

Industrial Location: Post Reform Behaviour*

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This study began as an enquiry into the patterns of industrial concentrations, with some emphasis on how different regions of Maharashtra have evolved over a period of time, especially after the economic reforms of 1991. This was done alongside another one that focused on urbanisation patterns in the state over a similar time period. The rather simple idea behind these two studies was to see if increasing urbanisation has fostered industrial growth in regions other than those in which large concentrations already existed before the reforms. Urbanisation has always been considered necessary and empirically seen to be linked to industrial growth. These results were presented in the seminar in 2011. The results were, perhaps, predictable. In the early part of the decade of 2001-10, there was convergence between the growth of existing urban centres and their associated industrial activity, measured by employment. Mumbai remained the preeminent centre of gravity of the state, but with a declining industrial profile and urban population growth. Industry had moved further inland from this coastal metropolis, to adjoining Thane, Pune on the eastern side of the western ghats and smaller centres further east such as Aurangabad, Ahmednagar, Solapur, Kolhapur and so on. These areas saw surging urban populations along with industrial growth.

This particular period was not a good time for industry in Maharashtra from the employment perspective¹. Employment size of large factories declined and most growth in numbers was in the owner operated category, followed by those with upto 10 workers. This phenomenon, however, did not lead to an aggregate growth in employment, which either declined or stagnated. The real growth in employment was in the service sector with trading being a large contributor. The number of manufacturing enterprises (registered and unregistered) during 1998 and 2005 (Economic Census) increased by 14.77%, largely those employing 0-10 workers, with all other categories showing negative growth. However, number of total workers dropped by 9% and number of hired workers by about 12%. This was also the period in which the use of contract workers became standard industry practice and their numbers increased by leaps and bounds. From 1998 to 2011, ASI data (on registered enterprises) showed that contract workers in manufacture increased by about 200%, going from 1.32 lakhs to over 4 lakhs, while directly employed workers declined by about 4%. ASI data also shows that over these years, large industry has continued to employ on an average about 57% of all industry workers, regular and contract, and pay about 70% of all wages, even though their per unit employment has fallen.

There was more industrial employment growth in rural areas over this period, but upon more detailed examination it was found that this was largely centred in highly urbanised and industrialised districts such as Pune, Thane and Nagpur. It was also seen over this same period that new urban centres were not really emerging, and urban population growth was mostly confined to existing significant towns and cities. There

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¹ Data sources: Unit level data for Maharashtra from Economic Census of 1998 and 2005 and Annual Surveys of Industry (ASI) from 1998-99 to 2010-11, population census data for 1991, 2001, 2011.

was a convergence of sorts between growth of urban population and industry. Mumbai, Pune, Thane and Nagpur districts made up 33% of the population and 56% of non-farm workers in 2011 census. They also had 63% of the state's urban population and about 66% of its urban non-farm workers, a picture essentially unchanged over the previous decade. This left the eastern districts of Maharashtra, in the regions of Vidarbha and Marathwada, largely out of the loop of non-farm employment generation on any significant scale. They saw neither a significant growth in urban centres, nor industrial location and employment.

The studies, however, had a manifestly regional agenda and the interest was to go below this 'big picture' and look at the geographical details of industrial behaviour. Such persistent regional imbalance in creating non-farm employment was, at the very least, curious and led to an attempt to pose questions for further enquiry that would lead to some understanding of the processes that influence such persistence.

The following questions were asked:

1. Do all regions, districts and locations within the state behave roughly similarly to the aggregate picture?
2. If they do not, why not?

These are two separate questions and this note sets out the work done so far to seek their answers. The hope remains that somewhere in this process some clues will be gleaned about a way ahead for significant industrial location and creation of non-farm employment for the backward districts that comprise more than half of the state.

One of the most striking features of the economic geography of the world is the presence of concentrations. All countries display it to varying degrees. India at independence was acutely aware of the deep economic disparities among its various regions and making policy to rectify this imbalance remained one of the major aims of the central and state planners for several decades. Industrial location was very much a part of this paradigm, and it is not necessary to recount here the many ways in which policy was implemented for this purpose. The state (centre and state) essentially controlled capital flows, private and public sector, so as to spread them over regions that it considered needed them for purposes of development, rather than being allowed to congregate in existing concentrations, which had deep historical reasons for their existence.

This function of the state changed fundamentally with the reforms of 1991. Again it is not necessary here to repeat the basic features of these reforms. It is sufficient to say that the state completely withdrew from its function of the geographical control over where capital should locate. Among the many characterisations of the reforms, its geographical aspect remains perhaps the least appreciated, that industrial policy was no longer in the domain of national development policy for lagging regions. The two had decoupled and capital was given freedom to locate at will, wherever it found the most increasing returns. This had the effect of putting states in charge of managing their own industrial development. However, there was now a fundamental re-working of the relationship between state governments and capital. Where the state could dictate certain terms before, now capital could make some demands of the state, if it wanted to see industrial investment. State level decisions about locations became more a matter of

pleasing capital, than worrying about issues of regional development. Economic literature giving primacy to urban metropolises in GDP growth, the inevitability of industrial concentrations around such locations, the role of such growth in increasing overall income and reducing poverty, and therefore, the lack of a necessity to even characterise regional imbalance as something that policy should worry about, helped state policy makers to swing their attention to attracting capital the best they could. They now had other states to compete with in offering incentives, and if existing concentrations was where capital wanted to be, so be it. It would do something about managing the labour flows that would result, by putting money into the existing nightmare of urban infrastructure.

What was the geography of the response of entrepreneurs and industrial investors to this changed system? The aggregate picture outlined above says, little changed, and if anything, became more of the same. The western districts continued to hold primacy. The decline of Mumbai could be explained by increasing costs and lack of space to expand, which in its turn explained the rise of adjoining Thane (and its rural periphery), and also of Pune (and its rural periphery). However, upon closer inspection, some interesting stories of individual locations behaving quite differently from the average emerged. Of these, we use here two: Jalna and Nashik.

Economic Census data was used to initially ‘discover’ these two districts. Since it is not possible to use ASI data at district level², we have continued to rely on this basic description of the difference between their behaviour during the period 1998 to 2005.

Jalna is a backward district in the middle of Maharashtra, in the eastern part of Marathwada. Jalna, a mainly trading town, is 65 kms due east of Aurangabad. It is one of the 10 least developed districts in Maharashtra, by its own human development index. Strangely enough, this perennially dry district is the home of one of the most successful seed companies in India, Mahyco. Its research centre is still here. Milling of pulses and oil, and tobacco processing were the main businesses here until 1998, with one steel rolling mill (basic metals) employing about 60 workers. By 2005, there were 36 steel processing and rolling mills, each employing more than 50 workers. This is our first case study. Jalna’s agricultural produce processing industry has grown, as well. However, the focus will be on steel, all of which are located in MIDC³ estates adjoining the town.

Nashik is about 220 kms north-north east of Mumbai, just past the western ghats, a much larger city than Jalna and known for its fertile hinterland engaged in horticulture and other produce. A famous pilgrimage centre, it also had large public sector industries like Hindustan Aeronautics and National Security and Currency Presses, all of which made Nashik an industrial town by end 1960’s. With the development of two large industrial estates adjoining the city limits by MIDC, Nashik soon had a mix of diverse types of industry, and is well known for luggage, electrical goods, auto and pharmaceuticals. Many multinationals have made Nashik their base over the years. In other parts of the district, Malegao and Sinnar are smaller industrial locations. The district now also boasts of wine producers. This apparently thriving district shows a

² It was not even possible to get a current list of industries by plot from the district MIDC office, demand for old data for each plot being dismissed as impossible to obtain. Nobody was interested in such data, they had never been asked for it even from within government.

³ MIDC: Maharashtra Industrial Development Corporation, Government of Maharashtra

deep decline in industrial employment during the period 1998 to 2005. From having 523 units with more than 50 workers in 1998, the district went to just 165 of such industries in 2005, with a 40% drop in total employment. This can be seen to have happened to some of the biggest employers in 1998: textiles, leather goods, chemicals, fabricated metals, rubber and plastics, motor vehicles, other transport equipment. The only growth is seen in basic metals (steel and rolling mills) and electrical machinery. Nashik went from having 7.4% of the total manufacture employment in the state in 1998, to just 4.8% in 2005.

To answer the first question, not all locations in the state behaved like the state average, largely defined by the three big ones, Mumbai, Thane and Pune. Jalna bucked the trend, and Nashik slid far more than the average. However, Nashik and Jalna are far smaller industrial locations and also completely different from each other in every respect. An old established hub on the decline, and new growth in an unlikely place; both mediated by the same set of policies and economic conditions.

To answer the second question as to what factors could result in this industrial behaviour in these two districts, we decided to go and talk to industry owners in these districts to explore their experience and thinking. We mainly interviewed industry owners, along with labour contractors and consultants, and trade unionists. We shall start with Jalna.

Jalna:

Jalna in some sense is a classic case of the processes of localisation of industry. To quote from Krugman⁴ (1993): “To a remarkable extent, manufacturing industries within the US are highly localised; and when one tries to understand the reasons for that localisation, one finds that it can be traced back to some seemingly trivial historical accident.”

This is exactly the case with Jalna. In the late 1970's, a trading family in Jalna produced an engineer and decided it would be worth their while putting him to work by building an industry. A family friend said he had obtained a licence for a rolling mill (scrap to construction steel) to be set up in Jalna. He had asked for something else, but had been given one for a rolling mill, an industry about which he knew nothing at all. But since there was an engineer involved he would be willing to risk starting it in partnership. Land was available in the first phase of the MIDC estate near the town, and that is how it seems to have all started. They travelled all the way to Punjab, the then centre of steel processing in India, to learn the business and buy equipment, and they never really looked back. The incubation period of steel in Jalna was rather long, about 20 years, till the end of the 1990's. Yet another group of trader families⁵ with an engineer son decided they would start an industry. When they presented a proposal for a pulse mill to a local accountant for help with finances and government clearances, he told them that a steel or rolling mill would be better. With the existence of a couple of local rolling mills reputed to be doing well, yet another set of local entrepreneurs

⁴ Geography and Trade: Gaston Eyskens Lecture Series, Paul R. Krugmann, MIT Press, 1993

⁵ The first family came from the Aggarwals, a trading community from Haryana, settled for several generations in Jalna. The second case involves the Maheshwari Jain community from Rajasthan, again traders in the region for several generations. These are the only two communities in the steel industry in Jalna.

jumped into the fray, travelling to Pune to learn the ropes. At this time, there seems to have been a sense that this was an industry that could make real profits while being located in Jalna, and more and more trader investors came forward and in a short space of 7 years, 36 mills came into existence. Today the cluster has a turnover of about 6000 crore rupees. Owners describe the business as being addictive in its profit making potential. There are 6 brands in this cluster now. Plants compete in the market, but for very large orders can come together to fulfil demand.

This cluster formation process has all the classic ingredients for success: labour market pooling, provision of non-traded intermediate inputs, and information or technological spill-overs. In riveting interviews with firm owners, this whole story unfolds like a classroom lesson in Marshall's theory of localisation.

To point out some unique features of the development of steel in Jalna, the role of trade surplus being invested in industry is crucial. Many families have come together to share risk and put up the initial capital. Bank loans have been routine, even with high interest rates. There has also been a conscious effort to acquire the latest technology to cut energy and labour costs. The later entrants, post 2003, invested very large sums in this effort. There have also been significant cases of local technological innovations, almost all related to reducing energy costs, which were then shared with others.

Other than having created the MIDC estate near Jalna town, the more recent development of steel owes itself to no other specific policy initiative of the state government. However, the sense of being free to do what one wished has certainly played a positive role. The availability of large land parcels in the largely empty MIDC estate has been useful, since mills require land to sort scrap and store ingots and finished steel.

Electricity constitutes the lion's share of input costs, at 60%. Labour is a distant 5-7%. Other inputs including coal consume the rest. The industry needs 24 hour supply, since shutting down the furnace is completely non-viable. Once shut down, it requires months to bring it back to optimum production conditions. For several years from about 2005 onwards, furnace plants ran everyday for 24 hours. There appears to have been no shortage of power. Coal is used to reheat ingots for rolling, and comes from Chandrapur, all the way east on the Andhra Pradesh border. There is some thought being put into creating technology that would help bypass the use of coal altogether, and might prove successful.

Most of the steel labour in Jalna is local, from within the district, and most of it hired on contract basis. Only workers who deal with the high heat conditions of the steel furnaces come from Bihar or UP. Union activity appears to be very low and there has been no real conflict. There is no management cadre in the plants. Owners run the plants on a daily basis. One reason given for this was that controlling cost was extremely important and had to be managed on a daily basis; a job that could not be left to hired managers. Skill requirement is low, again mostly provided by the owners themselves.

A network of transporters brings scrap from all over the country, from Mumbai, Kanpur, Hyderabad and Chennai, to give just a few names. They also take away finished steel. The market for Jalna is mostly in western Maharashtra, with its large urban

population. Transport costs are factored into the price of scrap on the one hand, and the price of finished steel on the other. Transport contractors handle all needs. Road infrastructure could be better, but its present condition has certainly not hampered growth.

A combination of strong entrepreneurship and location advantage is the key feature of the Jalna case study.

Nashik:

Unlike Jalna, Nashik is not a single industry case. Broadly speaking the industrial map of Nashik can be said to be one consisting of large industry and its vendors ranging in size from medium to micro, and associated services. There is a combination of reasons, in such a scenario, for the stagnation or decline of this location. Each reason that was corroborated by more than one respondent will be presented separately. The interviews in Nashik were conducted across industry types, with both small and medium units. Each of the issues presented here can be a study in itself, and has been condensed considerably to give the relevant outlines.

1. Labour:

Traditionally, Nashik had a large component of migrant workers, mainly from UP, Bihar and Rajasthan, and then from across Maharashtra, from surrounding districts. There were two large shocks to the established system of industrial workers in Nashik. The first was 'militant unionism' in the mid to late 1990's, that led to a number of closures and industry turned to contract labour on a large scale to avoid further conflict. The second was the son of soil movement by a political party that around 2002 drove nearly the entire lot of workers from northern states out of Nashik, most of whom never returned. Even today, Nashik suffers from a chronic shortage of workers in all skill categories. There appears to be a consensus that there is at least a 30% worker deficit in Nashik. In the skilled category, there was again consensus on the low quality of fresh recruits coming out of ITI's and engineering colleges, many of whom are simply unemployable. There is even a collective effort of local industry to start a training centre to improve skill levels, and to collaborate with local colleges to improve training at the degree level.

There has been restructuring of labour needs over the past 15 years, largely mediated by infusion of new technology. Large industry is increasingly outsourcing production jobs that require precision machinery to produce intermediate inputs of a specified quality, while largely keeping assembly in-house. This has meant that skilled jobs have spread into small and medium industry, who can ill afford hiring such people at expected salaries. As a consequence, small industry has become the training ground for larger units, while suffering high rates of attrition, as the best trained workers move to better pay in larger industry. Since the need for regularly employed skilled workers has reduced, the proportion of low to unskilled contract workers in large industry has increased. This analysis was corroborated by small and medium industry owners and labour contractors. The result is an overall reduction in aggregate worker numbers.

To summarise, on the labour front there are two main issues that have contributed to the picture of Nashik between 1998 and 2005: labour shortages, restructuring of labour use by large industry, and quality of skilled workers.

Just to set it down, there was a persistent sense expressed by all those interviewed that among the younger generation there was ‘an unwillingness to work’. This was variously blamed on better working conditions in the service sector for similar wages, the good performance of the surrounding agricultural belt, increasing aspirations due to urbanisation and so on. But the sense was persistent.

2. Land:

This was considered the most pressing of the problems that has probably resulted in the slow-down of industry in Nashik. Over the last 15 years, MIDC has not been able to make available significant amounts of land for expansion of existing industry, or for new entrants. Price of land has also increased substantially to make the threshold cost for new entrants prohibitive. As a result of high prices, there is even speculation in industrial land, with owners of closed units holding on to their land in the hope of getting better prices. Small industry owners who wish to expand were frustrated enough to demand that there be a per square meter productivity criterion used to put a ceiling on how much land large industry could ‘hoard’. Medium industries had their expansions dotted disjointedly over the MIDC area, due to lack of contiguous large plots elsewhere. Industrial stagnation is attributed most frequently to land issues.

Lack of land for expansion and high prices of available land has been the reason for some crucial large industry downsizing or moving out of Nashik altogether, dealing a heavy blow to the prospects of its large vendor base.

The fact remains that land is firmly within the purview of state policy and action. In a country like India where most land is cultivated, acquiring it for industrial purposes is going to be a difficult process and needs political skill and innovative administration to overcome hurdles. This remains largely missing.

3. Post reform competition:

This was one aspect of the industrial performance in Nashik that spoke directly of the new business environment after the reforms. It is mentioned here briefly, since we have very little concrete data to support it, but it was corroborated by some very thoughtful industry owners. The one effect of reforms was that large industry could source their inputs from a variety of vendors. Those who had put up industry in the prime locations within the Nashik MIDCs on the basis of licenses in an earlier era, suddenly found themselves having to compete with a new brand of entrepreneur on the one hand, and new, highly specific demand from large clients. Many of them simply sank, since they had no capacity to compete in this new environment. This process also seems to have peaked around the early part of the decade of 2001-10.

The creation of a competitive market after reforms seems to have been a corrective mechanism weeding out weak and inefficient production.

4. Capital:

Given the large industry – vendor nature of Nashik, the decisions of large capital regarding location were always going to prove pivotal. Their decision to locate here had led to its growth, and it seems, their decision to move away is leading to its decline.

One case of a large luggage industry moving an entire line of product to China in this period also emerged. This led to a distressing effect on its large and well established vendor base and was yet another contributory factor to the overall decline.

In a more recent development, several large industries, mainly in electrical machinery and goods, have moved away from Nashik since about 2008. Many have moved to Baroda in Gujarat. A few enterprising vendors have followed them to these new locations. This movement was considered to be a symptom of something amiss in the Nashik environment and needed investigation, so we visited Baroda for some insight. Out of the large array of issues that were mentioned by various types of industry owners in Baroda, the main reason for this relocation of large industry emerged to be the availability of land on a scale that would satisfy the expansion needs of large industry for the next 20 years.

It appears that Maharashtra failed to please anybody in Nashik as a location, not the large industry, not the medium and small vendors and not the workers, who have lost jobs in the process. Being focused on metropolises does not mean that other existing locations should be ignored. Nashik seems to have fallen through the large cracks in the state's industrial policy.

Conclusion:

In conclusion we wish to pose the following question: is it enough to have a single state-wide policy that does not even acknowledge the existence of regional and location specific variation in industrial experience, need and behaviour? The case studies presented here make a case for a method of policy making that looks below the state level statistics and addresses specific issues of at least existing locations. There is no inkling anywhere in the Maharashtra industrial policy that it is even aware of the fact that large industry has left the state for Gujarat, mainly for want of land. Was there any discussion about the plight of Nashik with stakeholders there and ideas about ways forward? Was any effort made to convince them to stay?

Jalna is the kind of industrial development that requires no particular policy support, except the very basics of land and infrastructure. It has its own driving forces that are highly local in nature and ways of working that are quite different from anywhere else. They should be nurtured in as non-intrusive a fashion as possible. Who knows, they might further diversify into other types of manufacture and go much further as a location than can be seen now. Again, they need to be seen for what they are and acknowledged within the policy framework.

Smaller locations that have succeeded and sustained over a period of time can be supported to become examples for other regional energies to emerge. Krugman refers to a phenomenon called 'boosterism'. To quote:

"... a prominent part of the tradition of local economic development in the United States has been boosterism - the sometimes ludicrous efforts made by local businessmen and chambers of commerce to convince footloose individuals and firms of the virtues of their state or town, in the belief that if they can draw a critical mass into the local economy, it will become self sustaining. Some of this boosterism involved concrete incentives. But often it was simply an attempt to create optimism about the locale. The analysis sketched out here suggests that in principle, at least, boosterism may make perfectly good sense."

Where is this phenomenon in local politics in Maharashtra? Who in Nashik's pantheon of political leaders raised the alarm as large industry moved out? To the best of anybody's knowledge, nobody.

If employment generation is the final yard stick by which economic development is to be measured, there is more than enough electoral gain here to be exploited. Why are political parties not engaged in this?

This study remains in its infancy, in our opinion. All the issues brought forth here need a great deal of detailed research in order to capture their minutiae. It is a rich field that will elucidate many aspects of the economic geography of India.