Future movement of workers

The first step in estimating the future worker movements was the distribution of future resident workers and workplaces in accordance with the zoning provisions of the planning scheme. This has been discussed in Chapter 13. Having obtained the estimated numbers of resident workers and of jobs in each subdivision, the movement from one to the other has been based on the local characteristics of existing movements, the likely changes in the social character of each region resulting from development, and the general laws resulting from the analysis of present-day movements. In general, it has been assumed that a considerable increase in population or industry in any region will tend to bring the local characteristics nearer to the average. In estimating the number who will work in their own residential subdivisions the present local characteristics have been adjusted according to anticipated opportunities for employment within the subdivision resulting from development along the lines of planning proposals.

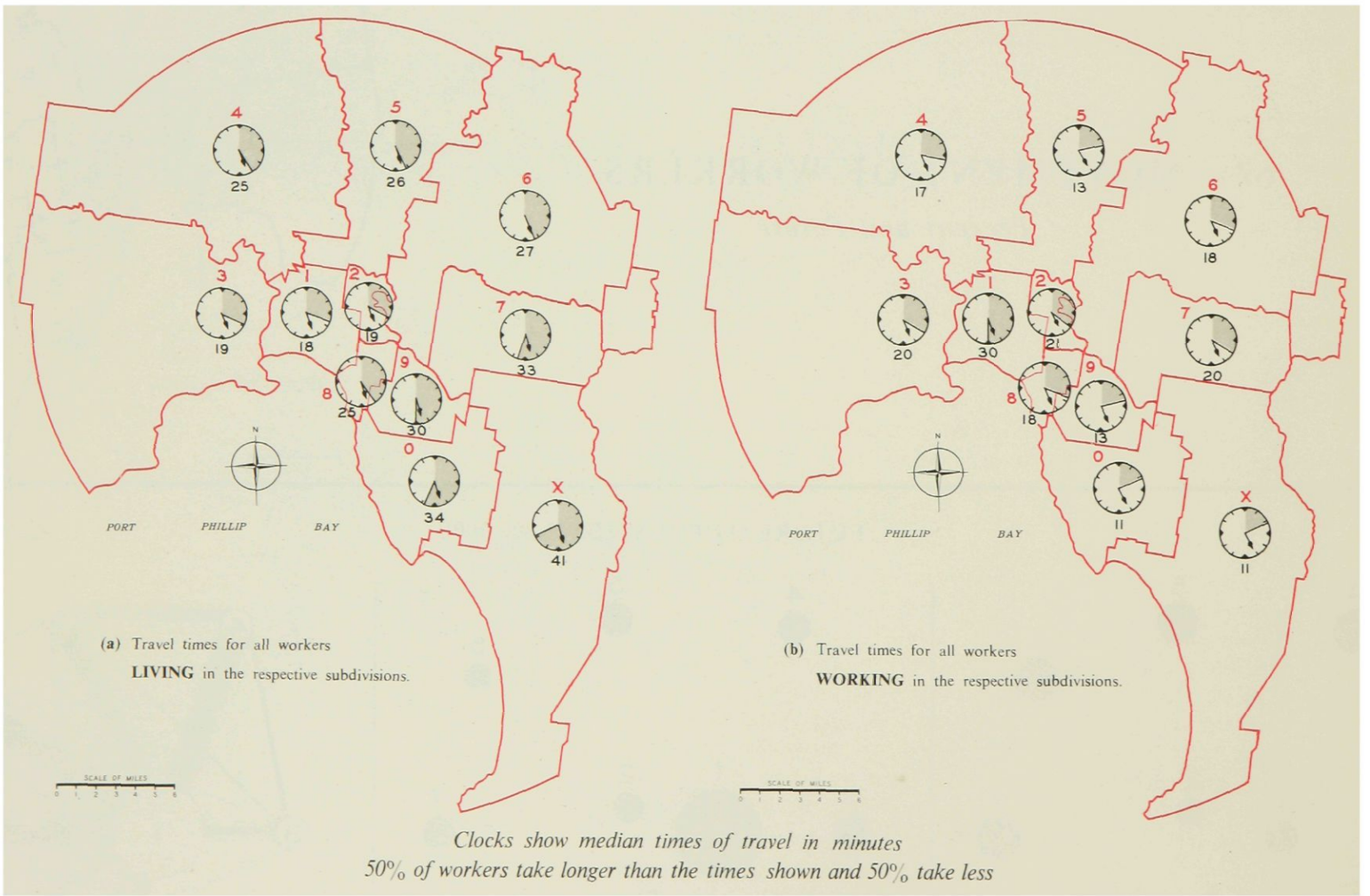
The estimated numbers of future worker movements are shown in Table 92 and in diagram 67.

Time of Travel to Work

In the statistical survey, information was obtained regarding the total time taken to travel to and from work. An analysis of this data gives the median time of travel for people *living* in each subdivision and is shown in map 68(a).

The importance of this analysis lies in the variations in these times. It shows how, in the eastern and southern suburbs particularly, people are prepared to spend considerable portions of their leisure time as well as incur additional expenditure in travelling in order to enjoy the benefits of living in these areas. Cognizance of this tendency has been taken in planning proposals which have provided for substantial development for both residence and employment in these favoured regions.

Travelling times to and from work were further analysed with respect to the location of the work place. Map 68(b) shows the median time of travel for all persons *working* in each region. Again the chief interest lies in the variation in the figures. Despite the fact that practically all important line of communication lead direct to the city, city workers on the average take longer over their journey than those



68 TRAVEL TIMES FROM WORK

Table 92

ESTIMATED MOVEMENT OF WORKERS FOR A POPULATION OF 2,500,000

(Figures in thousands of workers)

Subdivision of Residence / Sub-division of Work Place	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*0*	*Xc*	*Xs*	*Xn*	*Total Jobs*
1 (a)	24.4	12.7	9.4	39.3	22.9	38.9	33.3	24.4	20.5	18.8	6.0	7.7	3.4	261.7
1 (b)	42.3	11.4	15.4	28.3	21.8	31.8	20.8	11.8	8.4	15.5	6.0	7.6	3.1	224.2
2	3.1	17.5	0.7	1.9	9.0	10.5	3.4	3.6	3.4	2.4	0.7	1.0	0.5	57.7
3	4.6	2.2	70.5	9.8	4.9	4.0	3.8	2.4	2.1	2.5	0.7	1.2	0.4	109.1
4	2.4	1.6	2.3	47.4	9.0	2.4	1.1	0.9	0.6	0.6	0.4	0.2	0.2	69.1
5	2.5	2.5	1.7	16.5	38.6	4.0	2.3	1.6	0.9	0.9	0.7	0.4	0.3	72.9
6	0.6	1.1	0.5	1.0	1.2	33.7	5.5	1.1	1.3	0.9	0.5	0.3	0.8	48.5
7	0.6	0.8	0.5	0.9	0.7	8.2	34.5	1.1	1.4	1.3	0.6	0.5	0.9	52.0
8	2.3	1.7	0.6	1.6	1.4	2.8	1.7	16.4	4.6	2.6	1.1	0.5	0.2	37.5
9	0.5	0.4	0.2	0.7	0.4	1.4	1.9	3.5	13.9	4.0	0.9	0.4	0.2	28.4
0	1.6	0.9	0.7	1.4	1.3	4.0	4.3	4.4	6.8	48.2	3.9	4.5	0.5	82.5
Xc	0.7	0.4	0.4	0.8	0.6	1.6	1.9	1.6	1.7	2.6	54.7	2.0	0.3	69.3
Xs	0.1		0.1	0.2	0.1	0.1	0.3	0.1	0.2	1.5	1.0	20.4		24.1
Xn	0.1	0.2		0.2	0.2	1.7	2.7	0.2	0.3	0.3	0.2	0.1	6.8	13.0
Total Resident Workers	85.8	53.4	103.0	150.0	112.1	145.1	117.5	73.1	66.1	102.1	77.4	46.8	17.6	1150

in other subdivisions. This confirms the previous discussion regarding distance of travel of city workers compared with other subdivisions. Bearing in mind the physical dimensions of the subdivisions, a general tendency will be noticed for persons working in regions with a relatively small work-force to take less time in their journey to work. Obviously from a study of these figures, an overall saving in time of travel could be effected by better distribution of employment.

In order to study future requirements for public transport facilities, travel-time maps were prepared for travel to the city. This information for present-day conditions is shown on map 69. The estimated times of travel when the city reaches 2,500,000, assuming that the new facilities envisaged in the planning scheme have been provided, are shown in map 70.

For consistency with the Gallup statistical survey information, these maps have been prepared on a door-to-door basis. They include waiting times equal to half the time between vehicles wherever a new vehicle is taken, and are based on peak hour time tables. For future estimates, the frequency of peak hour vehicles has been estimated from existing relations between frequency of service and population to be served.(1)

(1) For train travel this relationship may be expressed by the formula $T = \frac{140}{P^{0.7}}$

where T = time interval betwen peak hour trains in hours.
P = population served beyond the point under consideration.

USE OF DIFFERENT FORMS OF TRANSPORT

The relative importance of different means of transport in the metropolitan area as revealed by the sample survey is shown in Table 93.

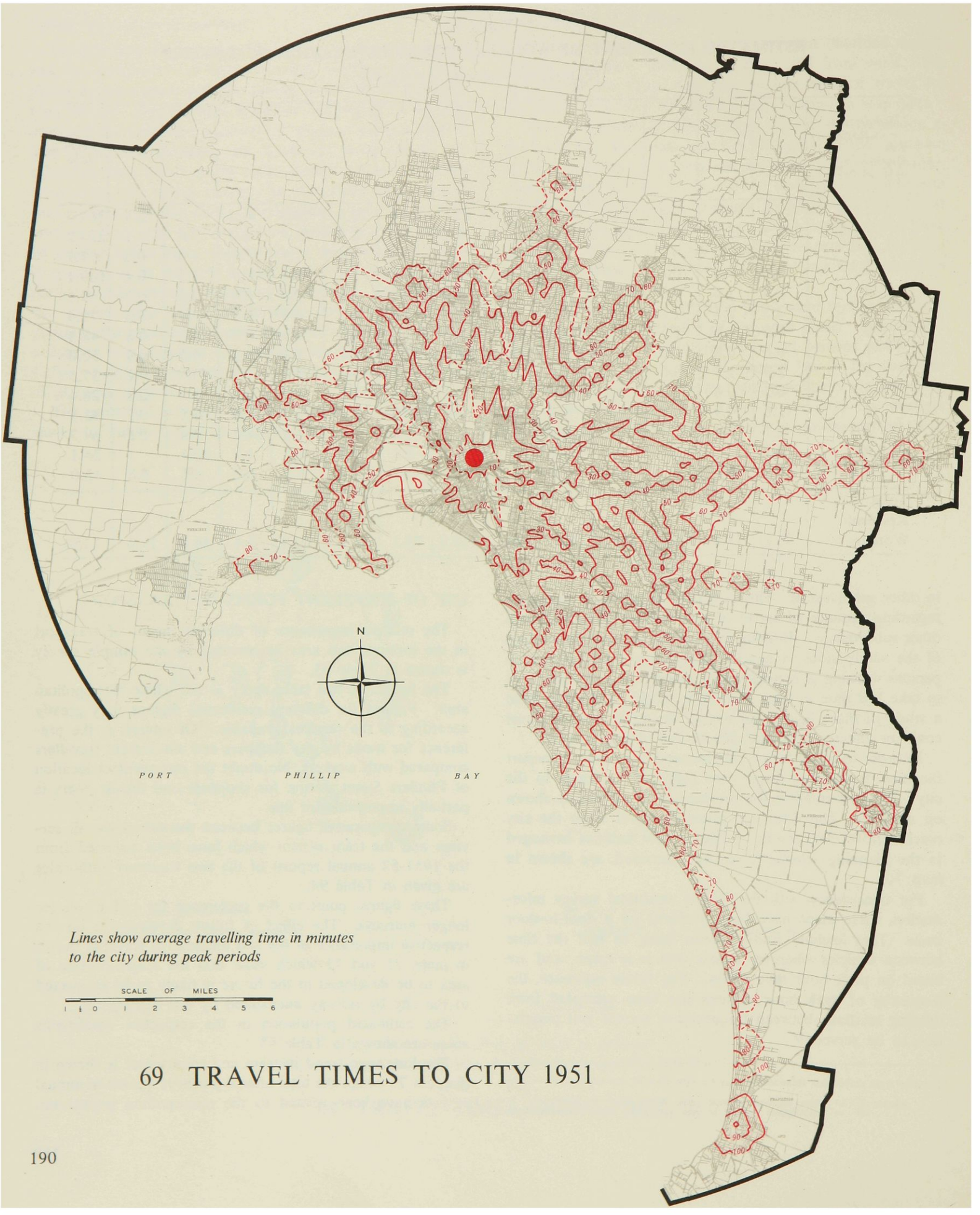
The figures in this table apply to the whole metropolitan area. Figures for different residential regions vary greatly according to the services available. Of interest is the preference for trams by city shoppers and amusement travellers compared with workers. No doubt the inconvenient location of Flinders Street station for shoppers and theatre-goers is partially responsible for this.

Some comparative figures between the suburban rail services and the tram system which have been obtained from the 1951-52 annual reports of the two transport authorities are given in Table 94.

These figures point to the preference for rail travel for longer journeys. The effect of future development on the respective importance of the two methods of travel is shown in maps 71 and 72 which show that the major portion of area to be developed in the future is likely to be connected to the city by railway augmented by bus feeders.

The estimated population in the respective catchments areas are shown in Table 95.

The long-term trend in tram and train travel is shown in diagram 73 where the total annual journeys quoted in annual reports have been related to the metropolitan population.



69 TRAVEL TIMES TO CITY 1951