 70 per cent of employment in this industry in 1960, Mehsana 16 and Baroda 12 per cent; their respective shares in the incremental employment are 75, 10 and 13 per cent. New units in chemicals also got distributed in accordance with the 1960 position; but with the following significant exceptions: Rajkot had no chemical factories in 1960, but, it got units out of the ones started during 1960-70, claiming 3.15 per cent of the new employment; and Panchmahals which had some sprinkling of this industry in 1960 claimed 6.10% of its incremental employment; but, Surendranagar which claimed 9.75 of the employment in 1960 did not get any new unit during 1960-70; and Jamnagar which had 22% of 1960 employment got only 1 per cent of the incremental employment.

The new units in metal products group seem to have gone in a ig way in two such districts (viz. Jamnagar and Kutch) which had no actories in this industry in 1960: Of the incremental employment Jamnagar claimed 19.56 per cent and Kutch 8.19 per cent. But Rajkot and Surendranagar which had 18 and 17 per cent of the industry's employment in 1960 got only 4.50 and 1.67 per cent of the new employment while Baroda got 10.47 per cent in the incremental against 5.43 in the initial. Basic metal units do not have very diversified pattern, but the incremental situation is certainly much more encouraging than the initial. Particularly significant is the fact that Rajkot, Jamnagar and Bhavnagar had no factory in this industry in 1960, whereas of the the incremental employment they claimed 8.69, 3.94 and 3.87 per cent respectively and Kutch, Mehsana, Panchmahals and Sabarkantha also claimed some although they did not have this industry at all in 1960. The shares of some of the major claimants of 1960 declined: Surat (including Bulsar) and Baroda got only 26 per cent and 10 per cent in the incremental employment as against 43 and 22 per cent respectively in 1960.

Thus, although a ten year period is rather short for expecting a significant change in the spatial structure of industries, the trends in Gujarat districts point towards a high potential for diversification. The hypothesis that new industrial activity goes where industrial activities already exist is certainly not found to be valid on the basis of the above account of the pattern of location of employment in new factories started during 1960-70.

b) Agricultural Development and Location of Factories

We have here two rather crude measures of the levels of agricultural development of the districts: per capita agricultural output and ratio of commercial crops to total crops. We are trying to see if the share of new factory employment going to each district has any relation with its level of agricultural development. There does not seem to be any relationship between per capita agricultural output and share of incremental factory employment claimed by the various districts (Table 8). Some of the districts agriculturally well developed on this criterion, namely, Kutch, Amreli, Broach and Sabarkantha came at the bottom of the list of districts according to the share in new factory employment; while some others who claimed a large share of new factory employment, namely, Ahmedabad, Rajkot and Surat, are among the agriculturally least developed ones on the criterion of per capita agricultural output. The coefficient of correlation between the share of employment of new factories and per capita farm output works out to be -0.19.

Nor does the ratio of commercial crop output to total agricultural output show any relationship with the location of the new industrial activity: the coefficient of correlation between the two is -0.06. Here, however, one may like to look into the individual crops with a view to identifying the location of factories in industries related to them. The relationship is seen here in case of three major crops - cotton with cotton textiles; groundnut output with food products units; and tobacco crop output with location of tobacco products units. In 1971, the major cotton growing districts were reported to be, in a descending order, Baroda, Broach, Ahmedabad, Banaskantha, Sabarkantha, Surendranagar, Kutch and Kaira. The districts which have got largest share of incremental manufacturing activity in cotton textiles are Ahmedabad, Surat, Baroda, Broach, Mehsana, Rajkot and Sabarkantha in that order. In groundnut output, Junagadh tops the list followed by Bhavnagar, Rajkot, Amreli, Banaskantha, Jamnagar and Sabarkantha. The location of incremental activity in food products industry has favoured Jamnagar, Junagadh, Rajkot, Surendranagar, Surat, Bhavnagar, Ahmedabad and Amreli. Practically, all the tobacco production in Gujarat is shared by Kaira and Baroda:

the former claiming three-fourths and the latter 21.5 per cent of the total output of this crop. Of the new manufacturing activity in tobacco products also, 75 per cent was claimed by Kaira and 11 per cent by Baroda; the neighbouring district of Mehsana also claimed 10 per cent.

c) Infra-structure and Location:

All the districts of Gujarat have relatively well developed transport mechanism; all districts are connected with railway lines and have widespread road net work. Therefore, transport as such does not offer much of the explanation of the differential pattern of location of industrial activity. On the whole, however, districts with wider rail and road net work have attracted larger share of the new industrial activity with the exceptions of Amreli which got an insignificant share in location of factories even though it seems to have one of the better developed rail and road net work; and Kaira and Surat, which claimed a large share of factories with relatively less developed transport network.

The other two elements of infra-structure chosen here: warehousing capacity and thousands of population served by a bank office show a more consistent relationship with the relative share of districts in the new factories. The exceptions in case of warehousing facilities are Broach which has warehousing capacity next only to Ahmedabad, but ranked eleventh according to the new factory employment; and Jamnagar which ranked fifth according to share of new employment, but only fifteenth in warehousing capacity. Of late, a number of bank offices seem to have gone into some of the backward districts thus making Surendranagar, Kutch and Banaskantha some of the better banked districts, while not much of the new industrial activity has gone there. Barring these exceptions, the bank office/population ratio varies quite consistently with the location of new industrial activity.

d) Institutional efforts and Location

Of the various institutions engaged in the promotion and support of industrial development in the state we have considered here only two: Gujarat Industrial Development Corporation (GIDC) and Gujarat State Financial Corporation (GSFC). The former makes investments in infrastructure development such as industrial estates while the latter disburses loans for capital expenditure to units. There is a strong association between the amounts of investments made by these two corporations together and distribution of incremental industrial activity among districts. More important, however, seems to be their role in uplifting certain backward districts. The districts which have faired better in the new industrial activity than in the initial position in 1960 are: Jamnagar, Kutch, Bulsar, Broach, Sabarkantha, Junagadh, Rajkot, Kaira and Baroda and these are the districts, except Sabarkantha where a sizeable amount has been invested by these institutions. In Bulsar, Baroda and Kaira GIDC has invested relatively very large amounts while the GSFC alone seems to have played a significant role in Kutch, Broach and Jamnagar. In Rajkot and Junagadh both corporations had more or less equally significant roles to play.

V: Conclusions

From the above account of the locational pattern of factories started in Gujarat during 1960-70 the following general conclusions emerge:

(1) Considering the short period of a decade, the locational shifts that have taken place can be considered significant. It, however, looks that these shifts have been mostly internal within each of the groups of developed and backward districts. The share of

Ahmedabad and Surat declined but the gain was mainly shared by Baroda, Kaira and Rajkot. Nevertheless, some of the least industrialised districts did gain, the most significant gains being those of Jamnagar and Sabarkantha. One does not expect, particularly in a short span of ten years, major rank reversals; but, the significant trend that is to be noted is that while the share of the top four districts has undergone only a marginal decline, that of the bottom six or seven districts has gone up over four times.

(2) Although the inter-district differences in the magnitude of of manufacturing activity are quite high, the pattern of location of new factories suggests that there do not exist any strong centripetal forces which would tend to make the spatial pattern of industries more uneven. Practically all the districts show potential to absorb as well as to part with the most of the industries.

(3) The industrial structure of Gujarat is changing in the direction of making it more diversifiable. The industries which have a tendency to concentrate in one or cluster in a few districts are losing relatively while those having no such preferential attributes are gaining in importance.

(4) Most of the Industries have shown potential to grow in any district, but, of course, with a significant difference of degree. Food products, metal products, machinery, non-metallic mineral products and basic metals have shown a high potential for diversification. Of late, even textiles have shown similar tendency. Most of the industries which have shown resistance against moving to more than a few districts also

do not seem to have any inherent characteristics to make them so except material-based ones like tobacco products.

(5) The hypothesis that factories go where factories exist is not found to hold on the basis of the locational pattern of the new factories during 1960-70. That is true not only at the all-industry level but also in case of most of the individual industry groups.

(6) A developed agriculture does not seem to be a necessary condition for attracting location of industries. The magnitude of commercial crop output is, however, found important for certain agro-based industries particularly food products and tobacco.

(7) Infra-structure seems a necessary but not a sufficient condition for attracting location of industries.

(8) The fact that it is possible to develop industries in backward districts and there is nothing that holds their industrial development back is demonstrated by the experience of the public financial institutions which have been effective in accelerating industrial activity even in some of the industrially backward and stagnant districts.

There are two important aspects which merit study as indicated by these conclusions and which have not been covered in this study: one, an examination of the extent to which inter-relatedness of industries tends to strengthen the industrial activity in a region and two, the role that fiscal and financial incentives play in diverting industries to the industrially backward districts. The findings of the present study suggests that there is a strong likelihood of a proper policy on these aspects proving highly effective in diversifying the industrial activities geographically.

TABLE 1

Industrywise Distribution of factories : 1960, 1960-70 & 1970

Code No. of Industry	1960 Total No.	1960 Percentages	1969-70 Total No.	1969-70 Percentages	1970 Total No.	1970 Percentages
20 Food products	509	17.22	763	13.47	1272	13.60
21 Beverages	10	.34	16	.28	26	.28
22 Tobacco products	193	6.53	230	4.06	423	4.59
23 Textiles	866	29.30	1252	22.10	2118	24.17
24 Footwear	13	.44	29	.51	42	.46
25 Wood & cork	83	2.81	158	2.79	241	2.61
26 Furniture & fixtures	5	.17	52	.92	57	.62
27 Paper & paper products	14	.47	55	.97	69	.75
28 Printing, publishing etc.	131	4.43	166	2.93	297	3.22
29 Leather & leather products	21	.71	21	.37	42	.46
30 Rubber products	10	.34	58	1.02	68	.73
31 Chemicals	72	2.44	181	3.20	252	2.73
32 Petroleum & coal products	20	.68	30	.53	50	.58
33 Non-metallic mineral products	218	7.37	675	11.92	893	10.58
34 Basic metals	113	3.82	234	4.13	347	3.88
35 Metal Products	111	3.76	320	5.65	431	4.88
36 Machinery	335	11.33	678	11.97	1013	11.76
37 Electrical machinery	8	.27	111	1.96	119	1.30
38 Transport equipment	117	3.96	95	1.68	212	2.30
39 Miscellaneous	77	2.60	532	9.39	619	6.71
51 Electricity & gas	30	1.01	9	.15	39	.42
Total	2973	100.00	5669	100.00	8642	100.00

TABLE 2

Industrywise Distribution of employees in 1960, 1960-70, & 1970

Code No. of industry	1960 Total No.	1960 Percentages	1960-70 Total No.	1960-70 Percentages	1970 Total No.	1970 Percentages
20	19779	7.44	33370	10.01	53491	8.90
21	125	.05	640	.19	765	.13
22	5553	2.09	12010	3.60	17563	2.88
23	172415	64.84	119038	35.71	314201	51.45
24	362	.14	1659	.50	2021	.33
25	3597	1.35	4415	1.32	8012	1.31
26	108	.04	1705	.51	1911	.31
27	1563	.59	3256	.98	4821	.80
28	3415	1.28	5010	1.50	8425	1.38
29	353	.13	494	.15	847	.14
30	607	.23	1965	.60	2572	.42
31	11533	4.34	10964	3.29	22297	3.65
32	1696	.64	2517	.75	4113	.67
33	14809	5.57	47735	20.95	52544	8.60
34	2289	.86	8208	2.46	10497	1.72
35	2356	.89	10346	3.10	12354	2.02
36	8562	3.92	23935	7.18	32497	5.32
37	200	.08	6505	1.95	6705	1.10
38	11694	4.40	3562	1.07	15260	2.50
39	3035	1.14	13687	4.11	16702	2.73
51	1840	.69	250	.07	2150	.35
	289819	100.00	288426	100.00	578245	100.00

TABLE 3

Districtwise Distribution of the total factories in 1960, 1960 - 70 & 1970

No.	District	1960 Total No.	1960 Percentages	1960-70 Total No.	1960-70 Percentages	1970 Total No.	1970 Percentages
1	Ahmedabad	873	29.36	1677	29.58	2550	29.46
2	Amreli	3	.10	40	.71	43	.50
3	Banaskantha	16	.54	10	.18	26	.30
4	Baroda	202	6.80	491	8.66	693	8.01
5	Bhavnagar	118	3.97	265	4.67	392	4.53
6	Broach	21	.71	70	1.23	91	1.05
7	Bulsar	-	-	357	6.30	357	4.12
8	Dang	1	.03	-	-	1	.01
9	Jamnagar	5	.17	231	4.07	246	2.84
10	Junagadh	102	3.43	198	3.49	299	3.45
11	Kaira	287	9.65	439	7.74	726	8.39
12	Kutch	7	.24	77	1.36	84	.97
13	Mehasana	85	2.86	132	2.33	217	2.51
14	Panchmahal	55	1.85	69	1.22	125	1.44
15	Rajkot	177	5.95	420	7.41	597	6.90
16	Sabarkantha	25	.84	74	1.31	99	1.14
17	Surat	891	29.97	1004	17.71	1889	21.83
18	Surendranagar	105	3.53	115	2.03	220	2.54
		2973	100.00	5669	100.00	8642	99.99

TABLE 4

Districtwise Distribution of total employees in 1960, 1960-70 & 1970.

No.	District	1960 Total No. employees	1960 Percentages	1960-70 Total No. employees	1960-70 Percentages	1970 Total No. employees	1970 Percentages
1	Ahmedabad	159377	55.00	119147	41.31	278524	46.87
2	Amreli	1412	.49	1944	.67	3356	.56
3	Banaskantha	328	.11	366	.13	694	.12
4	Baroda	21888	7.55	34652	12.02	57661	9.70
5	Bhavnagar	10529	3.63	8103	2.81	18734	3.15
6	Broach	2553	.88	6123	2.12	8676	1.46
7	Bulsar	–	–	10670	3.68	12670	2.13
8	Dang	17	.01	–	–	17	.002
9	Jamnagar	3058	1.06	16421	5.69	19479	3.29
10	Junagadh	6307	2.18	9608	3.33	15915	2.68
11	Kaira	15488	5.34	20700	7.18	36165	6.09
12	Kutch	1743	.60	3673	1.27	5520	.93
13	Mehsana	10545	3.64	7110	2.47	17685	2.98
14	Panchmahal	4813	1.66	4629	1.60	9437	1.59
15	Rajkot	7549	2.60	14582	5.06	22131	3.72
16	Sabarkantha	881	.30	5529	1.92	6408	1.08
17	Surat	32545	11.23	30384	10.53	63889	10.75
18	Surendranagar	10786	3.72	5455	1.89	17241	2.90
	Total	289819	100.00	288426	100.00	578245	100.00

Districtwise distribution of factories added during 1960-70: by Industry

Code No.	Ahmedabad	Amreli	Banaskantha	Baroda	Bhavnagar	Broach	Bulsar	Jamnagar
20	66 (8.65)	29 (3.80)	1 (0.13)	25 (3.28)	72 (9.44)	8 (1.05)	8 (1.05)	88 (11.53)
21	9 (56.25)	-	-	3 (18.75)	1 (6.25)	-	1 (6.25)	-
22	1 (0.43)	-	1 (0.43)	24 (10.43)	-	1 (0.43)	-	-
23	367 (29.31)	7 (0.56)	1 (0.08)	41 (3.27	58 (4.63)	37 (2.96)	30 (2.40)	12 (0.96)
24	22 (75.86)	-	-	-	-	-	4 (13.79)	-
25	85 (53.80)	-	-	4 (2.53)	9 (5.70)	-	29 (18.35)	1 (0.63)
26	37 (71.15)	-	-	3 (5.77)	3 (5.77)	-	-	
27	19 (34.55)	-	2 (3.64)	13 (23.64)	1 (1.82)	1 (1.82)	3 (5.45)	-
28	118 (71.08)	-	-	21 (12.65)	7 (4.22)	-	2 (1.20)	-
29	10 (47.62)	-	-	-	3 (14.29)	2 (9.52)	-	-
30	18 (31.03)	-	-	19 (32.76)	-	-	6 (10.34)	1 (1.72)
31	69 (38.12)	-	-	34 (18.18)	17 (9.39)	3 (1.66)	11 (6.08)	4 (2.21)
32	6 (20.00)	1 (3.33)	-	1 (3.33)	-	1 (3.33)	4 (13.33)	4 (13.33)
33	158 (23.41)	2 (0.30)	-	103 (15.26)	27 (4.00)	7 (1.04)	18 (2.67)	17 (2.52)
34	92 (39.42)	-	-	18 (7.69)	11 (4.70)	4 (1.76)	14 (5.98)	10 (4.27)
35	120 (37.50)	1 (0.31)	-	25 (7.81)	17 (5.31)	1 (0.31)	20 (6.25)	52 (16.25)
36	353 (52.06)	-	2 (0.29)	63 (9.29)	16 (2.36)	4 (0.59)	30 (4.42)	13 (1.92)
37	33 (29.73)	-	-	24 (21.62)	4 (3.60)	-	4 (3.60)	9 (8.11)
38	36 (37.89)	-	1 (1.05)	20 (21.05)	2 (2.11)	1 (1.05)	-	4 (4.21)
39	66 (12.41)	-	2 (0.38)	44 (8.27)	16 (3.01)	-	172 (32.33)	15 (2.82)
51	2 (22.22)	-	-	3 (33.33)	1 (11.11)	-	-	1 (11.11)

Note : Figures in brackets indicate percentage share of factories in an industry in a district to the total factories in that industry in all the districts.

Code No.	Junagadh	Khaira	Kutch	Mehsana	Panchmahals	Rajkot	Sabar-kanthā	Surat	Suren-dra-nagar	Total
20	140 (18.35)	31 (4.06)	20 (2.62)	50 (7.55)	16 (2.10)	118 (15.47)	12 (1.57)	48 (6.29)	31 (4.06)	763
21	-	-	-	-	-	1 (6.25)	-	1 (6.25)	-	16
22	-	181 (78.70)	-	17 (7.37)	2 (0.87)	-	-	3 (1.30)	-	230
23	11 (0.88)	49 (3.91)	11 (0.88)	25 (2.00)	6 (0.48)	71 (5.67)	18 (1.44)	486 (38.82)	22 (1.76)	1252
24	--	1 (3.45)	--	-	-	-	-	2 (6.91)	--	29
25	1 (0.63)	3 (1.90)	-	-	-	4 (2.53)	-	20 (12.66)	2 (1.27)	158
26	--	1 (1.92)	-	2 (3.85)	-	5 (9.62)	-	1 (1.92)	-	52
27	-	5 (9.09)	-	-	1 (1.82)	3 (5.45)	-	7 (12.73)	-	55
28	-	1 (0.60)	--	-	1 (0.60)	3 (1.81)	-	11 (6.63)	2 (1.20)	166
29	-	2 (9.52)	-	-	1 (4.76)	1 (4.76)	-	2 (9.62)	-	21
30		1 (1.72)	3 (5.17)	1 (1.72)	--	-	4 (6.90)	5 (8.62)	-	58
31	9 (4.97)	11 (6.08)	1 (0.55)	2 (1.70)	2 (1.10)	7 (3 87)	-	11 (6.63)	2 (1.20)	166
32	-	-	2 (6.67)	-	2 (6.67)	2 (6.67)	-	7 (23.33)	-	21
33	26 (3.85)	84 (12.44)	9 (1.33)	12 (1.78)	34 (5.04)	54 (8.00)	21 (3.11)	87 (12.89)	16 (2.37)	675
34	3 (1.28)	7 (2.99)	2 (0.85)	3 (1.28)	-	22 (9.40)	1 (0.43)	40 (17.09)	7 (2.90)	234
35	4 (1.25)	7 (2.19)	17 (5.31)	2 (0.63)	1 (0.31)	17 (5.31)	3 (0.94)	26 (8.13)	7 (2.19)	320
36	1 (0.15)	25 (3.69)	4 (0.59)	10 (1.57)	-	78 (11.50)	11 (1.62)	46 (6.78)	22 (3.24)	678
37	-	17 (15.32)	1 (0.90)	2 (1.80)	-	3 (2.70)	3 (2.70)	11 (9.91)	-	111
38	3 (3.16)	6 (6.32)	4 (4.21)	-	1 (1.05)	5 (5.26)	1 (1.05)	10 (0.53)	1 (1.05)	95
39	-	7 (1.32)	3 (0.56)	6 (1.13)	2 (0.38)	26 (4.39)	-	179 (33.65)	4 (0.75)	532
51	-	-	-		-	-	-	1 (11.11)	1 (11.11)	9

TABLE 6

Districtwise distribution of employees added during 1960-70: by Industry

Code No.	Ahmedabad	Amreli	Banaskantha	Baroda	Bhavnagar	Broach	Bulsar	Jamnagar
20	1812 (5.43)	1367 (4.10)	90 (.27)	1211 (3.63)	2013(6.03)	233(.70)	465 (1.39)	9348 (28.01)
21	433 (67.66)	-	-	72 (11.25)	50(7.81)	-	19 (2.97)	-
22	18 (.15)	--	35 (.29)	1570 (13.07)	-	35 (.29)	-	-
23	73521(61.76)	432 (.36)	15 (.01)	6785 (5.70)	1285(1.16)	5146 (4.32)	1642(1.48)	1195 (1.00)
24	967 (58.29)	-	-	-	-	-	380(22.91)	-
25	2507 (56.78)	-	-	185 (4.19)	137(3.10)	-	911(20.63)	20 (.45)
26	1343 (80.53)	-	-	79 (4.63)	-	-	-	-
27	789 (24.23)	-	36 (1.11)	601 (18.45)	20(.61)	50 (1.54)	265(8.14)	-
28	3809 (76.03)	-	-	537 (10.72)	192(3.83)	-	50(1.00)	-
29	217 (43.93)	-	-	-	50(10.12)	60(12.14)	-	-
30	528 (26.87)	-	-	487 (24.78)	-	-	199(10.13)	100 (5.09)
31	1465 (22.48)	-	-	3369 (30.73)	733(6.69)	84 (.77)	1109 (10.11)	101 (.92)
32	293 (11.64)	30 (1.19)	-	1500 (59.59)	-	30 (1.19)	-	411 (16.33)
33	9016 (12.90)	70 (.10)	-	7392 (10.58)	1695(2.42)	241 (.35)	744 (1.07)	1823 (2.61)
34	3010 (36.67)	-	-	821 (10.00)	318 (3.87)	148 (1.80)	1019 (12.41)	323 (3.94)
35	3152 (30.47)	45 (.43)	-	1083 (10.47)	592 (5.72)	18 (.17)	654 (6.32)	2044 (19.76)
36	10840 (45.29)	-	32 (.13)	3540 (14.79)	336 (1.40)	64 (.27)	1074 (4.37)	219 (.91)
37	1691 (26.00)	-	-	1652 (25.40)	99 (1.52)	-	592 (9.10)	201 (3.09)
38	1129 (31.70)	-	50 (1.40)	708 (19.88)	80 (2.25)	14 (.39)	-	135 (3.79)
39	1514 (11.06)	-	108 (.78)	2989 (21.84)	483 (3.52)	-	3547 (25.92)	481 (3.51)
51	63 (25.20)	-	-	71 (28.40)	20 (8.00)	-	-	20 (8.00)

Figures in brackets indicate the percentage share of employment in an industry in a district to the total employment in that industry in all the districts.

No	Junagadh	Khaira.	Kutch	Mehsana	Panchmahals	Rajkot	Sabarkantha	Surat	Surendra-nagar	Total
20	4872(15.60)	1164(3.49)	876(2.63)	528(1.58)	480(1.44)	3805(11.40)	874(2.62)	2037(6.10)	2195(6.58)	33370(100)
21	-	-	-	-	-	30(4.69)	-	36(5.62)	-	640(100)
22	-	9000(74.94)	-	1239(10.32)	40(.33)	-	-	73(.61)	-	12010(100)
23	641(.54)	2219(1.86)	635(.53)	3833(3.22)	1300(1.10)	3028(2.54)	2390(2.01)	13861(11.64)	1101(.92)	119038(100)
24	-	250(15.07)	-	-	-	-	-	62(3.73)	-	1659(100)
25	35(.79)	59(1.34)	-	-	-	100(2.27)	-	410(9.29)	51(1.16)	4415(100)
26	-	22(1.29)	-	68(3.99)	-	113(6.63)	-	50(2.93)	-	1705(100)
27	-	80(2.46)	-	-	45(1.38)	190(5.84)	-	1180(36.24)	-	3256(100)
28	-	16(.32)	-	-	13(.26)	51(1.02)	-	307(6.12)	35(.70)	5010(100)
29	-	64(12.96)	-	-	20(4.05)	50(10.12)	-	33(6.68)	-	494(100)
30	-	50(2.54)	200(10.18)	50(2.54)	-	-	215(10.94)	136(6.92)	-	1965(100)
31	1237(11.28)	388(3.54)	80(.73)	38(.35)	669(6.10)	384(3.5)	-	307(2.8)	-	10964(100)
32	-	-	150(5.96)	-	48(1.91)	45(1.79)	-	10(.40)	-	2517(100)
33	1935(2.77)	35838(51.30)	529(.76)	553(.79)	1785(2.56)	1503(2.15)	713(1.02)	5392(7.72)	626(.90)	69885(100)
34	70(.85)	276(3.36)	50(.61)	58(.71)	50(.61)	713(8.69)	21(.26)	1145(13.95)	186(2.45)	8208(100)
35	221(2.14)	406(3.92)	847(8.19)	40(.39)	50(.48)	466(4.50)	60(.58)	495(4.78)	173(1.67)	10346(100)
36	50(.21)	1142(4.77)	103(.43)	490(2.05)	-	2766(11.56)	1070(4.47)	1361(5.69)	848(3.54)	23935(100)
37	--	1598(24.56)	113(1.73)	48(.74)	--	115(1.77)	52(.80)	344(5.29)	-	6505(100)
38	545(15.30)	183(5.14)	50(1.40)	-	50(1.40)	174(4.[illegible])	134(3.76)	290(8.14)	20(.56)	3562(100)
39	-	247(1.80)	40(.29)	165(1.21)	65(.47)	1049(7.66)	-	2835(20.71)	164(1.20)	13687(100)
51	-	-	-	-	-	-	-	20(8.00)	56(22.40)	250(100)

TABLE 7

Districtwise distribution of employees : by Industry in 1960

Code No	Ahmedabad	Amreli	Banaskantha	Baroda	Bhavnagar	Broach	Dang	Jamnagar
20	950(4.80)	1341(6,78)	87(0.44)	450(2.28)	1387(7.01)	27(0.14)	-	14(0.07)
21	61(48.80)	-	-	16(12.80)	-	-	-	-
22	47(0.85)	-	-	656(11.81)	-	-	-	-
23	135930(78.84)	71(0.04)	-	8698(5.04)	5866(3.40)	2182(1.27)	-	-
24	253(69.89)	-	32(8.84)	28(7.7)	--	-	-	-
25	1226(34.08)	-	22(0.61)	43(1.20)	-	-	17(0.47)	-
26	24(22.22)	-	-	43(39.81)	-	-	-	-
27	817(52.27)	-	56(3.58)	-	11(0.70)	[illegible]	-	-
28	1805(52.86)	-	-	555(16.25)	180(5.27)	-	-	-
29	192(54.39)	-	-	-	-	44(12.46)	-	-
30	77(12.69)	-	-	496(81.71)	-	-	-	-
31	1546(17.76)	-	-	3596(41.31)	350(4.02)	144(1.65)	-	1886(21.67)
32	80(4.72)	-	9(0.53)	112(6.60)	-	-	-	313(18.46)
33	4668(31.52)	-	--	2294(15.49)	891(6.02)	70(0.47)	-	833(5.62)
34	705(30.80)	-	-	510(22.30)	-	-	-	-
35	740(31.40)	-	-	128(5.43)	144(6.15)	-	-	-
36	5652(66.01)	-	-	237(2.77)	792(9.25)	-	-	-
37	66(33.00)	-	-	45(22.50)	-	-	-	12(0.10)
38	3224(27.51)	-	122(1.04)	1590(13.60)	908(7.76)	37(0.32)	-	12(0.10)
39	35[illegible](11.60)	-	-	261(8.61)	-	-	-	-
51	902(49.02)	-	-	30(1.63)	-	49(2.66)	-	-

Note: Figures in parenthesis indicate the percentage of employment in an industry in a district to the total employment in that industry in all the districts.

Code No	Junagadh	Khaira	Kutch	Mehsana	Panchmahals	Rajkot	Sabar-kantha	Surat	Surendra nagar	Total
20	2141(10.82)	895(4.53)	1618(8.18)	215(1.09)	914(4.62)	1632(8.25)	630(3.3)	1369(6.92)	6079(30.73)	19779
21	-	-	-	-	-	-	-	48(38.40)	-	125
22	-	3875(69.18)	-	889(16.01)	-	-	-	86(.55)	-	5553
23	1716(1.00)	7795(4.5)	-	7376(4.2)	-	2213(1.28)	-	2285(11.51)	465(0.27)	172415
24	-	-	-	-	-	-	-	49(13.5)	—	362
25	-	-	-	1054(29.30)	-	-	-	1235(34.33)	-	3597
26	-	-	-	-	-	-	-	30(277)	71(10.19)	108
27	-	64(4.09)	-	-	-	-	-	615(39.35)	-	1563
28	-	48(1.41)	-	-	5(0.15)	535(15.67)	19(0.56)	268(7.86)	-	3415
29	-	75(20.66)	-	26(7.37)	16(4.53)	-	-	-	-	353
30	-	-	-	25(4.12)	-	-	-	9(1.48)	-	607
31	1070(9.28)	295(2.56)	-	57(0.49)	88(0.76)	-	-	1376(11.93)	1125(9,75)	11533
32	-	-	-	-	-	15(0.85)	-	81(4.76)	1086(4.03)	696
33	864(5.83)	1549(10.46)	125(0.84)	29(0.20)	555(3.75)	819(5.53)	130(0.88)	982(13.38)	-	14809
34	-	29(1.27)	-	-	-	-	-	989(43.21)	56(2.45)	2289
35	36(1.53)	116(4.92)	-	14(0.59)	-	423(17.96)	-	360(15.28)	395(16.77)	2356
36	-	331(3.87)	-	195(2.28)	-	494(5.77)	-	861(10.06)	-	8562
37	-	39(19.50)	-	-	-	-	-	50(25.00)	-	200
38	480(4.10)	333(2.85)	-	325(2.78)	3030(25.9)	1121(9.59)	62(0.53)	450(3.85)	-	11694
39	-	-	-	265(8.73)	92(3.03)	297(9.79)	-	234(7.71)	1534(50.56)	3035
51	-	44(2.39)	-	95(5.16)	113(6.14)	-	10(0.54)	562(30.54)	35(1.90)	1840

TABLE 8

Some Characteristics of Districts

3	4 Rail mileage (km)	5 Road mileage (km)	6 ware housing capacity (metric tonnes)	7 GIDC expenditure (upto 1970)	8 GSFC loans (upto 1965)	9 Banks (1,000) population per bank office)	10 Main Commercial Crops ('00 tonnes) Sugar-cane	11 Cotton	12 G.nut	13 Total
	377	1546	146700	196.67	165.48	12.5	4	1860	183	19
	587	1744	5340	Nil	0.32	30.3	322	236	1422	-
	186	1388	11555	3.95	-	15.6	58	1395	1082	3
	470	2044	25350	131.80	42.34	14.4	29	3891	151	227
	372	2478	22402	18.40	10.26	15.0	132	312	1560	-
	264	1426	29985	-	5.50	17.4	8	2707	70	8
	68	1755	13900	181.34	5.09	21.3	128	161	29	-
	198	1503	7400	4.08	15.69	16.3	120	217	986	-
	164	2238	18950	19.58	11.45	29.6	462	285	2785	-
	119	1446	16780	48.30	11.98	13.3	-	839	283	802
	182	2328	5647	-	7.35	14.2	12	920	466	-
	37	1562	7950	15.45	5.86	31.7	27	755	149	-
	58	2887	9300	-	-	84.0	6	297	575	-
	40	2544	14600	43.69	39.96	23.2	180	529	1453	-
	86	1388	12900	-	1.05	32.0	52	1288	938	-
	111	2196	15600	19.48	27.35	22.4	349	657	236	-
	02.	1392	7900	3.14	15.82	8.8	-	987	92	-