

### Isolation

Certain sections of industry, by reason of their dangerous or offensive features, require special locations in relation to residential areas and in some instances to other industries. It is true, however, that many industries which were once classified as offensive have been able to eliminate or minimise the objectionable features by modern techniques and precautions. In this category may be classified match and soap manufacture, certain modern food processing and packing and some chemical processes. However, even with these it is desirable to ensure some degree of insulation from residential areas. Today the more noxious industries include tanneries, fellmongeries, certain sections of the chemical industry such as those manufacturing sulphuric acid, abattoirs, sauce and pickle manufacture and gasworks. The dangerous industries include oil refineries, the manufacture of explosives, and to a lesser degree of paint, matches and gas. Those which are liable to generate noise and soot are mainly power stations and certain industries in the heavy engineering field such as foundries.

### Location of Industry in Relation to the Industrial Work Force

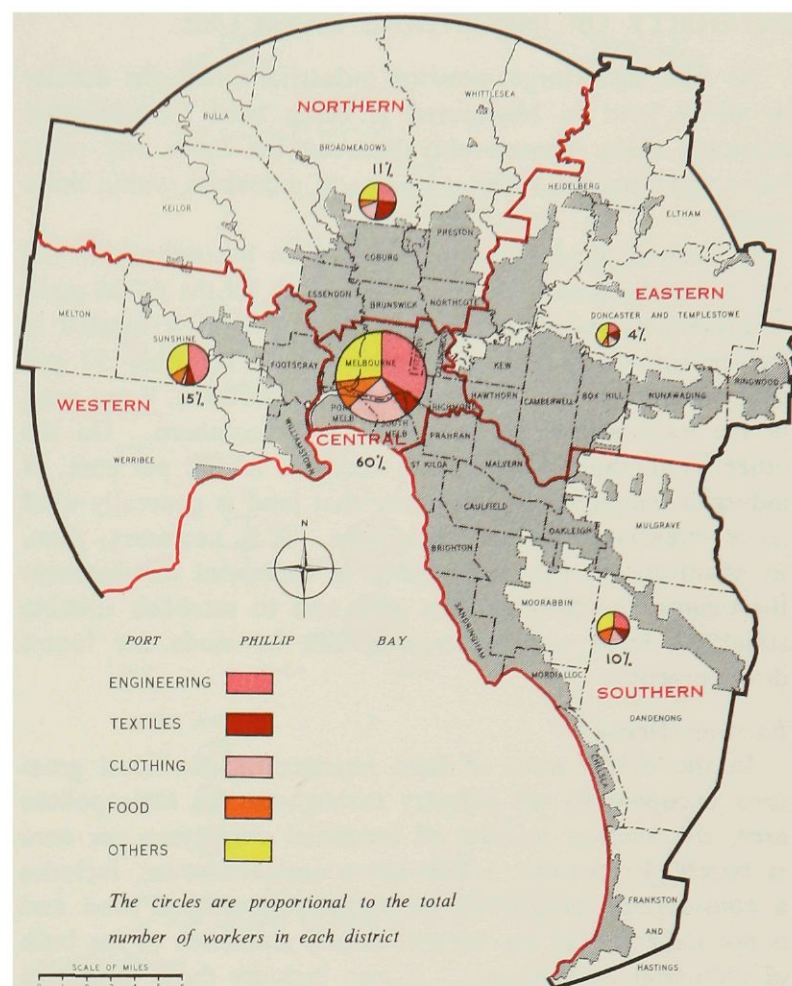
The relationship between the location of industrial employment and the home is of considerable importance to the worker, who has to spend time and money in travelling to and from work. The present position in Melbourne is broadly summarised in Table 34, which shows the percentage of total jobs and the percentage of total industrial workers in each district.

Table 34

### RELATION BETWEEN INDUSTRIAL EMPLOYMENT AND PLACE OF RESIDENCE OF INDUSTRIAL WORKERS

District	Location of Industrial Employment (Percentage of Total)	Residential Location of Industrial Workers (Percentage of Total)
Central	60	25
Western	15	12
Northern	11	23
Eastern	4	14
Southern	10	26

This table shows that while 60 per cent. of all industrial jobs are located in the central district, only 25 per cent. of industrial workers live in these inner suburbs. The central and western districts have a surplus of industrial jobs over resident industrial workers, while the northern, eastern and southern districts have a surplus of resident industrial workers over jobs. This pattern is shown diagrammatically in map 32, which shows the relationship in each district. Those districts having a surplus of jobs over resident workers are shown in various shades of brown, and those with a surplus of resident workers over industrial jobs in various



### 31 DISTRIBUTION OF INDUSTRIAL EMPLOYMENT

shades of red. The intensity of colour indicates the degree of surplus.

This overall pattern of daily movement of industrial workers between districts is more clearly defined in the Table 35 which shows where the workers employed in industry in each district actually live.

It will be seen that the central district draws workers from all areas, and most of the industrial workers who live in the other districts (except the western) work in the central district. On the other hand, in the districts other than the central district most local industrial jobs are filled by local workers. The western district contributes little to the industrial employment in the central district. Because of the shortage of local labour, most industrial workers find employment within the district and a substantial number of workers are drawn to the west from other districts.

### Trend of Industrial Location

Despite the present high concentration of industry in the central suburbs of Melbourne, it is of interest to note the general trend towards a greater degree of dispersal in the outer suburbs. Although the total number of people employed in industry in the central suburbs has increased, the proportion of the total industrial work force employed in the central district has decreased over the years, as shown in Table 36 and map 33.



## INTENSITY OF INDUSTRIAL LAND USE

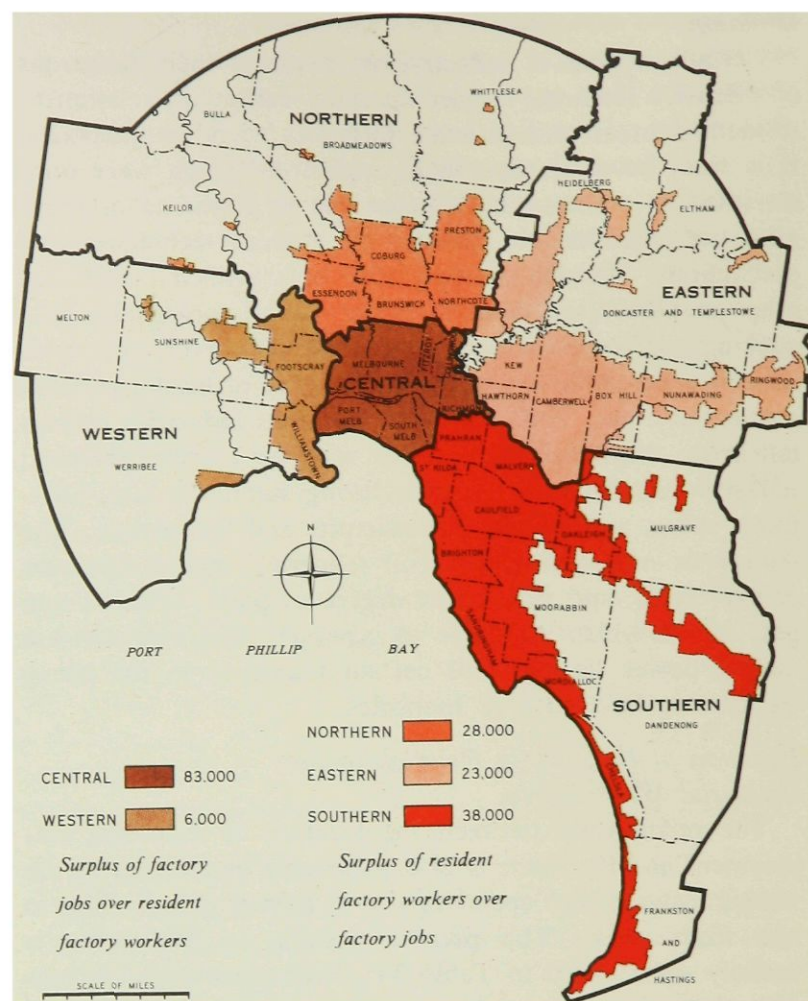
As with most large, growing industrial cities, the density to which land in Melbourne is being used for industrial purposes varies considerably between the inner and outer areas and between different groups of industries within those areas.

In general, land is more densely used by industry in the inner suburbs than in the outer suburbs. Of the 6,300 acres at present occupied by industry, 26 per cent. is located in the central district comprising the inner suburbs, 37 per cent. in the western, 14 per cent. in the northern, 9 per cent. in the eastern and 14 per cent. in the southern. On the other hand, the central district accounts for 60 per cent. of industrial employment indicating that land is generally used more intensively in this inner area. It is necessary, then, to examine the existing density of industrial development throughout the metropolitan area and to establish suitable standards from which provision can be made for future development.

### Existing Density<sup>(1)</sup>

In the 6,300 acres of land representing the total gross area occupied by all industry throughout the metropolitan area, the average number of industrial employees per acre is barely 40 persons. This gross area, however, includes a considerable proportion of partially developed land and is not indicative of the normal density standards of the bulk of industrial development. It also includes those industries such as sections of the basic chemical industries, including explosive manufacture and oil refining, which require extensive land holdings in relation to volume of employment. Although these sections of industry provide less than four per cent. of total industrial employment, they occupy nearly 40 per cent. of total industrial land. They have, therefore, been considered separately from general industry. Table 37 shows the existing industrial density throughout Melbourne based on 1949 employment figures.

(1) For density definitions see Appendix II.



## 32 RELATION BETWEEN FACTORY EMPLOYMENT AND RESIDENT WORKERS IN EACH MUNICIPALITY

The variation between inner and outer suburbs is brought about by two factors. Firstly, in the outer areas there is a higher proportion of partially developed sites resulting in a much lower overall density. Secondly there tends to be a more spacious type of factory development in the outer areas where land is more plentiful and cheaper, encouraging the trend of horizontal development and the use of more

Table 35  
DAILY MOVEMENT OF INDUSTRIAL WORKERS

Where Industrial Workers Live			Where Industrial Workers Work									
District	No.	%	Central		Western		Northern		Eastern		Southern	
			No.	%	No.	%	No.	%	No.	%	No.	%
Central	58,804	24.6	<b>49,318</b>	<b>34.6</b>	4,063	11.6	3,257	12.0	712	7.2	1,454	6.0
Western	29,284	12.3	6,195	4.3	<b>22,333</b>	<b>63.8</b>	453	1.7	66	0.7	237	1.0
Northern	55,048	23.1	28,568	20.1	4,224	12.1	<b>20,942</b>	<b>77.2</b>	526	5.3	788	3.2
Eastern	32,926	13.8	22,644	15.9	1,274	3.6	1,060	3.9	<b>6,904</b>	<b>69.9</b>	1,044	4.3
Southern	62,573	26.2	35,688	25.1	3,104	8.9	1,405	5.2	1,668	16.9	<b>20,708</b>	<b>85.5</b>
Total	238,635	100	142,413	100	34,998	100	27,117	100	9,876	100	24,231	100