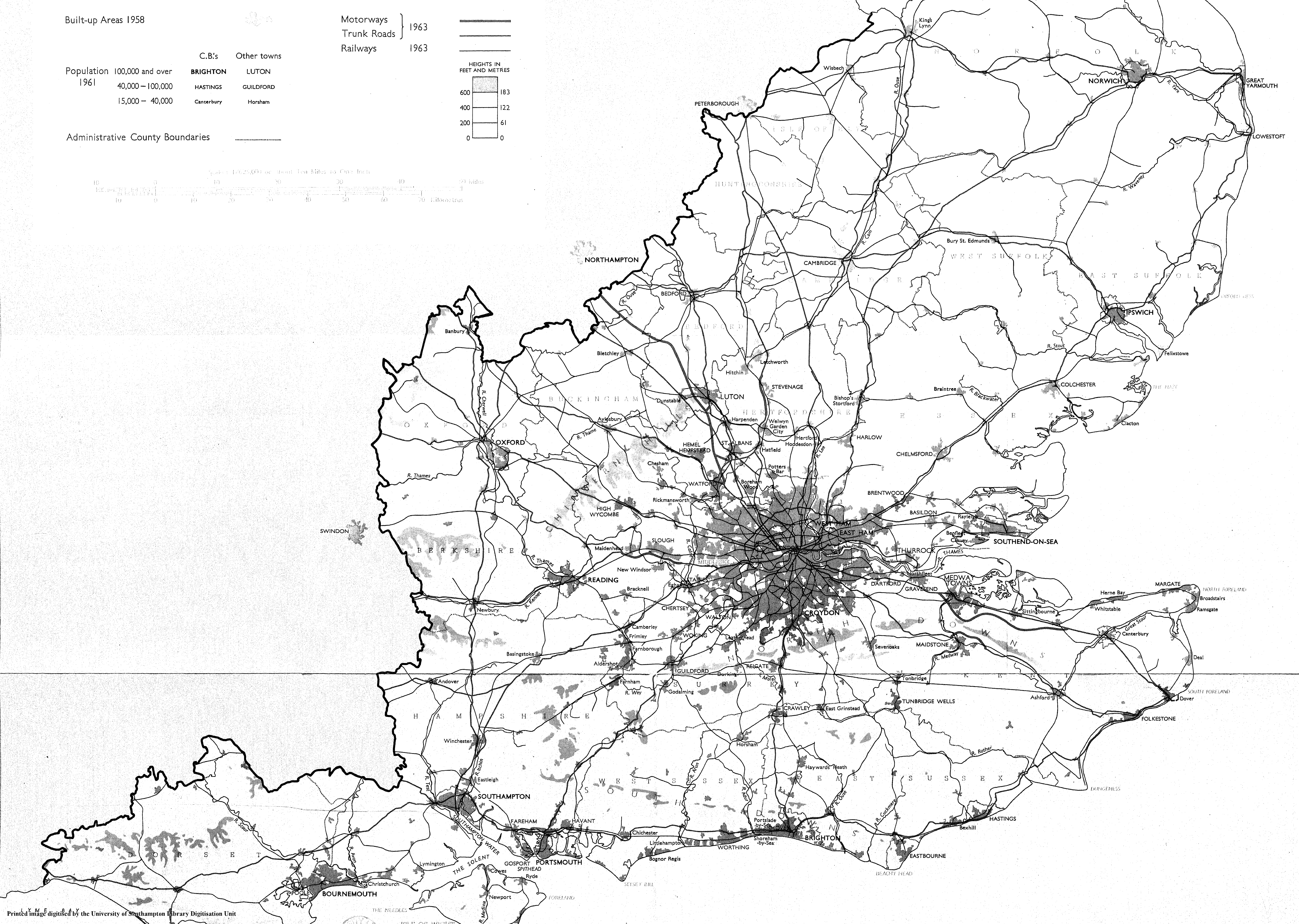
SOUTH EAST ENGLAND
GENERAL REFERENCE MAP



The nature of the problem

THERE are expected to be at least 3½ million more people living in South East England by 1981; it might prove to be more. Such an increase will present formidable problems for what is already the most rapidly growing part of the United Kingdom. This report explains why such a large increase should be planned for and suggests the various ways in which the planning of it could most effectively be done.

2. A good deal has been written recently about 'the drift to the South'. It is essential to recognise from the start that much the largest single element in the population growth of the South East is natural increase—excess of births over deaths in the South East itself. Similarly, the rapid rate of employment growth in the South East is not caused by jobs moving from the north, but through differing rates of growth—more *new* jobs being created in the South East than in other parts of the country.

3. Population is growing in every major region of England and Wales, though in the South East it is growing disproportionately because the area's economic and social circumstances are particularly favourable to growth. This produces two related problems: for the South East itself, further overcrowding and congestion, particularly in London and the ring surrounding it; for other parts of the country, a loss of economic opportunities.

4. The second problem is not one that can be dealt with in this Study; but the work has been done on the assumption that it will continue to be the Government's policy to channel away economic growth from the South East to other parts of the country and that, in consequence, the growth in the South East will be at a lower rate than if current trends were projected.

5. Part One of the Study shows why it is considered prudent to plan for a population increase as large as 3½ million and considers some special

problems in London. Part Two proposes a broad strategy to be followed in planning for this population, and suggests ways and means. Some of the broad estimates and assumptions made for the purposes of the Study require extensive statistical illustration; this, and material about water supplies, has been gathered together in Part Three.

Object and scope of the Study

THE main purposes of the Study were explained in the White Paper, *London—Employment: Housing: Land*[1], which was presented to Parliament in February 1963:

'The Government recognise that the need to match jobs, land, transport and housing over the next 20 years in London and South East England calls for a regional plan. . . . The regional study is examining the growth and movement of population in the South East, including overspill from London, and related employment and transport questions. It will examine the need for a second generation of new and expanded towns which would provide both houses and work for Londoners, well away from London itself, and draw off some of the pressure on the capital.'

2. A primary aim of the Study is to give the local planning authorities of the South East a framework within which to fit their development plans. They have the initial responsibility for allocating land for all foreseeable needs—for houses, shops, schools, industry and so on—within their areas over a period of 20 years, with a review every five years to keep their plans up to date.

3. But, though land has to be allocated locally, some of the most important issues which come into the calculation of the need are more than local ones—in particular, population, employment and communications.

4. Population change comes partly from migration, and partly from natural change—the balance of births and deaths. Migration movements are extremely complex. There is local movement both within and across local planning authority boundaries; regional movement; overseas migration; migration for work; migration for retirement. Local planning authorities need guidance on how these movements will affect

[1]Cmnd. 1952 (H.M.S.O., 2s.), subsequently referred to in this Study as 'the London White Paper'.

them so that they can make realistic plans. Even natural change cannot be calculated locally; national trends in the birth rate and in household formation have to be taken into account. Furthermore, the migration movements themselves modify the local balance of births and deaths.

5. The nature and extent of probable changes in employment can also have a profound effect on future population and on the location and nature of land needs. Here too, national trends and policies will influence local calculations.

6. It is the same with communications, which today play a vital role in planning decisions. Development of the motorway network, for instance, and improvements to the main road system obviously influence the rate of growth of existing towns and are among the decisive factors in choosing the places for new towns and the towns to expand. These are all national developments, as are changes in rail communications, port developments and new airports.

7. Above all, it is necessary to look at the problems of the area as a whole and in a national context. No single planning authority can cope with London's overspill. No single planning authority can hope to identify for itself all the complex effects of migration and employment growth, and to find solutions within its own borders. The problems have to be presented as a whole so that we can be sure that the solutions, the different elements of which will have to find local expression, measure up to the total need. For this growth and movement of population presents problems from which the South East cannot escape.

Scope of the Study

8. The period taken for the Study is 1961–81, and it seeks to measure the changes likely to occur within that period. There is nothing critical about these dates. 1961, a census year, makes a good statistical base-line; and 20 years is the period commonly taken for long range land use planning.

9. The area examined for the purpose of the Study is the area from the Wash to Dorset. In character it ranges from the congested centre of London to remote rural areas where little change is to be expected. London lies at the heart of the problems of the South East, but the wider area was chosen because much of it comes strongly under the influence of London. To the north west the area is bounded by the vigorously growing regions of the East and West Midlands, while to the east and south the coast makes the natural boundary. For statistical purposes the most convenient area includes Dorset and the whole of the three standard regions, London and South Eastern, Eastern, and Southern, adopted by the Registrar General for the Census. But, in looking for solutions, the possibilities offered by places further afield have not been overlooked; some of the towns suggested for large scale expansion are in fact outside the boundaries of the South East as defined for the purposes of the Study.

10. There are several important subdivisions of the region. The most important is the London[1] conurbation itself. This is the almost continuously built-up area, with over 8 million inhabitants, lying *inside* the metropolitan green belt. The Study also refers to the small central area (a little more than the area bounded by the main line railway stations) where much of the recent growth in office employment has been concentrated (see Fig. 16, page 37).

11. A much larger area than the conurbation is dominated by the employment offered by the

[1]When this Study refers to 'London' without qualification, the London conurbation is meant.

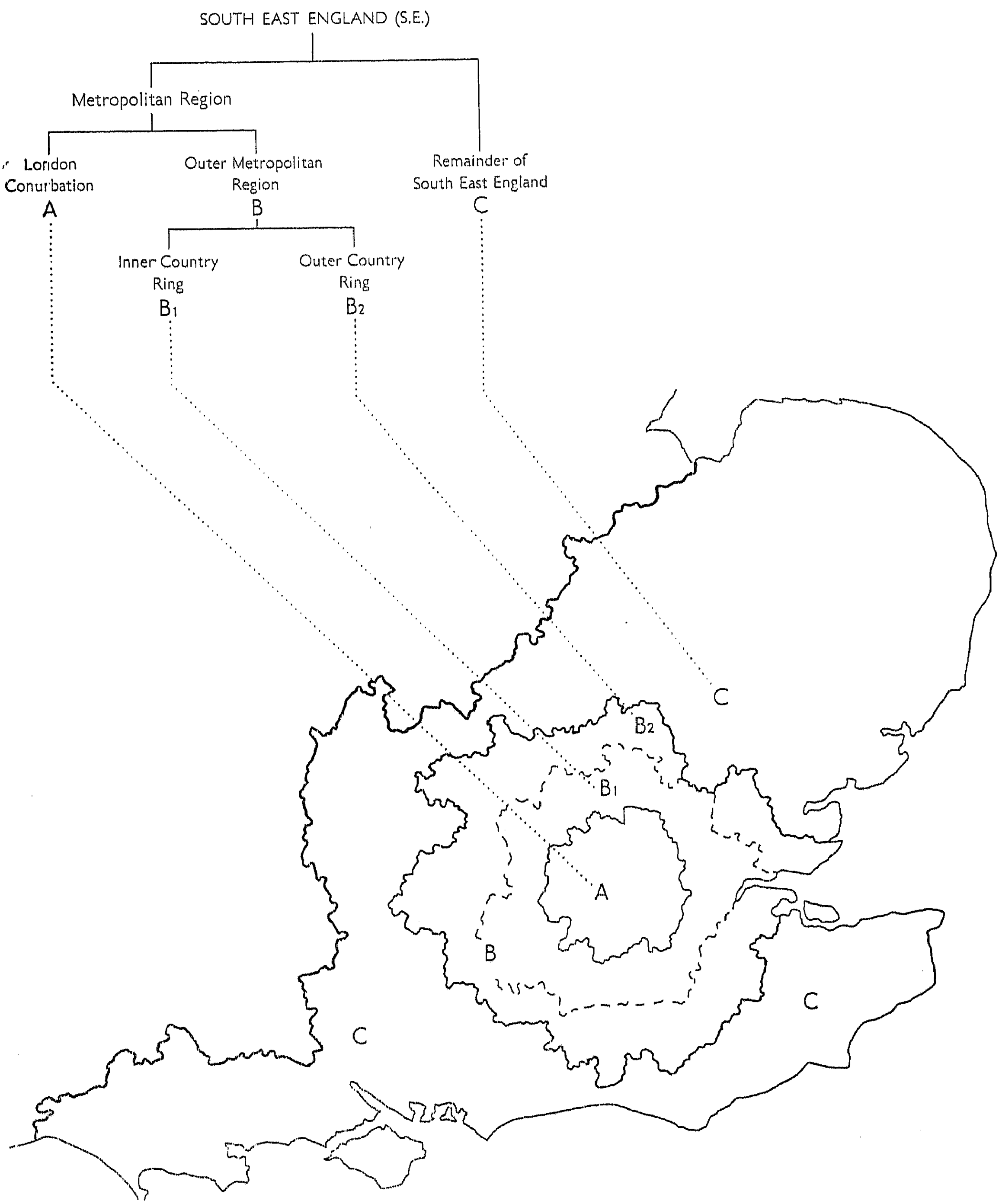


Fig. 3. Subdivisions of South East England
(see Appendix 2, Tables 2–6)

capital and comes under the pressure of the intense demands thus created for more housing. The area where this influence is most strongly felt extends over a radius of about 40 miles from Charing Cross, and is known as the metropolitan region. It contains 70 per cent of the population of the South East and has had 75 per cent of the employment increase over the last seven years. 4¼ million people live in the outer metropolitan region (that is to say, the metropolitan region less the conurbation). This is a crucial part of the South East. It contains a good deal of the area's growing industries and population. It also contains nearly all of the existing metropolitan green belt and the green belt extensions proposed by the planning authorities, as well as the first generation of new towns for London. It is in this ring that most London commuters will henceforth have to look for homes.

12. The main subdivisions of the South East are shown in Fig. 3. The general reference map in the pocket at the end shows the main features of the Study area on a larger scale (about 10 miles to 1 inch). In the chapters that follow, references are made to other broad divisions of England and Wales—Northern England, the Midlands, the South West and Wales. These areas are shown in Fig. 2 (facing page 1).

Population growth in England and Wales

UNTIL recently, land use planning was based on the belief that the population level of England and Wales would be static or nearly so and, indeed, that there might even be a fall in population towards the end of the century. Concentration in the South East (particularly in the built-up area of London) was recognised as a problem well before the war, but both the Barlow Report[1] and the Abercrombie Plan for Greater London[2] assumed that it was *distribution* of population and employment, rather than *growth*, that had to be dealt with. They were right on the evidence then available; and distribution is still a major problem. But there has been a dramatic change in the birth rate, and it is clear now that the consequences of growth have to be planned for as well.

2. As already explained, population changes stem from two main causes: natural change, representing the balance of births over deaths; and migration, which covers many different kinds of population movement. The changes that have taken place in England and Wales and within the South East during the period 1951–61 are shown in the figures on the following three pages. Fig. 4 shows the changes due to natural increase; Fig. 5 those due to migration; and Fig. 6 the total changes.

3. The total increase in England and Wales over the period was more than 2½ million, of which 2 million was natural increase and just over a quarter of a million net immigration (the balance was due to the gain to the civilian population resulting from reduction in the size of the armed forces).

[1] *Report of the Royal Commission on the Industrial Population* (Cmd. 6153). 1940 (H.M.S.O., 14s.).
[2] *Greater London Plan*, 1944.

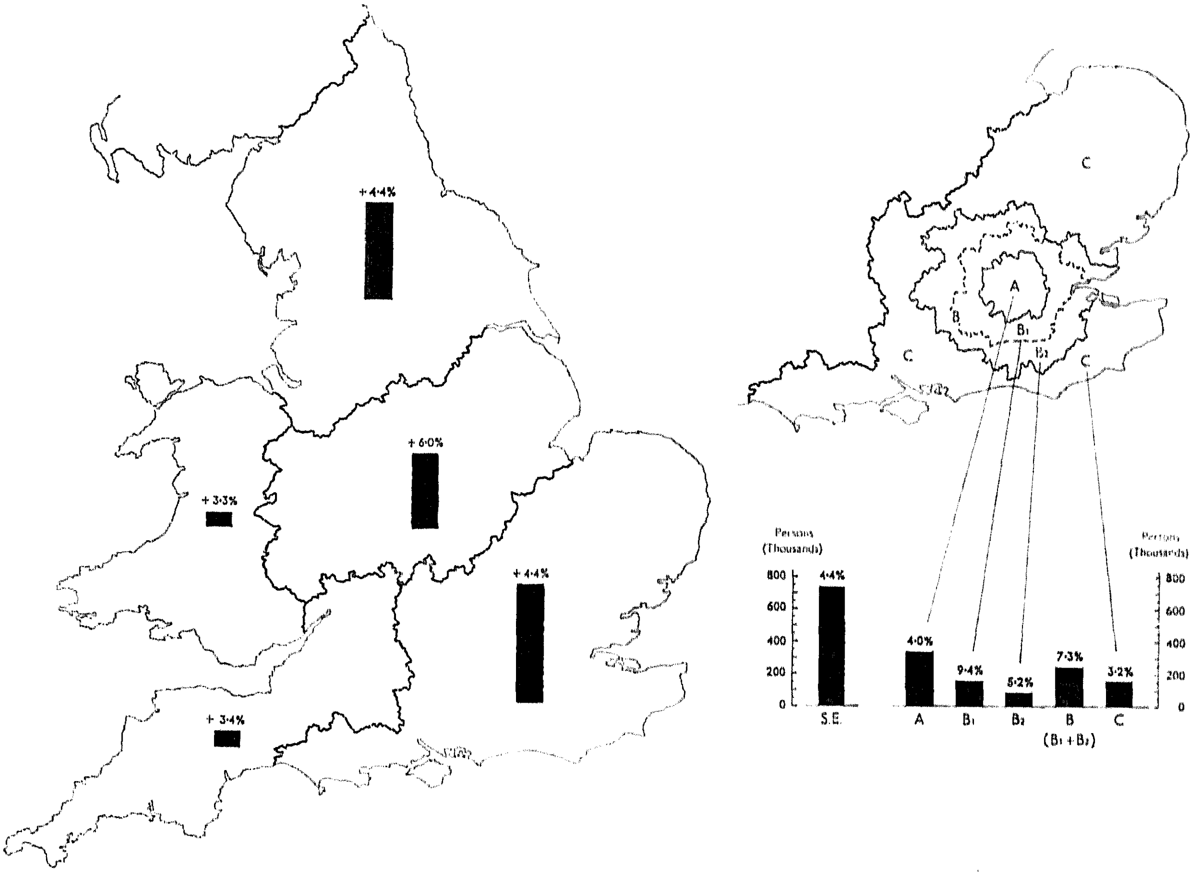


Fig. 4. Civilian population: natural increase: 1951-61
Volume of change is represented by the height of the columns; percentage growth is given in figures at the head of each column. The total natural increase in England and Wales as a whole was 1,975,000 or 4·6% (see Appendix 2, Table 7)

Natural increase

4. The trend of natural increase of population has undergone a striking change in recent years. The annual number of live births had averaged about 600,000 in England and Wales during the 'thirties and seemed then to presage a static or even a declining population. As was to be expected, it rose sharply at the end of the war to a peak of 881,000 in 1947.

5. At that time the Registrar General, in making his first population projections for planning purposes, assumed that there would be a sharp fall from this peak; but his resultant projection for the period to 1971 did not, and indeed at the time could not, foresee the change in the birth rate which took place from the middle of the 'fifties on (see Fig. 12, page 20).

6. The annual number of live births did in fact fall more or less as expected in the early 'fifties and reached a nadir of 668,000 in 1955. From then onwards a wholly unexpected rise took place, which is still continuing. In 1962, the last year for which figures are available, the number

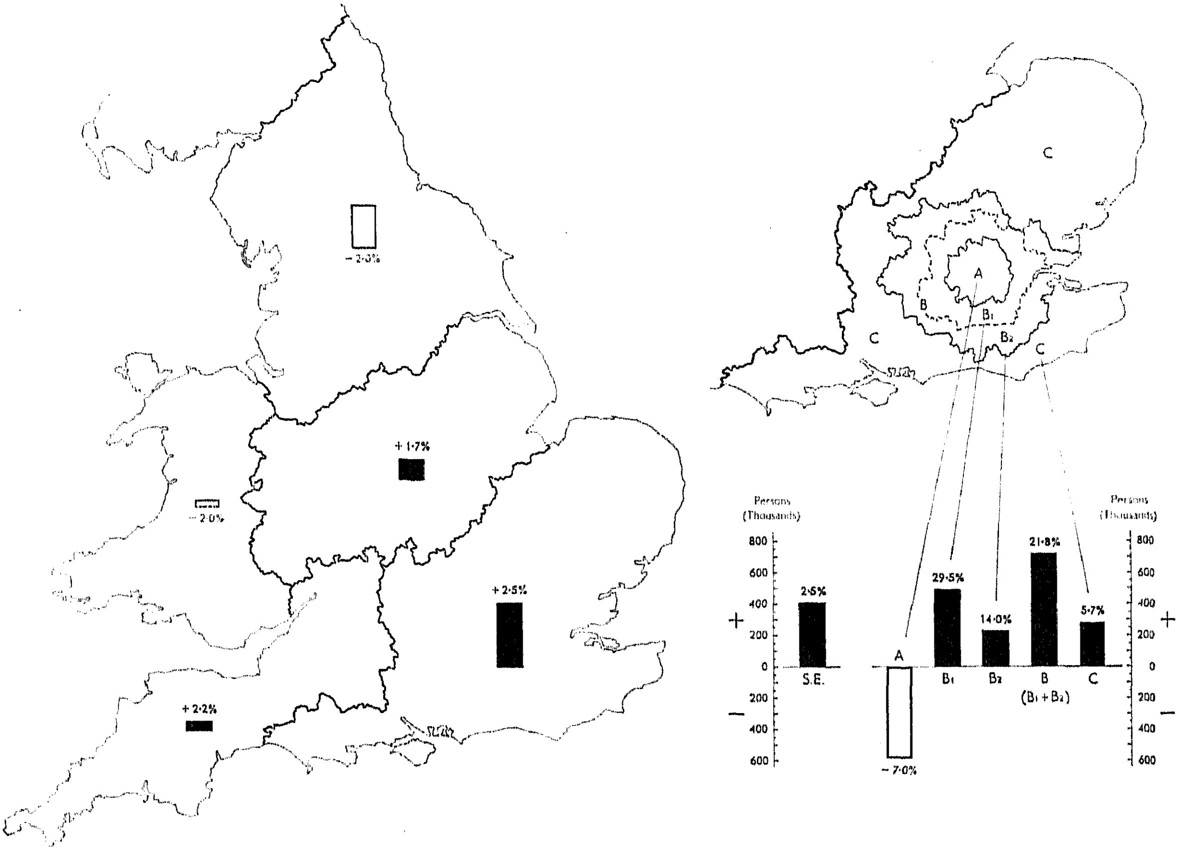


Fig. 5. Civilian population: estimated net migration: 1951-61

Volume of net gain or loss by migration is represented by the height of the columns; percentage migration is given in figures at the head of each column. The total estimated net migration gain in England and Wales as a whole was 287,000, or 0·7% (see Appendix 2, Table 7)

was 839,000, the highest for any post-war year except 1947 (see Fig. 7).

7. This increase will have a very big effect on land use planning. The Registrar General's population projection in 1948, on which the first round of local planning authorities' development plans was based, supposed a civilian population of England and Wales in 1971 of 45·28 million—a natural increase of about 2 million during the two decades 1951–71. But, between 1951 and 1961, natural increase in England and Wales, only marginally influenced by net inward migration from Scotland and overseas, came to just under 2 million, or *virtually the 20-year expected increase in the first* 10. In other words, the volume of natural growth during the decade 1951–61 proved almost twice as large as had been originally expected.

8. The projections for England and Wales are revised annually. During the last 10 years these revisions have shown an upward trend, and the latest takes full account of the rise in births

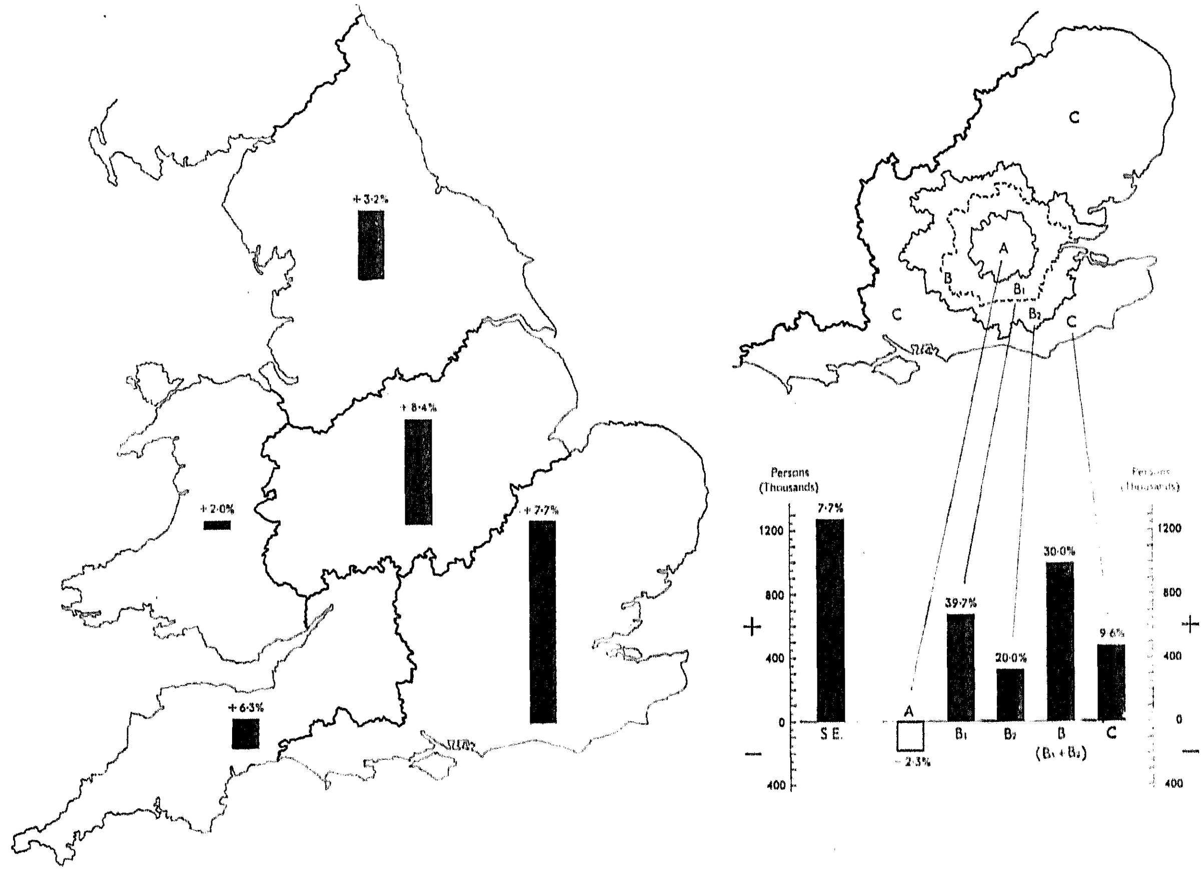


Fig. 6. Civilian population: total change: 1951-61

Volume of change is represented by the height of the columns; percentage change is given in figures at the head of each column. The total civilian population increase in England and Wales as a whole was 2,583,000, or 6·0% (see Appendix 2, Table 7)

since 1955. Inevitably there is a considerable time-lag between revising the projections and incorporating the revisions in development plans. Consequently most current plans do not yet provide adequately for the likely natural growth of population.

9. The birth rate continues to rise, marriages take place earlier and couples tend to start having their children earlier. The wives of post-war marriages are still generally of child-bearing age, so it is too early to draw firm conclusions about the average number of children in families. But the general effect of these trends is to speed up the whole reproductive cycle, and to build in more population growth for the future. In other words, the length of a generation is shortening and it is becoming steadily more likely that the parents of today will live to see their great-grandchildren.

10. Forecasts of natural increase for the future have to take account of these trends. The next detailed projection for planning purposes, expected in 1964, will be based on the detailed demographic data made available by the 1961

Census. The latest annual projection issued by the Government Actuary indicated a natural growth of the population of England and Wales of about 6 million for the period 1961–81; only 15 years ago, the natural increase forecast for a 20-year period was 2 million. The disparity shows how the prospects have been revolutionised by the rapidly increasing birth rates.

11. That is not the end of the story. Further big population increases are expected after the end of the period covered by this Study; in the last 20 years of the century, the *rate* of growth is expected to be even higher. The projections of natural growth published in April 1963,[1] were based on the assumption that there would be 853,000 live births in 1962–63, an annual average of 870,000 in the years 1963–67, with a gradual increase thereafter to 1,130,000 live births annually at the end of the century (see Fig. 7).

12. These figures of natural increase are in terms of persons. It is not at present possible to produce useful projections of the growth of households, because the household structure of the existing population will not be accurately known until the full results of the 1961 Census are available. But between 1951 and 1961 the number of households grew by 12 per cent while the civilian population increased by only 6 per cent; a con-

[1] *Registrar General's Quarterly Return for England and Wales, No.* 456, 4*th Quarter*, 1962 (Appendix E).

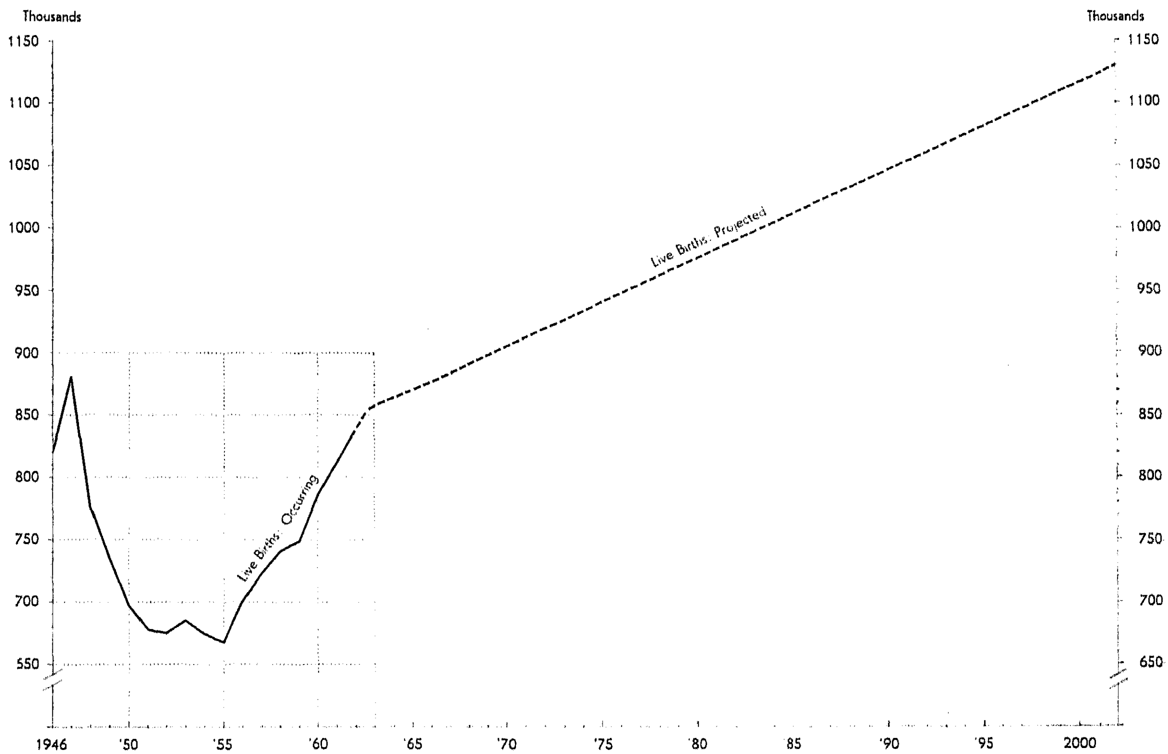


Fig. 7. Live births 1946-2002

The continuous line shows the trend of annual births in England and Wales during the years 1946–62 (see Appendix 2, Table 10); the pecked line represents the estimated future trend derived from the Government Actuary's latest population projection covering the period 1962–2002 (see paragraph 11) tinuation of this trend would add further to land needs because of the increased demand for separate dwellings. There is the further point that there will be strong household growth in the period of the Study as a consequence of the high national birth rate just after the war and the return to a rising trend in the mid 'fifties.

Migration

13. In addition to this natural increase, some further growth of the population of England and Wales by immigration is likely during the period of the Study. During the years 1951–61 the net gain from this source amounted to rather more than a quarter of a million (0·7 per cent of the indigenous population). This was made up of two components: net immigration from overseas, and net immigration from other parts of the United Kingdom. The relative sizes of these two components can only be guessed at, pending publication of the relevant part of the 1961 Census. It is clear, however, that there have been steady net movements of population from Northern Ireland and Scotland into England and Wales throughout the period. With overseas migration, there was a sharp change of trend during the decade. In the early years, there was probably a small net loss of population to the older Commonwealth countries, a loss that was sharply overtaken by heavy immigration, mainly from the West Indies, India and Pakistan, in the late 'fifties and early 'sixties.

14. In 1961–62, there was an estimated net migration gain of 226,000—nearly as much as in the whole of the preceding decade. But this was an exceptional year—the last of unrestricted movement before the Commonwealth Immigrants Act took effect. Forecasts for the future are necessarily very tentative, as international movement is sharply influenced by economic and political changes. But it is clear that, given continued national prosperity, further immigration, though at a reduced level, is likely from overseas, quite apart from movement from Scotland and Northern Ireland. The national estimate is not of crucial importance for the South East, for internal as well as international movements must be taken into account there. But the latest official estimate is that England and Wales may expect to gain 1 million in population by net immigration during the period of the Study, over and above the 6 million by natural increase.

* * * * *

15. Thus, over the period 1961–81, the population of England and Wales is likely to grow by 7 million from a starting figure of 45·9 million.

Employment in the South East

THE following table shows the population changes which have taken place in the major regions of England and Wales over the last 10 years and illustrates the close relationship normally existing between changes in employment and population.

Employment and migration TABLE I

	Employment increase (per cent of employees) 1952–62	*Migration gain or loss (per cent of total population)* 1951–61
Northern England .	4·0	—2·0
Wales . . .	4·4	—2·0
Midlands . . .	12·4	+1·7
South West England .	13·3	+2·2
South East England .	14·9	+2·5
Total (England and Wales)	10·3	+0·7

2. These changes reflect the comparative prosperity of the south and the midlands on the one hand, and the comparative lack of employment growth, on the other hand, in the north and (at any rate in the earlier years) in Wales. All these major regions enjoyed population increases as a

result of natural growth: but Wales lost 50,000 migrants, and Northern England over a quarter of a million. The Midlands and the South East were able to absorb not only their natural increase, but immigrants as well—413,000 in the South East. The link between employment growth and population increase is illustrated by the fact that during the 10 years 1952–62, the number of employees in the South East grew by over 1 million. This represents an increase of almost 15 per cent, or more than twice the rate in the rest of England and Wales (7·4 per cent). Fig. 8 shows the differing rates of employment growth in the major divisions of the country during the period 1955–62.

3. In the future, as in the past, the South East's share of the total national population growth will be strongly influenced by the structure of its economy. The forces making for increases in population and employment in the South East are very strong. London itself naturally dominates the whole area and is a tremendous magnet. Its geographical advantages have marked it out as the natural capital since Roman times. For centuries it has been not only the seat of Government and justice, but the biggest port in the country, the focal point of the national communications network, and the centre of national and international commerce, as well as a main industrial area.

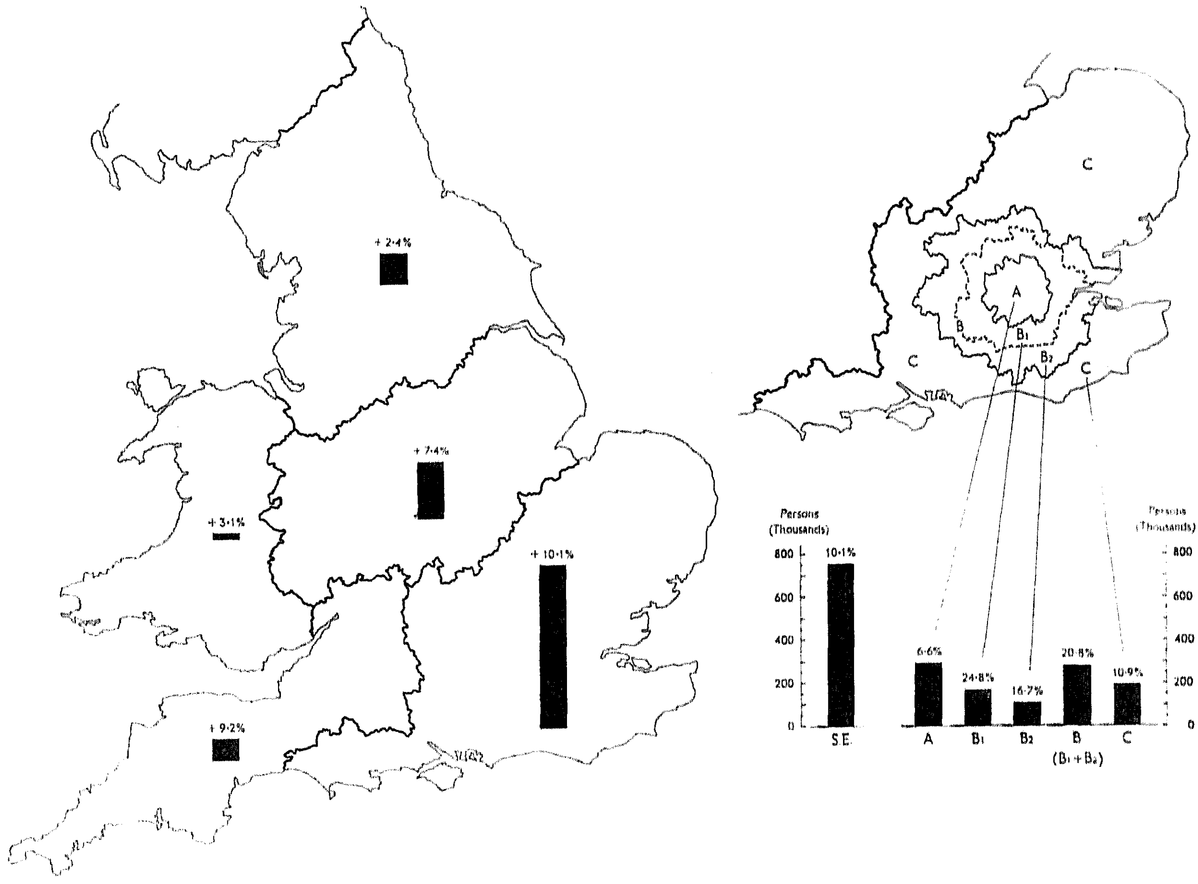


Fig. 8. Increases in employees 1955-62

Volume of employment growth is represented by the height of the columns; percentage increases are given in figures at the head of each column (see Appendix 2, Table 15)

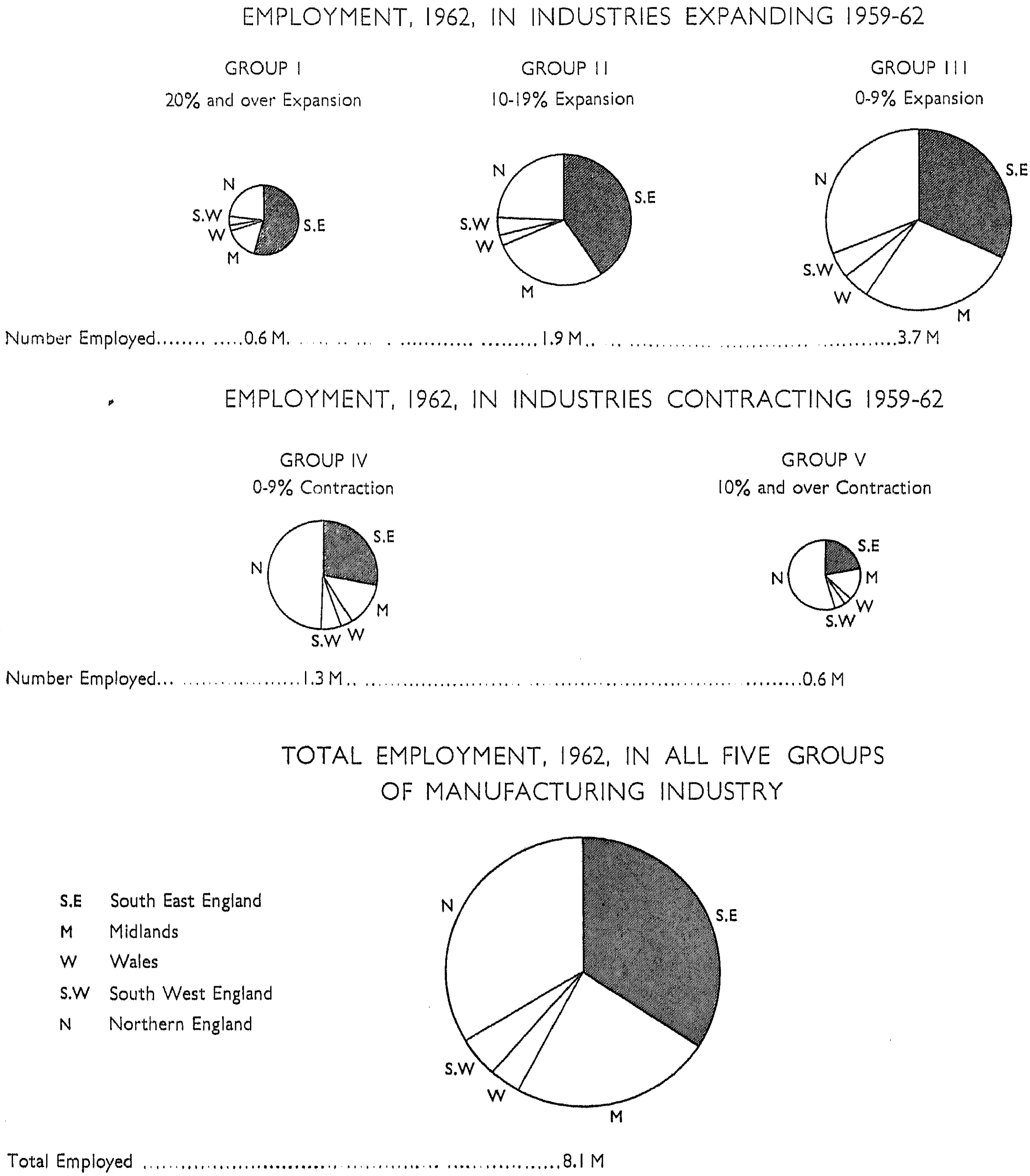


Fig. 9. Employment structure 1962, analysed by reference to past employment changes
Manufacturing industries have been arranged in five groups, according to the percentage changes in the total labour force employed by them nationally during the three years, 1959–62. The five smaller circles show the distribution of the total labour forces engaged in each of these five groups of manufacturing industry in 1962. The large circle below shows the distribution of the total labour force engaged in all manufacturing industries in 1962 (see Appendix 2, Table 20)

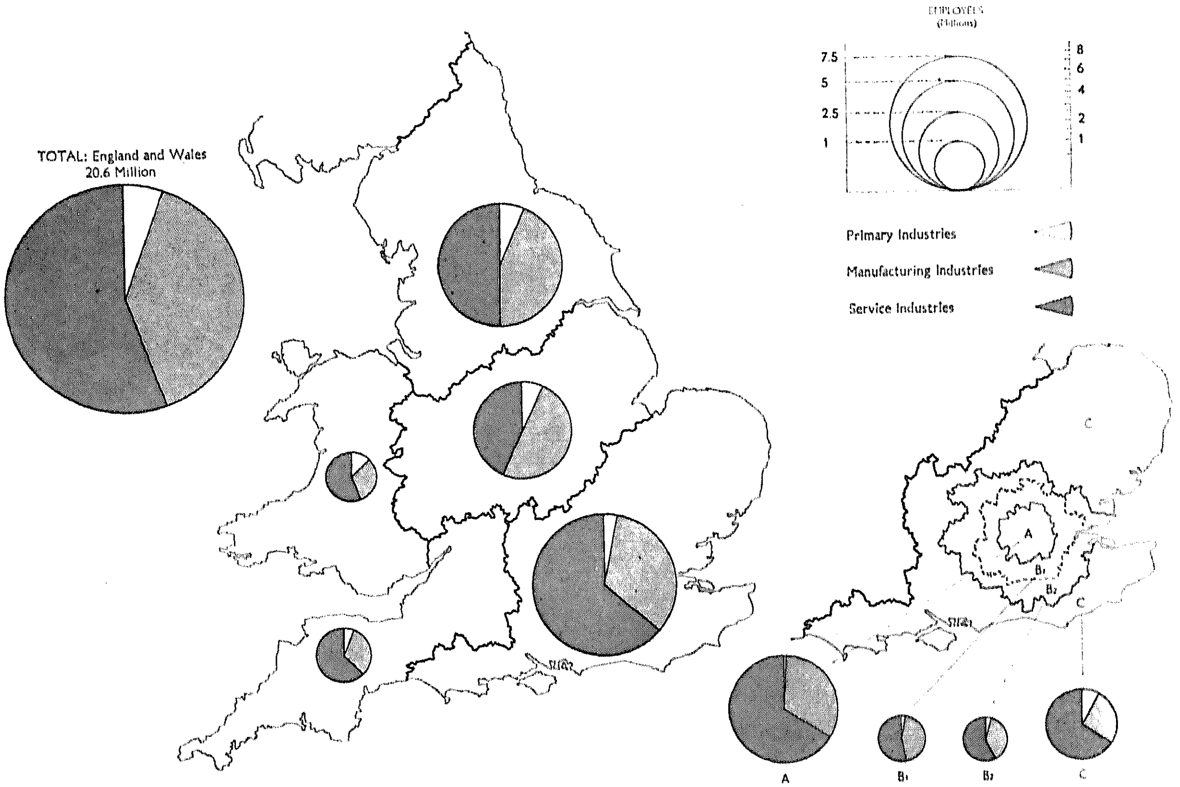


Fig. 10. Employment structure 1962

The total number of employees is represented by the area of each circle; the sectors indicate the proportions employed in primary, manufacturing and service industries (see Appendix 2, Table 17)

Employment structure

4. With the development of motor transport and of power from oil and electricity, many of the newer industries are attracted by easy access to ports and airports, by proximity to the mass markets offered by the big centres of population and by the supply of scarce technical staff.

5. Northern England and the South East each provide employment for almost exactly the same number of workers in manufacturing industry ($2\frac{3}{4}$ million). But, when the different categories of industry are examined, the results are very different (see Fig. 9). In the country as a whole the industries which show the strongest employment growth (i.e. those which have increased their national labour force by more than 20 per cent over the last three years) employed over half a million people in 1962. But more than half this employment was found in the South East, and little more than a fifth in Northern England. At the other end of the scale, 54 per cent of the employment in the industries declining most sharply (loss of more than 10 per cent in the national labour force) was in Northern England, and only 22 per cent in the South East.

6. This detailed analysis was based on a breakdown of employment based on the Minimum

List Heading classification[1], and it is impossible to extend this analysis back over a longer period. Special statistics, however, have been prepared to show changes in the numbers employed in all forms of employment by the broader Industrial Order classification for Great Britain as a whole over the ten-year period 1952–62. This more general analysis similarly reveals an uneven distribution over England and Wales of the strongly growing industries. In terms of total employment in 1962, 40 per cent of all jobs were located in the South East, and 30 per cent in Northern England. For those Industrial Orders showing the strongest employment growth in the decade, about 45 per cent of employment was in the South East and less than 28 per cent in Northern England. Conversely, 40 per cent of employment in those Industrial Orders showing any decline in their national labour forces was in Northern England and only 29 per cent in the South East (see Appendix 2, Table 19).

7. This difference in industrial structure has been reflected in current rates (1959–62) of increase in manufacturing employment in the South East. The rate of increase in England and Wales was 5 per cent; but in the South East it was 6·6 per cent, and in Northern England only 1·5 per cent (see Appendix 2, Table 18).

8. The pattern of other forms of employment also favours growth in the South East, as Fig. 10 shows. Agriculture and mining and quarrying are providing a diminishing amount of employment; but the South East has a small share of these industries. They provide 2·8 per cent of total employment in the South East, as against 5·4 per cent in England and Wales as a whole. Service industry[2] (transport, distribution, building, commerce, entertainment, etc.) is growing faster than other forms of employment. This is most strongly represented in the South East (64 per cent of total employment as against 55 per cent for England and Wales as a whole).

9. The general picture, therefore, is of an employment structure which already contains the seeds of much further growth. If additional jobs were created in the South East at the same rate as they have been during either the ten years 1952–62 (over 1 million) or the seven years 1955–62 (over ¾ million), there would be 2 million extra workers by 1981: equivalent to a population increase of about 4 million. But if the rate of increase over the last three years (1959–62) were to be sustained, there would be 3 million extra workers, corresponding to a population increase of 6 million, by 1981. These employment increases in the short term reflect normal fluctuations in trade and prosperity which are unlikely to be maintained over a long period. But, given that a main aim of national policy is economic growth and the achievement of an annual 4 per cent growth rate, there is nothing inherently improbable about the lower figures. These reflect conditions over the longer periods 1952-62 and 1955-62, which included bad years as well as good ones.

Effects of Government action

10. The rate of growth in the South East is susceptible to Government action, in the form of direct control over the location of new industry and of measures to build up the economic strength and attractiveness of the less prosperous regions. In considering what allowance should

[1] *Standard Industrial Classification:* Consolidated edition 1963 Central Statistical Office. (H.M.S.O., 3s.).

[2] Throughout this Study the term 'service industry' is used to cover Industrial Orders XVII to XXIV of the Standard Industrial Classification, i.e. Construction; Gas, Electricity and Water; Transport and Communication; Distributive Trades; Insurance, Banking and Finance; Professional and Scientific Services; Miscellaneous Services; and Public Administration and Defence.

Fig. 11. Industrial development 1952-61
The estimated additional employment provided in new factories and extensions built in 1952–61 is represented by the area of the circles. The estimates relate only to buildings for which industrial development certificates were required (see Appendix 2, Table 23)

be made for this, it has to be recognised that the current employment increases in the South East have taken place over a period during which there have been vigorous efforts to divert some part of the growth in manufacturing industry to other parts of the country. Industrial projects new to the South East are unlikely to receive industrial development certificates from the Board of Trade; and even extensions to existing factories are not approved unless the Board of Trade are satisfied that the work could not be transferred out of the area.

11. Industrial building authorised by the Board of Trade, and completed between 1952 and 1961, was estimated to provide 203,900 additional jobs in the South East, representing 2·8 per cent of all the employment there in 1952. During the same years completions for Northern England provided 202,700 new jobs, or 3·4 per cent of the total in 1952 (see Fig. 11). For Wales, the percentage was as high as 4·8 per cent. In the London conurbation it was only 1·0 per cent.

12. But the Board of Trade's control covers only manufacturing employment, and much of the growth is in the service trades. A good deal of this employment (e.g. retail trade, communications, and personal services of one sort or another) is tied to the population it serves.

Distribution of growth in the South East

13. It is not only the total amount of employment growth in the South East that presents problems; both the distribution of this growth and its composition are uneven. Over the period 1955–62, over three-quarters of a million additional jobs were created in the South East as a whole; this represented an increase of just over 10 per cent, as compared with 6·8 per cent for England and Wales. In London itself, the rate of increase (6·6 per cent) was actually below the national average; in the South East outside the metropolitan region it was 10·9 per cent; but in the outer metropolitan region there were well over a quarter of a million extra jobs—an increase of over 20 per cent.

14. Although the percentage increase in the conurbation was comparatively low, in terms of numbers it was large—an increase of nearly 300,000. Very little of this growth was in manufacturing industry; five out of every six additional jobs were in the service trades, including commercial employment (see Appendix 2, Table 22). Much of the new employment was concentrated in the small central area and, although there are no separate statistics, it seems likely that the rate of growth within this small part of London was well above the national average.

15. The size and composition of the employment increase in the outer metropolitan region reflected the policy of decentralisation of London by the creation of new towns, and the drastic curbs which were placed on industrial expansion in the conurbation both by Government controls and by lack of space to grow. In this ring around London manufacturing industry is far more strongly represented than in the South East as a whole (41·7 per cent of all employment against 33·3 per cent); it is even above the average for England and Wales (39·2 per cent). During the period 1955–62 three-fifths of the employment increase in the outer metropolitan region was in manufacturing industry.

Future growth in the South East

16. All the factors point towards the conclusion that there is unlikely to be any sudden decrease in the numbers of jobs being created in the South East. Special problems are presented by the concentration of growth in office employment in the very small central area of London, and by the rapid rate of industrial growth in the outer metropolitan region.

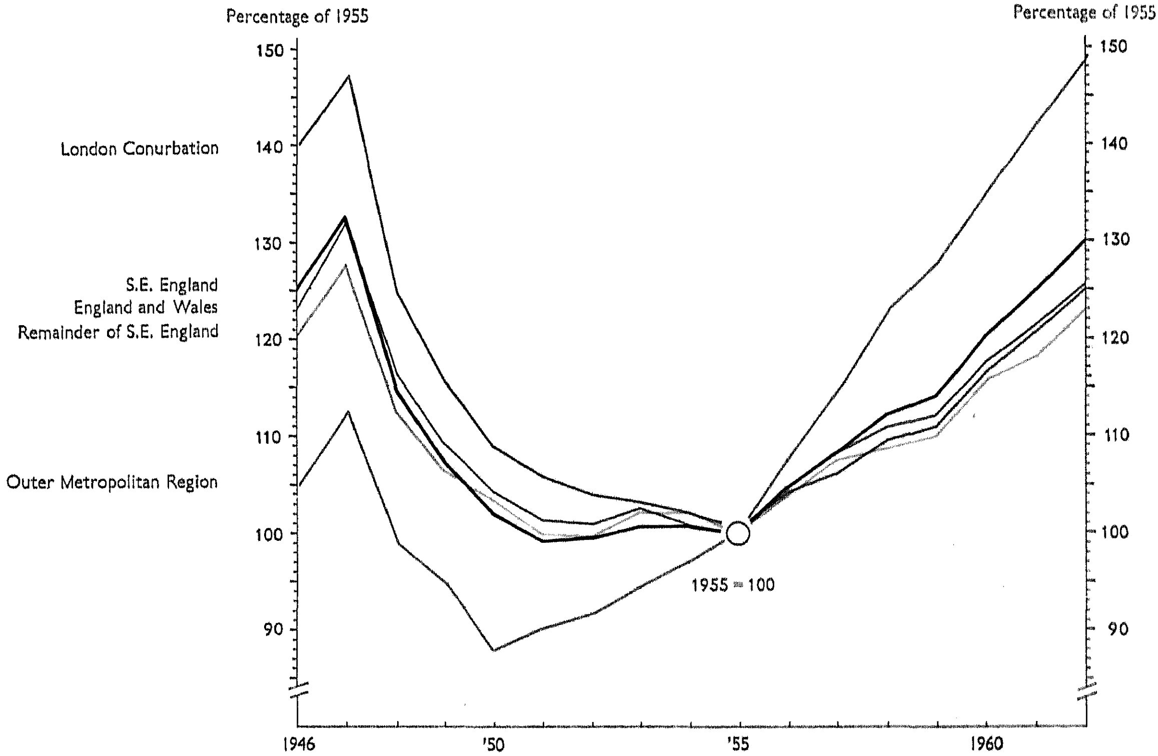


Fig. 12. Live births 1946-62 as a percentage of live births in 1955
1955 marked the turning point in post-war birth trends in England and Wales; the number of live births, 667,800 was lower than in any other year since the war (see Appendix 2, Table 10)

CHAPTER 5

Population growth in the South East

It was said in Chapter 3 that England and Wales as a whole can expect a population increase of 7 million during the period 1961–81, 6 million by natural increase and 1 million by net immigration. The next step is to estimate the share of this growth that will fall to the South East.

2. It is necessary to emphasise that the prediction of future population changes, over a period as long as 20 years, is a hazardous business, and that considerable margins of error are possible. Particularly where migration is concerned, the sources of information are far from adequate. It will be necessary to amend the estimates made from time to time, as more information becomes available (for example, when the migration stream analysis of the 1961 Census is published at about the end of 1964), or as changes of trend become evident. Throughout the chapter, however, where there is a choice of assumptions the one that produced the smallest estimate of growth in the South East has been selected; much higher figures would be produced by the straightforward projection of current trends.

Natural increase

3. In estimating the likely change, the two main components—natural increase and migration—cannot be kept entirely separate. If there is a net balance of migration into a region, there is a direct addition to numbers. Since the regional total becomes higher, the level of natural increase will also be higher—the more people there are, the more children they are likely to have.

4. But there is an even more important consequence of migration. Migration is usually described in net terms—i.e. the difference between the total moving into and out of a country or a region. It is known that these net totals mask very much larger gross movements which, in a city like London, can make big changes in the population and household structure even though there is no net increase—or even a decline—in the total population. Young people move in to work; older people move out (to other parts of the South East or further afield) to retire. There is a constant rejuvenation of the population, and consequently a rate of natural growth far higher than would be expected if the population were static.

5. Over the last few decades there has been a steady increase in the South East's share of the total natural increase of England and Wales. In the 'twenties, this was 33 per cent; in the 'thirties, 36 per cent. Between 1956 and 1962—the period which saw the reversal of *international* migration trends—it was higher still (39 per cent).

6. If this upward tendency were to continue, the South East could expect to receive well over 40 per cent of the natural increase in England and Wales over the next 20 years. For the purposes of this Study, however, it has been assumed that the tendency for the South East to increase its proportion of the natural growth of the population at the expense of other parts of the country will be arrested, and that each of the major regions shown in Fig. 2 will hold a higher proportion of its natural increase.

7. On this basis, the natural growth in the South East—that is, the excess of births over deaths taking place in the region—would amount to 39 per cent of the Government Actuary's national projection of 6 million in the period 1961–81, i.e. 2·4 million. The position in other major regions is set out in the following table:

Natural increase 1961-81 TABLE II

	millions
Northern England	1·8
Wales	0·2
Midlands	1·4
South West England	0·3
South East England	2·4
Total (England and Wales)[1]	6·1

Factors governing future migration

8. To this estimate of natural growth must be added an estimate of increase by net migration. Some guidance is offered by the total figures of net movement for each region during the decade 1951–61. It is estimated, for example, that the South East gained 413,000 migrants over the 10-year period; but, until the detailed analysis of migration from the 1961 Census is available, it is not known what overall volume of movement produced these net figures, nor, in numerical terms, where the migrants came from or went to. It is impossible, therefore, to work on the basis that the South East received, for example, so many Scots and so many Northumbrians over the last decade, and to try to work out detailed adjusted figures for the future. This method would, in any event, produce cumulative errors. Indeed, it is not necessary to arrive at such figures for the purpose of the present Study, since the object is to determine the total population for which provision must be made in the South East.

[1]The total is higher than the figure of 6 million quoted in Chapter 3 because of the effect of immigration on natural increase.

9. The method adopted has been to consider what *total* rate of migration into the South East appears likely; having regard to the estimate made of immigration into England and Wales as a whole, and making allowance for the fact that the regional studies for Central Scotland and North East England include in their objectives a reduction in the rate of migration out of those areas. In order to make proper allowance for the migration assumptions in those regional studies, and for the more general objectives of Government policy—to secure a more even spread of prosperity and a more even use of resources over the country as a whole—the present Study assumes that future net migration gain in the South East will constitute a smaller proportion of the national total than in the last decade.

10. Past experience shows that, because of inter-regional movement, net migration into the South East has exceeded, by a considerable margin, the net migration into England and Wales as a whole. During 1951–61, the net migration gain for the South East was 413,000, as against 287,000 for England and Wales.

11. The net gain for England and Wales in the period 1961–81 has been estimated at 1 million. If past ratios were preserved, this gain of 1 million would imply a net migration gain of 1·4 million in the South East; but such an estimate would be incompatible with the assumption that a more even distribution of prosperity should lead to a proportionately smaller allocation of migration gain to the South East.

12. It would, on the other hand, be unrealistic to assume that the amount of migration gain in the South East over the next 20 years will be no larger than the mean rate between 1951 and 1961 (which would give a figure of 826,000) for there were clear signs that, during the last decade, the rates of immigration, both into England and Wales as a whole and into the South East, were increasing, partly as a result of the change in balance in Commonwealth migration. The rate of employment growth in the South East has also been faster than in the rest of the country; in the last three years, the rate of increase was double that in the preceding three years. Allowance must also be made for migration which is not economic in its motive—migration for retirement. Numbers of elderly people come to the South East, many of them to seaside resorts. This type of migration will certainly continue, and may well increase.

13. If nothing were to change, these factors would point to a sharp increase in the rate of net migration into the South East over the next 20 years. There must be set against them the considerable efforts being made to stimulate the economies of the northern regions, to divert a greater proportion of the expanding industries of the South East and to provide better housing and more modern towns in the north. But it will take time before the full effect of these measures is felt. If the economic incentive to migration is to be removed, the new industries in the north will not only have to provide work for those now unemployed; they will have to offset future losses of employment in the older, declining industries, and produce jobs for the strong natural increase in the population of these regions.

14. The creation of new jobs in the north is not expected to have much effect on retirement migration; nor will it necessarily diminish the rate of overseas migration into the South East. Indeed, if the supply of migrant labour from the north is reduced, and if employment growth of a kind that cannot be diverted continues in the South East, employers may seek more workers from elsewhere.

15. Allowing for all these factors, it has been assumed that net migration into the South East over the period of the Study will amount to rather more than one million persons (say 1·1 million). This estimate lies roughly mid-way between the two extreme points (826,000 and 1·4 million) mentioned above.

16. Most of the migrants will be men and women of working age, some with their families, but perhaps as many as 250,000 might be elderly people coming for retirement. But, pending publication of data from the 1961 Census, these subdivisions are highly speculative, and the figure quoted for retirement migration may well prove to be too high.

The basis for planning

17. Thus, the total population growth to be dealt with in the South East in the period 1961–81 is 3½ million; a little over 1 million migrants, a little less than 2½ million born in the South East.

18. The distribution of the additional population over the South East forms the main subject of the later parts of this Study. Of the natural increase, 1 million is likely to take place in the London conurbation, 870,000 in the outer metropolitan region, and only 475,000 in the whole of the rest of the South East, on the assumption that each of these areas continues to maintain its present proportion of the natural increase in the South East.

19. Two questions may well be asked. What confidence can be placed in population forecasts for the future, when they have gone so badly astray in the past? And is it not an admission of defeat to plan for so large an increase in the South East?

20. The answer to the first question is that we must be alert for signs of change and ready to review plans as the passage of time brings new evidence to support or contradict the assumptions made. On the other hand, while many of the calculations are subject to a wide margin of error, most of the main trends underlying them are now well established. Mistakes in the forecasts are therefore best considered as errors of timing rather than of quantity. In other words, it is not so much *whether* a particular level of population will be reached as *when*.

21. The second question is a vital one, and the answer to it lies in the main purpose of this Study. This is to give guidance on the amount of provision that needs to be made for likely population growth in the South East. This means primarily the allocation by the local planning authorities of sufficient land for development, and, to the extent that this is necessary, the planning of new towns and town expansions. If this provision is to have real meaning it must be based on realistic estimates of the amount of growth that is likely to take place in the South East, and not on more comfortable assumptions that may quickly be falsified by events. It takes several years before the idea of a new town in a given area can be translated into homes, factories, shops and offices on the ground. It is much easier to slow down the execution of plans, if the need develops later than expected, than to be forced into a crash programme because the needs were under-estimated.

22. Similarly with land allocations. Through no fault of the planning authorities, the current development plans fall well short of real needs, and many of them have not yet been revised to meet the requirements of the 'seventies. If these deficiencies are not corrected—and corrected with a good margin of tolerance for the future—artificial land shortages are likely to be created, land prices driven up higher, and the planning machine overwhelmed.

23. Planning for a proper distribution of the future population of the South East is not inconsistent with the effort to reduce the flow of migration from the north. For the north such a reduction is vital; but it will not alter the general scale of the need to allocate land for development in the South East. As was shown in Chapter 3, if employment growth were to continue at current levels, very heavy population increases could be expected. There can be little doubt that, over the 20-year period, growth in the South East will call for an increase in the labour force corresponding to a population growth of at least 3½ million. The region is therefore likely to retain the whole of its natural increase and to attract the balance from one source or another.

24. The indications are that if the forecast of a population increase of 3½ million during the period of the Study proves to be wrong, it is more likely to be an under-estimate than an over-estimate.

CHAPTER 6

London

THE heart of the South East problem lies in London and the ring surrounding it. It is this metropolitan region that contains the greatest concentration of population and the greatest amount of employment growth in recent years. This limited area is likely to have a high percentage of the future growth in the South East.

2. It is here also that land pressures are at their greatest. There is a strong natural increase in the present population both of the conurbation and of the outer metropolitan region; and the growth of service employment (including office jobs) in London, and of manufacturing employment in the rest of the metropolitan region, tends to pull more workers in. Thus a keen demand for houses and housing land is set up. The conurbation itself is virtually built up, and there are only limited possibilities of adding to the total stock of housing in London over the period of this Study. London cannot meet all its own housing needs, and some part of the solution must be found in the outer metropolitan region. But this area in turn has its own problems of growth; and it contains the approved metropolitan green belt and the extensions to it which have been proposed by the local planning authorities.

3. This chapter deals particularly with the housing demands of London, and examines the ways in which they can, in part, be dealt with inside the conurbation. On the basis of this calculation of housing need and housing capacity, it makes an estimate of London's overspill—the number of people who will need homes elsewhere—in the period of the Study.

Some history

4. People have been saying that something ought to be done about London for nearly 400 years—the first legislation on the subject goes back to Elizabeth I. But London has not stood still; the spread of the built-up area over the last century and a half is shown in Fig. 13. Before the war, tentative steps were taken towards the preparation of a plan for London and the surrounding country, and the idea of a green belt took shape.

5. Towards the end of the 'thirties, with the double pressure of unemployment and the approach of war, the economic and strategic dangers of allowing so much industry and population to silt up in the corner of England nearest Europe caused the Government to appoint a Royal Commission, under Sir Montague Barlow, to investigate the problem.

6. The Commission, which reported in 1939, recognised that the drift of population and industry to the South East was a problem demanding attention. They recommended, among other things, that its effects should be mitigated by restricting industrial building in London and the Home Counties, redeveloping inner London and dispersing industry and population away from the London area.

7. When Sir Patrick Abercrombie came to prepare his Plan for Greater London, he made two assumptions—and they were very reasonable ones to make at the time—which have since been falsified by events. He assumed that no new industry would be admitted to London and the Home Counties except in special circumstances, and that the population of the area would not only not increase, but would be reduced.

8. The first assumption went wrong because nobody then foresaw that, although a tight check would be maintained over the growth of manufacturing industry, the big employment growth in London during the 'fifties was to be in forms of employment not subject to industrial location control—in service industry and, in particular, in office employment. This change in emphasis from factory floor to white collar work is one of the most important features of post-war London. In 1954, the number of factory workers in the County of London was actually well below the pre-war figure—about a quarter of a million less—and little of the growth that has taken place since then has been in manufacturing industry. The turning point came in the mid 'fifties, which saw the beginning of the office building boom in central London. Over the last decade well over 150,000 more office jobs have been created in the central area alone. Over the three years 1959–62, nearly 200,000 new jobs were created in the conurbation as a whole, and over four-fifths of these were in service employment (which includes office jobs).

9. The second assumption was overtaken by the unexpected surge in the national birth rate which started in 1955. It has also been affected by migration to London for work. Numerically, this element has not been large, and, in the conurbation itself, is balanced by the outward movement of other people going to work elsewhere, looking for homes in the commuter belt, or retiring. But, as has been shown in Chapter 5, the effect of migration turnover of this kind in London is to increase the rate of *natural* growth.

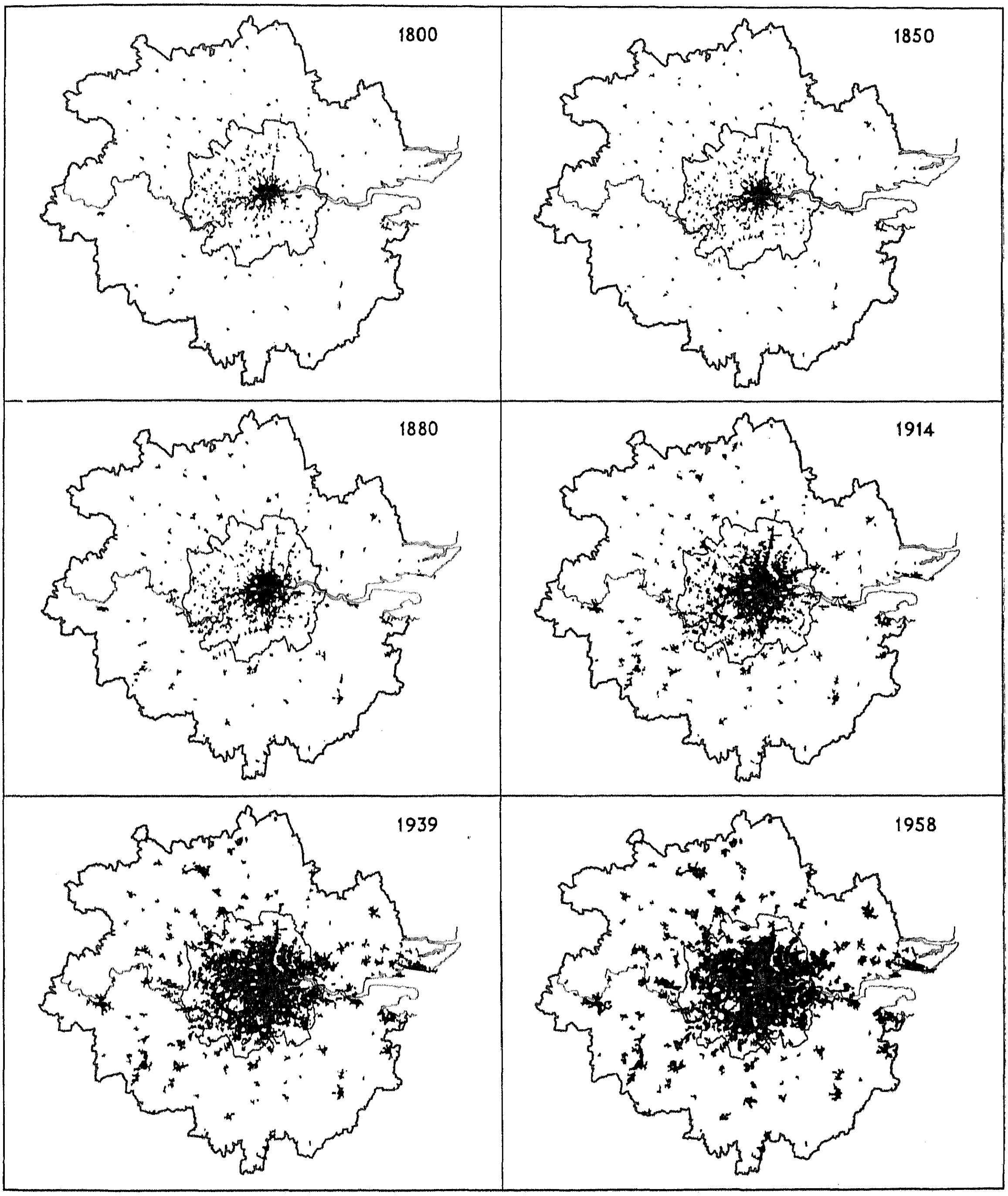


Fig. 13. The growth of built-up areas in the metropolitan region 1800-1958

The 1958 map is an extract from Fig.1; the remaining five maps show the extent of these built-up areas at each of the preceding dates

The green belt

10. Meanwhile, the London green belt was taking shape. The history of the green belt, the machinery for setting it up and extending it, and development control policy within green belts are all fully described in the booklet *The Green Belts*[1], published in 1962. The conception of a green belt around London owes much to this same idea of a static population. A green girdle could be flung round the capital, some of its population and industry moved out to new towns beyond it, and the elbow room thus created used to improve living conditions in the conurbation. Specific proposals for a green belt about five miles wide around London were made in the Abercrombie Plan. These were embodied in the development plans of the local planning authorities, and, in the process, the belt was widened to between six and ten miles. This ring covers 840 square miles and is known as the 'approved' green belt, since it is incorporated in development plans approved by the Minister of Housing and Local Government. The local planning authorities have, in addition, made proposals for the extension and strengthening of the green belt. These proposals, some of which have been submitted to the Minister as formal amendments to development plans, but not so far approved, would, together, add another 1,200 square miles to the green belt. (These areas are shown in Fig. 25, page 88.)

11. Within the green belt, there is a presumption against building that is not tied to uses which belong to open countryside—for example, agriculture, sport and recreation. Furthermore, the intention is that these restrictions should be permanent, and that a green belt, once its boundaries have been firmly fixed in an approved development plan, should remain for as long as can be foreseen. By this means, the physical growth of a large built-up area like London can be checked, and towns can be stopped from merging into one another.

12. Thus, the early plans under-estimated the needs which were to arise and the establishment of the green belt prevented the satisfaction of these needs by the traditional—and in many places highly damaging—method of peripheral spread. Some of the deficiencies were made good, because, by the time the planning authorities in the metropolitan region started to make their plans, the doctrine of static population had been modified a little. More important, however, Abercrombie had demonstrated the need for a coherent policy of getting people and work out of London. This part of the plan was implemented by the creation of eight new towns near London, with an eventual population of over half a million, and by the sanctioning of schemes for the accommodation of nearly a quarter of a million people in expansions of existing towns (see Fig. 14); and there was also much voluntary movement out of London.

More households

13. Other developments have added to the land needs of London and indeed of the country generally. One is the gradual change which has been taking place in the average size of households requiring a separate home. This is a long term trend: and one reason for it is that most

[1]*The Green Belts.* Ministry of Housing and Local Government (H.M.S.O., 4s.).

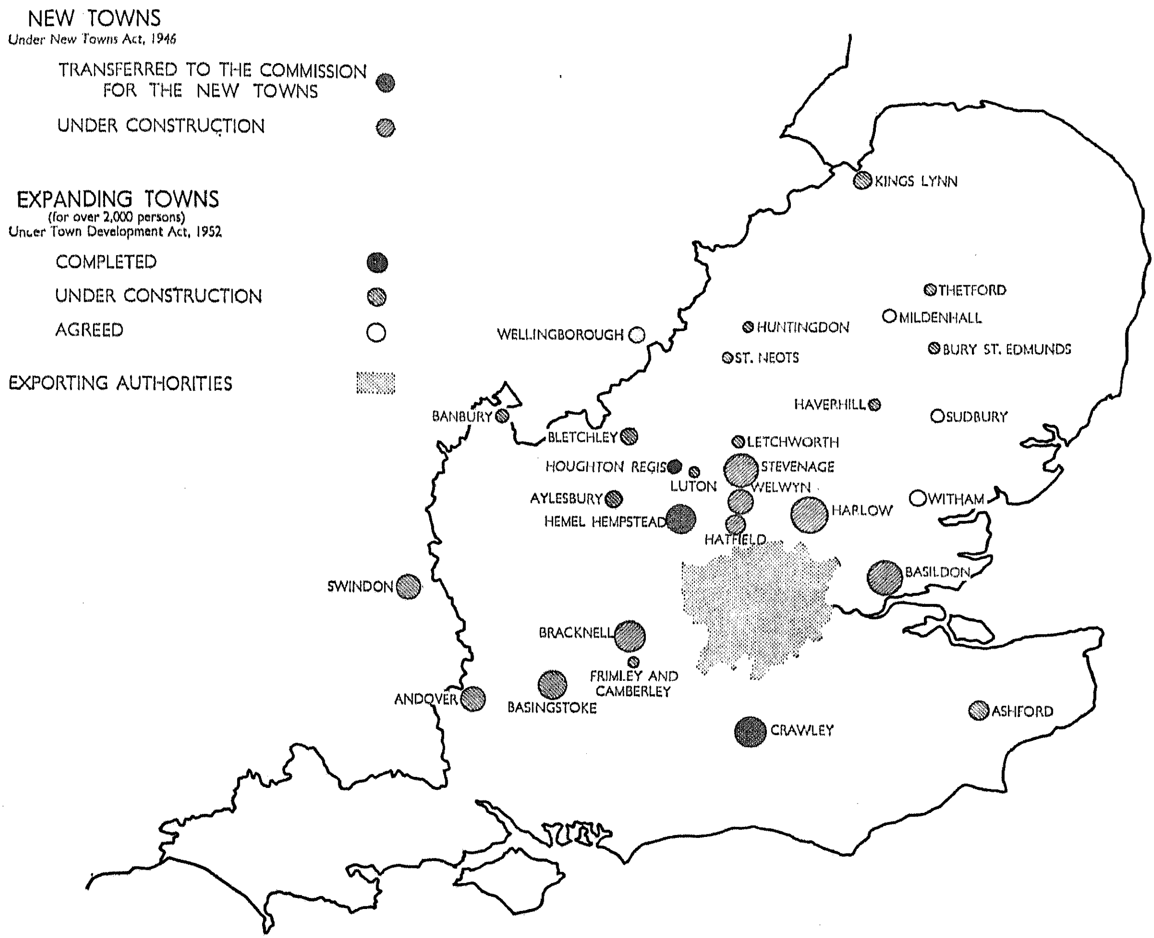


Fig. 14. Existing new towns and town development schemes for London
All new towns, and town development schemes with a planned population increase of more than 2000, are shown, as at December 1963. The planned population increase is represented by the area of each circle (see Appendix 2, Tables 11 and 12)

modern households consist simply of the married couple and their children. With greater prosperity and better housing, young married couples are less likely to live with their in-laws; and more elderly people have their own homes, instead of living with married children. In ten years, the average size of private households in the London conurbation fell from 3·02 persons to 2·85. What this means is that now, and increasingly in the future, more dwellings will be needed to house any given number of people than in the past.

The motor car

14. Equally important is the growth of motor traffic. More land will have to be given up to the motor car. A garage for every new dwelling and two for some. More parking space. Above all, more and wider roads. All these requirements will eat into land allocations which ten years ago could have been safely left for other purposes. The report of the Hall Group[1] forecast a doubling in the number of cars by 1970 and a trebling by 1980; the impact on London will be considerable. Since then the Buchanan Report[2] has described the implications of this for the bigger towns; and how it might be provided for. This Study is not directly concerned with the effect of this on London's internal problems of reconciling traffic with civilised living. The point here is that the motor car is likely to be a strong competitor for land in London itself.

London's housing needs

15. For many years now the resident population of the London conurbation has been falling slowly but steadily. This happens in most big cities. There comes a point in the history of a town when the pattern of development changes. The residential areas in the centre become worn-out and have to be replaced. If houses are put back on them, higher living standards usually demand a more spacious layout, with wider streets, more schools, shops and open space. But very often the valuable land on the fringes of the town centre goes over to commercial uses of one sort or another. People choose to live further and further away from the centre, bartering a longer daily journey to work for fresh air and quieter surroundings in the evenings and at week-ends. This kind of thing has been happening on a massive scale in London, with the result that the City is deserted at night and residential uses have been pushed further and further out. Such is the scale of things in London that finding a home on the outskirts nowadays means going beyond the suburbs, to the green belt and the countryside beyond. Fig. 15 illustrates this pattern of change.

16. During the period 1951–61 London gained nearly 400,000 by natural increase and the return of servicemen to civilian life; yet, during the same period, its population fell by 189,000 (from 8·321 million to 8·132 million). This is because there was a net outward migration of 583,000. Over a quarter of a million people went to new and expanded towns under planned overspill schemes. Some of the remainder no doubt were leaving London for retirement in the country or by the sea, but very many out of the balance of over 300,000 moved out of London to the commuter ring and went on working in London. The population of the conurbation has been falling, even though the number of dwellings in it has increased.

17. During this same period the number of jobs in London was increasing—by nearly a quarter

[1] *The Transport Needs of Great Britain in the next Twenty Years.* 1961 (H.M.S.O., 2s. 6d.).

[2] *Traffic in Towns: A Study of the Long-term Problems of Traffic in Urban Areas: Reports of the Steering Group and Working Party appointed by the Minister of Transport.* 1963 (H.M.S.O., £2 10s.).

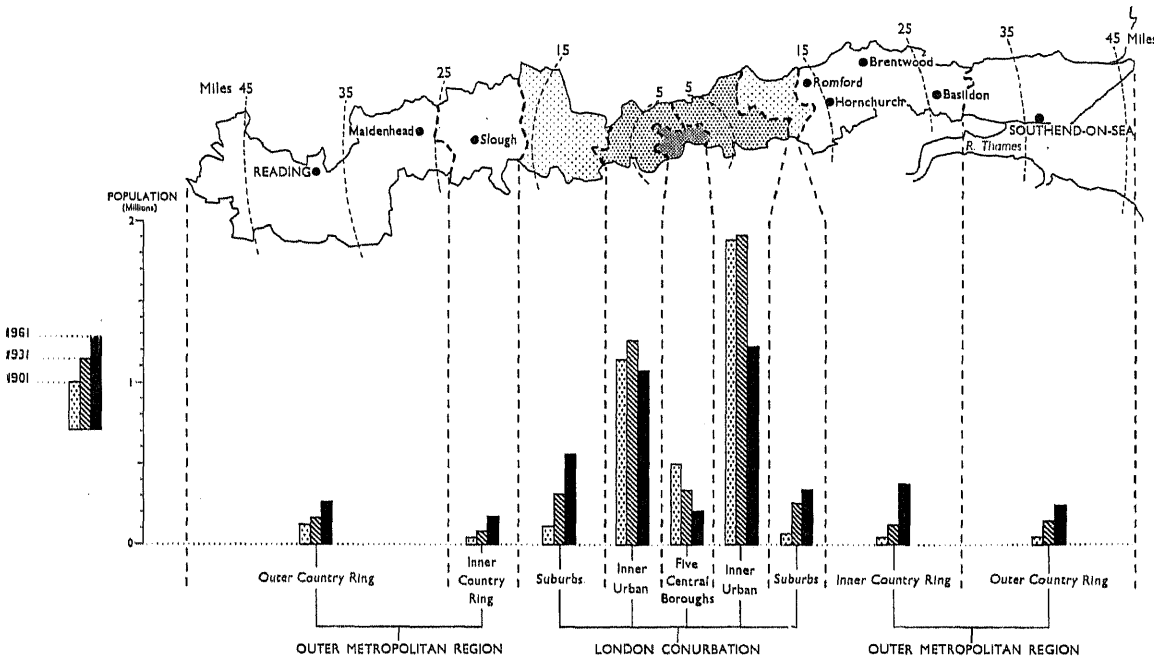


Fig. 15. Population changes in a cross-section of the metropolitan region 1901-1931-1961

The cross-section, between 5 and 10 miles in width, is subdivided into zones made up of aggregates of local authority areas. The columns are proportional in height to the census enumerated populations of each zone at the three dates. The population of the whole cross-section in 1961 was 4,504,000 (see Appendix 2, Table 9)

of a million in the six years 1955–61 alone. The combined effect of this decline in resident population and increase in employment is that London is housing an even smaller proportion of the people who have to work there and, if present trends continue, will need to look more and more beyond its present boundaries for houses and housing land. It is necessary to establish the likely size of these demands; in fact to estimate the amount of overspill population for whom provision of one sort or another must be made.

18. More houses are needed for Londoners for three main purposes:

(i) to replace the slums;

(ii) to make good the existing shortage; and

(iii) to provide for London's population growth.

19. REPLACEMENT HOUSING. While the first of these heads has an important place in the housing programme for London, it has less effect on the calculation of the size of the overspill problem. The reason for this is that the problem is essentially one of replacement. The slum areas being cleared are mostly at high density; but the planners and architects of the local authorities use all their skill to squeeze the utmost from these sites.

20. MAKING GOOD THE SHORTAGE. Very many *additional* houses—requiring land—will have to be built if every separate London family wanting its own home is to have one. As the London White Paper showed, much of the backlog has been overtaken. Since 1951, 300,000

additional dwellings have been provided, and the gap between the number of houses and the number of families wanting them has been reduced to less than half. Nevertheless, much remains to be done. The 1961 Census showed that there were 2½ million dwellings in London, and 2¾ million families as defined for census purposes. For the purposes of assessing housing need, the gap is not as great as a quarter of a million, for the 'census' household includes lodgers and others who do not require a separate home. The best estimate that can be made at present suggests that the demand is at least 150,000, and perhaps substantially more, if doubling up and overcrowding in London are to be eliminated.

21. GROWTH IN POPULATION AND HOUSEHOLDS. Even more houses will be needed to meet the growth in the population of the capital. It was estimated in Chapter 5 that this would amount to about 1 million persons. But, in calculating housing demand, it is not enough to know this; it is necessary to know how many extra families will have to be provided for. This will be more than a simple division sum would suggest, for more and more households are being formed every year out of the existing population; even if the population of London did not grow at all, more houses would be needed each year to accommodate the increasing number of smaller households which are steadily being formed. One conclusion to be drawn from this is that a higher percentage of small dwellings should be included in the London housing programme.

22. The best estimate that can be made under this head is that, allowing both for natural increase and for the declining average size of households, 400,000 extra dwellings will be needed for population growth.[1]

23. SUMMARY. Thus, if these two main needs are to be met (and there are others, as will be seen), 550,000 additional houses will be required during the 20-year period, over and above replacement building.

London's housing capacity

24. How far can these needs be met in London itself? An estimate of this kind can only be a rough one without a detailed study of the land use pattern in the whole of the conurbation, and this is something which must await the setting up of the Greater London Council. The existing development plans of the local authorities are only of limited help, because only one of them—Middlesex—has so far undertaken a review which extends to 1981. Valuable help has, however, been received from all the planning authorities in the conurbation in the preparation of an approximate estimate of future housing capacity.

25. The outstanding fact is that the conurbation lying inside the green belt is virtually built over, and there is very little land indeed that can be released for house-building. This means that, to an ever-increasing extent, housing gains must be wrung out of redevelopment, a process which is slower, more difficult and more complicated than building on virgin land.

[1]It may be asked why no separate allowance is made for migrants. The answer is that, although people do migrate to London for work, the London conurbation (the unit examined in this chapter) suffers a net *loss* by migration for the reasons that have been explained. But one effect of these migratory movements is to produce a 'young' population in London, and this boosts the rate of natural increase.

26. HOUSING DENSITIES IN LONDON. The acute need for more housing for Londoners inevitably leads to the suggestion that this should be provided by stepping up the housing densities in London itself. There are three main types of area that need to be considered. There are the closely packed residential areas of inner London, some of them slums and ripe for redevelopment. There are the outer suburbs, built at low densities between the wars. And, in between, there are the older Victorian and Edwardian houses.

27. It is doubtful whether there can be much housing gain from redeveloping the obsolescent residential areas of *inner* London at much higher densities. Existing densities are very high, ranging up to 300 persons per acre, and the environmental standards are low. When these areas are rebuilt, some land must be set aside for non-housing uses—schools, shops, wider streets and some open space—in the interests of civilised living. High densities over a wide area, and particularly in the centre of a great city, are likely to produce intolerable living conditions and social unease. In any case, building in inner London is an expensive process.

28. In the low density outer suburbs, there is much more physical scope for redevelopment. There are thousands of acres of land built on at low densities, and even quite modest increases could add greatly to their capacity, if unified sites big enough to warrant comprehensive redevelopment could be obtained. But this will not be practicable for many years to come. Most of these houses were built less than 40 years ago, are owner-occupied and in sound condition. There could be no question of pulling them down during the period of this Study. Such gains as may be possible here will come later.

29. There are, on the other hand, big prospects of increasing the number of dwellings in the older suburbs. Many examples are already to be seen of the successful redevelopment, by private builders, of the sites of Victorian houses standing in large gardens. In some places, several adjoining houses have been bought, and the unified site redeveloped as a whole. Again, without a detailed survey, it is difficult to estimate the further scope for this. Much will depend on the economics of a particular scheme, and on the possibility of acquiring all the land needed to do a worth-while job. But, as the supply of virgin land diminishes, builders will have an even greater incentive to turn to redevelopment. In recent years, applications for planning permission to carry out work of this kind by private enterprise in London have been running at the rate of 30,000 dwellings annually, and about half of these have been approved by the planning authorities.

30. SUBDIVISION OF DWELLINGS. In recent years, too, the number of separate dwellings has been increased by the conversion of older, larger houses. This is a source which, in the nature of things, is bound to become exhausted as suitable properties are converted or are pulled down for redevelopment; but there should still be a substantial gain through this process during the period of the Study.

31. GENERAL REDEVELOPMENT. There is one other source of additional housing. Estimates derived from a survey carried out by local planning authorities in 1960 indicated that, in the short term, there might be a gain of about 25,000 dwellings consequential on general redevelopment schemes, after allowance had been made for losses on slum clearance redevelopment. For the future, the available evidence suggests that, while there will be housing gains and losses in individual redevelopment schemes, these operations as a whole may not result in much net change in numbers in the period up to 1981. This is a provisional conclusion which will need to be reviewed from time to time as more information becomes available.

32. OTHER SOURCES OF HOUSING LAND. Finally, there has been a continuing search for new sources of land for housing in London. This has met with some success. Valuable additions can be expected from the development of Croydon Airport, the Government depots at Kidbrooke and Woolwich Arsenal; from the London County Council's plans for Erith Marshes; and from

the surplus land of the British Railways Board. No precise figures can be set against these, because in some instances negotiations are still going on—and there are other possibilities too. But windfalls such as these do not represent a constant and reliable source of new housing land, and will be harder to come by with the passage of time.

33. Moreover, there will be fortuitous losses as well as fortuitous gains. It is inevitable that, over the 20-year period, there should be losses of houses and housing land for other essential uses—new roads, road improvements, schools, technical colleges and many other purposes. The number cannot be estimated, but it will certainly run into tens of thousands.[1] In these circumstances, it seems prudent to set off the uncertain gains against the uncertain losses—to assume that enough 'windfall' sites can be found to compensate for inevitable losses of housing land.

34. SUMMARY. On this basis, London's future housing capacity might be:

TABLE III

Additional housing capacity of London 1961-81

	houses
Remaining vacant land	30,000
Private redevelopment of low density areas .	90,000
Subdivision of dwellings	45,000
General redevelopment	25,000
Total	190,000

In all the circumstances, it would not be wise to assume for planning purposes that more than about 200,000 *extra* dwellings can be provided in London itself over the period of the Study.

Overspill from the London conurbation

35. This is the balance sheet for London over the Study period. **Housing need,** 550,000 dwellings (150,000 to relieve existing shortages, 400,000 for population growth, including growth in the number of households). **Housing capacity,** about 200,000. This means that 350,000 London families will need to find their homes outside the conurbation; translated into terms of people, it means that London will have an overspill of more than 1 million people by 1981.

36. What this means is that the 200,000 extra houses which can be provided would do little more than deal with present shortage. The equivalent of nearly the whole of the population growth of London will need to go out of the capital, either as commuters, returning to work there daily, or further afield. This rate of overspill—1 million in 20 years—is in fact a little smaller than the rate experienced over the last ten.

37. This will leave London in 1981 with a population level little different from the present one—just over 8 million—for, while 1 million people are moving out, natural increase will be adding another million. In fact, the figure is likely to fall a little over the next few years, and rise again, with the growing rate of natural increase, in the 'seventies.

38. The consequence for the rest of the South East is that, since London cannot accommodate its own natural increase, the *whole* of the population growth of 3½ million will have to be found homes elsewhere—a population increase of well over a third for the area outside London.

39. How an increase of this order can best be distributed forms the main subject of this Study. But, first, it is necessary to look at two special London problems—the growth of employment, and commuting.

[1]See, for example, paragraph 40 of the London White Paper which estimated that about 150,000 houses would be required for replacement purposes. This included 40,000–50,000 for slum clearance where there should be little or no net loss in terms of land; but it covered only a *ten*-year period.

London employment and the office problem

THE total employment growth in London in recent years has been large, and the rate of growth has been accelerating. Over the seven years 1955–62 the average annual increase in jobs in the London conurbation was 42,000; but for the last three years for which figures are available (1959–62) the average increase amounted to over 63,000. Over the seven-year period, nearly 300,000 extra jobs were created in London, an increase of 6·6 per cent. This was close to the rate of employment growth in England and Wales (6·8 per cent), but significantly below that for the South East as a whole (10·1 per cent).

Manufacturing industry

2. The pattern of employment growth in London has been very uneven, both geographically, and in the form of the additional employment provided. Growth in manufacturing industry, as might be expected in an area where Government policy has been to check and divert as much industrial growth as possible, has been slow. During the period 1955–58 there was actually a slight fall in the level of employment in manufacturing industry, and the percentage increase between 1959 and 1962 (2·1 per cent) was less than half of that experienced in England and Wales generally, and only a third of the rate for the South East as a whole.

3. These figures point to a relative decline in the importance of manufacturing industry in the economy of London. With growing congestion on the roads and physical shortage of space for

expansion, the future of London industry lies more and more in the outer suburbs and in the ring around London—particularly in the new towns and other towns housing the modern industries and the new factories of the outer metropolitan region. It is in these places that much of the industrial growth restrained in London by controls, by labour shortage and by physical circumstances is taking place. During the period 1959–62, the number of people employed in manufacturing industry in the outer metropolitan region rose by 85,000, an increase of 14·6 per cent, nearly three times the national average.

Service employment

4. In London itself, the big increases have been in service employment, including office jobs. Over four-fifths of all the additional jobs in recent years have been in service employment. Furthermore, more than half the total employment growth in the conurbation has been concentrated in the small central area. Two-thirds of this was in offices. In the congested heart of London—little more than the City and the West End—15,000 more office jobs have been created every year. Work in offices probably now makes up about 60 per cent of the total in the central area; in contrast, shops employ only about 4 per cent of all workers there.

5. The problem is that more jobs mean more workers; and more workers mean more homes; and the possibilities of providing more homes in London itself—and particularly in inner London—are very limited. The growth of office employment is therefore particularly significant, both because of its size, and because of its concentration in the central area, where homes cannot be found, and where the transport services are becoming increasingly overloaded at peak hours.

Office growth

6. Nearly ten million square feet of office floor space in central London was lost through war damage, and some of what remained was in old-fashioned buildings. For some years after the war the construction industries were subject to the building licensing system, and by the time these controls were relaxed in the early 'fifties there was a pent up demand for offices in central London. The war had cleared many sites and, at first, planning permissions for office building were readily forthcoming. Even when the consequences of extensive office building in the small central area were realised, the planners' freedom of action was severely limited by compensation liabilities. Broadly speaking, the local planning authority could not, without risk of footing a heavy bill, refuse to allow an office block to be built on sites where offices had stood before. Furthermore, because of an unforeseen effect of the law, they had little choice but to allow developers to put more floor space on a site than stood there before.[1] This applied not only to war damaged sites. It soon became clear that it was worthwhile for a developer to pull down standing offices—many of which needed to be replaced anyway—in order to gain this extra floor space for letting. This legislative loophole has now been stopped up.

[1]The effects of the Third Schedule to the Town and Country Planning Act 1947 are explained in more detail in Appendix 2 of the London White Paper.

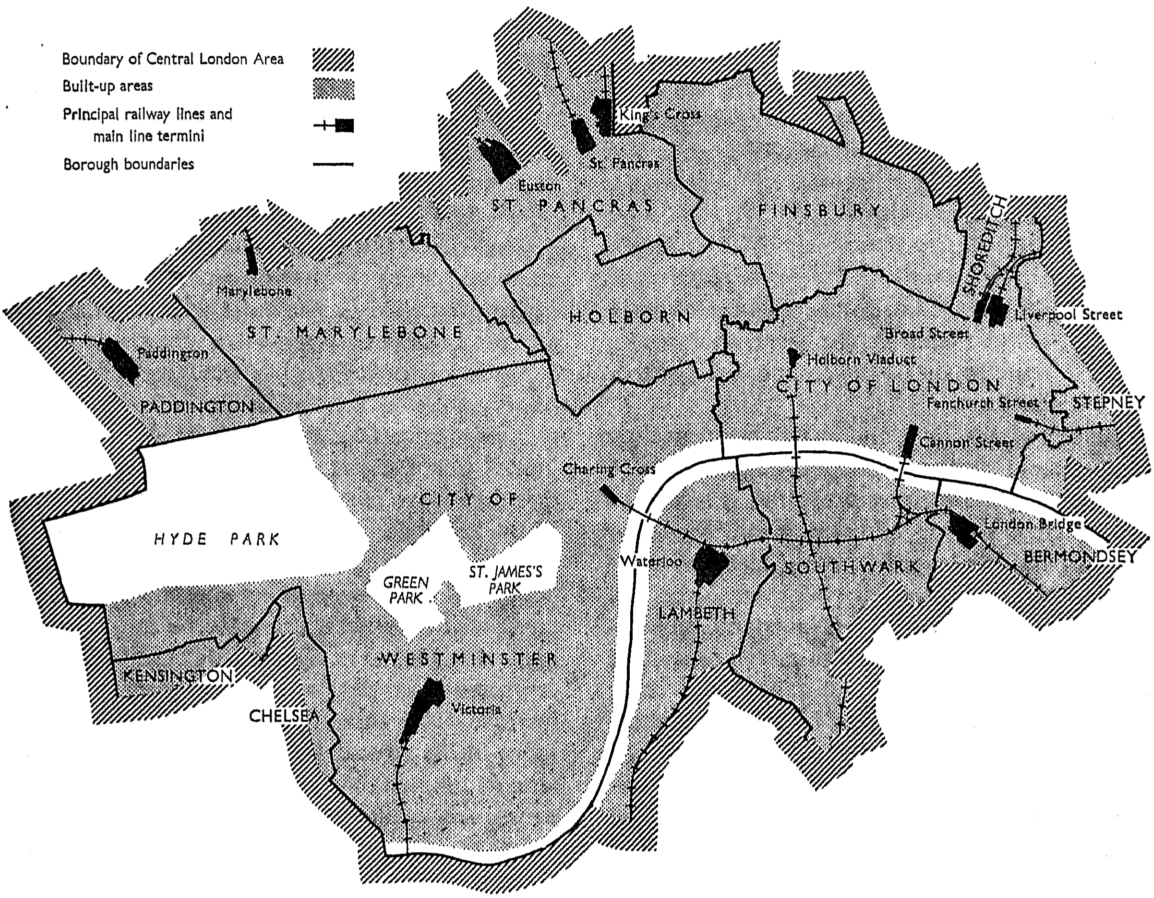


Fig. 16. London: central area

The Greater London Conurbation Centre as defined in the 1961 Census. The annual counts of peak period traffic taken by the London Transport Board (Chapter 8, paragraph 10) cover passenger movement into an area which differs marginally from this

7. The build up of offices in London has been supported by two long term trends. The first is the gradual shift of emphasis from making things to designing and marketing them. As growing mechanisation makes it possible for industry to produce more goods, and more valuable goods, with fewer workers, so more white collar workers are needed in the drawing shop and in the manager's office. A bigger selling organisation is required; advertising, for example, is one of the growth industries. The second is the tendency for industry to organise itself in larger units; when a certain point is reached, the chances are that the head office will be found in London, rather than in the provincial towns which saw the origin of the component parts of the organisation.

8. Office building in London has been meeting an economic demand; and, while it has been creating serious planning problems, it is well to recognise the sources of the demand. First, for many of those engaged in some kinds of commercial activity, there is value in a central London location. London is outstandingly important in the fields of banking, insurance and international commerce and trade. For some firms, it is of value to be near Parliament and the seat of Government, close to the Law Courts, the Port of London or the Stock Exchange—and to each other. For others, showrooms and offices in London give an opening into the mass market of the South East or into the international market. A City or West End address carries prestige for which a big concern is prepared to pay, and has to pay, heavily. The new offices in London are one reflection of economic development and growth.

9. What is troublesome is not just the amount of new office building but its concentration in a very restricted area. The war damage losses in the central area were quickly made up and by mid-1962 there was nearly 115 million square feet of office floor space in central London[1], compared with the pre-war figure of 87 million square feet. This did not include another 18 million square feet which was at that time under construction, or had received planning permission (representing a net addition of perhaps 14 million square feet, allowing for demolitions). Nor is that the end. There are still office sites ripe for redevelopment where even the modified Third Schedule rights will allow some increase in floor space; and there are possibilities of some additional office building on sites in commercial areas which cannot reasonably be put to other uses. In 1963 the London County Council estimated that they were committed to a net increase of 25 million square feet of office floor space in the central area (including permissions already granted). At a generous estimate of 150 square feet of floor space per office worker this means an extra 170,000 office jobs still to come.

Future prospects

10. Whatever the economic necessity and value of this further growth, there can be no doubt of the magnitude of the housing and transport problems it will present. How quickly will this growth come? What can be done to influence the rate of growth in the central area?

11. The current rate of net increase has fallen from that of the peak years 1955–59, in each of which there was a net increase of more than 4 million square feet; this is because most of the war damaged sites have now been built on. It takes longer to clear a site of existing buildings

[1]No other big city approaches these figures. For example, in 1962 Birmingham had about 7 million square feet of offices in its central area; Liverpool, 6 million; and Manchester, 7 million.

and redevelop and, of course, not all floor space is net gain. But the rents being asked, and obtained, in central London offer no evidence of slackening demand, and there is a possibility that most of the extra 25 million square feet may be built within a few years. This would add to the difficulty of finding homes and housing land for the tens of thousands of extra commuters, to the cost of providing transport to bring them in daily, and to the congestion in the heart of London itself.

12. It is becoming more and more apparent that the advantages of an office in central London are bought at high cost to the employer in terms of rent, rates, wages and fierce competition for staff, even though these do not represent the full social costs. There are signs of a growing awareness of this; the Location of Offices Bureau has received many enquiries from firms seeking information and advice about decentralisation.

13. For some firms a complete transfer of activities may be possible; but there must be many more for whom the hiving off of routine work could represent a saving of cost without loss of efficiency, leaving in the central area only those parts of their organisation for which the advantages of a London base outweigh the extra cost. Transfers of this kind are of real value, even if the vacated space is reoccupied by another firm, for the effect is to reduce the total demand for floor space in the centre. If the policy of

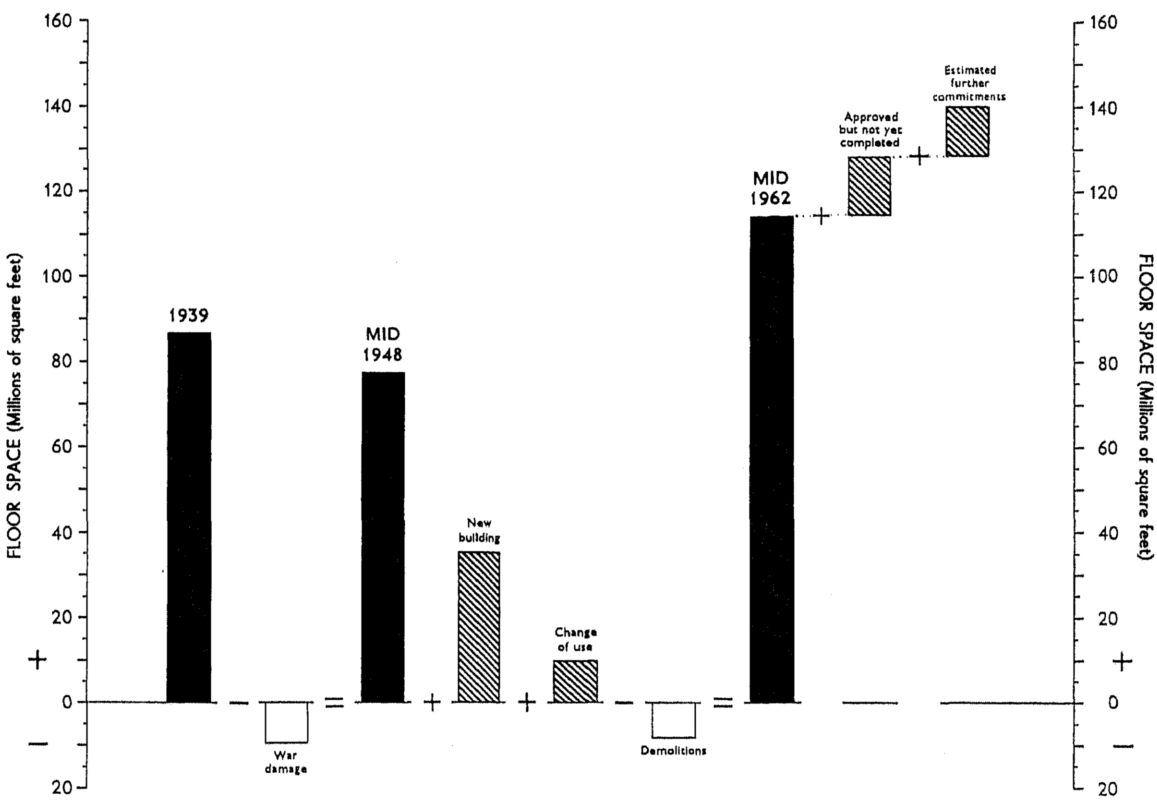


Fig. 17. Office growth in central London since 1939
Based on figures supplied by the London County Council (see Appendix 2, Table 24)

decentralisation is successful, it will slow down and, coupled with the use of planning powers, perhaps eventually stop the provision of additional offices in the central area.

14. Until recently decentralisation was not easy, even for firms who could see the disadvantages and expense of remaining at the centre. One of the factors which nourished overgrowth in the central area was the absence of alternatives for firms looking for new, modern offices. Massive development was going on in the City and the West End and very little elsewhere. Now many more planning permissions are being sought and granted in the suburbs and further out, and many planning authorities are making provision for offices in town centre schemes.

15. It will greatly help to speed up the process of decentralisation if the development of new office centres is encouraged. These will need to be at varying distances from central London to meet the varying requirements of different firms. Proposals, which would need to be discussed with the local planning authorities, will be found in Part Two of this Study (Chapter 13).

16. The measures recently introduced by the Government are of a kind that need time to make their full effect felt. The restriction imposed by the amendment of the planning law, the campaign of persuasion by the Location of Offices Bureau, the establishment of alternative first-class office centres on the periphery and beyond, and the effect of congestion and costs on the decisions of employers to remain in central London will all have a bearing on developments in the next few years. It may be that persuasion and the provision of alternative centres will not, in themselves, be enough to offset what central London has to offer to employers. Two courses would then be open; either to slow down office growth by further restrictions, or to organise transport and housing on a scale compatible with the growth in employment. Neither of these courses, unfortunately, presents a straightforward solution to this intractable problem.

CHAPTER 8

Travel to work in London

IN theory, commuting implies a deliberate choice by individuals of a daily journey to work in a city in order to have a home outside it. But, for most people who work in central London today, commuting is no longer a matter of choice; and, at its worst, it can be one of the most wearing and unpleasant features of urban life.

2. The history of the last half century shows a pattern of longer and longer commuting journeys, made practicable by transport improvements (notably railway electrification), which have cut travelling time. Higher wages, shorter hours and the five-day week have helped this trend; so have the wish for better living conditions and the desire to live in the country.

3. It can be argued that commuting is a bad thing in itself; that it is wasteful of time and manpower; that it creates demands for transport which can only be fully used at the morning and evening peaks; that it produces dormitory communities that form unsatisfactory societies; and that it is steadily eating up the countryside around London. However much there may be in these social arguments, the fact remains that the continued growth of employment in central London means not less travel to work but more.

4. The crucial figures bear repeating. An average annual rate of increase in jobs in the conurbation of 42,000 between 1955 and 1962, leaping to an average of 63,000 in the last three years. In the central area, a growth of 15,000 office jobs a year; probably about 20,000 when other forms of employment are allowed for.

5. At the same time, the resident population of the conurbation has been falling. Many of those who have gone have taken up fresh work in new towns and other places, and some will have retired; but it is thought that, in recent years, about 7,000 families a year have been moving into the ring around London where large scale private enterprise building has made it possible

for the city worker to have a country or suburban home while keeping his job in London. This means that more travel to work is generated than the increase in employment by itself would require. This tendency will continue; although it is hoped that, by 1981, the population of the conurbation will be back at its present level, for some years at least the steady outward movement of white collar workers, with their families, will continue. In the 'fifties, some part of this outward movement was absorbed in the outer parts of the conurbation itself, but with the virtual disappearance of virgin building land, there will be less scope for this in the future. Even more of the burden will fall on the outer metropolitan region and the longer range transport services.

The present scale of commuting

6. Anybody who works in London needs no figures to convince him that there has been an increase in commuting travel over the last decade. The evidence is there in the road congestion, in the crush on the Underground, and in the overloading of some of the suburban rail services at peak hours.

7. As well as an overall increase in commuting, there have been significant changes in the proportions carried by different types of transport to the central area; and some changes in the future pattern are inevitable. In the last decade the load carried on the buses actually fell by 25 per cent, while there was a sharp increase in the share carried by British Railways and the Underground. These changes reflect a growing disinclination to use the buses as road congestion slowed up journey times; and, more important, a transfer to the forms of transport more suited to longer journeys. The tendency for people to find their homes further out was already becoming evident.

8. The public service figures were also affected by a big upswing in the use of private vehicles. The volume of commuting by car and scooter doubled over the decade; without this, overcrowding on public transport would certainly have made itself felt even more strongly. But, even with this increase, private transport still carries less than 10 per cent of all commuters. The limiting factors are the capacity of the roads to take more traffic in the rush hours, and the number of vehicles that can be parked in the centre of London. Parking policy is set against the commuter; it is becoming steadily more difficult and more expensive to leave a car in the central area all day. The introduction of parking meters in the City in 1961 held traffic to the previous year's level; during the two years before, there had been a rise of 11 per cent.

9. The sharp increase in commuting by private vehicle over the last decade is a phenomenon that is not likely to be repeated; public transport will have to take the lion's share of the big increases to come. The Buchanan Report emphasises the need to retain and improve public transport for the journey to work, particularly in large cities. It is clear that a solution to the overall transport problems in London cannot be found through a further substantial increase in commuting by private vehicles.

10. London Transport's annual figures of people entering and leaving the central area by all forms of transport also reflect the growing rate of employment increase in London. The average annual rate of increase over the decade was 13,000; but for the first five years it was only 7,000, rising to 20,000 in the last five. For the rail services, the figure was even higher—22,000 a year in the last five years—because they have taken over some of the traffic lost by the buses.

11. Thus there is a close relationship between

the volume of commuting traffic and the additional employment created in the central area. Indeed, it seems likely that the growth in traffic on the longer range public services (rail and Underground) is a little higher than the rate of employment growth. This discrepancy is probably due to the movement of white collar workers to homes outside the conurbation.

The future of commuting

12. It is employment growth in the central area that sets the critical transport problems. Given that most of the net increase in the supply of housing for Londoners has to be found outside the boundaries of the conurbation, most of the extra central area workers will have no choice but to come in to one of the main line termini on the suburban rail system. At this kind of range, the buses cannot help, and the scope for more commuting by private vehicle is limited. The Underground will have an important part to play, but one of its main functions, together with the buses, will be to provide an efficient distribution service *in the centre*. The main weight of the extra commuting *to* the central area must fall on the suburban railways. Employment growth in the outer parts of the conurbation will produce a more complex transport pattern. Here too some extra load on the railways is inevitable; but there will be more scope for short range journeys by bus and car; and rail passengers travelling to work in the outer suburbs will leave vacant places on the vital last few miles where overcrowding is usually at its worst.

13. For the future, there is likely to be a steadily increasing commuter traffic for the railways. They will have to carry workers for the additional jobs created in the central area; and those of the workers at present living and working in London who move out to the outer metropolitan region while keeping jobs in or near the central area (commuter overspill, in planners' jargon). The current rate of increase in the central area is about 20,000 new jobs a year; and there are enough new offices in the pipeline to keep this rate going (allowing for increases in other employment) for several years ahead. The rate of increase will depend on the success of the measures being taken to get a better spread of office growth, but it will take time before their full effect is felt. There will also be new jobs outside the central area, but near enough to the main line termini to make rail the most attractive method of travelling to work.

14. Any prediction of the future commuting rate is hazardous. But, on these figures, and bearing in mind the current rate of increase, it seems unlikely that the increasing load could come to less than an annual average of 20,000 in the period up to 1971. This means that we must expect 200,000 more commuters, over and above the number travelling to central London in 1961; though not all of them will travel at the most congested hours. There may well be further heavy demands after 1971. But the pattern of transport needs after that date will depend very much on the success enjoyed by the policy of office decentralisation.

The problems of more capacity

15. It is therefore a question of getting more trains, or trains with more capacity, into the centre at the right time to provide for at least another 200,000 people to travel into central London in 1971 over and above the number travelling in 1961; with a probable need for more in later years. There is some spare capacity on some services, and more will be provided by the rail improvement schemes already planned. But both the amount and the distribution of the extra capacity raise problems. One of the most important is the matching of housing land with rail capacity; it is no use having room in the trains if the houses cannot be built on the routes they serve.

16. Extra capacity can be provided in various ways. In some places improvements to the present system and reshaping of services, without extensive work on the tracks, can allow more passengers to be carried. For instance, new higher capacity coaches can replace the existing ones; trains and platforms can be lengthened; and new signalling systems can be introduced which allow more trains to use the existing track. When everything possible has been done in this way, the carrying capacity of the railways is controlled by the physical limitations of the tracks available. At this point, more expensive improvements come into the picture. There are the limitations imposed by particular bottlenecks: by the capacity of a terminus or of a big junction. All these methods of increasing capacity are expensive and may not be remunerative on particular services.

Additional capacity and its distribution

17. The possibilities of providing additional capacity for commuters have been explored with British Railways and London Transport. As was noted in the London White Paper, the pattern of spare capacity on the railways at the moment is uneven. There is comparatively little spare capacity on the services for longer distance commuters south of the river; to the north, the peak hour services can absorb a considerable increase.

18. Moreover, there is scope for further increases of capacity north of the river. Necessary measures to renew rolling stock and equipment are already providing an opportunity to re-schedule services and increase train loadings here. South of the river, where re-equipment since the war has already added to the capacity of the services, further physical works to increase capacity with present service patterns would have to be of a major kind. They would involve large scale and very costly investment which could almost certainly not be justified by the revenue potential of the extra peak hour passengers that could be carried.

19. If account were taken only of this pattern of spare capacity for more commuters, there would be serious difficulty in finding housing land to match. Very heavy demands would be made on the counties north of the Thames, which have experienced heavy population increases in the last ten years and where the land situation is already difficult. On the other hand, there would be little point in allocating more land in some sectors south of the river where, with

the present pattern of services, there seemed to be little prospect of making more spare capacity available.

20. British Railways have, however, been re-examining the present pattern of services, particularly south of the river, to see whether a complete reshaping of the pattern of train movement would result in more efficient utilisation of existing track, and thus provide additional capacity. A great deal more work remains to be done before a detailed appreciation of potential capacity can be established. It already seems clear, however, that, given the necessary capital investment, the services south of the river might be able to cater physically for an increase of some 200,000 passengers in the peak hour of 5 p.m. to 6 p.m. alone. For the London area as a whole, it seems possible that the combination of modernisation, where it is reasonably practicable, and general reshaping of the pattern of train movement, would allow the British Railways network to cater for another 450,000 peak hour commuters, enough to meet the demands for many years to come.

21. An increase in capacity of this order, particularly on the complicated network of the Southern Region, would mean a very considerable change in the pattern of services. While the details have not yet been worked out, it is clear that the provision of more fast trains for longer distance commuters would mean substantial alterations in the services provided for other travellers, especially those living nearer in. It might be necessary to eliminate some stopping services, perhaps even to close certain inner suburban stations on the critical approaches to the London termini, and to reduce the choice of terminus available to passengers on particular routes.

22. If more commuters are brought in by rail, London Transport will face the problem of distributing them from the railway termini to their places of work. A reshaping of railway services on the lines now being studied by British Railways would entail greater interchange between trains and perhaps a greater reliance on the Underground network for distribution in the inner area. London Transport are studying what development would be needed on their services. In their view, additions to the Underground network would be required, in addition to the Victoria Line which is already under construction.

Cost of improvements

23. The cost of extra rolling stock, platform lengthening, signalling and other necessary measures to provide expansions of the order mentioned above would be heavy. British Railways estimate the order of cost to them at some £100 million, of which some £30 million would be needed on the Southern Region. The capital cost to London Transport might be even heavier.

24. There are difficult questions of timing. Some spare rail capacity is already available on lines serving the counties to the north of London, and British Railways have made good progress with the planning of schemes of improvement of services in this area; but it may not be easy to allocate enough housing land for additional commuters in these counties. The position on housing land would be made easier if additional capacity could be provided in other sectors; but, even allowing for the relief provided by the Victoria Line, congestion in the central area would be worsened if large numbers of extra commuters were brought in, particularly from the south, before London Transport were able to carry them from the main line stations to their work. This may prove to be a limiting factor.

25. The effect of all this on the finances of British Railways and of London Transport needs to be examined before schemes of this kind could be

entered into. For example, the cost of the Victoria Line will have to be met by users of the London Transport system as a whole. Whether further extensions of the Underground system could be paid for in this way is a question that will require separate examination. A similar point arises in connection with the suburban services of British Railways.

Land allocations

26. The next important step is to see to it that housing land is allocated in those areas where the railways are able to provide capacity, and, in particular, in those sectors where spare capacity is already available or will be soon. This is a matter for detailed discussions with the local planning authorities; but the possible pattern of rail development in the future, as it now appears, has been taken into consideration in preparing the estimates of population growth for the counties likely to be affected, in Chapter 15.

CHAPTER 9

Summary of the problem

THESE, then, are the main problems that have to be faced in the South East over the next twenty years or so:

A STRONG POPULATION INCREASE: 3½ million extra people, an increase of 20 per cent, over two-thirds of that increase coming from excess of births over deaths in the South East.

A STRONG EMPLOYMENT GROWTH: much of this in service employment, especially, in the early years, in offices in London. Much of the industrial growth not in London itself, but in the ring surrounding the capital.

A BIG OVERSPILL PROBLEM—at least 1 million people—from London.

AN ACUTE LAND PROBLEM AROUND LONDON, where converging population pressures meet the green belt.

2. The problem is not merely one of the scale of growth that has to be expected; equally important is the distribution of the growth. If present trends are left unaltered, the greater part of the population and employment increase will be concentrated in what is already the most densely populated, over-developed and congested part of the South East—in London itself and in the outer metropolitan region.

3. Whatever may be done in the South East as a whole, the land problem of the ring around London will be the most difficult to solve. The whole of the metropolitan region has become so urbanised that the establishment of the green belt was a vital planning necessity—and so is its retention now. But it was established on the assumption of a broadly static population and

employment situation. The difficulty is to reconcile the concept of a completely restrictive green belt with a vigorously growing population and a vigorously growing economy inside it and around it.

4. There are three main approaches to these problems; they are complementary.

5. The *first* is to ensure that everything possible is done to encourage growth outside the South East so that there is a more even spread of development over the country as a whole. The measures needed for this are receiving separate study, and the assumption is made that, where necessary, they will be taken and will be successful in their effect.

6. The *second* is to ensure that no employment growth, whether industrial or commercial, takes place in the South East which could be diverted to other parts of the country. This is a matter of continuing and, where possible, strengthening existing policies.

7. The *third* is to get the best possible distribution in the South East of the population growth that seems inevitable. This raises big questions of land use over the region as a whole; and it is with these questions that Part Two of the Study is mainly concerned.

Part Two

PROPOSALS