

THE INFLUENCE OF ACCESSIBILITY ON THE JOB SEARCH PROCESS:

A Cognitive - Behavioural Study of
Unemployed School-Leavers

VOLUME II

-

APPENDICES

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Thesis submitted for the Degree of Doctor of Philosophy
at the University of Aston in Birmingham

November 1982

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APPENDIX A

FURTHER REVIEW OF LITERATURE

- A1. THE HISTORY OF GOVERNMENT INTERVENTION INTO URBAN PROBLEMS
- A2. THE DECLINE OF EMPLOYMENT IN URBAN AREAS
- A3. LOCAL AUTHORITY EMPLOYMENT INITIATIVES
- A4. REVIEW OF LITERATURE ON JOB SEARCH THEORY
- A5. ENVIRONMENTAL PERCEPTION AND MEASUREMENT TECHNIQUES
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APPENDIX A1 - THE HISTORY OF GOVERNMENT
INTERVENTION INTO URBAN PROBLEMS

The population of the United Kingdom and the proportion living in towns expanded rapidly over the past 150 years. Throughout the nineteenth century accelerated urban development was mainly uncontrolled. This resulted in many houses being built to a very low standard, at very high densities and often without proper sanitation and water supplies. It was in the housing market that the Government first made any intervention. However, it was not until 1968 that Government intervention extended beyond the housing market.

A1.1 Pre 1968 (The origin of Government intervention)

The concept of an inner area with housing inadequacies was recognised before this century. Engels in 1845 wrote "Every great city has one or more slums, where the working class is crowded together. True, poverty often dwells in hidden alleys close to the palaces of the rich; but in general, a separate territory has been assigned to it, where, removed from the site of the happier classes, it may struggle along as it can".

Sixty years later the 'Report of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban (1917)' gave an equally depressing view of housing conditions. Pressure for reform began even earlier than Engel's account, but policies to deal with these problems were largely negative.

The first step towards more positive public intervention was accidental. In 1915 rent control was introduced to

prevent 'profiteering' by landlords during war time. In 1919 'The Housing and Town Planning Act' brought about a major change in housing policy and practice, but this and the rent control were regarded as temporary measures to be removed when 'normality' returned. 'Normality', it seems, never returned and the distinction between private sector and public sector subsidised housing has remained since 1919.

Planning since 1919 has developed a range of measures to prevent uncontrolled spread of suburbia, as well as attempting to disperse population from congested cities. Dispersal policy was first suggested in war time by the Barlow Commission on the Distribution of the Industrial Population. The 'Abercrombie Plan for London' (1944) advocated new towns to help dispersal, hence the '1946 New Towns Act', and the establishment of the first New Towns. The 1952 'Town Development Act' encouraged residential 'overspill' promoted by large city authorities. Also policies of post-war years have encouraged the movement of industry to Development Areas. These policies have been 'successful' in that they have achieved some of the post-war planning objectives, but there have also been unintended consequences.

Despite the powers made available to them in 1919, local authorities did not begin vigorous slum clearance until better subsidies were made available in the 1930's. The Housing Act of 1935 added "relief of overcrowding" to statutory duties of local authorities and 400,000 houses were built before the outbreak of War in 1939.

After World War II a housing shortage occurred because

of insufficient building and war time destruction, consequently slum clearance did not begin again until 1954. The urgent need to build as many houses as possible after the war meant vast expansions of municipal estates on the outskirts of large towns and cities which gained increased momentum as slum clearance commenced and continued through the 1960's, but there have been several unfavourable consequences,

- (a) peripheral housing preceded peripheral services;
- (b) unco-ordinated demolition and construction;
- (c) Inner city communities dispersed.

During the mid-1960's there was concern about 'social' consequences and lack of 'comprehensive' approaches by local government. The idea of the improvement of older housing emerged. Improvement policies had an explicit social element, and emphasis was placed on the need to improve areas and preserve communities. The 1969 Housing Act introduced 'The General Improvement Area'. This has since been supplemented by Housing Action Area (Housing Act 1974). These were defined by the Department of the Environment as areas where "Physical and social conditions combine and interact to create an unsatisfactory living environment".

Al.2 1968-1979 (Development of Government Intervention)

In 1968 Government intervention into housing expanded to include other topics such as physical environment and social conditions. These steps towards a comprehensive approach to housing and other 'inner city problems' have only occurred over the past decade. The problems of the

inner city were not seen for many years for two reasons.

- (a) The increase in personal affluence after the Second World War gave rise to increased private housing in suburbs and small towns.
- (b) Rehousing and redevelopment of slums after World War II and the development of planned new towns.

Hence, the emphasis was on housing a growing population and catering for increased affluence, while those people left living in the inner city were neglected. The recent national economic depression and decline in job opportunities has hit these areas the hardest and brought "inner city problems" to the fore. The development of the concept of the 'inner city' and its inherent problems, can be traced back through a series of special reports, released over the past ten years.

"Children and Their Primary Schools" (1967, Plowden Report), introduced the concept of positive discrimination in favour of schools in deprived areas which had exceptionally large number of children considered to be handicapped. Although some of the principals were criticised it remains a landmark in the evolution of "area deprivation" concern. 'Educational priority projects' were set up by the Department of Education and Science; The justification put forward was that the homes and neighbourhoods from which many of the children came offered little support or stimulus to learn. Educational Priority Areas were initially set-up in Deptford (London), West Yorkshire, Inner Birmingham and Inner Liverpool.

The next major initiative was the 'Urban Programme' announced in May 1968. Through the Urban Programme grants were available to local authorities and voluntary groups for work in deprived areas aimed at quick results and getting to the roots of social needs. The Urban Programme has contributed much to the growing awareness of "inner area problems". In August 1968 under the Urban Programme, two Neighbourhood Projects were started at Teeside and the Brunswick area of Liverpool. They were attempts at devising comprehensive programmes of capital expenditure to improve the social provision and the quality of the environment in small areas of special need.

The 'Community Development Programme' (1969), was financed partly from the Urban Programme and partly by the local authorities taking part. The aims of the projects were "to discover how far the social problems experienced by people in a local community could be better understood and resolved through closer co-ordination of all the agencies in the social welfare field together with local residents themselves". There was therefore a special emphasis on citizen involvement and community self-help. Twelve projects were started each to last five years. In 1970 the first were established in Coventry and Liverpool, others followed in Batley, Benwell (Tyneside), Birmingham, Cumberland, Clyncoreg (West Glamorgan), Newham (East London), Southwark (South London), Oldham, Paisley and at Tynemouth. All the teams worked largely independent of each other and the local authorities concerned. However, all the teams responded in a similar fashion by setting up 'community centres' etc. but they felt the

results were not good enough and began putting pressure on the local authorities to change policies.

When the Community Development Projects entered their final stages, they decided to pool their experience by forming 'The C.D.P. Information and Intelligence Unit' as a co-operative venture with the hesitant support of the Home Office (1975). Their 'Forward Plan' rejected (1) the original thesis on which the C.D.P. had been set-up, namely that a community development approach would achieve significant social change and rejected (2) their own interim conclusions that changes on local authority administration would have the desired effects. They argued that the problems they were supposed to be solving "were a result of inequalities in society and their eventual solution would require fundamental changes in the distribution of wealth and power, through a programme of political education".

The "Shelter Neighbourhood Action Project" was set up in Granby, Liverpool 8, with an office to help housing improvement. The results were tenuous but it also led to the view that something more radical was needed to improve social conditions.

By 1972 there was growing anxiety in Government about the conditions of people living in 'inner city' areas. It became clear that despite slum housing clearance, local authorities had not succeeded in eradicating urban deprivation. In July, 1972, the Secretary of State for the Environment announced the commissioning of two groups of studies:

- (i) 'Urban Guideline Studies' - which were fairly brief studies into the management of cities (i.e. Sunderland, Rotherham and Oldham).
- (ii) Inner Area Studies - which investigated "the environmental problems of inner city areas", of Birmingham, Liverpool and Lambeth.

The final reports of the three Inner Area Studies were published by H.M.S.O. in July 1977 (Summaries of Reports - January 1977). These came after a decade of increasing government activity into 'inner city' problems, where a 'total' approach to urban renewal moved from peripheral use to the centre of politics. During the past decade concern about the multiple problems and challenges of inner urban areas has grown. The work of the Inner Area Studies contributed much to the understanding of these problems. The summary reports contributed to the discussions which led to the Commons Statement and then to the preparation of the Government's White Paper "Policy for the Inner Cities" in June 1977.

The White Paper (June 1977) stated that too little attention had been paid to the economic well-being and community life in inner areas, and that "the extent and changed character of the inner area problems are only now becoming fully understood".

The White Paper's primary focus therefore, was on the regeneration of inner areas with four underlying aims;

- (a) strengthening inner area economies and prospects to the residents,
- (b) improve the physical fabric to create a more attractive environment that people might choose to live in,
- (c) alleviating social problems,

(d) securing a new balance in jobs and population between inner areas and the 'city region'.

The White Paper stated that the regeneration of inner areas also required closer collaboration between Government and community and above all with the people living in the inner areas.

After the 1977 White Paper, Inner City Partnerships were established in several large cities. The purpose of selecting a few areas for special attention was to recognise the scale and intensity of the problems and to make sure that limited resources were not spread too thinly.

A partnership Committee was formed for the City of Birmingham involving Government Minister, Councillors of the Birmingham City Council and West Midlands County Council, and a representative of the Birmingham Area Health Authority. This Committee prepare each year, until 1987, a three year rolling programme called the Inner City Partnership Programme (I.C.P.P.). The first B.I.C.P.P. covered the period April 1979 - March 1982.

Finally, mention must be made to the 'Comprehensive Community Programme', initiated by the Government in February 1977. The central aim was to redirect the major policies and programmes of both central and local Government to those most in need in Gateshead and Motherwell.

A1.3 1979 (The Inner City Partnership Programme)

The history of Government intervention into inner city problems provides evidence that urban problems cannot be tackled effectively on a piecemeal basis. A unified approach is necessary, pulling together all the relevant

activities of the Government. The White Paper "Policy for the Inner Cities" set out ways in which central and local Government should give an "inner area dimension" to economic, environmental, social and transport policies. For convenience the topic areas are dealt with separately.

Social Services, Health and Education: The Inner City schools probably have a wider social role to play than elsewhere. The White Paper suggests 'community' use of schools should be encouraged. Capital is available in 'partnership' cities for more staff, improvement of under-5's education and for a youth and community service. The B.I.C.P.P. claim that refurbishment should exceed rebuilding of schools, because of the fall in birth rates. Also the B.I.C.P.P. has a programme for renewing a few inner city swimming pools, improving parks and playing fields and for community and self-help projects.

Housing: The Housing programme is closely linked with the Employment programme. The Inner Area Studies suggested that unskilled workers should be helped to move out of the inner areas to find and live near jobs. Meanwhile the inner city environment is to be improved for those who remain and hopefully attractive to those who work in the inner and central city.

Over the past two years central Government has encouraged rehabilitation. However the taking up of grants has been low and refurbishment has been taken up by the council itself, which is costly and time consuming.

Economy: The Birmingham Inner Area Study Report stated that "low incomes are at the centre of the problem. It is

an obstacle to housing improvement, it explains the lack of investment and the consequent downward spiral of the economy and environment." The Report recommended the preservation and creation of jobs accessible to the inner areas and new industrial developments in inner areas, preferably 'accessible' to areas of highest unemployment.

All three Inner Area Studies suggest a review of planning and zoning policies with a relaxation on 'non' conforming uses; Further common recommendations include increase in skill and education levels, environmental improvements, factory refurbishment, 'advanced factory provision' and the encouragement of new and expanding industries.

Transport: Commerce and industry must be adequately served by transport and similarly inner city residents must be adequately served by public transport for journeys to work. The White Paper on "Transport Policy" (1977), made specific reference to inner city areas. The Paper explained that good public transport was essential to inner area residents because (a) fewer of them own cars than elsewhere, (b) many public transport routes and schedules no longer matched the existing patterns of journey to work by those living or working in the inner areas, (c) in some places new 'cross-town' routes were needed and (d) the possibility that the cost of travel discouraged inner city people from taking advantage of new opportunities.

APPENDIX A2 - THE DECLINE OF EMPLOYMENT IN
URBAN AREAS

The period from the Industrial Revolution to the middle of the twentieth century saw the growth of the working population of Britain's major conurbations. More recently this has changed and the populations of all conurbations has declined. Table A2.1 shows the decline of population for all metropolitan areas between 1961, 1971 and 1981. The greatest percentage decrease occurred in Greater London with a decrease of 9.9%. In absolute terms, the population loss from Greater London since 1971 was greater than the population losses from all other Metropolitan Counties together. Outside London, the highest percentage population loss occurred in Merseyside (8.7%) and the lowest in the less densely populated Yorkshire Metropolitan Counties (both around 1.4%)

Population decline can be used as an indicator of underlying economic problems. Although other factors, particularly public sector action such as overspill arrangements and comprehensive redevelopment, explain a considerable part of the inner area population loss, natural migration in response to economic decline has also played a part. Between 1961 and 1971 four inner area wards of Birmingham lost 10,000 people and all inner wards experienced a net reduction. This natural migration tended to be relatively selective. Those who could afford to move out have done so, while immigrants needing cheap housing have moved in. Local industry has declined. The number of jobs available has gone down consistently since the early 1960's.

TABLE A2.1 POPULATION PRESENT ON CENSUS NIGHTS

Area	Population			Percentage increase or decrease (-)	
	1961	1971	1981	1961-71	1971-81
West Midlands	2,731,892	2,793,288	2,648,939	2.25	- 5.17
Greater Manchester	2,719,913	2,729,997	2,595,753	0.33	- 4.88
Merseyside	1,718,186	1,656,545	1,511,915	- 3.59	- 8.73
South Yorkshire	1,303,300	1,322,514	1,303,948	1.47	- 1.40
Tyne and Wear	1,243,848	1,211,694	1,142,675	- 2.59	- 5.70
West Yorkshire	2,005,434	2,067,642	2,037,165	3.10	- 1.47
Greater London	7,992,443	7,452,346	6,713,165	- 6.76	- 9.92

Source: 1981 Census Report.

Table A2.2 illustrates the considerable increase in levels of unemployment in Birmingham between 1961 and 1981 from the census of population. Unemployment rates have been consistently higher in the inner areas than the outer areas.

However it is clear that the rapid increase has not been confined to the inner areas. Individuals who attempt to enter the labour market will obviously experience difficulty whatever their residential location.

A household survey carried out in one specific inner area of Birmingham, provides data at a more local scale on levels of unemployment for various age, sex and socio-economic groups. The survey was undertaken in the districts of Handsworth and Lozells in January 1979 by the West Midlands Passenger Transport Executive in conjunction with this research project.¹

There was an exceptionally high rate of unemployment among economically active females 16-24 and males 16-24 and 60-64. Furthermore, unemployment was particularly high amongst residents in socio-economic group DE, which includes all semi-skilled and unskilled workers.

¹. The full Report of the survey is included in Appendix G1.

TABLE A2.2 UNEMPLOYMENT IN BIRMINGHAM 1961, 1971 and 1981 CENSUS

	1961			1971			1981		
	Economically Active	Unemployed	Rate (%)	Economically Active	Unemployed	Rate (%)	Economically Active	Unemployed	Rate (%)
<u>Core Area Wards</u>									
All Saints	12590	930	7.4	5920	630	10.6	3676	934	25.4
Aston	13410	330	2.5	6820	620	9.1	4673	1341	28.7
Deritend	9130	620	6.8	9030	970	10.7	5675	1702	30.0
Duddeston	9910	290	2.9	9120	910	11.2	4175	1232	29.5
Ladywood	8240	290	3.5	5380	290	5.4	5093	1156	22.7
Newtown	N/A	N/A	N/A	6290	390	6.2	5395	1478	27.4
Rotton Park	9050	310	3.4	8280	940	11.4	5146	1256	24.4
Gravelly Hill	15120	340	2.2	12710	1060	8.3	11074	2159	19.5
Handsworth	13860	430	3.1	13270	1180	8.9	10518	2787	26.5
Saltley	16070	600	3.7	12270	900	7.3	9270	2021	21.8
Small Heath	15320	470	3.1	12310	1090	8.9	8806	2166	24.6
Soho	14160	370	2.6	12610	790	6.5	7917	2351	29.7
Sparkbrook	12690	310	2.4	11790	1140	9.7	6865	2039	29.7
Washwood Heath	18550	250	1.5	12750	720	5.6	10876	2044	18.8
CORE AREA	168100	5250	3.1	137100	11630	8.5	99157	24666	24.9
OUTER AREA	401710	8730	2.2	364760	18870	5.2	359409	46977	13.1
BIRMINGHAM	569810	13980	2.5	501860	30500	6.1	458566	71643	15.6

TABLE A2.3

Rates of Unemployment Amongst the Economically
Active Population of Handsworth and Lozells (1979)

1. Males

	Total Econ. Active	Numbers Unemployed	%
11-15	21	0	-
16-24	1306	165	12.6
25-44	3177	248	7.8
15-59	1908	313	16.4
60-64	289	53	18.3
65+	79	0	-

2. Females

11-15	21	0	-
16-24	801	176	22.0
25-44	1374	66	1.8
15-59	706	13	1.8
60-64	124	13	10.5
65+	72	6	8.3
	3098	274	

3. Socio-Economic Group

AB	6	0	-
C1	606	33	5.4
C2	3612	170	1.7
DE	5654	857	15.2
Total	9878	1060	10.8

APPENDIX A3 - LOCAL AUTHORITY EMPLOYMENT
INITIATIVES

The range and scope of local authority employment initiatives is constrained by the number and type of activities for which they have power. The statutory duties for employment services is limited to providing a Careers Service, industrial and vocational training and 'Sheltered Employment' and workshops for disabled persons; in addition they have a statutory responsibility to allocate land for employment and related purposes. However, there are three other types of power that may be used by a local authority for employment initiatives;

- (a) Statutory duties for services other than employment,
- (b) Permissive powers given to all local authorities and
- (c) local powers arising from Local Acts or Special Acts.

Employment initiatives within the powers of a local authority can therefore be divided into; (1) the supply of jobs and (2) the supply of labour.

TABLE A3.1 - List of Local Authority Employment Initiatives

(1) <u>Initiatives on the Supply of Jobs</u>	(2) <u>Initiatives on the Supply of Labour</u>
Land Allocation	Training
Site Provision	Manpower Services
Provision of Access Facilities to Sites	Commission Schemes Information and Advice
Relocation of non-conforming uses	
Provision of Premises	Residential Mobility
Provision of Finance	Access to Work
Promotion and Advocacy for Local Area	
Local Government Employment	

A3.1 INITIATIVES ON THE SUPPLY OF JOBS

A3.1.1 Land Allocation: The allocation of land for industrial and commercial uses is given in the local authority Structure Plans. This does not, however, guarantee that the land will be developed nor can accurate forecasts be made of the employment density of likely future uses of land. Moreover this allocation does not ensure consent to any specific application for development. Thus land allocation is a necessary but not a sufficient condition for employment growth arising from expansion of existing firms and the establishment of new and incoming firms. Very little evidence is available on how important land allocation is as an employment initiative. A study of a major sector of the West Midlands region showed that during the period 1968-73 over 38% of all land released for residential purposes was not primarily allocated to this use in an approved development plan (JURUE, 1977).

A3.1.2 Site Provision: The provision of sites is one of the most important of all local authority employment initiatives. Land allocation for industrial uses is acquired by local authorities, serviced with roads and sewerage and made available to developers. Until recently, disposal has been by sale or lease, but under provisions of the Community Land Act (CLA) 1975 local authorities may only lease to developers. The use made of CLA powers is set out below in Table A3.2.

TABLE A3.2 - WMEPR local authorities use of the CLA to acquire and service industrial land

(i) CLA acquisitions	1976/77 87.5 acres	1977/78 35.34 acres
(ii) Loan sanction for acquisition	1976/77 £.75m	1977/78 £.59m
Loan sanction for infrastructure costs	1976/77 N/A	1977/78 £.3m

(WMEPR = West Midlands Economic Planning Region)

(Source = West Midlands Regional Office of D.o.E)

Restricting disposal of sites by leasehold only

(under CLA) may make these serviced sites unattractive because developers may prefer leases longer than 99 years to allow for two generations of development. To assess the effectiveness of this initiative it would be necessary to know the net jobs created per £ spent and compare it with that of other initiatives. However, most local authorities monitor the provision of sites in terms of take-up of sites by developers rather than the number of jobs provided.

A3.1.3 Provision of access facilities to sites: This provision is, of course, a necessary condition for site development and is one aspect of the County Council transportation programme. The West Midlands County Council identifies in its Transport Policies and Programme (TPP) a category of expenditure to meet the transportation needs of industry and commerce. Under this heading it committed £6.91m in 1981 (Nov. 1980 prices) on such schemes as access roads to sites and bridge widening. Similarly the Birmingham Inner City Partnership Programme allocated much of its funds under the 'Movement' topic to highway construction projects. The long-term evaluation of the

benefits of schemes to net employment gains is uncertain. The Leitch Committee Report (1977) reviews the evidence for the economic development effects of trunk road schemes and suggests that little weight be attached to these effects, except in special circumstances.

A3.1.4 Relocation of non conforming uses: A relevant land-use policy is the retention of jobs included under the relocation of non conforming uses. In 1977 50 jobs in the WMEPR were affected, although most of them were successfully relocated. If local authorities relax relocation policies of non conforming uses (which Birmingham has) then they may save money and jobs. Obviously employment and financial gains must be measured carefully against the environmental effects.

Local Authorities also influence the supply of sites through the industrial and commercial land take-up of urban renewal and highway development schemes. A study in Small Heath, Birmingham (Smith 1977) showed that between 1958 and 1975 there was an 18% fall in the number of premises used for manufacturing, just over half of the loss being due to demolition (the remainder being because of transfer to non manufacturing uses). In the St. Andrews redevelopment area of Small Heath, 33% of the manufacturing premises of 1958 had gone out of use entirely. The initiative is therefore open to local authorities to design urban renewal and highways to minimise loss of premises.

Local authorities can also take a series of initiatives to encourage the creation of jobs by reducing the cost of development and operation of sites. They can quicken the process of planning applications, allow lower density employment, review parking standards and building regulations.

However, against the benefits of each initiative must be offset the costs to the community. On the other hand earlier government intervention into improving housing and environment probably only attacked the symptoms and not the causes of inner city decline. Indeed, indications are that government action may have unwittingly contributed to the decline (in the economic base) of the inner areas. Therefore in light of the current priorities in the inner city, most employment initiatives should override environmental costs.

A3.1.5 Provision of Premises: Local authorities develop premises independently using Locally Determined Schemes (LDS) funds, they also use 'leaseback' arrangements, by which institutions provide the finance for developments, and they refurbish premises. The objective of the provision of small premises is to meet demands for small units which is unmet by the private sector and to demonstrate to that sector that premises can be built and let for economic rents. In a survey carried out by the University of Aston, JURUE, 1979, virtually all the new premises provided by the local authorities in the WMEPR were small, under 3,000 sq.ft. The rationale for local authority involvement is that in the provision of small units there has, for some considerable time been a gap in the market. Small firms have traditionally been significant employers and have played a major part in the economies of large urban centres. The Birmingham Inner Area Survey Report shows that almost 60% of the firms employed 11-24 employees, predominantly in the inner city area. However, only recently local authorities have realised the dangers posed to the survival

of the inner city economy by the rapid decline in the number of small firms. An overriding concern for housing gain and what seems to have been a distaste for small grubby workshops has led to the flattening of areas once rich in small firms. In Birmingham the decline in the number of small firms operating in the City's inner areas is now having an adverse effect on the City's traditional diversity and innovation.

The Inner Urban Areas Act granted powers to Partnership authorities to declare Industrial Improvement Areas and to give grants and loans for both improving amenities and for improving buildings. However, it is policy in the W.M.C.C. not to compete with the private sector in this area which restricts their activity to environmental improvements and premises not attractive to the private sector. In both cases the net job creation effects seem to be small. Also some developers have withdrawn from refurbishment of premises on the grounds that the market is over-provided and returns do not justify investment. It appears therefore that refurbishment has little effect on the creation and retention of jobs.

A3.1.6 Provision of Finance: Local authorities may attempt to increase the supply of finance to local firms by advancing loans, by giving grants to cover costs of loans, rent or equipment and by purchasing equity in local enterprises. Birmingham City Council provide loans, loan guarantees and grants to firms in the Inner City Partnership Programme (ICPP) areas of the City under the Inner Urban Areas Act 1978. In July 1979 about £1m was available. There is a danger that local authority finance

is substituted for some other source of finance with little net impact on the jobs provided by borrowing firms but with a small increase in their profits.

A3.1.7 Promotion and Advocacy for Local Area: Industrial promotion is carried on by local authorities. A study by the Association of Metropolitan Authorities in 1976 indicated that the West Midlands County and District Councils spent £7.00 per 1000 population. Local authorities may also engage in advocacy activities. The W.M.C.C. has published reports as a part of a bid for increased Central Government aid to the local economy. It is difficult to assess these initiatives because local authorities do not monitor the results of a promotion campaign. This does not appear to be a 'sound' approach because one authority's gain is another's loss, unless promotion is aimed at attracting firms from overseas (e.g. Japanese car manufacturers), but these initiatives must be co-ordinated between authorities.

A3.1.8 Local Government Employment: Lastly, in this section on supply of jobs, local authorities can achieve their employment objectives by increasing their own employment of staff or by setting up common-ownership schemes or co-operative enterprises (under the Industrial Common Ownership Act 1976). However, each extra local authority employee would be partly paid for by rates from local firms, without increasing their production, hence reducing their productivity. Therefore the employment objective is best achieved by increasing the profitability of local firms by subsidising their employment rather than decrease local firms profitability.

A3.2 INITIATIVES ON THE SUPPLY OF LABOUR

A3.2.1 Training: Local authorities provide training in Colleges of Further Education and, to a limited extent, in schools. College based "off-the-job" courses are provided in association with Industrial Training Boards (ITB) and employers. The Training Services Division (TSD) place trainees on college based courses under its Training Opportunities Scheme (TOPS). Places are provided on a fee financing basis, with trainees fees being paid by the TSD. Little, if any, training is carried on in the schools. However, judging by recent debate on school curricula, general education is seen to be an important influence on the employability of school leavers. Twenty teachers from Birmingham were seconded to local employers under the C.B.I.'s "Introduction to Industry Scheme".

A3.2.2 Manpower Services Commission (MSC) Schemes: A major role performed by local authorities is their uptake and advocacy of the various programmes of the Manpower Services Commission (MSC) that provide temporary employment with training and work experience components. The Job Creation Programme (JCP) was introduced by MSC in October 1975. Local authorities were invited to devise and submit projects to the MSC. Submitted projects had to meet criteria including that of providing useful work experience (i.e. training). The MSC financed wage costs for up to one year and gave a grant, of up to 10% of the total wage bill, for administration and travel costs. The JCP was superseded by the Special Temporary Employment Programme (STEP). Table A3.3 below shows approved Job Creation Projects,

October 1975 to March 1978.

TABLE A3.3 : Approved Job Creation Projects; October 1975 to March 1978 in West Midlands County Area

<u>Sponsor</u>	<u>Approved Projects</u>	<u>Approved Jobs</u>	<u>Total Cost</u>
Local Authority	160	1,851	£1,729,363
Other Agencies	106	1,023	£1,395,707
TOTAL	<u>266</u>	<u>2,874</u>	<u>£3,125,070</u>

Source: MSC.

The Work Experience Programme (WEP) of the MSC supports the temporary employment of 16-18 year olds. The objective is to give unemployed young people (mainly school leavers) an experience of work that will enhance their employability. Most WEP's are promoted by local authority Careers Offices which assist in the selection of participants. Birmingham along with Coventry and Wolverhampton District Councils have attempted training workshops under the WEP. No systematic monitoring of WEP schemes is performed. However, the criterion of success cited was that of enhancement of employability, manifested as the permanent employment of WEP participants. In the survey by JURUE it is reported that between 30% and 50% of participants obtain permanent posts.

The Community Industry Scheme was introduced in 1972 and operated jointly by voluntary bodies, local authorities and MSC. The objective was to enhance the employability of young people, 16-24 years old, who were least employable by providing them with jobs that included some training, rehabilitation and assessment. In Birmingham and Coventry 300 places of one year duration were provided in 1977 at a

cost of £0.6m to the MSC.

In assessing these schemes, it must be asked what the employment record of the participants would have been in the absence of MSC measures and whether other workers in the local labour force have suffered at the expense of the participants in these schemes. However, local authorities should continue to make maximum use of schemes because they act as an agency and represent a net injection into the local economy from national funds.

A3.2.2 Information and Advice: The Careers Service provided by local education authorities advise school leavers and students on their choice of career and gives assistance to unemployed school and college leavers in their search for employment. The Jobcentres, found in most "High Streets", fulfill a similar role for the rest of the unemployed, providing 'vacancy' information in a 'self-service' style. Both undoubtedly play a vital role in liaising between job seekers and employers and in operating the MSC programmes. It is noted, however, that in most surveys of job search behaviour of the unemployed, more 'informal' methods of discovering vacancies and employment were used more frequently. It is the aim of the Employment Service Division (ESD) of MSC to obtain a greater share in job placement.

A3.2.4 Residential Mobility: This is the first of two ways in which the availability of labour can be improved by local authority initiatives. In the 1979 Housing Bill provision was made to improve inter-authority housing mobility. Under the policy of 'key worker housing' a local authority could make dwellings available to workers coming

to jobs in the providing authority's area. This benefits the inner city unemployed if their skills are required in another authority. Very few houses have been provided. In Bromsgrove, for instance, there were only six requests for housing between 1975-77. There is nevertheless considerable potential for housing authorities to improve labour mobility within their areas by adjusting criteria for transfers. The three Inner Area Studies reported council house transfers, especially from inner to outer London, to be almost impossible. Similarly home movements within the private owner and rented sector from an area of high unemployment to an area of greater employment opportunity is hindered by the higher cost of housing in receiving areas and the low incomes of the unemployed. An alternative is to increase the accessibility of areas of high unemployment (especially the inner urban areas) to a wider area of employment opportunities.

A3.2.5 Access to Work: Local authority initiatives in this field take two forms; public transport subsidies and road improvements. The latter, is unlikely to improve access to job opportunities. Therefore the major initiative of the former was the provision of revenue support to public transport services, to which the W.M.C.C. devoted £15,559 in 1977/78 (Nov. 1976 prices) and £15,000 in 1978/79 (Nov. 1977 prices). Surprisingly no evaluation of the employment effects of revenue support has been performed. Nevertheless it is assumed that such support increases the demand for public transport services and extends labour market areas. It appears that subsidised public transport taken in conjunction with flat fares

(e.g. the West Midlands Passenger Transport Executive's (WMPTE) 'Travelcard') special fare scales, special travel concessions and special public transport provisions, may be effective ways of increasing the potential applicants for existing jobs in the local labour market. Expressed differently; public transport may be used to widen the area of the local job market accessible to the job seeker. However, little research has been carried out under this topic. (Literature on transport solutions to employment problems is reviewed in section 1.4 in Chapter 1 of this thesis).

APPENDIX A4 - REVIEW OF LITERATURE ON JOB
SEARCH THEORY

A4.1 INTRODUCTION

The models of information and job search is based on the seminal work of Stigler (1961, 1962). Many variants of the original Stigler model have been attempted. These include sequential search policies (J.J. McCall 1970 and 1973), the role of risk aversions (Danforth 1974, Kohn and Showell 1974, Whipple 1973); adaption to unknown distributions (Rothschild 1974, Telser 1973) and a detailed analysis of barriers to search like discrimination and turnover (Arrow 1972, Beck 1960, 1964 and Salop 1973). All of these variations retain the basic structure of the standard search model and testify to its enduring importance. Kiefer and Neumann re-emphasise the significance of Stigler's work on job search theory and claim that economists have relied increasingly on the notion of search activity to explain diverse economic function, such as rigidity (Gordon and Haynes 1970); advertising expenditure (Gould 1970) - duration of unemployment spells (Ehrenberg and Oaxaca 1976, Classen 1977); retention of Military personnel (Gotz 1975); the effects of minimum wages (Mincer 1976); quits and lay-offs (Mortenser 1977, Parsons 1973) and marriage and divorce rates (Becker, Landes and Michael 1977).

This appendix commences with an outline of the standard search methodology postulated by Stigler (1961). This is followed by a presentation of a number of theoretical models which have developed from the seminal work of Stigler. These models can be divided into job search models of employees and search models of employers.

Finally, the modest number of empirical studies which have specifically attempted to test job search theory are reviewed.

A4.2 STANDARD SEARCH METHODOLOGY

Stigler (1961 states that

"The reader is expected to assume an infinite horizon setting with no discounting. A job offer X_i is received in the i th period of search, where X_i is a random variable with cumulative distribution function F . The distribution function F is known and invariant over time, and the X_i 's are mutually independent. The job searcher is assumed to retain the highest job offer, so that the return from stopping after the n th search is given by

$$Y_n = \text{Max} (X_1, \dots, X_n) - nc.$$

Where c is the cost per period of search. This cost includes all those out of pocket expenditures, such as advertising and transportation, that are incurred each time a job is obtained.

The objective is to find a stopping rule that maximizes $E(Y_n)$ where n is the random stopping time i.e. the random number of job offers before an acceptance. (The maximum expected gain is finite provided the expectation of the wage distribution exists.) We assume this is the case so that existence of an optimal stopping rule is guaranteed. Let R be the expected gain from searching according to the best stopping rule. Consider the first observation X_i . By definition of R , the first wage offer is accepted if it exceeds R and rejected (search continues) if it falls short of R . Clearly then for any wage offer X , the optimal policy has the form.

Accept job if $x \geq R$ (i)

Continue search if $x < R$

The expected return from this optimal policy is

$$E \max (R_1 X_1) - c$$

Since R was defined to be the expected return from pursuing the 'best' stopping rule, this simple argument shows that the optimal expected return from the optimal stopping rule satisfies:

$$R = E \max (r_1 X_1) - c \quad (ii)$$

which is equivalent to

$$c = \int_R^{\infty} (x - R) df(x) = H(R) \quad (iii)$$

This equation has a simple economic interpretation. The search cost, c , is the marginal cost of obtaining another job offer, whereas $H(R)$ is the expected marginal return from one more observation. The critical value R of a job offer is chosen to equate the marginal cost of one more offer with its expected marginal return.

The critical number R is called the RESERVATION WAGE, and any search policy with a form given in equation (i) is said to possess the 'reservation wage property'.

The random variable N , the number of offers until R is exceeded, has a geometric distribution with parameter $p = 1 - F(R)$ and expected value $1/p$. Thus the expected duration of search (i.e. "FRICTIONAL UNEMPLOYMENT") is an increasing function of the reservation wage.

A4.3 OTHER THEORETICAL MODELS

The 'standard search methodology' postulated by Stigler was however neglected for almost a decade until

Phelps (1970) 'Micro-economic Foundations of Employment and Inflation Theory'. After 1970 there was a proliferation of theoretical postulations concerning job search.

A4.3.1 Job Search Models of Employees

The Search Models for employees developed after Phelps (1970) were based on 'optimal stopping rules' and include; finite time horizon; risk aversion; adaptive search policy; job search in a dynamic economy; bankruptcy models; systematic search; optimal quitting policies and on-the-job search; and variable search intensity.

(a) Finite Time Horizon

In Stigler's model an infinite time horizon is assumed which means that 'reservation wage' is invariant over time, so that if an offer is refused once, it is refused for all time. Consequently in this situation it is irrelevant whether the searcher is allowed to recall offers. Work by Kasper (1967) has shown that job searchers do not behave in this intransigent manner. Kasper observed that the reservation wage declined approximately 0.3% per month of unemployment. Lippman and McCall (1976) identify two reasons for fluctuating reservation wages as being information changes and a finite time horizon.

(b) Risk aversion

All of the forementioned studies assumed that the job searcher has a linear utility function and, hence, have been indifferent towards risk. From the elementary model it is obvious that the searcher must compare an offer that is known with the uncertain prospect resulting from an

additional draw from the wage distribution F so that under risk aversion the certain return of fx will be valued more than the expected return of fx , thus we might anticipate that the reservation wage would decline in the presence of risk aversion. This is in fact only partially correct. Most work in this field is based on Machman (1972) 'On risk aversion and optimal stopping' and Hall (1975) (expected utility maximising job search in a dynamic economic system'. (See also Danforth (1974); Whipple (1973); and Kohn and Showell (1974).) Nachman shows that with or without recall the more risk averse individual searches less (i.e. stops sooner) and equivalently, is less selective in that he accepts all offers that the less risk averse individual accepts in addition to some that the less risk averse individual does not accept. Nachman also found that if the searcher has decreasing absolute risk aversion then he becomes less selective as his wealth decreases. This implies that given a wealth 'b' the reservation wage, if it exists, decreases as the individual continues his search. (His current wealth decreases by 'c' each time he searches.)

(c) Adaptive search policies

If the job seeker is unaware of the distribution of wage offers, (which is most likely) the reservation wage is once again not constant over the period of frictional unemployment. Telser (1973) has returned to searchers after they had samples from different offer distributions. Generally each offer provides information with which the searcher updates his wage distribution and recalculates his reservation wage. The wage offer therefore is not only an employment opportunity but also a piece of information

that can be used to revise the prior distribution. Lippman and McCall suggest two updates regimes. (There are called 'Bayes Rules'.)

- (1) Offers are accepted or rejected after an updating of his prior distribution and recalculation of his reservation wage.
- (2) Offers are accepted or rejected before an updating of his prior distribution and recalculation of his reservation wage. Rothschild (1973) has discussed this second regime and provided examples.

(d) Job search in a dynamic economy

Lippman and McCall (1976) claim that the first limitation of the standard methodology is the assumption that the wage distribution is static and insensitive to the business cycle. They point out that the model has been used to provide 'optimal' strategies for job searchers who must contend with the vagaries of the business cycle. Clearly the state of the economy is in constant flux and is a determinant of search. Lippman and McCall have attempted to design a search policy that explicitly considers business cycle effects.

A second criticism of the standard model is that the intensity of search is not allowed to change (i.e. each day the searcher ventures out to find a job and each day he generates exactly one offer). In Lippman and McCall model of job search in a dynamic economy the searcher may vary his intensity of search as the economy changes.

¹. See Lippman and McCall (1976) for a detailed description of the model of job search in a dynamic economy.

Another major criticism of the standard search model is its misuse in attempting to explain quits and lay-offs. The standard search model simply is not designed to deal with these possibilities. Lippman and McCall suggest that search theory has generally been misused. They claim that the appropriate search model is one that specifies the search strategy as a function of the business cycle. Lippman and McCall discuss a model which is the first step in this direction.

While the model developed by Lippman and McCall in 1976 is different from those previously employed in analysing labour markets, it does include several of the previous models as special cases.

(e) Bankruptcy models

The wealth position of the job seeker may also influence his search behaviour. As his assets decline the searcher may be more willing to accept any employment. This willingness would be reflected in a declining reservation wage.

Danforth (1974) investigated the effect of "asset holdings on the strategy of a job searcher who is maximising expected utility where the utility function is characterised by decreasing absolute risk aversion". This is done for both finite and infinite horizon models. Danforth found that the reservation wage increases (decreases) as assets grow (decline). By analysing the infinite horizon model in a stationary setting (only wealth changes) Danforth is able to isolate the wealth effect. "The individual's readiness to accept lower income job increases on this model solely to a response in falling

bank balance".

McCall (1973) has also shown how an expected event can cause the searcher to accept his most recent offer regardless. If the searcher's assets fall below a certain critical level, then again he will accept the last offer. This is referred to as the "Martingale Argument".

(f) Systematic search

Salop (1973) has discussed another reason for the reservation wage to decline as search proceeds. Salop suggests that the searcher usually has prior information about the type of job opportunities at various firms (the elementary model treated all firms that use the searcher's skills as equal, which is not the case in reality). Salop claims that searcher's 'rank' the firms (rather than random) and begin with what is perceived as the 'best' opportunity. As the searcher moves down the list he recalculates his reservation wage at each step. Therefore, assuming a systematic process, there exists a declining reservation wage as search continues (i.e. 'frictional unemployment').

(g) On-the-job search

Here the worker can reduce his costs of search by remaining employed while searching. The worker has three alternatives. Work full time/on-the-job search/search full-time. Mattila (1974) estimates that 50 to 60 per cent of all 'quits' move from one job to another without experiencing unemployment. This suggests that on-the-job search is quite important. Daniel (1974) has discussed the length of notice before redundancy and its effect on employment. He found that those who become unemployed after redundancy generally had had very short notice.

(h) Variable intensity of search

Almost all search models assume a fixed cost of search per period yielding one draw from the wage distribution (F). In fact, the intensity of search is controlled by the searcher and this has been included in Lippman and McCall's model for a dynamic economy (1976).

A4.3.2 Search Models for Employers

While job searchers face a distribution of wage rates; employers searching for new employees face a distribution of marginal products. Unlike the unambiguous levels of wages, the productivities of job searchers are much more difficult to measure by searching employers. In order to obtain a clear indication of an individual's productivity various methods are used to positively correlate characteristics with job productivity (i.e. aptitude tests, education and training etc.). However, Spence (1973) has pointed out that this introduces incentives for individuals to devote resources to improving these characteristics even though job productivity may not be enhanced.

The main assumption in models of search by employers is that employers can perform tests that reveal the true value of the employee's marginal product. "These tests are costly in time and money and it is these costs which limit the employer's search" (Lippman and McCall). The model of employer search is a variant of the elementary search model with 'marginal products' replacing wages.

(a) The elementary employer search model

For a given wage offer, let the cost of experiment (marginal product) and the distribution function of marginal products be denoted k , m and o respectively. Following the

previous analysis of the elementary search model:

accept applicant if $m \geq n$

reject applicant if $m < n$

where n , the minimally accepted productivity ("reservation productivity"), is the solution to:

$$k = \int_n^x (m - n) d o (m) \equiv G(n)$$

(b) Choosing the best group for search

Suppose the population from which the employer can search is decomposable into 't' sub groups on the basis of some easily measured characteristic such as age, race or sex. Let k_i , m_i and o_i be the cost of search, the marginal product and the distribution function of the i th subgroup. Using these values the employer solves the previous equation for n_i , $i = 1, \dots, n$. The employer then searches in that subgroup with the highest n_i . Lippman and McCall give the example of an employer who is discriminating between whites and non-whites believing that the cost of searching in the non-white market (K_b) is higher than the cost (K_w) of search in the white market. Furthermore his beliefs about the marginal products of non-whites will be such that $G_w(x) > G_b(x)$ for all x . Given these beliefs it is clear that $n_w > n_b$ and the employer will limit his search to the white market.

(c) Adaptive model of the discriminating employer

Only if the employer pursues an 'adaptive policy' will he change his beliefs about white marginal products and switch to a non-white market. Under this policy it is assumed that the employer wants to minimise the cost per success. For example if he hires n individuals, he wants

nc/np, the ratio of total expected cost nc, to expected number of successes to be as small as possible.

In times of tight labour markets the number of qualified whites searching for a job declines, leaving only those that have consistently failed. Under these conditions it will be insufficient to use a screen such as race and the employer will sample from a non-white population. Lippman and McCall claim that this model particularly explains the empirical findings of Wohstetter and Coleman (1972) who found that during periods of growth (recession) the gains (losses in non-white income relative to white) have been greatest at the lower end of the income distribution. Kusters and Welch (1972) discovered that the non-white employment rate increases (decreases) more rapidly during periods of growth (recession) than the white employment rate.

A4.4 EMPIRICAL STUDIES THAT TEST SEARCH THEORY

Lippman and McCall (1976) discuss the empirical implications of the micro-economic search models outlined in the previous section. They explain that only a few of these implications have actually been empirically tested and many of these have been incomplete. More empirical testing of these techniques is likely to be more valuable than additional theoretical research on job search.

Topics which have been empirically tested include: ¹

- relationship between reservation wage and frictional unemployment

¹Those topics relating to micro-economic phenomena are not precisely relevant to this research and have therefore been omitted in this review (see Lippman and McCall for a full discussion).

- the effect of cost of search on the discouraged worker phenomenon
- turnover in the labour market
- unemployment insurance as an incentive to search longer
- the constant reservation wage

A4.4.1 Frictional Unemployment and the Discouraged Worker

The elementary search model is a convenient way of distinguishing the discouraged workers and drop-outs from the frictionally unemployed. For this purpose a distinction is made between the actual outlay on information accumulation and the return the individual could make if he remained unemployed. These returns include unemployment compensation, social security and leisure. The definition of the two types of unemployment are:

(a) Discouraged worker; Individuals with unattractive employment opportunities are confronted with such relatively high information costs that they may often choose not to search for employment.

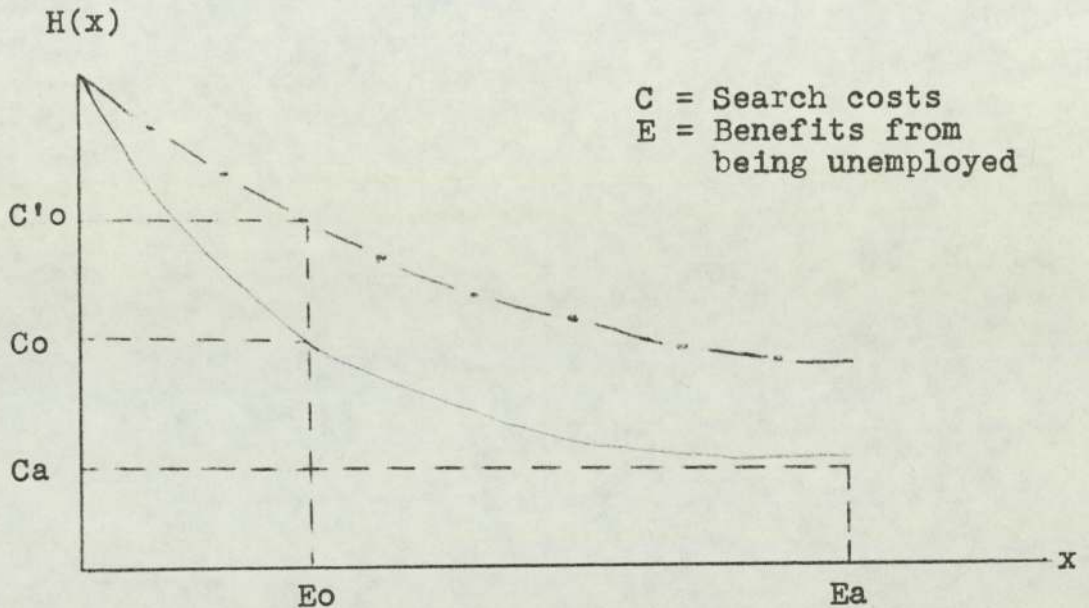
(b) Frictionally Unemployed; Individuals who are looking for jobs, but have not yet obtained one with a satisfactory offer (i.e. wages in excess of E).

In Figure A4.1, let E_0 denote the expected return from remaining unemployed. Large values of E are associated with smaller values of C and longer periods of search. Consider an individual whose expected return from remaining unemployed is E_0 . If he/she is confronted with search costs in excess of C_0 then not searching at all is the best strategy (i.e. become a discouraged worker).

Alternatively, if the costs of search are less than C_0 ,

the individual will continue to seek employment until he receives an offer exceeding the corresponding value of E . The time until such an offer is forthcoming is 'frictional unemployment'.

FIGURE A4.1 - FRICTIONAL UNEMPLOYMENT AND THE DISCOURAGED WORKER



The optimal policy for choosing between dropping out and frictional unemployment has the following form.

if $C \gg C_o$, do not search (drop out);

if $C < C_o$, search (chose frictional unemployment)

Milall (1973) has shown that the wage-distribution for non-whites is stochastically smaller than for whites.

"Factors such as these could account for the disproportionate number of non-white 'drop-outs' ".

According to Lippman and McCall the effects of various policies on reducing the number of discouraged workers can be elucidated with this model. Obviously lowering the costs of search will reduce the number of drop-outs. Another method for reducing the number is to upgrade the individual's skill and hence also his wage distribution. That is, the skills

which an individual acquired during training will on average command a higher wage than his or her pretraining skill. In Figure A4.1 the effect of a successful training programme is to shift the solid line representing $H(X)$ upward to the dotted line. The individual will now drop out only if $C > C'$ which is obviously more difficult to satisfy than the pretraining condition $C > C_0$.

The choice between the two methods is considered by Lippman and McCall to depend upon the cost of each relative to the induced reduction in the number of drop-outs. It seems that lowering information costs is less costly than training programmes, but perhaps re-training has a more longer lasting effect on the discouraged worker.

So far the economy is assumed to be static. However, if the economy was to improve the reservation wage will increase and there will be fewer drop-outs.

It has also been noted that the individual's cost of search declines in a growing economy. For example Parsons (1973) has argued that firms reduce search costs by "increasing advertising, arranging convenient interview times and paying more expenses."

Flain (1973) tested a hypothesis that a positive relationship existed between the unemployment rate and the number of discouraged workers. Using a simple two variable regression analysis with, in each case 60 monthly observations covering 1967 to 1971, concluded that his hypothesis could be verified, but the two series did not in fact correlate very highly with each other. Flain improved the correlation significantly when he regressed with unemployment "discouraged for job market reasons" as

opposed to "discouraged for personal reasons". This distinction is based on the reasons given by the respondents and shown in the following listings.

(a) Cyclical (job market) reasons:

- couldn't find any work
- believes no work available in line of work or work area.

(b) Structural (personal) reasons:

- employers think too young or too old.
- lacks necessary school training etc.
- other personal handicaps.

Ondeck (1978) tested the Flaim hypothesis using 84 monthly observations covering the 1970 and 1976 period. An obvious difference between the more recent study and Flaim's was that the correlation co-efficients in Ondeck's analysis were almost uniformly higher.

In both Flaim's and Ondeck's study, the highest co-efficients of determination resulted when "discouraged for job market reasons" was the dependant variable regressed on the unemployment rate. This verifies Flaim's conclusion that discouragement is cyclically sensitive.

When comparing her study with the earlier work of Flaim, Ondeck concludes "although both Flaim's and the recent analysis support the hypothesis for positive correlation between worker discouragement and unemployment, multiple regression using other variables might yield a better specified model" (Ondeck 1978).

A4.4.2 Turnover in the labour market

There are many factors causing turnover in the labour market. Examples include retirement, search for higher

wages, illness, discouragement and declining economy. On the other hand, examples of new entrants include graduates, school leavers, immigrants and unemployed. Many theories are postulated which model the labour force turnover (i.e. Hall (1972), Hosek (1975), Parsons (1975) and Stiglitz (1973)).

Parsons (1972) and Telser (1973) have argued that at given wages the more skilled employees have greater job security than the less skilled. The findings of both Hall and Hosek are consistent with this expectation. Parsons (1975) distinguished between time-series and cross sectional studies of quits and lay-offs. He found that:

- (1) As anticipated by search theory, "quits fall when income rises relative to skill level and rise when quality rises relative to income".
- (2) Time series analysis of quit behaviour showed that quit rates in manufacturing bear a strong positive relationship to the business cycle.

A4.4.3 Unemployment Insurance and Job Search

One of the topics that has been studied empirically in the United States is the relationship between unemployment insurance and job search. The elementary search theory suggests that those people eligible for unemployment insurance (U.I.) will set higher reservation levels than those who are ineligible. (In Great Britain every person is guaranteed U.I. in the form of social security).

Marston (1975) estimated the average duration of unemployment to be 30 per cent higher for those with U.I. compared to those uninsured. Feldstein (1975) has suggested that "eliminating the adverse effect of U.I. would reduce the

mean duration of unemployment for all the unemployed by 12 per cent".

In the studies by Classen (1977) and Ehrenberg and Oxaca (1974 and 1975) significant positive relationships were discovered between U.I. and both the duration of unemployment and past employment wages. Ehrenberg and Oxaca found that increased U.I. benefits induced additional productive job search for both older males and older females. In contrast increased U.I. benefits appeared to increase the duration of unemployment for both the younger (below 24 years) males and females.

A4.4.5 The Constant Reservation Wage

There is a need for more empirical studies that test various hypothesis which have emerged from search theory. Since 1975 a limited number of studies of this nature have emerged in American Literature. One example is the work of Kiefer and Newmann (1979). They attempted to test the "constant reservation wage hypothesis", and found that the Null hypothesis that reservation wages were constant with duration of unemployment was rejected.

A4.5 IMPLICATION - Reducing the Cost of Job Search

Two control variables that can be used to reduce unemployment are reducing the cost of search and improving the skill of the job searcher. Improving skills obviously allows the searcher to sample jobs from a distribution larger than the pre-training distribution. This will increase the reservation wage and induce individuals who would have become discouraged to continue to search for employment. However it's effect on 'frictional unemployment'

is ambiguous. The high reservation wage may cause the expected period of search to be longer. Reducing the cost of search has unambiguous implications with respect to both the number of discouraged workers and the expected length of frictional unemployment. The reservation wage increases thereby reducing the number of drop-outs and increases the expected length of frictional unemployment. Clearly, care must be exercised before one can make choices between expenditure on training and expenditures of reducing search costs. According to Lippman and McCall the choice between the two methods depends upon the cost of each relative to the reduction in number of discouraged workers. Of course this is assuming that one method should be weighed against the other. Using a combination of both methods would most likely be the best policy. It has been shown (Appendix A3) that the more expensive method (improving skills) has been tried by the Government. The new 'self service' displays of job vacancies supplied by the Jobcentres is one of only a few contributions to reducing search costs.

One of the highest costs in terms of time and money is incurred when travelling to a firm for an interview or simply 'on spec'. The cost of walking could be very high in terms of time. The financial cost (as well as time) to travel by public transport is probably a significant deduction for an unemployed persons weekly financial budget. An explanatory study in Glasgow (1979) has shown one of the main reasons for an individual being discouraged from applying for a job is the prospect of paying bus fares on the "off-chance" of getting a job. If the 'costs', financial or temporal, could be reduced then job seekers would have a

larger area of job opportunity. Some methods of reducing these costs include:

- (1) improving the efficiency of the public transport network to cater more for the needs of the job seeker;
- (2) allowing subsidised or free travel for unemployed job seekers when travelling by bus for an interview;
- (3) improve job searchers knowledge of the city, its job opportunities and its system of public transport.

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APPENDIX A5 - ENVIRONMENTAL PERCEPTION AND
MEASUREMENT TECHNIQUES

A5.1 INTRODUCTION

This appendix identifies from the literature on 'urban imagery' (i.e. Environmental Psychology) an approach that can be used in this research to investigate the contention that "locational patterns of job search behaviour is closely related, on aggregate, to locational patterns of the 'mental map' of the city". It is not intended to comprehensively review literature relating to 'urban imagery'; rather this appendix identifies areas of further investigation applicable to the main objective of this research. Particular attention is given to studies which attempted to elucidate "mental maps" of a city from its residents.

The origin of research into 'environmental perception' has most commonly been attributed to K. Lynch (1960) 'Image of the City'. The work by Lynch made a decisive break from previous methods of urban landscape analysis and led to a proliferation of studies which applied the same, or similar techniques of mental mapping. In 1973 research, although still strongly related to the work of Lynch, had considered a wider range of subjects, which is reflected in the book by Downs and Stea (1973). Since 1973 there have been a number of studies of socio-cultural differences in "urban imagery" which represents a search for explanatory variables.

It is worth briefly reviewing literature on 'environmental perception', in the order outlined above,

because it highlights methods of measuring 'environmental perception' which are applicable to this present study and because of the possible role of 'transport' and other relevant factors as explanatory variables.

A5.2 PRE - 1960

The major concern of the work by Lynch (1960) was to understand the way in which the town or cityscape was 'read' by the resident or visitor. Many of his ideas were based on the concept that the city is in fact "a vast message or series of messages, too often confused and unreadable, but ideally legible and therefore simple to move between and enjoy".

Lynch carried out his work in the central areas of three United States cities, Boston, Jersey City and Los Angeles. In each city two analyses were undertaken. In the first, a field survey was made by a trained observer who subjectively mapped elements, the interrelations between structures, links and other significant features. A sample of citizens from each city was then interviewed in an office, and was subjected to detailed questioning in order to establish 'imageability'. Sketch maps were also elicited. Some volunteers were also tested with photographs and taken on field traverses. From the traverses and discussions, Lynch found the city image to be divisible into five basic elements:- paths, edges, districts, nodes, and landmarks. These appeared to be the main organising features used in all three cities, by both trained and public groups. The legibility of these elements did however differ according to both group characteristics and location, and the three cities chosen revealed

considerable difference in the detail and structure of results received.

Lynch stated that the "speed of movement and scale of construction necessitates that a clear and comprehensive image of the entire metropolitan region is a fundamental requirement for the future". He proposed that an individual's experience of the city could be raised to a new level with improved perception of the city and that architects and planners can one day design a metropolitan region to have 'sensuous form'.

There are two implications for the unemployed inner city resident. The first is that transport and travel feature strongly in the 'elements' which Lynch suggests make up the city image. This is only to be expected given the pattern of urban growth caused by advances in transportation technology. However, low car ownership and subsequent dependence on public transport and walking will probably inhibit certain groups perception of the city. Secondly the "speed" of movement and "scale of construction" described by Lynch will probably present difficulties for groups with least mobility to 'up-date' and extend their perception of the city which Lynch claims is a 'fundamental requirement' for enhanced future urban experience. Indeed it may be a fundamental requirement for enhancing search for job opportunities.

A5.3 1960 - 1973

During the period 1960-73 the main emphasis of research into environmental perception was the extension of Lynch's methods to other cities but with few references to explanatory variables of identified differences. Other

studies in this period attempted to widen the scope of research to include for example, 'spatial preference' and 'urban cognitive distance'.

A5.3.1 Perception of the City: The mental mapping techniques of Lynch were applied to European cities (i.e. Amsterdam, Rotterdam and The Hague) by De Jonge (1962). These Dutch examples supported the methods used by Lynch, and De Jonge concluded that "map images of a city can be generalised for, at least, the literate man in Western Society". J. Gulik (1963) applied Lynch's method to young adults in a non-western society; Tripoli (Lybia). He asked subjects to sketch a map of the city and list those parts felt to be most distinctive. Gulik reported that socio-cultural factors played a strong role in the creation of the urban image. He suggested that the differences in the 'mental maps' produced in a non-western society were caused by the fact that the elements identified by Lynch were not just visual but also social and behavioural.

Orleans (1967) examined how resident's perception of Los Angeles varied by both social class and residential location. A small sample of 12 respondents were recruited from each of four locations. Respondents were asked to sketch a map of the city from a blank sheet of paper. Figure A5.1 shows the features of Los Angeles most frequently sketched by individuals in each group. Residents of Boyle Heights and Avalon collectively produced the most restricted representations of the city.

Respondents in both of these groups were ethnic minorities living in the 'inner city'. The relative

importance of public transport features, such as the 'Union Station' and 'Bus Depot' probably reflect low car ownership. This implies that certain groups of residents possessed a severely constrained 'urban image' and were likely to have had a relatively poor ability to extend this 'image' and to search beyond this confined area. This has implications for the present research. However, it can be argued that 'inner city' respondents have lower education and possibly less cartographic skills than 'middle class, white suburban' residents (e.g. 'Westwood' residents). Therefore it is preferable to construct collective 'mental maps' using techniques which do not depend upon variables such as 'cartographic skills'. (This is particularly important if a survey is designed to examine behaviour in relation to an initial 'urban image').

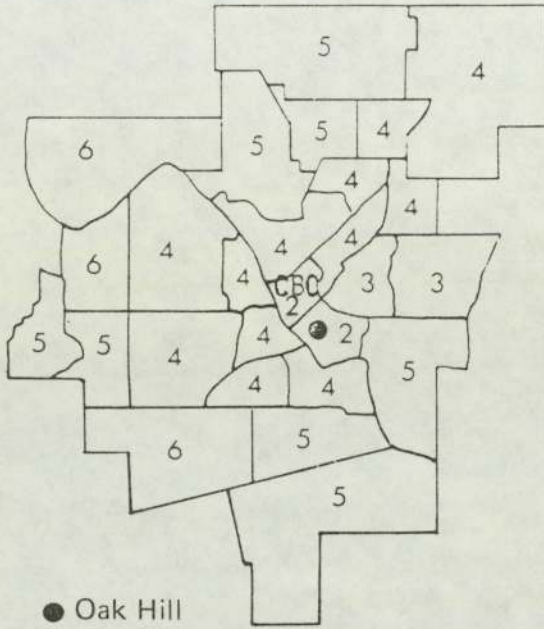
Several researchers (e.g. Hanson (1977), Moore (1975) and Poulsen (1978)) have more recently attempted to produce a collective 'mental map' of a city using an attitudinal scale of 'familiarity' with given locations. Other techniques used in studying 'mental images' are reviewed at the end of this Appendix.

An attitudinal scale of familiarity of a city's composite 'districts'¹ is applicable to this present research because not only is it aimed at individuals with possible 'low cartographic ability' but also because the method facilitates statistical analysis of quantifiable aggregate responses.

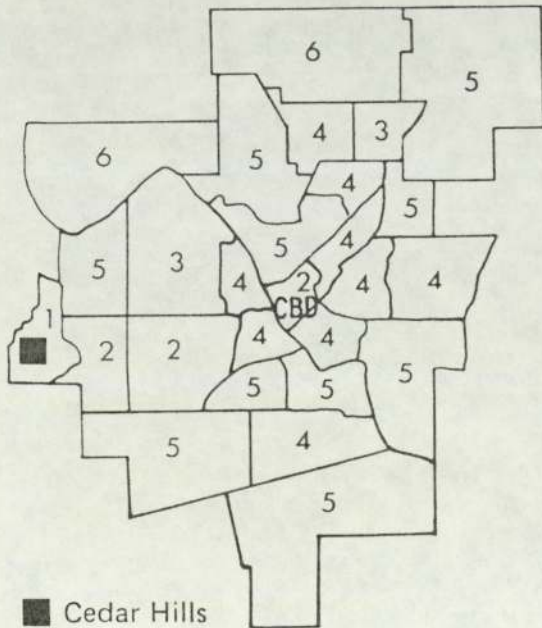
¹ This must be clearly defined with a nomenclature which is meaningful to the residents of a city. This is discussed, in the context of this research, in Appendix C1.

Figure A5.2 – Familiarity of Cedar Rapids, Iowa

(Inner City) Oak Hill



(Suburban) Cedar Hills



mean scaled response

-60	6
-60 to -21	5
-20 to +20	4
+21 to +60	3
+61 to +100	2
> +100	1

Horton and Reynolds (1971) studied 'familiarity' with the city of Cedar Rapids, Iowa. A sample of residents were asked to indicate on a five point scale (see below) their level of 'familiarity' with each of the 27 sub-areas of the city which had been selected to correspond with residential areas. Horton and Reynolds discovered that the pattern of familiarity differed between inner area and suburban area residents. (Figure A5.2) They suggested that the mean scaled responses for inner area residents (Oak Hill) reflected a concentric zone pattern while the suburban residents response (Cedar Hills) took a sectoral pattern.

- 0 unfamiliar
- 1
- 2
- 3
- 4 very familiar

Studies of perception of the entire city are clearly relevant to this present research. However studies of 'environmental perception' also include other topics such as perception of city centre and perception of a local neighbourhood. These other studies are very briefly reviewed before a discussion of the 'explanatory variables' in differences in perception of the entire city.

A5.3.2 Other Studies

(a) Perception of the city centre: Khein (1967) defined the centre of Karlsruhe from the perceptions of the residents. It was revealed that older residents saw a larger central area than newcomers and that sex and place of residence were significant variables in image creation. Goodey (1972) studied sketch maps which conveyed the major impression of the centre of Birmingham. By combining many

hundreds of responses it was possible to construct a weighted mental image which emphasised a marked preference for things at the human scale. The map proved valuable to planners working on the re-design of the central area of the city.

(b) Perception of the local neighbourhood: The concept of neighbourhood is an important 'mental image' and has been investigated in some detail by T. Lee (1968). He measured social space of Cambridge housewives in order to define a neighbourhood. The aim of Lee's work was to see if planning ideas of basing a neighbourhood on population size was correct. The size of people's neighbourhood was found to be independent of population density. Lee also found that social space and physical space were so tightly linked that most people did not distinguish between the two.

(c) Spatial Preference: In a predominantly black area of northern Philadelphia, Ley (1974) mapped a sample of the local people's fears as an environmental stress surface. There was an invisible mental topography of stress where the 'peaks' were areas to be avoided while lower areas and 'valleys' were safer areas. The 'peaks' coincided with derelict land where gangs and drug peddlers are prolific.

Urban images are not confined simply to local areas of the city or even the city itself. Individuals have opinions about various parts of the country based on the area of residence. For instance Londoners seem to think that 'civilization ends at Potters Bar'. (See Gould and White 1974). This sort of mental image of the whole country can effect a wide range of decisions on industrial location, residential location, and work location.

When applied to the 'city' scale, 'spatial preference' has relevance to job search behaviour. There may be areas of the city in which job seekers would prefer to work and areas in which they would not want to work. Obviously this urban spatial preference is probably closely related to knowledge of the city and to perceived and actual distance and travel time to each area.

(d) Urban Cognitive-Distance: A residents 'cognition' (i.e. NOT visual perception) of distance in a city is obviously implicit in perception of the entire city, but different techniques to those already described are required in order to explicitly measure 'urban cognitive distance'. It is not the aim of this research to explicitly measure urban cognitive distance, therefore it is sufficient for this research to measure 'mental maps' and accept that these implicitly represent differences in cognition of distance.

Urban cognitive distance has been approached in two ways; (i) the Psycho-Physical Approach and (ii) the Brennan-Lee Approach.

(i) Psycho-Physical Approach - Lowrey (1970), Biggs (1973). In this approach subjects were requested to turn cognised distance into scaled physical distance. Whether or not a person can do this accurately has not been tested. Lowrey allowed individuals to choose points and used paired comparison techniques based on ratio estimation. He concluded that perception is closely related to geographical distances, but car ownership does take effect. The second approach is more relevant.

(11) The Brennan-Lee Approach - Brennan (1948) plotted where housewives in Wolverhampton registered for 'rations'. He plotted the catchment area for each shop and concluded that shape of the catchment area took the form of "a semi-circle on the side of the shop away from the centre of the town" (Brennan's Law). This means that distance towards the city centre was perceived as less than the same physical distance in an outward direction.

Terence Lee (1962) verified 'Brennans Law' by confirming the hypothesis that "housewives whose nearest shopping subcentre lies outward will be less likely to make use of it than will those whose nearest subcentre lies inwards" Brennan's Law is, however, only applicable to shopping behaviour and Lee has investigated whether the law for shopping behaviour is a special case of a more general principal. Lee found that distance was over estimated both towards and away from the city centre, but that estimates for outward distances were significantly greater than for inward distances. This phenomena has not been easily explained, but it does have implications for search for employment. For instance, job seekers living in the inner city will probably perceive distances to job destinations out of the city as being greater than destinations towards the city. The principle implies that a job seeker from a suburban area will perceive less distance to a job vacancy in an inner area than an inner city resident will perceive distance to a job vacancy in the reverse direction (i.e. to a suburban area). Given also that suburban residents generally have higher levels of mobility then it can be suggested that suburban residents

compete more for jobs in inner areas than inner area residents compete for jobs in outer areas. It is noted however that in Lee's study all journeys radiated from a single source.

A5.4 POST 1973

Several group and individual differences in perception of the city have already been mentioned. The search for these differences is basically a search for explanatory variables. Since 1973 a large number of researchers have joined this search.

A5.4.1 Environmental Differences: Moore (1979) argued that one of the least explored variables in environmental cognition is environmental differences. Lynch (1960) suggested that cities were imageable to the degree that their paths, edges, modes, landmarks and districts are legible. Appleyard (1969) was able to identify three environmental factors listed here in order of importance, "use significance", "visibility" and least of all "physical form". Carr and Schissler's (1969) study of memory in the view from the road (in which "use significance" was not investigated), a simple measure of time in view, ease of labelling, and object dominance were the most critical environmental factors in predicting memory. In another part of the Appleyard study, a significant relation was found between errors in cognitive sketch mapping and unclear functional use of an area, low visibility, and ambiguous form.

A5.4.2 Individual differences: Questions arise in the literature about whether individual differences in

environmental cognition are just a matter of the amount or extent of the city known or whether there are also qualitative structural differences between people in the way they organise their knowledge of cities. Clearly people differ in how much of a region they know (Gould, 1973), what types of areas they know sufficiently to include on a sketch map (Orleans, 1973), and what elements they choose to include or exclude (Maurer and Baxter, 1972). There are also clear age-related differences in quantity of environmental knowledge (Andrews, 1973). But in addition, evidence indicates there are structural differences in environmental cognition, both between people and within the same people at different times (Moore 1973, Barker 1974).

Other research has focussed on developmental difference in cognition. Studies have shown that certain aspects of environmental knowledge seem to evolve developmentally in a regular and staged way. (Reviewed by Moore and Golledge 1976). However, this is not of major concern here.

A5.4.3 Explanatory variables in individual and group differences:

(a) Cognitive Ability - Appleyard (1970) found that with higher levels of education, Venezeulans represented their environment in a more spatially dominant and coherent manner and infer more from limited experience. Ladd (1970) suggested that the child's ability to conceptualize and represent spatial relations might be an important factor in cognitive mapping. Bycroft (1974) found significant correlations between two and three dimensional tests of spatial ability and three measures of cognitive mapping. The picture that emerged was that overall education level

per se, general intelligence, and verbal reasoning were likely not to be significantly related to cognitive mapping ability in themselves, while certain more specific cognitive abilities may have been important, such as concrete operations, spatial relations ability, co-ordination of perspectives, rotation, abstraction, and scale reduction.

(b) Age - Clearly age is related to developmental level of cognitive mapping as seen from studies by Piaget et al (1960). But age itself is unlikely to be a dynamic operating factor and "it may be that overall level of cognitive development, concrete operations, spatial relations ability and so on are the contributing factors, not age per se". (Moore 1979).

(c) Sex - Little research has looked at whether sex is related to differences in environmental cognition. The only direct evidence comes from two studies by Everitt and Cadwallader (1972) and Orleans and Schmidt (1972) who found that women perceive a larger immediate territory as their home area and have more detailed imagery of their immediate surroundings, while men have a more composite image of the city as a whole. Saegert and Hart's (1979) conclusion is that these findings indicate a progressive development of sex-related differences in environmental behaviour and environmental competency and that these sex differences are not biological sex differences but rather are manifestations primarily of socialisation and upbringing.

(d) Length of residence and familiarity - Several studies have demonstrated relations between familiarity, length of residence, and environmental cognition. For example, Appleyard (1970) reported shifts from sequential

cognitive mapping to spatial cognitive mapping as a function of length of residence and Moore (1975) has shown the same shift with increasing familiarity with an area. Francescato and Mebane (1973) noted sharp differences between natives' and non-natives' representations of Milan and Rome. Beck and Wood (1976) reported developmental changes in cognitive maps over very short time periods and Devlin (1976) found clear increases over time in the amount of information represented by women adjusting to a new environment: But recently, Zannaras (1976) noted no significant relations between length of residence and the importance of different types of visual cues in finding one's way in the city. A possible interpretation for this is that people can become too familiar with the environment that they move from sequentially structuring to a more abstract structuring tending to overlook cues such as landmarks.

(e) Roles and lifestyles in the City - Individual differences in environmental cognitive representations have been noted for residents versus visitors (Francescato and Mebane, 1973), professionals versus academics, and both versus other working people. (See Gans, 1962; Canter, 1972, Barker, 1974).

(f) Ethnic and Socio-Economic Group Values - Orleans (1967) has shown how negroes and spanish speaking immigrants have a limited mental map of Los Angeles. This limited awareness may reflect a reluctance to explore a 'fearful' city. Duncan (1973) found that working class people placed emphasis on the neighbourhood as interlocking social networks and a safe place from which to begin to explore the 'fearful' city. This may be further exaggerated in

working class areas with concentrations of ethnic minorities. Certainly Gans (1962) suggests that an ethnic minority slum was recognised by its inhabitants from its 'social space' rather than its 'physical space'. On the other hand outsiders recognised the area from its 'physical space'. Furthermore while poor minority groups may find it difficult or are reluctant to 'explore' the city, middle class suburban residents see the greater physical distances that they have to travel as elastic and easily covered.

There are therefore radically different conceptions of space and entirely different meanings given to the city, neighbourhood and the home by different socio-economic groups. Moore (1979) suggests that the most central variables is understanding this differential nature of environmental perception may revolve around the different ethnic group values, lifestyles and expectation of various cultural groups.

(g) Travel Mode and Activity-Passivity Dimension - Appleyard (1970) found in Ciudad Guayana, Venezuela, that 80% of subjects who travelled by bus were unable to draw a coherent map of the urban road system, while all of the car drivers presented a coherent and continuous system and that spatial versus sequential structuring was more pronounced in the car-only drivers. Zannaras (1976) found that "navigational experience" (indexed in terms of ease of driving experience in urban areas) was positively related to selection of navigational cues and he concluded that "personal characteristics which represent an individual's active commerce with the environment (e.g. navigational

experience, shopping habits) are more important than those which represent a passive existence within a given environment (e.g. length of residence, rural-urban background)". It follows therefore that travel mode is an important factor in determining the level of 'active commerce with an environment'. It may also explain some of the other differences in environmental perception. For instance women are more generally dependent than men on public transport to extend their activities beyond walking distance, inner area residents have lower car ownership levels than suburban residents, and working class and ethnic minorities also have low car ownership. All of these groups have already been reported to have a more limited urban awareness. Indeed the impoverished 'sketch maps' drawn by Spanish-speaking residents in Los Angeles (Orleans 1967) are almost solely comprised of public transport features.

A5.5 TECHNIQUES USED IN MEASURING ENVIRONMENTAL PERCEPTION

A5.5.1 Introduction: A variety of techniques in studies of environmental perception have been mentioned in the preceding section. Veal (1974) has reviewed the techniques that have been used in this area. He divides them into the following groups. The advantages and disadvantages of each are discussed below.

A5.5.2 Questionnaires - There are numerous standard texts which provide guidance on the design of questionnaires.

- (a) A.N. Oppenheim (1968) Questionnaire design and attitude movement.

This book deals with survey and questionnaire design with chapters on: Checklists, Rating Scales and Inventories

Attitude Statements, Attitude Scaling Methods, Projective techniques, Others (including semantic differential and repertory grids).

(b) Parker, M (1965) - Surveys, Polls and Samples;
Practical Procedures.

(c) Selltitz, C. etc. all. (1959) - Research Methods
in Social Relations.

Both books give a comprehensive guide to social survey techniques including design of questionnaires.

The questionnaire approach tries to elicit criticisms and suggestions for change - but it often fails. Advantages are its simplicity, but this can be a disadvantage when dealing with complex concepts. However questions can be made in an informal way and have been particularly useful in some exploratory areas of perception research.

e.g. Brancher DM (1970) Minor Roads in Rural Areas; Some
Aspects of Conservation,
Phd thesis Univ. of Bristol.

Brancher DM (1972) The Minor Road in Devon - A study
of Visitors' Attitudes, Regional
Studies, Vol. 6 No. 1 (March)

A5.5.3 Checklist: In this technique respondents are asked to rank items on a list deemed by researcher to be important, by giving scores on a scale from say 'very satisfactory' to "very unsatisfactory". Varying degrees of quantification can be achieved. Respondents can also indicate their answers using numeric scores (Abrams 1972).

(a) Oppenheim (1968 op cit.)

(b) Stevens (1966) "A Metric for the Social Concensus"
Science Vol 151 (ref 4) p. 530.

(c) Abrams M (1972) "Social Indicators and Social Equity", New Soc. Vol 22 No. 529, 23 Nov p. 454.

A5.5.4 Attitude Statements: This involves the presentation of a number of statements about a particular topic to the respondent who is then asked whether he agrees strongly/agrees/disagrees/disagrees strongly. Using FACTOR ANALYSIS dimensions of different attitudes held can be identified.

The technique was pioneered by Thurstone, but his approach involved an elaborate procedure for arriving at a set of statements. Likert (1932) simplified the procedure. (Scoring responses on a 1-5 scale is often called a "Likert Scale".)

The advantage of this technique is that it is simple and it can be used in a general questionnaire.

The disadvantage is that it is tedious to the respondent.

(a) Likert R (1932) 'A technique for the measurement of attitudes - Archives of Psych Vol. 22 No. 149.

A5.5.5 Semantic Differential: This was pioneered by Osgood et al (1957). It attempts to elicit a range of words which the respondent identifies with the particular object of research. This is done by presenting him with a series of pairs of words which, in the researchers view, represent dimensions along which the study might vary. The respondents indicate for each pair which word comes closest to describing the object of study.

Two main advantages are that Factor Analysis can be used to identify clusterings of words which appear to reflect the dimensions of meaning of the object and that it is easy to administer in the field. Again, the disadvantage is tedium to the respondent.

- (a) Osgood C.E. et al (1957) Measurement of meaning.
Urbana Ill. University of Illinois.

A5.5.6 Repertory Grids and Personal Constructs: Repertory grids are the form in which personal constructs are elicited. Developed by Kelly (1955). A list of elements is presented or developed by the respondent, these are taken, by the interviewer, in threes and the reason why two of three differ from the third is given by the respondent, and how the third differs from the first two. (e.g.) If list of elements is disco, train station, office, car park, park, university etc. Take disco, pub and park and ask respondents to compare. If he/she said pub and disco are similar because they are noisy and different from park because it is quiet then "Noisy-Quiet" becomes a construct for the respondent. The extent to which other elements are noisy or quiet are then indicated. Multivariate techniques can be used to group elements and constructs to discover the meaning attached by individual to elements of this environment.

Two main advantages are that the constructs and elements are given by respondent and not researcher and secondly, it is possible to limit the area or structure of elements according to what researcher is investigating.

The cumbersome nature and captive audience requirements are a disadvantage.

- (a) Kelly G.A. (1955) The Psychology of Personal Constructs, New York - Norton.

- (b) Donnelly D. + Menzies M (1973) Measuring in Imagery: The Role of Personal Construct Theory. WP2 CURS University of Birmingham.

A5.5.7 Mental Maps: Mental Maps have most commonly been used in the study of the "neighbourhood" and "city". Respondents are given either a blank piece of paper or a prepared base, on which he is asked to draw a map or name parts or features of the area indicated.

Mental mapping is biased against the graphically inarticulate. Spencer (1973) and Donnelly and Menzies (1973) have indicated that less educated respondents have real difficulty in coping with this technique. Much of the developmental work with this technique was undertaken using student or middle-class samples.

Methods of analyzing the data obtained from mental maps is to summarize and combine the maps drawn by a large number of individuals. This technique has not been fully developed. In fact there has been little advance in the technique since the work of Lynch (1960). However more recently researchers have attempted to produce a collective 'mental map' of a city/neighbourhood using an attitudinal scale of familiarity with a set of given locations/features. (See Horton and Reynolds (1971); Moore (1975); Hanson (1977); and Poulsen (1978). This 'familiarity index' technique of eliciting mental maps overcomes the disadvantage of the varying cartographic skills which might influence 'sketch maps'.

A5.5.8 Gaming: The potential of games in environmental research has been discussed by Goodey (1971) and Taylor (1971). Studies basically attempt to stimulate the choice process. The respondent is given a limited amount of 'time' or 'money' to 'spend' on a given set of activities or priced goods and services. By studying the 'trade-off'

taking place between different activities it is possible to discover the relative value the respondent places on them. Chapin and Hightower (1966) have looked at 'household activity systems using a 'gaming' technique. Respondents were given a supply of 'free-time' and asked to spend it on a given list of activities. The spatial distribution of activities is shown in map diagram form.

The advantage is that 'gaming' can make a normal interview more interesting, but the disadvantage is that the technique requires a captive audience.

(a) B. Goodey (1971) Perception and the Environment
O.P.30 CURS. University of Birmingham.

(b) Taylor J.K. (1971) Urban Gaming Simulation Systems.
Progress in Geography. Vol. 3.

(c) Chapin and Hightower (1966) Household Activity
Systems A Pilot Investigation. CURS. University
of North Carolina.

A5.5.9 Pictorial Displays: Pictorial displays is a particularly popular technique in the field of landscape evaluation. Subjects are given a series of photographs and asked to rank them in order of preference. Criticisms of this method have been that photographs are only representations of the environment and the quality of the photograph may influence people's reaction. Photographs have mainly been used in ordering some sort of environmental preference. Also, they can be used in understanding people's mental maps. Lynch asked his subject's to classify photographs into what they thought were natural groups. Furthermore respondents were asked to identify each photograph and finally they were requested to lay the pictures out on a table as if to make-up a pictorial map.

Photographs are easy to use, they brighten-up an interview and can therefore be a positive benefit to the interviewing process.

(a) K. Lynch (1960) Image of the City.

A5.5.10 Observations: There are three types of observations. The first is studies in which trained observers/researchers view the actual environment; the second is studies in which the behaviour of users in the environment is observed, and the third is studies where the respondent is taken to observe particular elements, structures, environments directly.

(a) Observation of the Research - Lynch (1960) developed a notation system for mapping key perceptual elements in the urban environment. Views of the urban landscape as seen from the road have been the subject of special research. (e.g.) Appleyard, Lynch and Meyer (1964) "The View from the Road".

(b) Observation of Respondents - Observations of the behaviour of people in relation to the environment can be used to make inferences about perceptions. It is assumed that perception affects behaviour, therefore it should be possible to work backwards and make suggestions about likely perceptual processes as a result of observed behaviour pattern. For example we could look at Journey-to-work data and see if we can make any inferences about the 'perception' held by the sample. Implicit in this is the concept of 'cognitive' distance. Work in this field was prompted by Brennan (1948) and developed by Lee (1962).

(c) Respondents observing the environment - These are on-site interview surveys that require respondents to

actually view the environment in question. Some studies have involved actually taking subjects to particular sites and questioning them about their experiences. e.g. Appleyard et al (1964) and Coughlin and Goldstein (1970).

These observational techniques are obviously very diverse and probably have been underestimated in environmental perception research.

A5.6 CURRENT PROBLEMS OF RESEARCH INTO ENVIRONMENTAL PERCEPTION

David Lowenthal (1972) argued that the actual and potential importance of this research is evident in such values as environmental quality, recreation, natural hazards and amenity choices. However the field is extremely disjointed and unorganized.

Lowenthal claims that work in this field falls short of its potential because it lacks commonly accepted definitions, objectives and mechanisms for applying results to the needs of environmental planning and decision making.

Few studies have attempted to directly measure the relationship between environmental perception on subsequent behaviour, (especially search behaviour for a given commodity). This present research is therefore one attempt to directly measure this relationship; in the context of job search.

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APPENDIX A6 - BEHAVIOURAL GEOGRAPHY

Behavioural Geography has been comprehensively reviewed by Gold (1980). Therefore the literature reviewed in the appendix is restricted to those studies most relevant to the present research.

A6.1 RECREATION TRIPS

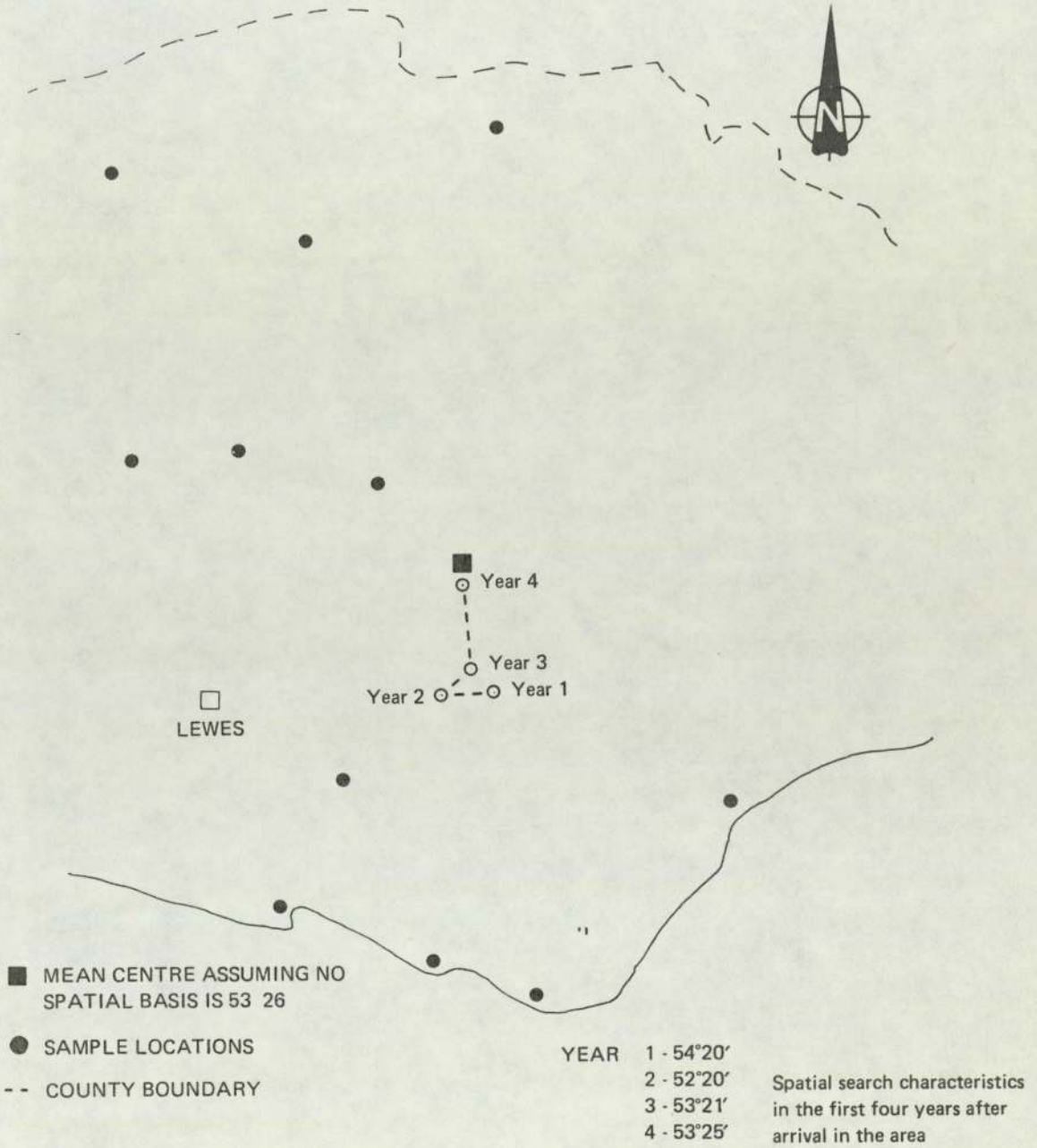
The study by M. Elson (1976) is reported here because it is similar to the type of methodology used in this research. Elson attempted to look at:

- (a) individuals' knowledge of recreational opportunities,
- (b) the way opportunities are sought out and patronised through time.

Elson took a sample of car owning households in the Lewes area of Sussex. The respondents were asked to report all the places they had visited for recreation. The most relevant section of Elson's study concerns the development of "Activity Spaces" through time. A cross-section of the sample was extracted based on the number of years an individual had lived in Lewes. He found that after four years an equilibrium was reached (i.e. habitual behaviour). Elson wanted to test for spatial biases in the development of Activity Spaces, therefore he calculated the mean centres for the distribution of each year of residence. Elson found that initially there was a bias towards the coast but after four years of residence in Lewes the mean centre is the same as the mean centre assuming no bias (see Figure A6.1).

Elson concluded that further elaborations in the measurement of spatial distributions could provide more

Figure A6.1-Search for recreation in Sussex



Source: M Elson (1976)

information on the nature of activity space. He refers to the 'standard deviational ellipse'. This technique is discussed fully in Appendix B1.

A6.2 CONSUMER BEHAVIOUR

Few studies in Behavioural Geography have been specifically designed to investigate the relationship between 'search' and 'learning'. An exception is the work of Bowlby (1970) into consumer behaviour. Bowlby asked residents new to an area about 50 supermarkets; if they knew of each supermarket and if so, from what information source did they first discover the supermarket. She found that 'passing-by' and 'friends and relatives' were the most important sources of information (N.B. these information sources are also cited as the most commonly used in job search). Bowlby suggests that 'activity space' plays a decisive role in directing search for shops. The respondents were also asked to give an indication of their 'familiarity' with each of the 50 supermarkets. The results showed that existing 'awareness' and 'activity' space was a guide to search. Bowlby also identified two elements in the development of search and learning; (i) initial search and (ii) continuing search or habitual behaviour. These elements are parallel to the findings of Elson in his study of recreation trips.

A6.3 INDUSTRIAL LOCATION

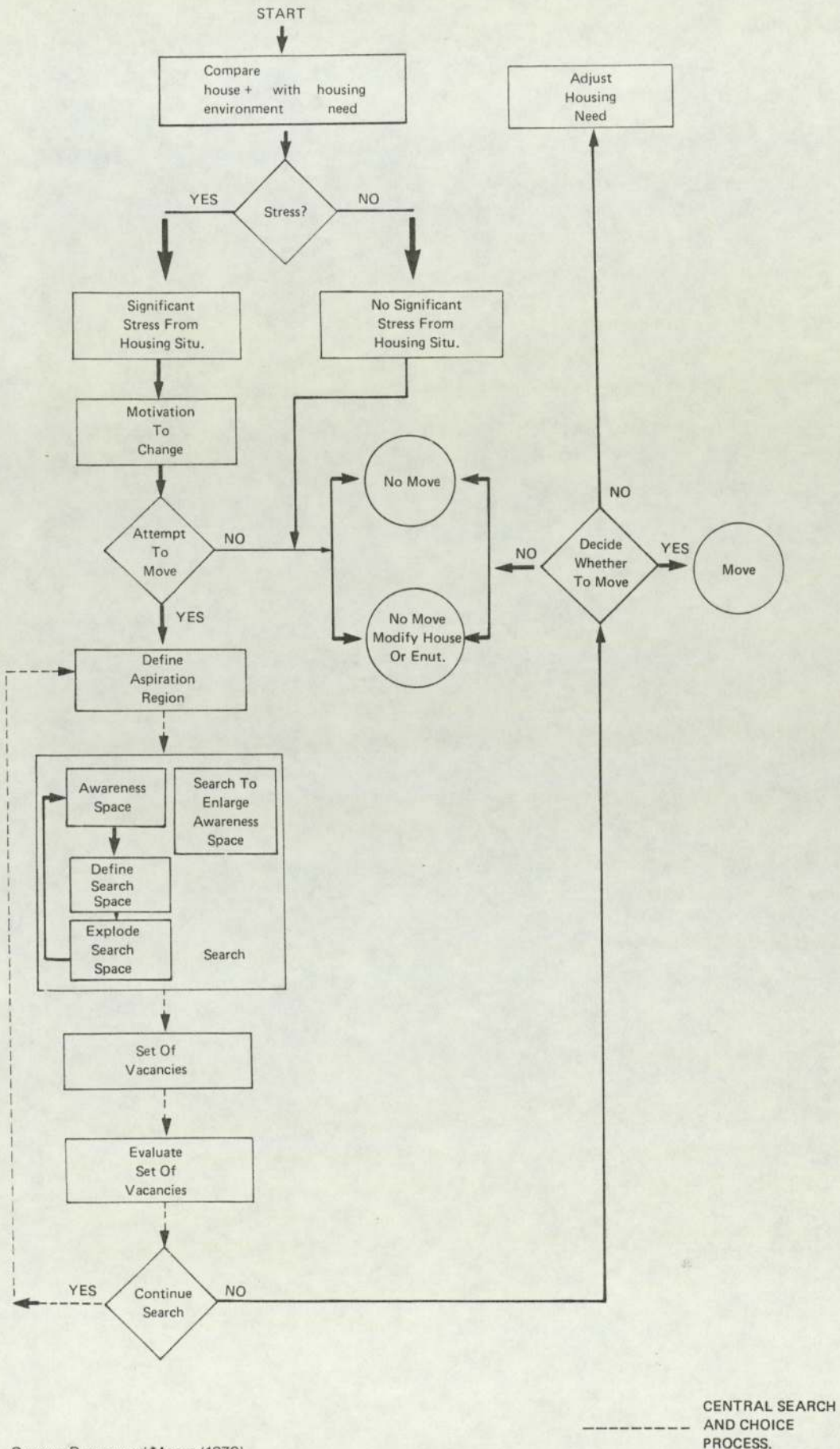
As with all the other types of movement within or between cities, industrial location and relocation has been examined by theory formulations and aggregate statistical analysis. The study by D.H. Green (1974) is a notable

application of behavioural techniques to studying the process of industrial location. Green made a deliberate attempt to fuse perception studies with decision-making studies. A rank scaling technique was used to measure industrialists' image of possible industrial locations in Britain. The technique was applied to industrialists who did not intend to relocate and to industrialists who had completed relocation. The main objective was to measure the image at the outset of search and any changes in that image as a result of learning during the process of search. Green also inspected the characteristics of completed search and decision making process with reference to the level of information possessed at the outset of search and the level of information on which final decisions were based.

A6.4 INTRA-URBAN MIGRATION

The Brown and Moore (1970) model of intra-urban migration is described in detail because it introduces and defines several concepts commonly used in 'cognitive-behavioural studies'. They developed a conceptual model which describes the process of decision making in searching for a new home. This model has been the basis of many other behavioural studies. The process of migration starts when the individual (or household) begin to experience 'stress' in their current residential situation (see Figure A6.2). The household will either adjust to this 'stress' in situ, or decide to attempt to move. If the latter course is chosen then the process of search commences. The first stage is to define the ASPIRATION REGION with respect to housing. The aspiration region defines the minimum

Figure A6.2 – The process of deciding to migrate



Source: Brown and Moore (1970)

requirements the searcher is prepared to accept and the maximum that he aspires to find. He will then search for vacancies that are likely to be suitable. The individual may already possess a considerable amount of information from previous travel in the city. The previous travel movements define an ACTIVITY SPACE which comprises all the locations that the individual has visited. In addition, the searcher will also possess an AWARENESS SPACE that comprises all the locations about which he has knowledge even if he has not visited them all. Based on information from the "current" awareness space the individual defines a SEARCH SPACE - the location in the city he will search for housing. The search for housing then proceeds. With the aid of various sources of information the searcher discovers possible vacancies within his search space. These sources of information may be used to enlarge awareness space and he may redefine search space as he discovers new areas or gains more information about those areas already known. The vacancies found are then compared with the aspiration region. A vacancy may be immediately accepted or the search experience may cause the individual to raise the aspiration level, redefine search space or adjust stress in situ. Further the methods which people use to search and the standards to which they aspire are likely to change as time and money spent searching increases.

This conceptual model of housing search can be modified and extended to represent a model of the 'job search process'. This is described in Appendix B1.

A6.5 CRITICISMS OF BEHAVIOURAL GEOGRAPHY

A criticism of studies in behavioural geography is that 'choice' in decision-making has been emphasised rather than the constraints exerted on the decision-maker. These constraints can be broadly divided in two levels; the limitations of opportunities available and the limitations of access to these opportunities.

The first level of constraint is often the topic of research by 'radical geographers' whose objective is to criticise and evaluate the ideologies, values and traditions of society from which the power and resources emerge that fundamentally influence the shape of the city. (see R. Peet 1977). A less radical approach to studying the limitations of opportunities is to examine the decision-making behaviour of the managers or 'gate-keepers' of the power and resources that do become available; such as estate agents, building societies, banks and local authorities. Research by geographers at this level has mainly been concerned with the provision of mortgages and housing. For example Kaiser and Weiss (1970) investigated the "relationship between the residential land development process and public policy".

The employment initiatives available to a local authority such as the West Midlands County Council have been reviewed. It was not the intention of this research to investigate and criticise the decision-making process of 'managers' in a local authority and it also was not the intention of this research to evaluate and criticise the ideological and political forces shaping the availability of jobs. Rather, this research was concerned

with constraints at the second level (access to job opportunities) given the limited availability and geographical patterns of jobs available.

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APPENDIX B1

THE STANDARD DEVIATIONAL ELLIPSE

APPENDIX B1 - THE STANDARD DEVIATIONAL ELLIPSE

B1.1 INTRODUCTION

This technique has been used extensively throughout the research project to describe, measure and compare cognitive and behavioural components of the job search process. This section explains how the ellipse is calculated and how it's properties can be used to represent biases in locational patterns. Studies which have employed this statistical technique are reviewed and the section also evaluates the technique.

The standard deviational ellipse is a CENTROGRAPHIC TECHNIQUE which attempts to measure the centres of distributions and their degree of dispersions. Centrographic techniques are simply graphical representations of statistics used to measure numerical frequency distributions.

This graphical technique is particularly relevant to this research because it provides measures of distance, directional, and sectoral biases in a distribution.

Although other techniques provide measures of either distance or directional biases, they fail to provide a measure of both biases simultaneously; neither do they measure sectoral biases. Brown and Holmes (1971) claim that it is essential to measure all these biases together because:

- (1) One spatial bias may distort another if only a single bias is considered.
- (2) Conditions resulting from spatial bias do not themselves occur independently.

B1.2 THE TECHNIQUE

The origin of the standard deviational ellipse can be traced back to the work of Lefever (1926). However, the technique has only recently been applied to urban studies.

In 1926 Lefever realised that many social problems possess distinctive geographical characteristics. In order to statistically describe these spatial distributions Lefever developed a method for measuring spot-maps in the same way that a numerical frequency is described by measures of central tendency (mean, mode and median) and by measures of dispersion (standard deviation, quartile deviation etc.).

The method of calculating the ellipses is shown in Figure B1.1.

The ellipse provides a graphic description of several spatial biases. It describes:-

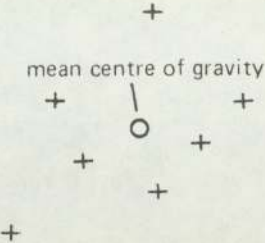
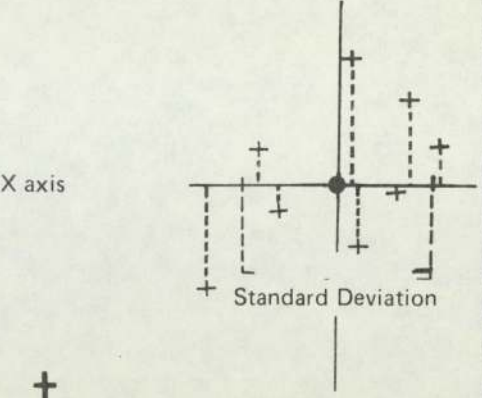
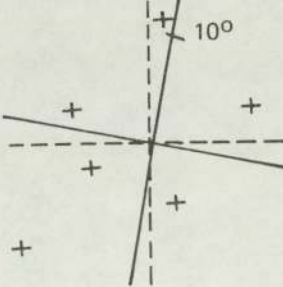
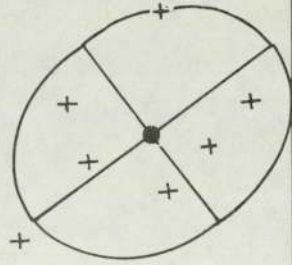
- (1) the overall volume of interaction as defined by the areas of each ellipse.
- (2) the degree of spatial concentration as expressed by the dimensions of the major and minor axes.
- (3) the general shape of the distribution expressed as a "coefficient of circularity" (dividing the minor axis by the major axis).
- (4) the directional bias as indicated by the tilt of the major axis.

B1.3 STUDIES USING THE STANDARD DEVIATIONAL ELLIPSE

B1.3.1 Brown and Holmes (1971)

This study was one of the first to apply the technique to urban problems in the school of 'behavioural geography'. Brown and Holmes discussed several concepts in 'behavioural

FIGURE B1.1 METHOD OF CALCULATING THE STANDARD DEVIATIONAL ELLIPSE

 <p>mean centre of gravity</p> <p>† SITE</p>	 <p>X axis</p> <p>Standard Deviation</p> <p>† SITE</p>
<p>1. Calculate the mean centre of gravity of the point distribution.</p>	<p>2. Calculate the standard deviation on the X - axis (i.e. the average distance from the mean centre along the axis)</p>
 <p>10°</p> <p>† SITE</p>	 <p>† SITE</p>
<p>3. Rotate axes through 10° (same centre) Recalculate standard deviation on X - axis. Repeat for every 10° rotation.</p>	<p>4. Standard deviations on each rotation of the axis are joined.</p>

geography' (e.g. 'search space' and 'awareness space') and they explained that all concepts require accurate measurement. However Brown and Holmes limited their study to search behaviour of people who have recently moved house. They examined the search movements of 189 migrants in Cedar Rapids, Iowa. The sample was divided into: (1) migrants originating from the inner city and migrants originating from the outer city and (2) four socio-economic groups.

For each respondent they recorded the location of his initial residence, the location of all the vacancies examined and the location of his new residence.

They were interested in four characteristics of the migrants' search space.

- (1) size of area searched
- (2) distance bias; tendency for search to be close or far from initial residence
- (3) directional bias; the tendency for search to be directed towards or away from the CBD
- (4) sectoral bias; the tendency for search to be confined to a particular sector of the city.

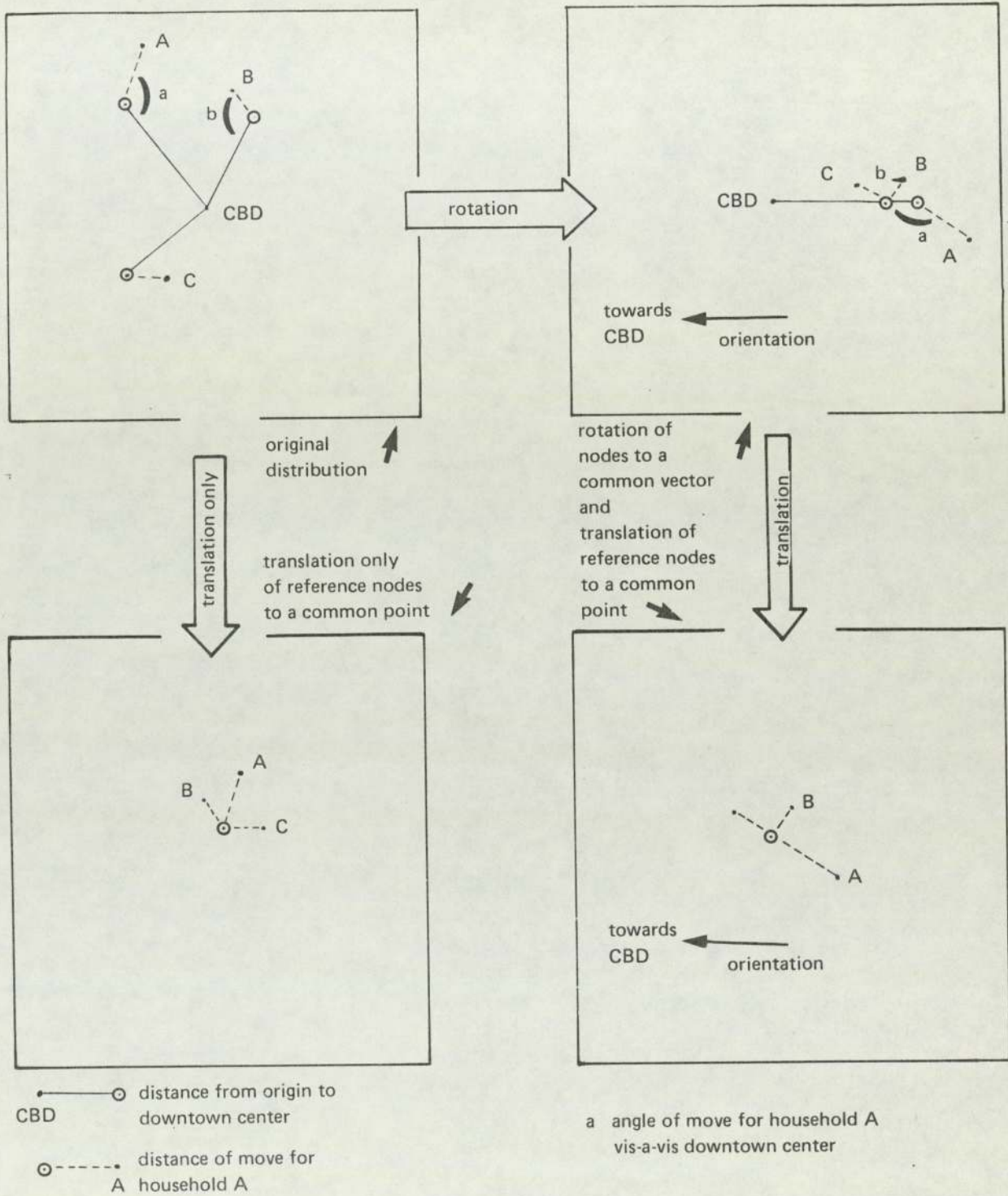
In order to measure these biases they needed a technique that will

- (a) preserve distance and direction
- (b) be able to aggregate individual data
- (c) allow simple comparisons.

The standard deviational ellipse was used after data had been "rotated and translated" using a method called TRANSMAP (see Figure B1.2).

They found both inner city and outer city groups

FIGURE B1.2 ROTATION AND TRANSLATION TECHNIQUE



Rotation and translation options under TRANSMAP.
(From Brown and Holmes (1971)).

tended to search close to the dwelling they finally selected. However, the inner city group searched a small area close to their initial home with little sectoral or directional bias, while outer city migrants searches over a wider areas and displayed both directional bias toward the CBD and sectoral bias. (See Figure B1.3).

Brown and Holmes suggest that contrasts in search patterns for socio-economic groups reflects the distribution in Cedar Rapids of housing appropriate to each. If this is so it suggests the process of search is fairly efficient. The tendency for search to be concentrated around the site finally selected also indicates that, rightly or wrongly, migrants concentrated their efforts in one area.

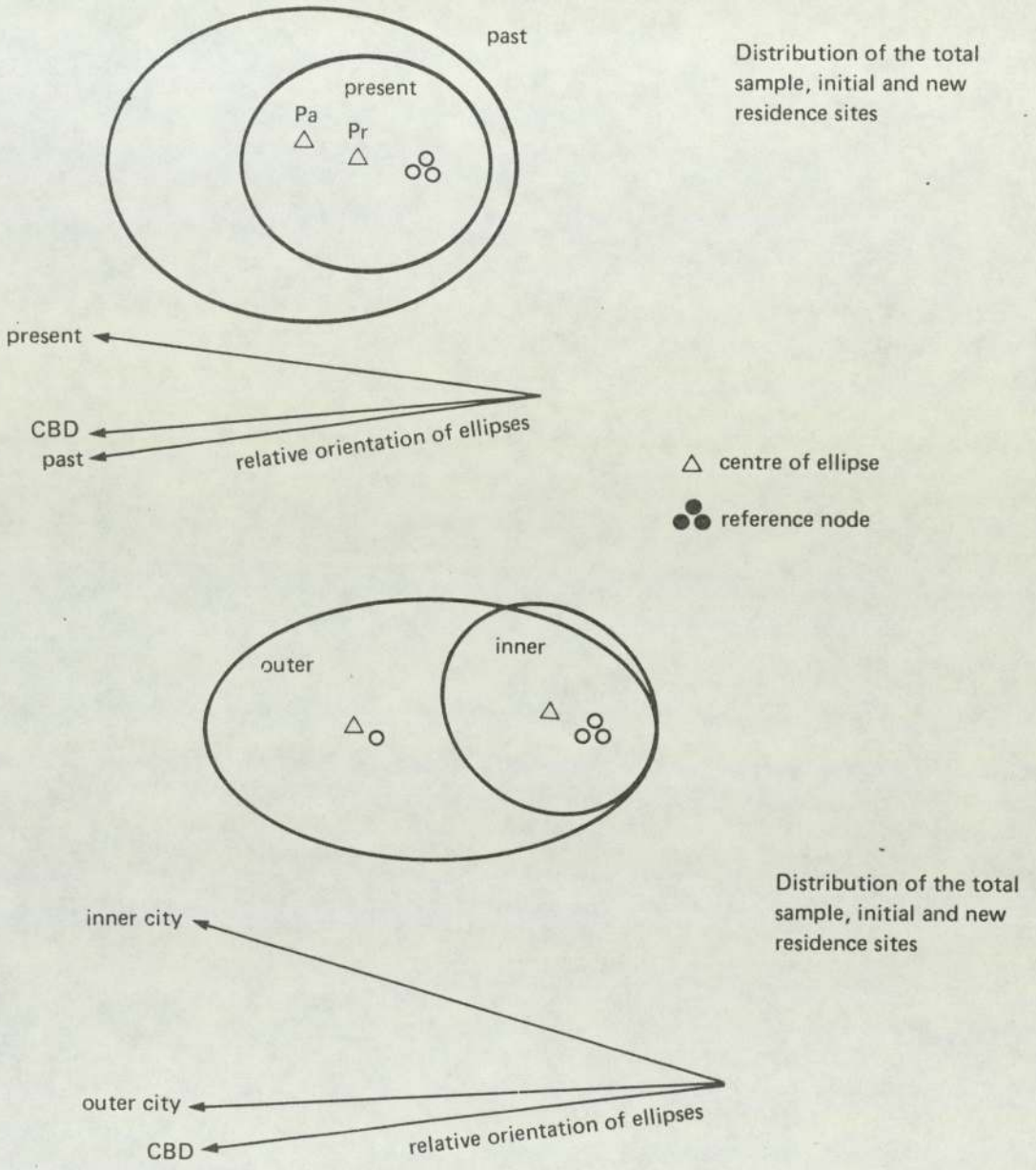
The use of 'transmap' meant that ellipses were a geometric rather than geographical expression of search activity. For purposes of this research the SDE technique was needed as a geographical expression to facilitate comparisons with shaded maps and to show the relative difference between various patterns of search in the city.

B1.3.2 Herbert and Raine (1976)

Herbert and Raine were interested in defining the spatial limits of a local neighbourhood.

A number of streets of the same S.E.G. were selected in Cardiff, and 1 in 5 households were interviewed until a total of 30 were reached for each street. Respondents were asked to identify where social contacts lived and in which category they fell.

FIGURE B1.3 HOUSEHOLD MOVEMENTS IN CEDAR RAPIDS, IOWA



SOURCE: BROWN AND HOLMES(1971)

frequency of visit

acquaintance
quite friendly
friendly
very friendly
very close friend

(There is not necessarily a direct correlation between frequency of visit and intensity of friendship).

Therefore Herbert and Raine had a distribution of points, each with an assigned value. They used the standard deviational ellipse to define the boundary of a neighbourhood around each particular street in Cardiff. (See Figures Bl.4 and Bl.5).

Herbert and Raine found the technique to be very useful because not only did it delimit the boundary (area) of a neighbourhood it also provided a measure of the degree of concentration, shape, direction, distance and distribution biases.

Bl.3.3 Other Studies

A. Buttiner (1972) used the ellipse to describe several dimensions of aggregate activity space orbits of four housing estates in Glasgow.

G.A. Hyland (1973) used the procedure to study social interaction among recent migrants from appalacia to Cincinattii, Ohio.

R.J. Caprio (1970) in his paper on 'Centrograph : and Beostatistics' rotated the axes through 5° increments in order to reduce potential sources of error due to orientation.

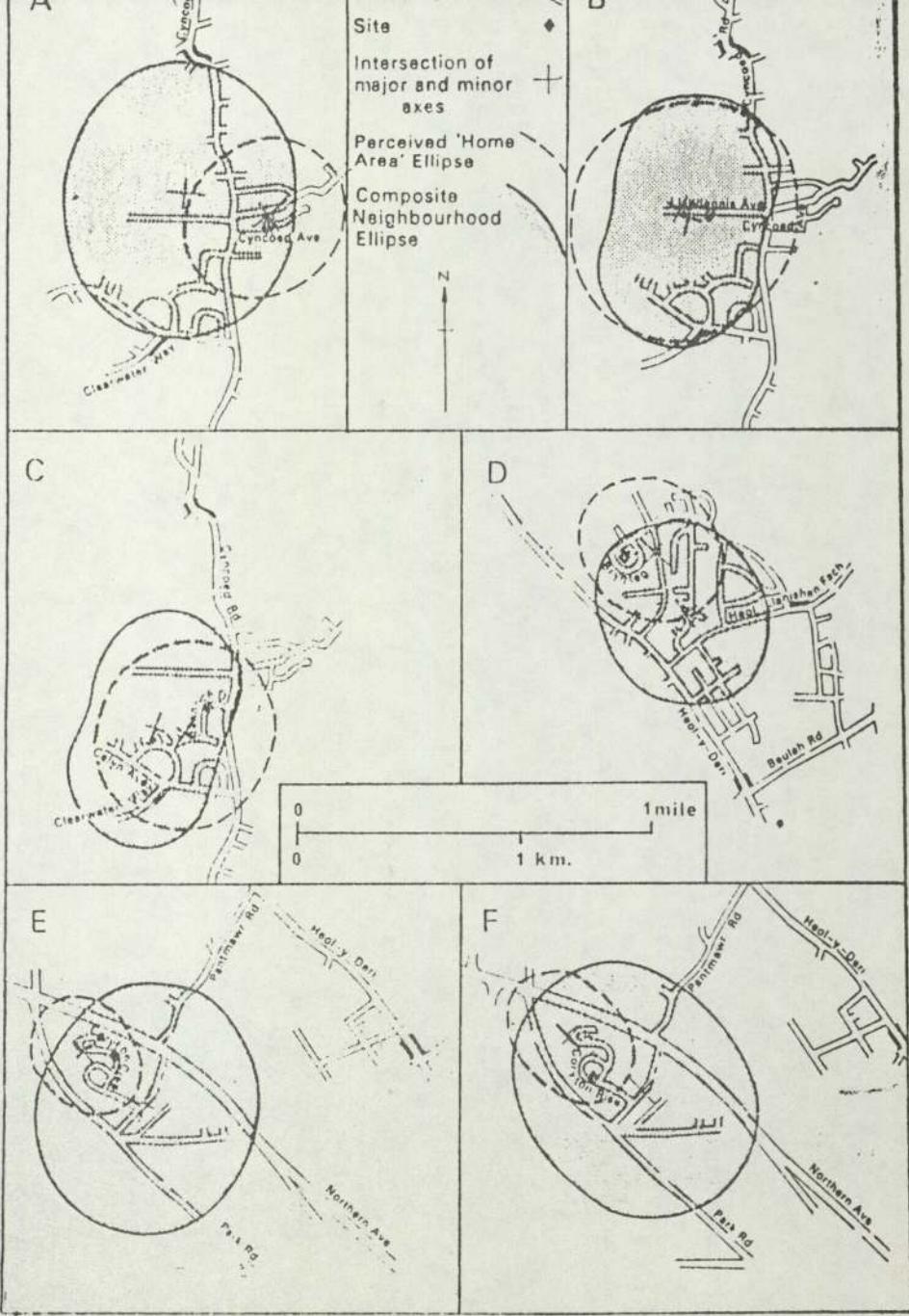


Figure B14 Composite and Home Area Ellipse

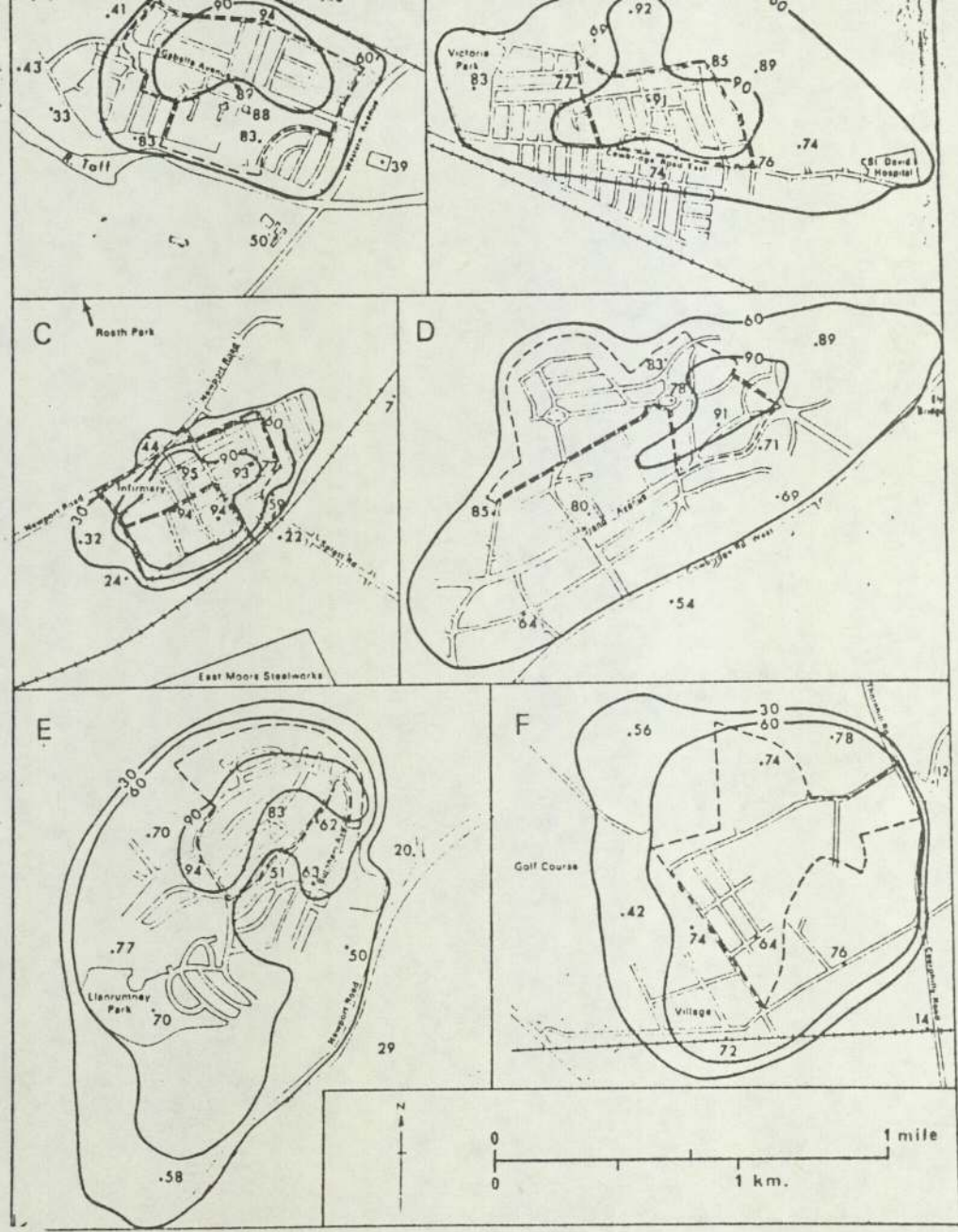


Figure B15 -- Perceived Urban Neighbourhoods

B1.4 EVALUATION OF THE TECHNIQUE

In terms of studying point patterns in general the technique does have limitations.

The first limitation is the restricted range in shape and the fact that the resultant figures are necessarily symmetrical. However the calculation of ellipses as a means of summarizing point distributions allows an analysis to reach beyond the purely descriptive level of terms such as 'random', clustered' or 'uniform' (used in other techniques such as 'nearest neighbour analysis') and to say something more about the spatial properties of the point distributions. In Raine's summary of the technique he concludes that "the standard deviational ellipse has a wide 'potential' as a technique for generating and testing hypothesis about patterns and for summarizing data not only in the fields of location studies in human geography, but in other contexts involving the study of point distributions" (1978 - "Area" Volume 10, No. 6). It is this 'potential' described by Raine that is most important because it precisely follows the methodology proposed for this research project.

A criticism of many geographical studies today is that 'techniques' are often regarded as the 'final word' in analysis of data. Many so called rigorous statistical techniques have been employed by geographers to 'analyze' spatial data. For example the 'principal component analysis' has been used to describe the small areal patterns of urban populations, where perhaps a good working knowledge of that city could produce an equally accurate 'map'. Therefore the standard deviational ellipse has been used in this project

not only to summarize geographical patterns but also to point to avenues of further analysis.

B1.5 FURTHER READING

P. Furfey (1927)

"A note on lefevers standard deviational ellipse". American Journal of Sociology, Vol. 133 pages 94-98.

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"Centrography and geostatitics". The Professional Geographer Vol. XXII. I.

(See Thesis)

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"Geostatistical Analysis of internal migrations" Journal of Regional Science Vol. 16 No. 1

B1.6 - REFERENCES

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APPENDIX C1

THE DEVELOPMENT OF DATA COLLECTION
AND SURVEY METHODS. PRE-TESTS AND
PILOT SURVEY

APPENDIX C1 - THE DEVELOPMENT OF DATA COLLECTION
AND SURVEY METHODS: PRE-TESTS AND PILOT SURVEY

C1.1 INTRODUCTION

The basic concept of the survey was to collect data at two stages. In the first stage data was required on individual's awareness of the city, search intentions and job aspirations at the outset of job search. In the second stage data was required on the subsequent job search decision-making behaviour during an initial spell of unemployment. This Appendix outlines how data collection and survey methods were developed in a series of pre-tests and a pilot survey. Firstly, the development of a district nomenclature, boundary and centre point definition is described. Secondly the construction of a meaningful 'awareness scale' is described. For the second stage of the survey, this Appendix outlines data collection on the process of job search and evaluates methods of conducting the survey. Finally the objectives, and results of a pilot survey are described in detail.

C1.2 DISTRICT NOMENCLATURE, BOUNDARY AND CENTRE-POINT DEFINITION

It was essential that the definitions of boundaries, centre-points and nomenclature of the districts of Birmingham were meaningful to all residents of the city. In order to obtain meaningful definitions a series of pre-tests were carried out. In the first pre-test five employee's of the West Midlands County Council were asked to indicate (on the scale shown below ¹), their familiarity

¹. This 'familiarity scale' was arbitrarily defined, but the development of meaningful definitions of scores in a familiarity scale is described in the next section. (This arbitrary scale was adequate for developing the district nomenclature).

with a list of named districts of the city.

- 0 - Never heard of it.
- 1 - Heard of it, but never been there and would not know how to get there.
- 2 - Heard of it, but never been there, yet got an idea of how to get an idea of how to get there.
- 3 - Been there once or twice and can name a few roads and buildings.
- 4 - Know a good deal about the area.
- 5 - Know the area very well.

The names of the districts were selected from a base map of 1:25,000, but were not systematically chosen, (or related to any set criteria). In fact, the author quite simply selected those names that he felt were most meaningful. The results of the pre-test showed how the author (who lived in a suburb to the south of the city) had used his 'perception' in constructing a biased and therefore inadequate list of district names. This was illustrated by one respondent (who lived in a northern suburb) who felt that several 'meaningful' names had been omitted in the northern sector of the city. It became clear that a more systematically defined nomenclature was required.

In a second pre-test, the names of electoral 'wards' were used to compile a list of districts to which the same respondents were asked to indicate a familiarity score. This approach satisfied the requirements for a set of standard named districts with defined boundaries.

However, both the names and boundaries were not 'meaningful' to the respondents. For example, a respondent had never heard of the 'ward' named 'Brandwood' (score = 0), yet in the previous pre-test he had scored '3'

LIST ONE: WARD NAMES OF THE CITY OF BIRMINGHAM

(A) "CORE AREA" OF BIRMINGHAM INNER CITY PARTNERSHIP

All Saints
Aston
Duddeston
Deritend
Handsworth
Ladywood
Newtown
Rotton Park
Saltley
Small Heath
Sparkbrook
Sparkhill
Washwood Heath

(B) OTHERS

Acocks Green
Billesley
Brandwood
Edgbaston
Erdington
Fox Hollies
Gravelly Hill
Hall Green
Sandwell
Harborne
Kings Norton
Kingstanding
Longbridge
Moseley
Northfield
Oscott
Perry Barr
Quinton
Selly Oak
Shard End
Sheldon
Stechford
Stockland Green
Sutton Coldfield (1,2,3)
Weoley
Yardley

for areas such as King Heath and Yardley Wood, which are in fact distinctive areas of the 'Brandwood' ward. Clearly these latter districts were preferable to a more abstract 'ward' definition. This point is especially significant because the pre-test was administered to a group of local government officers who were likely to have a working knowledge of administrative areas (i.e. Wards). Furthermore, because several wards include a number of distinctive areas, it becomes very difficult to locate a 'meaningful' centre-point.

In order to compile a meaningful list of districts of the city it was necessary therefore to consider why names such as King Heath were more meaningful to residents than Brandwood. One possible explanation might be the occurrence of shopping centres.

Details of all shopping centres in the West Midlands County are included in the West Midlands County Council Structure Plan. These shopping centres are a physical concept which exist on the ground and respondents may have had active commerce with the shopping centre. The 'shopping centre' has an easily defined approximate centre, although the boundary definition is more ambiguous and is a subject for another area of research (see Bowlby 1972).

If a respondent had never heard of some or all of the 'major district centres' and 'general district centres' then his or her mental map of the city was probably impoverished, because these higher order centres offer the widest range of goods and specialist facilities.

If one examines list two more closely, it becomes evident that many of the low order (neighbourhood centres')

are not 'areas' but essentially just a group of stores (mainly durable goods). Certainly all 'district centres (levels 5,6 and 7) had to be included in any list of districts, but this still does not facilitate, a standard district nomenclature and clearly define centre points and boundaries.

LIST TWO: BIRMINGHAM SHOPPING AREAS

(Source: Classification in County Structure Plan Review; Report of Survey - "SHOPPING")

- | | | | | |
|---|---|------------------------------------|---|---|
| 1 | - | Regional Centre | - | Birmingham city centre |
| 2 | - | Sub-Regional Centres | - | Wolverhampton and Coventry |
| 3 | - | Major Town Centre | - | Walsall
Dudley |
| 4 | - | Minor Town Centre | - | Sutton Coldfield
Solihull
West Bromwich |
| 5 | - | <u>Major District Centres</u> | | |
| | | (i) In Birmingham | | (ii) Adjacent to Birmingham |
| | | + - Erdington | | + - Chelmsley Wood |
| | | + - Northfield | | - Stourbridge |
| | | + - Kings Heath | | |
| 6 | - | <u>General District Centres</u> | | |
| | | (i) In Birmingham | | (ii) Adjacent to Birmingham |
| | | + - Small Heath
(Coventry Road) | | + - Bearwood |
| | | + - Acocks Green | | - Blackheath |
| | | + - Saltley | | - Cape Hill |
| | | + - Handsworth | | + - Halesowen |
| | | + - Harborne | | - Shirley |
| | | - Perry Barr | | |

+ Main District Centres with greatest potential
(Shopping Consultants Study).

7 - Minor District Centres

(i) In Birmingham

- Edgbaston (Five Ways)
- South Yardley
(The Swan)
- Mere Green
- Sparkhill
- Springfield
- Stirchley
- Lozells Road
- Moseley
- Newtown
- Hawthorn Road
(Kingstanding)
- The Circle
(Kingstanding)
- Washwood Heath
(Fox and Goose)
- Castle Vale
- Great Barr
(Scott Arms)
- Selly Oak
- Cotteridge
- Wylde Green
(Chester Road)
- Hall Green
- North Yardley
- Castle Bromwich
(The Castle)
- Rubery

(ii) Adjacent to Birmingham

- Knowle
- Smethwick (High St.)

8 - Large Neighbourhood Centres

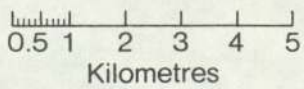
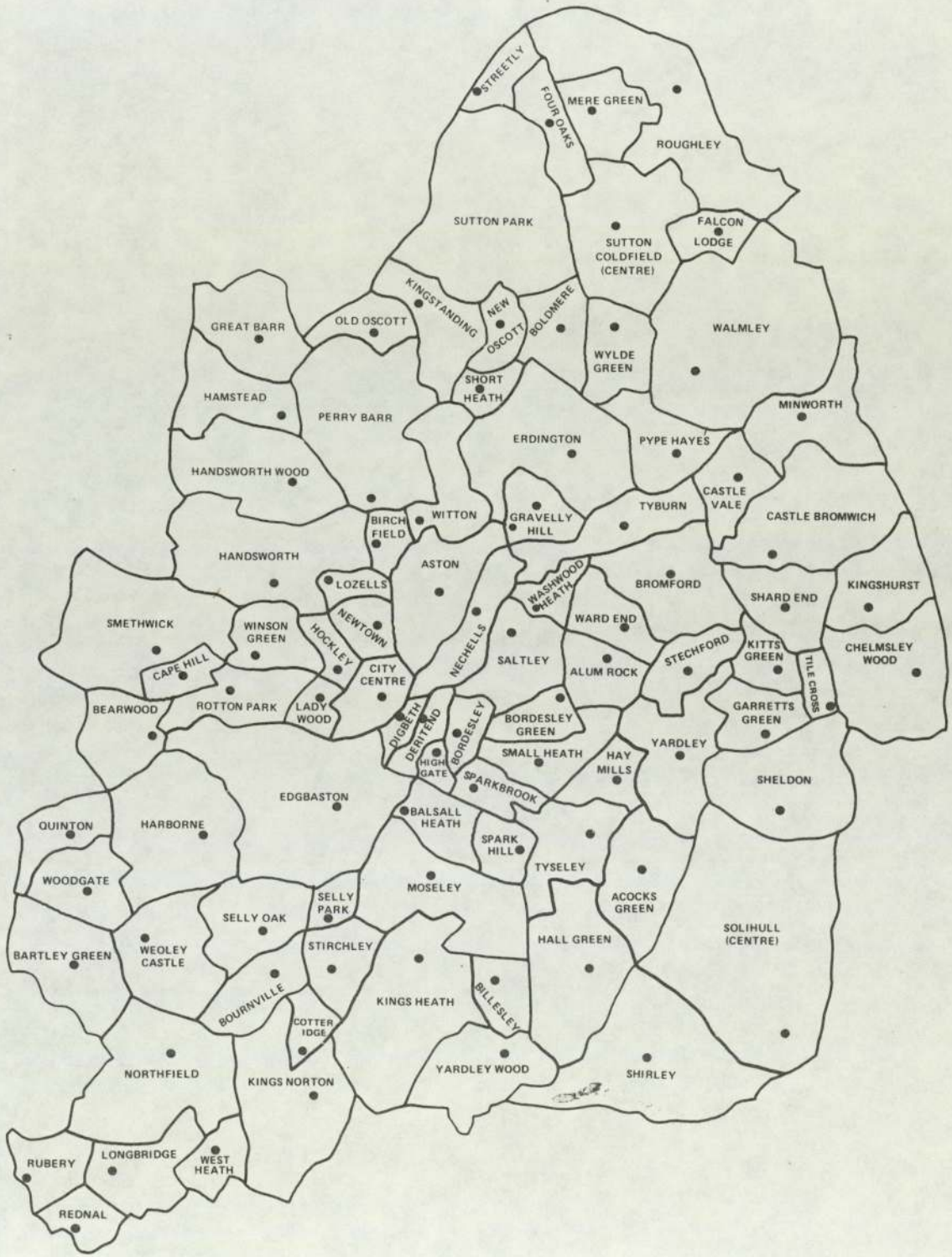
(i) In Birmingham

- Winson Green
(Dudley Road)
- Balsall Heath
(Ladypool Rd)
- Boldmere
- Weoley Castle
- Highfield Road
- Pye Hayes
(Tyburn Road)
- Green Lane
(Small Heath)
- Poolway (Meadway)
- Quinton (Holly Bush)
- Maypole
- Villa Road
- Witton Road
- New Oscott
(Beggar's Bush)
- Alum Rock
- Lea Village
(Kitts Green)

(ii) Adjacent to Birmingham

- Hobs Moat
- Kingshurst
- Oldbury

Figure Cl.1 – District boundary and centre points



8 - Large Neighbourhood Centres (Cont'd)

(i) In Birmingham

- Short Heath
- Hay Mills
- The Radleys
- Glove Farm
- Rookery Road
(Handsworth)
- Ward End
- Olton Boulevard
(Fox Hollies)

NB. Lists in hierarchical order based on number of shopping square feet (although some subjectivity on behalf of WMCC Planners concerning 'level' or category of each centre).

It can be suggested that the name of a shopping centre is known to residents by a number of environmental indicators. For example shops display the name of the centre (e.g. "Kings Heath Florist"). Buses which terminate close to the shopping centre also display the name of the centre. Local traffic signs also point the way to a district centre. It appears therefore that shopping centres, which are usually focussed on a major road intersection indicate the centre of a district. It was still essential however to be able to define the boundaries of these districts in order to construct a map of these divisions of the city. The districts of Birmingham have always been clearly defined by sign-posts on major roads into each district of the city. (See Plates)

The importance of these district sign posts is further enhanced by the Advanced Direction Signing carried out by local government transport departments

See Plate

Research into 'neighbourhood' perception carried out by J. Raine (1979) in Cardiff, found that most people agreed on the name of their neighbourhood which was simply defined

by this 'official' nomenclature. Therefore it is argued that individuals know districts by this 'route planning' district nomenclature.

Hence, the 'route planning' nomenclature and district definition (see List Three) provided an adequate framework to collect data on 'awareness space' which can be analysed by the standard deviational ellipse technique and compared with similar data for 'search activity space' ¹.

Cl.3 AWARENESS SCALE DEFINITION

Several researchers in the field of 'behavioural geography' have attempted to measure 'awareness space' using an attitudinal scale. It is informative to review some of the 'scales' used in these studies. Although the objective of each study was concerned with one particular behaviour (e.g. intra-urban migration), there was basically a similar underlying frame used to measure 'familiarity' in each of the studies:

Cl.3.1 S. Hanson (1977) chose 'successive category scaling' to measure the cognitive levels of urban residents. After several pre-tests she rejected both mental mapping and verbal recall techniques in preference to a scaling technique which was derived from the work of Torgerson (1948). Before discussing the 'scale' used by Hanson, it is useful to quote the following points (or criteria) regarding the 'stimulii' presented to the respondent that

1. This list of districts used in the main survey included surrounding towns, however the analysis of the survey data is based on the contiguously urban area of Birmingham as shown in Figure Cl.1.

LIST THREE : NAMES OF AREAS USED IN 'ROUTE PLANNING MAP' FOR
ADVANCED DIRECTION SIGNING BY TRANSPORTATION
AND ENGINEERING DEPARTMENT OF WEST MIDLANDS
COUNTY COUNCIL

(i) Within Birmingham

Acocks Green
Alum Rock
Aston
Bartley Green
Balsall Heath
Bearwood
Billesley
Birchfield
Bordesley
Bordesley Green
Bournbrook
Bournville
Bromford
Cape Hill
Castle Bromwich
Castle Vale
Chelmsley Wood
CITY CENTRE
Cotteridge
Edgbaston
Erdington
Garretts Green
Gravelly Hill
Greet
Hall Green
Hamstead
Handsworth
Handsworth Wood
Harborne
Hay Mills
Highgate
Highters Heath
Hockley
Kings Heath
Kings Norton
Kingshurst
Kingstanding
Kitts Green
Ladywood
Little Bromwich
Longbridge
Lozells
Moseley
Nechells
New Oscott
Newtown
Northfield
Old Oscott

(ii) Neighbouring Towns

Blackheath
Coventry
Dudley
Oldbury
Smethwick
Walsall
West Bromwich
Wolverhampton
Solihull
Shirley
Olton
Knowle

LIST THREEcontinued

(1) Within Birmingham

Perry Barr
Pype Hayes
Quinton
Rednal
Rotton Park
Rubery
Saltley
Selly Oak
Selly Park
Shard End
Sheldon
Short Heath
Small Heath
South Yardley
Sparkhill
Sparkbrook
Stechford
Stirchley
Stockland Green
Ten Acres
Tile Cross
Tyburn
Tyseley
Walkers Heath
Ward End
Warstock
Washwood Heath
Weoley Castle
West Heath
Winson Green
Witton
Woodgate
Yardley
Yardley Wood
Sutton Coldfield
Boldmere
Falcoln Lodge
Four Oaks
Mere Green
Minworth
Streetly
Walmley
Wylde Green

she considered to be vital. (The stimuli in this research (previously discussed) are the districts of Birmingham.)

- 1) A representative sample of locations in urban space.
- 2) Required points rather than areas because (a) travel destination are best conceptualised as points and (b) the variation in cognitive levels within an area.
- 3) The stimuli must mean the same thing to all respondents (e.g. a grocery stores).
- 4) The stimuli must not be clustered (to avoid and disguising of the spatial variation in the respondents information level).

The 'route planning' nomenclature satisfied all of these criteria.

Hanson presented each subject with a list of the names and addresses of ninety grocery stores. The subjects were then asked to mark on a scale how familiar they were with the Store's location, to mark on a scale how familiar they were with a store's interior attributes and to indicate how often they used the store.

case example

0.1 Martin Obsons, Suartbackgata, 12 incentrum

(a) completely unfamiliar	- - - - -	extremely familiar
complete unfamiliar	- - - - -	extremely familiar
never use	- - - - -	use very often

Hanson concluded that each urban resident knew only a small proportion of the total opportunity set. However, this may be a reflection of the fact that people were unlikely to use or know of grocery stores beyond their

immediately surrounding areas (i.e. low order goods).

In the attitudinal scale used by Hanson the two extreme ends of scale were defined and the subject was allowed to make his or her own interpretation of the meaning and values of the other five points in the scale.

Cl.3.2 G. T. Moore (1975) used a five point scale to measure respondent's 'familiarity' of fifteen districts in the City of Worcester, Massachusetts, U.S.A..

- 5 - extremely familiar, know it intimately
- 4
- 3
- 2
- 1 - not familiar at all

In both of the scales used by Moore and by Hanson subjects assigned his or her own interpretation to the level or 'pitch' of the scale.

Cl.3.3 Horton and Reynolds (1971) studied familiarity of a small city, Cedar Rapids, Iowa. Respondents were asked to indicate on a five point scale his or her level of familiarity with each of the 27 sub-areas of the city, which had been selected to correspond with residential areas.

- 0 unfamiliar
- 1
- 2
- 3
- 4 very familiar

Cl.3.4 M.F. Poulsen (1978) used a scale to obtain familiarity ratings of 26 areas in Hamilton, New Zealand which was less susceptible to differences in individual interpretation.

- 1 - Know area very well
- 2 - Know area quite well
- 3 - Know the area
- 4 - Know little about the area
- 5 - Know very little about the area
- 6 - Do not know the area

However the scale could also be interpreted differently by different people. For example a person of whom it is generally accepted that he or she possess an exceptional knowledge of the city (such as a taxi-driver or policeman) may assign a score of '1' = "know area very well" to a given area, while a person with a lesser knowledge of the city may also assign a score of '1' to an area, but the detail and extent of the latter person's knowledge is likely to be inferior to that of the policeman or taxi-driver. On the other hand the taxi driver or policeman may score '3' for an area based on the same detail of knowledge which another person considers warrants a score of '5'.

Therefore, a more rigorously defined scale was required with precise statements about the detail of knowledge which meant the same to all respondents. One could argue, that the open scale used by Moore, Horton and Reynolds, and by Hanson was sufficient if it was only necessary only to measure the extent a person thinks he or she knows an area.

However, in this particular study it was hypothesised that certain groups of individuals (such as inner city residents) had a limited knowledge of the city which subsequently reflected and constrained search behaviour.

On the basis of this reasoning a pre-test was carried out on a small group of West Midlands County Council officers using a 'rigorously' defined scale to measure familiarity with the city.

- 0 - Never heard of it
- 1 - Heard of it, but never been and wouldn't know how to get there.
- 2 - Heard of it, but never been there, yet got an idea how to get there
- 3 - Been there once or twice and can name a few roads and buildings.
- 4 - Know a good deal about the area
- 5 - Know the area very well

This scale was in fact found to be inadequate. Two faults were identified. Firstly there were two types of scales involved in the statements; (i) a knowledge scale and (ii) an activity scale (i.e. frequency of visit). It was not necessarily true that if a person never visited an area he or she did not know the area. For example one person previously lived in Hall Green and therefore knew the area well despite the fact that she had not visited the area within the last year. The second fault in the pre-test scale was that the differences in the level of knowledge represented by each statement were not equal (i.e. non-linear).

In another pre-test five other local government officers were given a random list of some of the districts of Birmingham and they were asked the following questions.

"Imagine you are asked by a stranger how to get to a specific location in the following districts. How accurately could you direct the person to each district and how much detail could you give to the person, about the district?"

The descriptions given by all the respondents were examined and used to produce the following five point awareness scale.

5. Know the district extremely well - know all main roads, many side roads, and other smaller features such as newsagents and post offices.
4. Know (A) more than one road and several prominent buildings and/or (B) a small part of the district very well (e.g. High Street).
3. Can name just one main road that goes to the District.
2. Only know where it is in relation to the rest of the city.
1. Heard of it, but no idea where it is.
0. Never heard of it.

This scale ¹ was subsequently used on the previous five and another five local government officers. After this exercise all respondents felt that this six point scale adequately covered the general spectrum of their awareness of districts of the city.

In order to test the suitability of the list of districts and the awareness scale on young people (16 to 18 years olds) the single-page questionnaire (shown in Figure Cl.2) was given to C.S.E. and 'O' level classes of fifth year pupils at Kings Heath School and Park Hall School (Castle Bromwich). The teachers reported that the pupils enjoyed the exercise and that the questionnaire was clearly understood.

This clearly defined standard scale was essential in order to compare awareness levels of individuals. In other words a score of "3" meant that an individual could name one road to a district whether the individual was a taxi-driver or a sixteen year old school leaver. Further, it was clear that if a taxi-driver possessed higher levels of awareness than say, a school leaver, then the scale will show this difference because the former group will assign a greater proportion of districts to the higher awareness scores. Another advantage of the clearly defined 'standard awareness scale' was that each job vacancy discovered by a respondent could be assigned to one of the six points on the scale.

¹. This scale of awareness is an ordinal scale and not an interval scale, therefore the difference between each of the scores is not necessarily uniform.

How well do you know the following areas of Birmingham?

5	I KNOW THE AREA EXTREMELY WELL	(I.E.)	I KNOW ALL THE MAIN ROADS, SOME SMALL ROADS; MAIN BUILDINGS, AND SOME SMALL BUILDINGS (E.G. POST OFFICE)
4	I KNOW EITHER AND/OR	(A) MORE THAN ONE MAIN ROAD AND A FEW MAIN BUILDINGS (B) PART OF THE AREA VERY WELL (E.G. MAIN SHOPPING AREA)	
3	ALL I KNOW IS THE NAME OF ONE MAIN ROAD THAT GOES TO THE AREA (.E.G "THE HAGLEY ROAD")		
2	I ONLY KNOW ROUGHLY WHERE THE AREA IS IN RELATION TO THE REST OF THE CITY (E.G. "SOUTH OF CITY CENTRE")		
1	HEARD THE NAME - BUT NO IDEA WHERE THE AREA IS		
0	NEVER HEARD OF THE AREA		

5	4	3	2	1	Acocks Green	0
5	4	3	2	1	Alum Rock	0
5	4	3	2	1	Aston	0
5	4	3	2	1	Bartley Green	0
5	4	3	2	1	Balsall Heath	0
5	4	3	2	1	Bearwood	0
5	4	3	2	1	Billesley	0
5	4	3	2	1	Birchfield	0
5	4	3	2	1	Bordesley	0
5	4	3	2	1	Bordesley Green	0
5	4	3	2	1	Boldmere	0
5	4	3	2	1	Bournbrook	0
5	4	3	2	1	Bournville	0
5	4	3	2	1	Bromford	0
5	4	3	2	1	Cape Hill	0
5	4	3	2	1	Castle Bromwich	0
5	4	3	2	1	Castle Vale	0
5	4	3	2	1	Chelmsley Wood	0
5	4	3	2	1	Cotteridge	0
5	4	3	2	1	Edgbaston	0
5	4	3	2	1	Erdington	0
5	4	3	2	1	Falcon Lodge	0
5	4	3	2	1	Four Oaks	0
5	4	3	2	1	Garrets Green	0
5	4	3	2	1	Gravelly Hill	0
5	4	3	2	1	Great Barr	0
5	4	3	2	1	Greet	0
5	4	3	2	1	Hall Green	0
5	4	3	2	1	Hamstead	0
5	4	3	2	1	Handsworth	0
5	4	3	2	1	Handsworth Wood	0
5	4	3	2	1	Harborne	0
5	4	3	2	1	Hay Mills	0
5	4	3	2	1	Highgate	0
5	4	3	2	1	Highters Heath	0
5	4	3	2	1	Hockley	0
5	4	3	2	1	Kings Heath	0
5	4	3	2	1	Kings Norton	0
5	4	3	2	1	Kingshurst	0
5	4	3	2	1	Kingstanding	0
5	4	3	2	1	Knowle	0
5	4	3	2	1	Kitts Green	0
5	4	3	2	1	Ladywood	0
5	4	3	2	1	Little Bromwich	0
5	4	3	2	1	Longbridge	0
5	4	3	2	1	Lozells	0
5	4	3	2	1	Mere Green	0
5	4	3	2	1	Minworth	0
5	4	3	2	1	Moseley	0
5	4	3	2	1	Nechells	0
5	4	3	2	1	New Oscott	0
5	4	3	2	1	Newtown	0
5	4	3	2	1	Northfield	0
5	4	3	2	1	Old Oscott	0
5	4	3	2	1	Perry Barr	0
5	4	3	2	1	Pype Hayes	0
5	4	3	2	1	Quinton	0
5	4	3	2	1	Rednal	0
5	4	3	2	1	Rotton Park	0

5	4	3	2	1	Rubery	0
5	4	3	2	1	Saltley	0
5	4	3	2	1	Selly Oak	0
5	4	3	2	1	Selly Park	0
5	4	3	2	1	Shard End	0
5	4	3	2	1	Sheldon	0
5	4	3	2	1	Shirley	0
5	4	3	2	1	Short Heath	0
5	4	3	2	1	Small Heath	0
5	4	3	2	1	Smethwick	0
5	4	3	2	1	Sparkhill	0
5	4	3	2	1	Sparkbrook	0
5	4	3	2	1	Stechford	0
5	4	3	2	1	Stirchley	0
5	4	3	2	1	Stockland Green	0
5	4	3	2	1	Streely	0
5	4	3	2	1	Ten Acres	0
5	4	3	2	1	Tile Cross	0
5	4	3	2	1	Tyburn	0
5	4	3	2	1	Tyseley	0
5	4	3	2	1	Walkers Heath	0
5	4	3	2	1	Walmley	0
5	4	3	2	1	Ward End	0
5	4	3	2	1	Warstock	0
5	4	3	2	1	Washwood Heath	0
5	4	3	2	1	Weoley Castle	0
5	4	3	2	1	West Heath	0
5	4	3	2	1	Winston Green	0
5	4	3	2	1	Witton	0
5	4	3	2	1	Woodgate	0
5	4	3	2	1	Wylde Green	0
5	4	3	2	1	Yardley	0
5	4	3	2	1	Yardley Wood	0
5	4	3	2	1	City Centre	0

SURROUNDING TOWNS

5	4	3	2	1	Blackheath	0
5	4	3	2	1	Halesowen	0
5	4	3	2	1	Oldbury	0
5	4	3	2	1	Stourbridge	0
5	4	3	2	1	Solihull	0
5	4	3	2	1	Sutton Coldfield	0
5	4	3	2	1	West Bromwich	0

OTHER TOWNS

5	4	3	2	1	Coventry	0
5	4	3	2	1	Dudley	0
5	4	3	2	1	Walsall	0
5	4	3	2	1	Wolverhampton	0

Consequently the job search decisions could be compared for each awareness score.

Extensive pre-testing was also necessary in order to develop an adequate questionnaire and survey method to collect data on job search decision making. An appropriate mechanism for collecting 'in depth' data on decision-making was the 'Diary'

Cl.4 DATA COLLECTION ON JOB SEARCH BEHAVIOUR

In March 1980 pre-tests were carried out on two samples of pre-Easter school leavers to test the feasibility of an individual keeping a daily record of job search activities. Figures Cl.3 and Cl.4 show the two-stage format of the 'diary' used in both pre-tests. Respondents were given each part of the diary and instructed to enter in Part-One, details of all vacancies discovered which match job aspirations and complete Part-Two of the diary for those job vacancies which the respondent decided to follow-up (i.e. applied for).

Cl.4.1 Postal Survey-Diary Test - Park Hall School, Castle

Bromwich: Eleven pre-Easter school leavers from Park Hall School ¹ were given both parts of the 'diary' and pre-paid envelopes to return completed diary pages. Respondents were not paid for their co-operation. After a period of four weeks the response rate was only 18%. It was decided therefore that a postal survey was inadequate for the research objectives and that regular contact with respondents

¹. These two schools were selected because contacts with teaching staff facilitated the necessary immediate access to a few respondents.

Figure C1.3 -- Pre-test; Diary Part-One

PART ONE -- BASIC DETAILS

Name _____

Enter the following details for each 'suitable' job that you discover						Did you contact the firm ?	
Number	Date	How did you hear of the job?	Did you travel to get this information	What is the type of job?	Name and address of firm	No	Yes
			Yes No			If No, did transport affect your decision ?	If yes, Go to Part Two
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→
			Yes No			Yes No	→

Figure C1.4 -- Pre-test; Diary Part-Two

Job Number _____

Name _____

1	How did you contact the firm ?	Telephoned firm Wrote to firm Visited firm without arranging interview Other (please specify)		
2	Was an interview arranged	Yes No		
		If No – STOP HERE		
3	Date of visit to firm	_____		
4	How did you travel to firm ? (If bus, please give the route number of the bus)	Bus (Route Number) Car (driver) Car (passenger) Cycle/Motorcycle Walk Taxi Other		
5	Did you already know how to get to the firm ?	Yes No		
		If No, explain how you found out how to get to the firm * _____		
6	What times did you travel to and from the firm ? (Enter times in boxes)	Leave home _____ Arrive Firm _____ Leave Firm _____ Arrive home _____		
7	How much did the return journey cost ?	_____		
8	Was the job offered ?	No Yes		
		If No – STOP HERE		
9	Did you decide to accept the job ?			
Yes		No		
10	(a) What date do you start work ?	(b) Was travel the main reason for not accepting the job ?		
11	Will you continue to look for a 'better' job ?	Yes No	Yes No	

Go to 3

1

*Please use other page

was essential. This pre-test involved the least amount of incentive to respondents and minimum cost. The most expensive and tightly controlled alternative was to pay respondents to keep a diary and visit them weekly to check on maintenance and accuracy of diary entries. This alternative pre-test was carried out on a sample from Northfield School.

Cl.4.2 Interview-Diary Test - Northfield School, Northfield:

Ten pupils who left school before Easter were recruited from Northfield School (see previous Note). As with the Park Hall School Leavers, respondents were given both parts of the diary to complete. In this instance the respondents were paid a guaranteed £8.00 for a maximum of 4 weeks work.¹

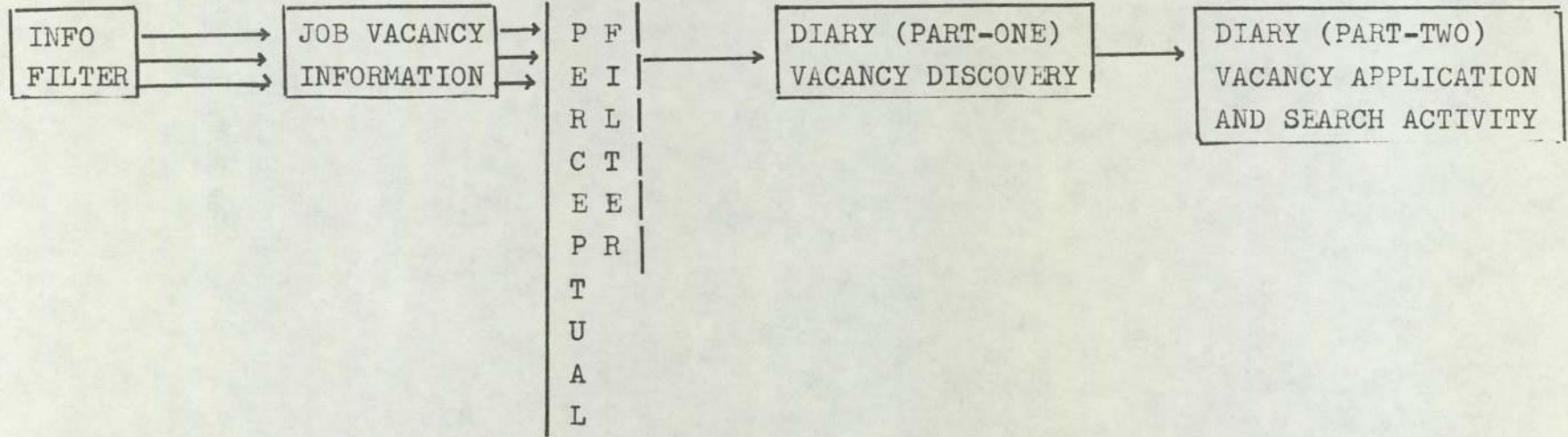
The results of this pre-test showed that when respondents were given both parts of the diary they only entered in job vacancies they were prepared to follow-up. Hence, each respondent completed a part-two sheet for every vacancy listed in part-one. This was not exactly what was required. When asked why other job vacancies were not entered in part-one, the respondents said;

- "I do not know the area where the job is, so I didn't bother writing it down".
- "I do not know how to get there, so I didn't write it down".
- "The pay is too low, so I didn't write it down".

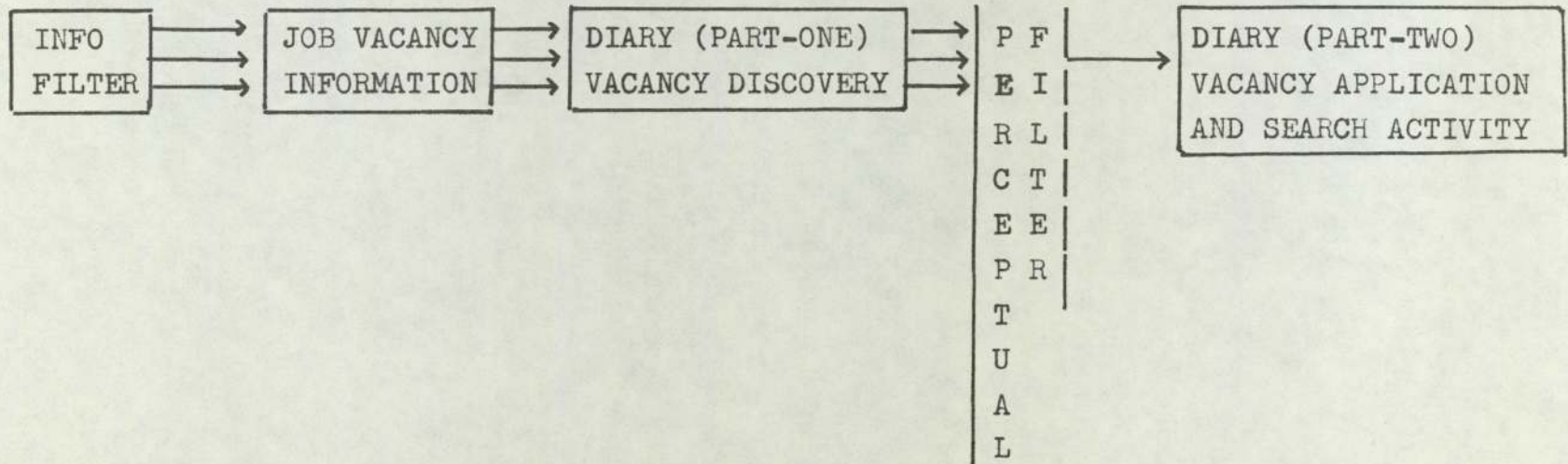
Although these responses provide preliminary evidence

¹. 'Northfield School Leavers' were paid £8.00 whether or not they got a job within a four week period. The money was not paid until the end of the period to avoid the possible affect of extra finances on job search activities.

FIGURE C1.5 - PERCEPTUAL FILTER AND THE DIARY SURVEY



The diary format and survey method had to be altered so that:



that perception of the City and public transport constrain job search, the diary format and method used was not adequate for collecting data on this 'perceptual filtering process'. This is better understood diagrammatically (Figure C1.5).

The response rate (90%) demonstrated that the financial incentive and frequent visits by an interviewer ensured a favourable rate of response. However, giving individuals both parts of the diary caused confusion, and although the data required to achieve the research objectives was eventually collected it became evident that the format of the diary should be altered. Hence the final column was altered to simply read 'Did you follow-up the Vacancy?' (Answer = 'Yes' or 'No').

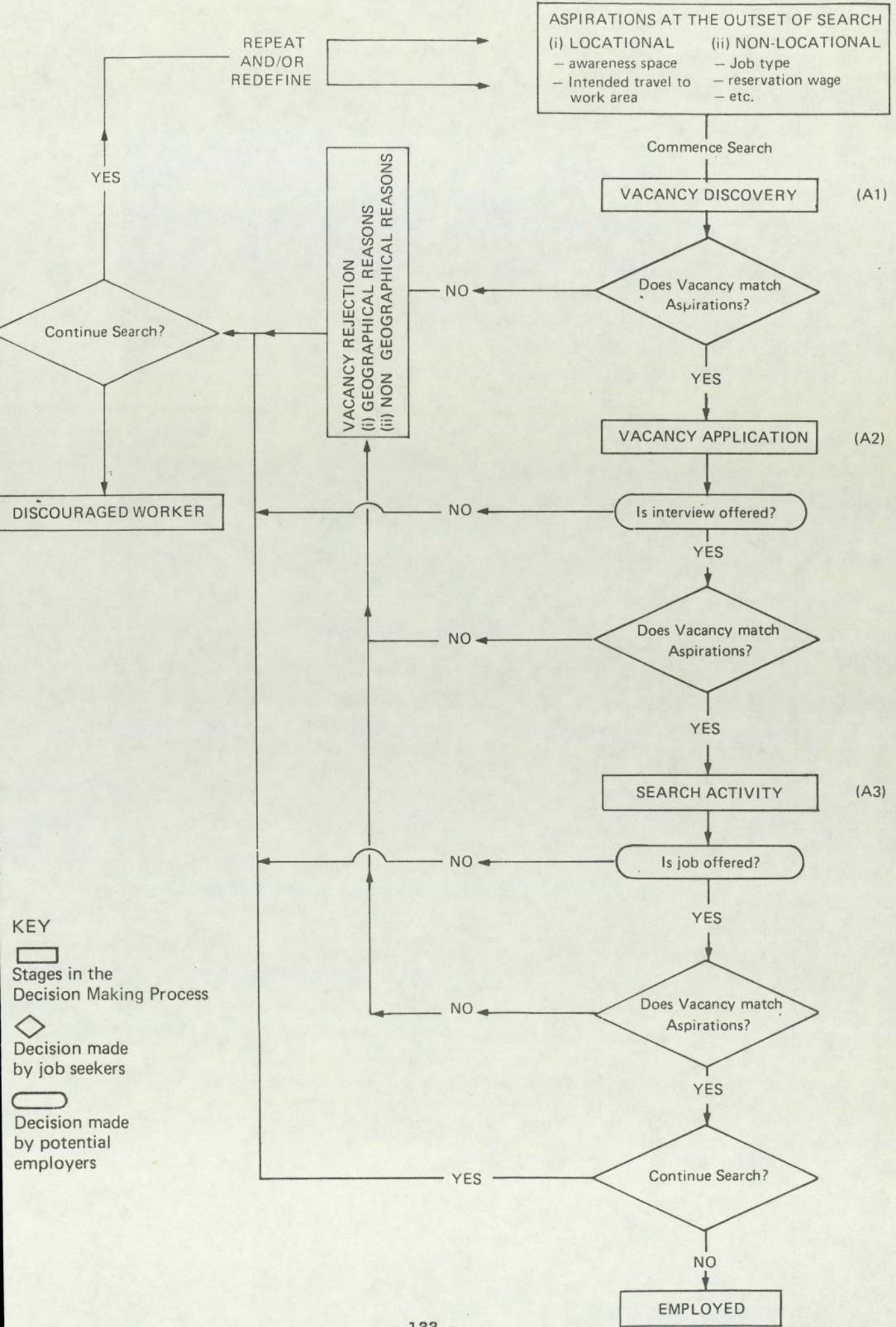
It was also decided to only give respondents part-one of the diary in order to clarify that a 'listing' of discovered vacancies was required. The interviewer could then ask, (at each visit) a more complex 'part-two' for each and every vacancy "followed-up" (i.e. each application).

The design and implementation of a substantial 'pilot survey' of Easter school leavers was based on the results of these pre-tests. Before describing the 'pilot survey' it is informative to discuss the alternative methods of conducting a survey.

C1.5 METHOD OF CONDUCTING THE SURVEY

The appropriate method of conducting a survey on job search behaviour depends upon the stages in the decision-making process which need to be investigated. Three levels of investigation (A1,A2,A3) are identified in the right hand column of (Figure C1.6) the decision-making model.

FIGURE C1.6 LEVELS OF INVESTIGATING THE JOB SEARCH PROCESS



The type of data that can be collected at each level is summarised below.

- A1 - (a) provides data on the availability, acquisitions and utilisation of vacancy information;
- (b) provides data on reasons for decisions to reject (i.e. not follow-up) a known vacancy.
- A2 - Provides data on vacancies which are considered to be suitable and accessible to the job seeker (i.e. application).
- A3 - Provides data on the travel behaviour of each individual in his or her attempt to gain employment.

These levels are hierarchical. In other words, data collected starting at level A1 can include data at levels A2 and A3. A Survey designed to collect data at level A3 can only collect data at this level (i.e. Search Activity). Obviously the appropriate questionnaire and survey method is more intricate and lengthy at level A1 than for a lower level.

C1.5.1 Level A3: Data collected at this level indicates the locational pattern of travel to interviews by job seekers. Although data on the decision-making process which produces this 'Search Activity Space' is not collected, it is assumed that the locational and non-locational components of an individual's Aspiration has shaped this pattern. However external constraints will also influence the locational pattern of search activity. For instance employers may not wish to employ people living in areas of a city that the employer perceives as presenting possible travel difficulties leading to unreliability and lateness of

PLEASE ENTER DETAILS FOR EACH INTERVIEW

Type of job offered: _____

Name of Firm : _____

Address of Firm: _____

How did you first hear of the vacancy? . _____

What date did you visit the Firm for interview? _____

How did you travel to the Firm?

- Car (driver)
- Car (passenger)
- Train
- Bus
- Cycle/Motorcycle
- Walk
- Taxi
- (_____)Other

How much time was spent travelling (there and back)? _____

How much did the journey cost (there and back)? _____

employee. Employers may also exercise a locational bias on 'Search Activity Space' of job seekers by not offering interviews to respondents from perceived "undesirable" districts of the city.

If changes in "Search Activity Space" are only compared within a group as unemployment continues then possible external constraints are likely to remain constant (re. Employers' recruitment practices probably will not change over six months). Problems arise when comparing 'Search Activity Space' between groups with data collected at level A3. Figure C1.7 shows an example of a questionnaire for level A3.

This is the only level that a survey method could have been used to investigate changes in "search activity space". Respondents could be visited once a month for six months and asked a short interview including this questionnaire. The questionnaire could also have been used in an one-interview survey or to gain some indication of "search activity space" at earlier stages of job search. The main problem is that respondents might not have been able to recall travel and location details of all interviews in a previous one to six month period.

C1.5.2 Level A2: Data collected at this level indicates the locational extent that the job seeker is prepared to travel to a firm should an interview be offered. This is a clear indication of the motivation to search and attitudes to travel and can be compared directly with the I.T.W.A. data collected at an initial interview. The advantage of this data is that it can be collected in such a way that it indicates changes in attitudes and motivation to search

PLEASE ENTER DETAILS FOR EACH VACANCY YOU DECIDE TO FOLLOW-UP

PART A -- VACANCY DETAILS

NUMBER :

Vacancy type : _____
 Name of Firm : _____
 Address of Firm: _____

How did you hear of vacancy? : _____

When did you contact the Firm (Date)? : _____

How did you contact the Firm?

(tick box)

- Telephoned Firm
- Wrote to Firm
- Job Centre arranged contact
- Friend/Relative arranged contact
- Visited Firm directly
- Other _____

Go to Part B

Did the Firm offer an interview?
 (If NO - State why and stop) _____

Yes
No

Did you accept the interview offer?
 (If NO - State why and stop) _____

Yes
No

PART B -- TRAVEL DETAILS

Date of visit to Firm _____

How did you travel to the Firm?

- Car (driver)
- Car (passenger)
- Train
- Bus
- Cycle/Motorcycle
- Walk
- Taxi
- Other

If Bus: Please give the Route number of bus or buses.

--	--	--

If Other: Please Specify

What times did you travel to and from the Firm?

Leave home _____
 Arrive Firm _____
 Leave Firm _____
 Arrive home _____

(Please give exact times)

How much did the journey to the firm cost (there and back)? _____

Did the Firm offer you the job?
 (If No - State why and stop)

Waiting to hear
Yes
No

Tick 'yes' or 'no' when you hear

Did you accept the offer?
 (If No - State why and stop)

Yes
No

What wage have you accepted? _____

What date do you start work? _____

Will you continue to look for another job before starting work?

Yes
No

If NO - Finish Di

with the duration of unemployment and also identifies the effect of external constraints on 'Search Activity Space' Figure C1.8 shows an example of a questionnaire for level A2.

It is unlikely that an individual can adequately recall vacancies which he/she had previously applied for, which therefore indicates the need for a diary survey method.

C1.5.3 Level A1: Data collected at this level indicates the rate at which vacancies are discovered, the proportion of these vacancies that are rejected or followed-up and the reasons behind a decision not to follow-up a discovered vacancy. Again this data is important when considering changes in the duration of unemployment. For instance transport may become more or less of an important reason for not following up a vacancy. This level of data also provides a measure of any changes in the rate at which respondents discover vacancies. The main advantage of this level of investigation is that the whole decision-making process in job search can be examined

A diary survey was therefore a suitable survey method which could produce the required level of detailed data on the decision-making process. It involved the respondent in a certain amount of work each day over the period of the survey. Therefore the survey had to be restricted to a few weeks rather than months.

An example of the 'Diary' used in this survey is included in Appendix C.2.

C1.6 VARIATIONS IN THE CONDUCT OF THE SURVEY

The possible variations in the conduct of the survey

are based on a single or series of interviews and related to the type of sample recruited. Types of samples include,

- (i) just become unemployed (ii) in a current spell of unemployment and (iii) recently moved from unemployment to work.

Figure Cl.9 summarizes the type of survey method in relation to methods of data collection and type of sample recruited.

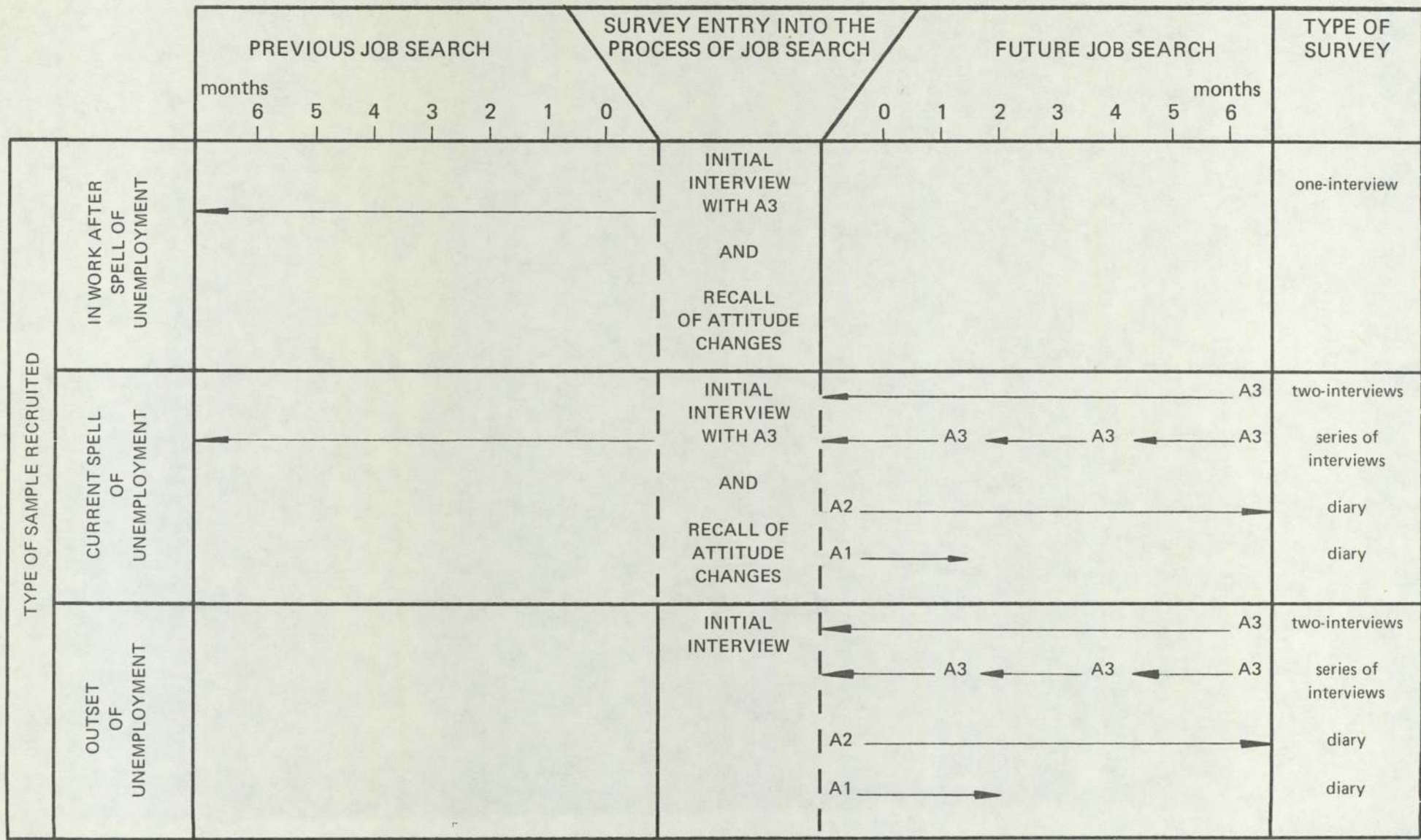
Cl.6.1 One Interview: The 'one-interview' survey method is suitable for a sample recently moved from unemployment to work. For a sample currently experiencing a spell of unemployment a 'one-interview' survey is not the only possibility. The one-interview format (using an A3 questionnaire) can be used to establish previous 'Search Activity Spaces' in conjunction with a series of interviews as search continues. Obviously, the 'one-interview' survey is inappropriate for a sample recently unemployed.

Cl.6.2 Series of Interviews/Diaries: Figure Cl.9 indicates four alternatives for a survey using a series of interviews.

- (a) A second interview after a period of say six months similar to the one-interview option described above using an A3 questionnaire.
- (b) A series of short interviews at regular intervals, say every month using a A3 questionnaire. (see notes 1 and 2 on next page).
- (c) A diary used, such as A2 questionnaire, for a period of several months or
- (d) A more detailed diary format (A1 questionnaire) used for a shorter period.

Given the objectives of this research option (d) was most suitable. It was desirable to collect 'in depth' data

Figure C1.9 — Survey Options



on the decision-making process in order to test the 'model of job search' postulated in Chapter 2. Data collected using this method facilitated a better understanding of the locational concepts in the model such as 'vacancy discovery space; 'vacancy application space' and 'search activity space'; and the relationship between each concept. The disadvantage of collecting the "in depth" data (option A1) was that because of financial cost and burden on the respondent the survey length had to be restricted. But, it was still possible to examine changes in the early stages of unemployment.

Figure C1.9 provides a framework for presenting the types of survey that could have been carried out given specific research objectives. Option A1 was most applicable given the research objective to test data in the 'conceptual model of job search' and to compare stages in the search process with 'awareness space'. Option A2 is a logical method for extending this survey to cover a wider cross-section of the unemployed over a greater period of time.

Subsequent to the pre-tests described in this Appendix, a pilot survey was administered to a sample of Easter School leavers. The overall objective of the 'pilot' was to test the feasibility of an in depth diary survey (i.e. level A1) on unemployed school leavers.

-
1. Questionnaire A3 can be used as a diary.
 2. Regular interviews using A3, can be accompanied by a questionnaire about attitude changes.

Cl.7 THE PILOT SURVEY

Cl.7.1 Objectives: The main objective of the pilot survey was to test the feasibility of the complete, two-stage, survey method developed by the series of pre-tests described above. A sample of Easter School leavers was recruited from one Careers Office (City Centre).

The first objective was to test the clarity of the questions in the 'Background Questionnaire', and the length of time taken to complete this first part of the survey. Obviously it was intended to establish the response rate of school leavers, when they were introduced to the interviewer by the Careers Officer.

A great deal of emphasis was placed testing the second ('Diary') stage of the survey. The aim was to ensure that respondents Listed vacancies discovered in the first part of the diary. The pre-tests demonstrated the need for an interviewer to visit the respondent to assist and encourage continued entries in the 'Diaries'. A function of the pilot was to establish the optimal frequency of visit by interviewers to acquire the desired level of response. Furthermore the pilot tested the effect of payment on the quality of response. It was also necessary to discover the maximum number of respondents an interviewer could visit in one week, and the reliability of respondents to be at home at the time of a pre-arranged visit.

It was essential that the survey method was rigorously tested in a substantial pilot survey because of the intricate nature of the 'in depth' method of data collection. The pre-tests described above and the pilot described below signify that considerable effort was made

to adequately collect data appropriate to the specific objectives of this research.

C1.7.2 The Sample and Survey Method: The City Centre Careers Office was used to recruit a sample of 72 'Easter School Leavers'. The catchment area of this Careers Office was divided into halves either side of the city centre. Only respondents from one half of the catchment were paid. Careers Officers introduced school leavers who visited the careers office ¹ to the interviewer. The co-operation of each individual was requested in completing an initial questionnaire and in keeping a ('diary') record of job search activities over a period of four weeks. Respondents were divided into the groups outlined below.

i) Pay Groups

- | | | |
|----|--------------------------------------|----|
| A. | Visit every week for four weeks | 12 |
| B. | Visit after two weeks and four weeks | 12 |
| C. | Visit after one week and three weeks | 12 |

ii) No Pay Groups

- | | | |
|----|--------------------------------------|----|
| D. | Visit every week for four weeks | 12 |
| E. | Visit after two weeks and four weeks | 12 |
| F. | Visit after one week and three weeks | 12 |

One interviewer had 48 respondents to visit each week which averaged nearly 10 each day.

¹. Easter School Leavers were given a specific appointment with the Careers Office. Hence the pilot sample was unlikely to have biased in favour of the most enthusiastic individuals who speculatively visited the Careers Office.

Survey Period

<u>Week No.</u>		<u>Group</u>
1	A B C D E F	(recruit)
2	A C D F	(visit)
3	A B D E	(visit)
4	A C D F	(visit and pay)
5	A B D E	

'Easter School Leavers' tend to possess fewer academic qualifications (if any) than summer school leavers. Hence if these individuals could successfully maintain a "Job Seekers Diary", then it was probable that a sample of summer school leavers could also understand the Diary format.

Cl.7.3 Data Collection: Included in Appendix C2 is a copy of the 'Background Questionnaire' used in the main survey of summer school leavers ¹. The basic questions were addressed to the following topics.

(i) Background details (ii) Job Aspirations (iii) Search intentions and (iv) knowledge of the city, its bus network and intended travel to work area ITWA.

The second-stage of the survey required the use of diaries. Respondents were given two different types of part-one of the diary shown in Figures Cl.10, and Cl.11. In the first instance the type of job sought by the respondent was inserted at the top of the page. The respondent was expected to list all job vacancies discovered under the given job heading. The second type of part-one sheet was

1. The 'Background Questionnaire' used in the pilot survey was only altered on a few minor points (e.g. wording of questions).

Figure C1.10 -- Pilot Survey; Diary Part-One (Basic Details)

JOB TYPE: _____

NAME: _____

PART ONE — BASIC DETAILS.

Number	DATE.	HOW DID YOU FIRST HEAR OF THE JOB ?	WAGE OFFERED?	NAME AND ADDRESS OF FIRM.	DID YOU CONTACT THE FIRM? IF NO; Please state your reason.
					Yes No
					Yes No
					Yes No
					Yes No
					Yes No
					Yes No
					Yes No
					Yes No

Figure C1.11 — Pilot Survey; Diary Part-One (Other Types of Job)

PART ONE — BASIC DETAILS (OTHER TYPES OF JOBS CONSIDERED).

Name _____

Number	Date	How did you hear of the job?	Wage Offered?	What is the type of job?	Name and address of firm	Did you follow-up the job? (IF NO: Please state your reason)
						Yes No
						Yes No
						Yes No
						Yes No
						Yes No
						Yes No
						Yes No
						Yes No

aimed at collecting data on all other job vacancies considered by the job seeker.

Figure Cl.4 shows part-two of the Diary used in the pilot survey. The format of this 'part-two' is the same as the 'part-two' used in the pre-test, because the questions were adequately answered. The main problem encountered in the pre-tests was that only those job vacancies applied for (or followed-up) were entered in part-one. Therefore in the pilot survey respondents were only given part-one to encourage listing of all discovered vacancies. Interviewers visited respondents and completed 'part-two' for each vacancy followed-up on behalf of the school leaver¹. A comparison of 'part-one' of the diary used in the 'pre-test' and the 'pilot' showed that the use of the question "Did transport affect your decision?" in the final column (in the pre-test) was removed because of possible biasing of response.

Cl.7.4 Modifications to Data Collection and Survey Method as a result of the pilot Survey: The diary format, modified as a result of the pre-tests and used in the pilot survey, adequately improved the quality of response and encouraged respondents to 'list' vacancies discovered - hence facilitating a measure of the 'filtering process' between part-one and part-two of the diary. This was particularly enhanced by interviewers retaining part-two of the diary, rather than giving both parts to respondents. A few other

¹. Provided this method was successful it, facilitated the use of a more complicated 'part-two' of the diary.

modifications were introduced as a result of the pilot.

These 'improvements' are listed below; A copy of the final "diary" used in the main survey is included in Appendix C2.

1. The aim of part-one of the diary was to obtain a list of all suitable job vacancies that a job seeker heard of; therefore it was desirable to introduce "part-one" as a 'LISTING' exercise. Hence, the following question "Please LIST all the VACANCIES you hear of that are the job type(s) you are seeking and that are suitable for school leavers" was introduced.
2. Another point was that the word 'job' used in the question "How did you hear of the job" implied that the 'job' will be taken by the respondent. This is replaced with the word 'vacancy' hence, part-one was divided into two sections, with Section A being a 'vacancy list'. The basic details required in the vacancy list were type of work and name and address of firm. This listing process meant that the 'job type' headed page used at the outset of the pilot, was abandoned.
3. A large title was introduced which indicated the precise nature of the first part of the survey.
4. To assist continuity between parts one and two, continuous numbering was introduced (1-50) in part-one.
5. Examples of responses were introduced at the end of each question (For instance, "How did you hear of the vacancy? (e.g. 'newspaper')").
6. 'Wage offered?' was moved from part-one to part-two of the diary because it appeared out-of-context with the other 'basic' details required in part-one.
7. The data from the pilot survey showed that the reasons given for not following-up a vacancy tended to be repeated (i.e. 'lazy' response). It was preferred to give respondents a list of reasons to be ticked and ranked in order of importance. A 'list of Reasons Card' was therefore included in the diary. The 'list of reasons' were also applicable to 'i) refusal to accept and interview offer and (ii) refusal to accept a job

offer. Hence the 'list of reasons' card was repeated on the reverse-side of the 'part-two' questionnaire of the diary.

8. In the case of interviewers asking the questions on 'part-two' of the diary survey a greater amount of detail could be collected from job seekers. (See the final 'part-two' used in the main survey).

The results of the pilot survey facilitated further decisions on the type of sample and survey method. The rate of recruitment was very good with only four out of 72 Easter school leavers refusing to co-operate in the survey (i.e. 90% response rate). The rate at which Easter school leavers obtained full-time employment was 20%. Therefore in a sample of 50 only 10 were expected to leave the main survey, because of gained employment, in a four week period. Respondents visited every fortnight lost interest in the survey more easily than those visited weekly. The diaries of the former group tended to be incomplete and occasionally misplaced. It was concluded that weekly visits were preferable and that the first visit by an interviewer should be as soon as possible after recruitment to 'iron-out' any initial misconceptions of the Diary held by respondents.

Pay did not appear to influence the quality of the details recorded by school-leaver; (The frequency of visit was of over-riding importance). However respondents not paid were much less likely to be home at the pre-arranged time of visit by an interviewer. This, therefore involved several further visits to the respondents home by the interviewer which was costly in terms of time travelled and in disrupting the interviewer's planned timetable of visits. It was decided to pay the main sample of school leavers to ensure a reliable level of response. It was also felt

that the school leavers had earned their money by keeping a continuous record and by being at home at a given time ¹.

Finally, it was decided from the 'pilot' that one interviewer could handle a total of 50 respondents in a week. A greater number of respondents was not allocated to each interviewer to ensure that adequate time was available for repeated visits to a school leavers home, to collect the required weekly data.

C1.8 CONCLUSION

This Appendix has demonstrated that considerable effort was made to ensure that the survey method adequately collected data required to test the research hypotheses and achieve the objective outlined in Chapter 2 of the main text.

¹. Some respondents (particularly Asian girls) did not want the interviewers to visit their home. Arrangements were made with the Careers Office to meet these respondents at the Careers Office each week.

C1.9 - REFERENCES

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APPENDIX C2

THE QUESTIONNAIRES

THE UNIVERSITY OF ASTON IN BIRMINGHAM
AND WEST MIDLANDS COUNTY COUNCIL

- SCHOOL LEAVERS SURVEY -

RESPONDENT'S NAME: _____ RESPONDENTS NUMBER: _____
DATE OF BIRTH: _____ M F
TELEPHONE NUMBER: _____ A WI W

RESIDENCE

Where do you live ? (ENTER IN BOX BELOW)

How long have you lived at this address ?
(ENTER CODE IN BOX BELOW)

In what other AREAS of Birmingham have you lived,
since you were 4 years old ? (ENTER IN BOX BELOW)

How long did you live in each AREA ?

PLEASE ENTER EACH OTHER AREA IN TABLE -
STARTING WITH MOST RECENT, WORKING BACKWARDS.

<u>CODE</u>	
½ YEAR	1
1 YEAR	2
2 YEARS	3
3 YEARS	4
4 YEARS	5
5 YEARS	6
6-10 YEARS	7
11-15 YEARS	8
16-20 YEARS	9

LENGTH CODE

1. CURRENT ADDRESS:

2. OTHER AREAS LIVED IN	_____	_____
	_____	_____
	_____	_____
	_____	_____

CAR OWNERSHIP

Do you possess a current driving licence ? NO
(PLEASE TICK BOX) YES

IF YES; Is a car available for your own use ? NO
(PLEASE TICK BOX) YES/SOMETIMES
YES/ALWAYS

Does any member in your household own a car ?
 (PLEASE TICK BOX)

NO	<input type="checkbox"/>
YES	<input type="checkbox"/>

IF YES; How many cars are there in the household ?
 (PLEASE TICK BOX)

1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4 AND OVER	<input type="checkbox"/>

SCHOOL & QUALIFICATIONS

What is the name and address of the school that you have just left - May/June 1980 ?
 (ENTER IN BOX BELOW)

How did you usually travel to school ?
 (ENTER CODE IN BOX)

In what other areas have you attended school ?
 (PLEASE ENTER THREE MOST RECENT IN BOX BELOW)

How did you usually travel to each area ?
 (ENTER CODE IN BOX)

TRAVEL MODE	CODE
BUS	1
TRAIN	2
CAR (PASSENGER)	3
CAR (DRIVER)	4
MOTORCYCLE	5
BICYCLE	6
WALK	7
OTHER	8

ENTER CODE NUMBER

IF BUS GIVE ROUT NUMBER

5. NAME OF SCHOOL: _____

ADDRESS: _____

6. OTHER AREAS IN WHICH ATTENDED SCHOOL

What date did you leave school ? _____

What exams (if any) have you just taken in May/June 1980 ?
 (PLEASE ENTER SUBJECTS IN BOXES)

C.S.E. - SUBJECT

G.C.E. 'O' - SUBJECT

G.C.E. 'A' - SUBJECT

Please give subject and grade of any educational qualifications you may have obtained before May/June 1980 ? (PLEASE ENTER IN BOXES BELOW)

C.S.E. - SUBJECT	GRADE	G.C.E. 'O' - SUBJECT	GRADE	G.C.E. 'A' - SUBJECT	GRADE

OTHER EDUCATIONAL QUALIFICATIONS:

How well do you know the following areas of Birmingham?

5	I KNOW THE AREA EXTREMELY WELL	(I.E.)	I KNOW ALL THE MAIN ROADS, SOME SMALL ROADS; MAIN BUILDINGS, AND SOME SMALL BUILDINGS (E.G. POST OFFICE)
4	I KNOW EITHER AND/OR	(A) MORE THAN ONE MAIN ROAD AND A FEW MAIN BUILDINGS (B) PART OF THE AREA VERY WELL (E.G. MAIN SHOPPING AREA)	
3	ALL I KNOW IS THE NAME OF ONE MAIN ROAD THAT GOES TO THE AREA (E.G. "THE HAGLEY ROAD")		
2	I ONLY KNOW ROUGHLY WHERE THE AREA IS IN RELATION TO THE REST OF THE CITY (E.G. "SOUTH OF CITY CENTRE")		
1	HEARD THE NAME - BUT NO IDEA WHERE THE AREA IS		
0	NEVER HEARD OF THE AREA		

5	4	3	2	1	Acocks Green	0
5	4	3	2	1	Alum Rock	0
5	4	3	2	1	Aston	0
5	4	3	2	1	Bartley Green	0
5	4	3	2	1	Balsall Heath	0
5	4	3	2	1	Bearwood	0
5	4	3	2	1	Billesley	0
5	4	3	2	1	Birchfield	0
5	4	3	2	1	Bordesley	0
5	4	3	2	1	Bordesley Green	0
5	4	3	2	1	Boldmere	0
5	4	3	2	1	Bournbrook	0
5	4	3	2	1	Bournville	0
5	4	3	2	1	Bromford	0
5	4	3	2	1	Cape Hill	0
5	4	3	2	1	Castle Bromwich	0
5	4	3	2	1	Castle Vale	0
5	4	3	2	1	Chelmsley Wood	0
5	4	3	2	1	Cotteridge	0
5	4	3	2	1	Edgbaston	0
5	4	3	2	1	Erdington	0
5	4	3	2	1	Falcon Lodge	0
5	4	3	2	1	Four Oaks	0
5	4	3	2	1	Garrets Green	0
5	4	3	2	1	Gravelly Hill	0
5	4	3	2	1	Great Barr	0
5	4	3	2	1	Greet	0
5	4	3	2	1	Hall Green	0
5	4	3	2	1	Hamstead	0
5	4	3	2	1	Handsworth	0
5	4	3	2	1	Handsworth Wood	0
5	4	3	2	1	Harborne	0
5	4	3	2	1	Hay Mills	0
5	4	3	2	1	Highgate	0
5	4	3	2	1	Highters Heath	0
5	4	3	2	1	Hockley	0
5	4	3	2	1	Kings Heath	0
5	4	3	2	1	Kings Norton	0
5	4	3	2	1	Kingshurst	0
5	4	3	2	1	Kingstanding	0
5	4	3	2	1	Knowle	0
5	4	3	2	1	Kitts Green	0
5	4	3	2	1	Ladywood	0
5	4	3	2	1	Little Bromwich	0
5	4	3	2	1	Longbridge	0
5	4	3	2	1	Lozells	0
5	4	3	2	1	Mere Green	0
5	4	3	2	1	Minworth	0
5	4	3	2	1	Moseley	0
5	4	3	2	1	Nechells	0
5	4	3	2	1	New Oscott	0
5	4	3	2	1	Newtown	0
5	4	3	2	1	Northfield	0
5	4	3	2	1	Old Oscott	0
5	4	3	2	1	Perry Barr	0
5	4	3	2	1	Pype Hayes	0
5	4	3	2	1	Quinton	0
5	4	3	2	1	Rednal	0
5	4	3	2	1	Rotton Park	0

5	4	3	2	1	Rubery	0
5	4	3	2	1	Saltley	0
5	4	3	2	1	Selly Oak	0
5	4	3	2	1	Selly Park	0
5	4	3	2	1	Shard End	0
5	4	3	2	1	Sheldon	0
5	4	3	2	1	Shirley	0
5	4	3	2	1	Short Heath	0
5	4	3	2	1	Small Heath	0
5	4	3	2	1	Smethwick	0
5	4	3	2	1	Sparkhill	0
5	4	3	2	1	Sparkbrook	0
5	4	3	2	1	Stechford	0
5	4	3	2	1	Stirchley	0
5	4	3	2	1	Stockland Green	0
5	4	3	2	1	Streely	0
5	4	3	2	1	Ten Acres	0
5	4	3	2	1	Tile Cross	0
5	4	3	2	1	Tyburn	0
5	4	3	2	1	Tyseley	0
5	4	3	2	1	Walkers Heath	0
5	4	3	2	1	Walmley	0
5	4	3	2	1	Ward End	0
5	4	3	2	1	Warstock	0
5	4	3	2	1	Washwood Heath	0
5	4	3	2	1	Weoley Castle	0
5	4	3	2	1	West Heath	0
5	4	3	2	1	Winson Green	0
5	4	3	2	1	Witton	0
5	4	3	2	1	Woodgate	0
5	4	3	2	1	Wylde Green	0
5	4	3	2	1	Yardley	0
5	4	3	2	1	Yardley Wood	0
5	4	3	2	1	City Centre	0

SURROUNDING TOWNS

5	4	3	2	1	Blackheath	0
5	4	3	2	1	Halesowen	0
5	4	3	2	1	Oldbury	0
5	4	3	2	1	Stourbridge	0
5	4	3	2	1	Solihull	0
5	4	3	2	1	Sutton Coldfield	0
5	4	3	2	1	West Bromwich	0

OTHER TOWNS

5	4	3	2	1	Coventry	0
5	4	3	2	1	Dudley	0
5	4	3	2	1	Walsall	0
5	4	3	2	1	Wolverhampton	0

JOB ASPIRATIONS

What is the job type that you, as a school leaver, are looking for most of all ? (i.e. most desirable type).

(i) _____

Will you consider any other job types ?
(PLEASE TICK BOX)

NO
YES

IF 'YES': what are these other type(s) ?

(i) _____

(ii) _____

(iii) _____

(iv) _____

Imagine you have just found a vacancy of the job type(s) you are seeking !

(a) From the list below - Which, in your opinion, are the three most important questions to ask yourself before deciding whether or not you might be prepared to take the job: (should it eventually be offered to you)?

(b) Please rank in order of importance. (SHOW LIST TO RESPONDENT)

(1 = THE MOST IMPORTANT 2 = 2ND MOST IMPORTANT 3 = 3RD MOST IMPORTANT)

RANK	'QUESTION'
	Are the hours of work acceptable ?
	Are the arrangements/amount of holiday acceptable ?
	Is it possible for me to be able/afford to travel to firm each day ?
	Are the promotion prospects sufficient ?
	Is the pay enough ?
	Does the firm have a 'good' reputation ?
	Do I know the area in which the firm is located ?
	Is this exactly the type of work I want ?
	Do any of my friends work at the firm ?
	Other (SPECIFY)

What is the minimum wage you will accept ? _____

(INTERVIEWER - PLEASE 'PROBE') - _____

INTENDED JOURNEY TO WORK

6. By what method do you intend to usually travel to work; when you get a job ?

(PLEASE TICK ONE BOX)

- BUS
- TRAIN
- CAR (PASSENGER)
- CAR (DRIVER)
- MOTORCYCLE
- BICYCLE
- WALK
- OTHER

(IF 'other' please specify)

7. IF TRAVELLING BY BUS - What is the maximum FARE you will be prepared to spend travelling to work each day ? (ONE-WAY)

_____ pence

8. By the method of travel you have named in Question 16;

(a) What is the maximum DISTANCE you are prepared to travel to work each day ? (ONE-WAY)

_____ miles

(b) What is the maximum amount of TIME you are prepared to spend travelling to work each day ? (ONE-WAY)

_____ minutes

9. (a) Which is the more important to you DISTANCE OR TIME ? (PLEASE TICK BOX)

DISTANCE
TIME

(b) Please explain the reasons for your choice;

(e) TRAVEL MODE - CODE

BUS	1
TRAIN	2
CAR (PASSENGER)	3
CAR (DRIVER)	4
MOTORCYCLE	5
BICYCLE	6
WALK	7
OTHER ()	8

WORK EXPERIENCE

20. Please give the following details about any jobs that you have held
(Include part-time and summer jobs - but not paper rounds)

PLEASE TICK
ONE COLUMN

ENTER CODE
NUMBER

(a) FULL TIME	PART TIME	SUM- MER	(b) TYPE OF WORK ?	(c) NAME AND ADDRESS OF FIRM ?	(d) DATES ?	(e) TRAVEL MODE ?	(f) IF BUS - GIVE ROUTE NUMBER(S)

21. Can you please give the following employment details about any member of your immediate family who is currently employed ?
 (MAXIMUM OF TWO BROTHERS/SISTERS)

(d) TRAVEL MODE - CODE

BUS	1
TRAIN	2
CAR (PASSENGER)	3
CAR (DRIVER)	4
MOTORCYCLE	5
BICYCLE	6
WALK	7
OTHER ()	8

ENTER CODE
NUMBER

* DELETE WHERE
APPROPRIATE

(a) FAMILY MEMBER	(b) TYPE OF WORK ?	(c) NAME AND ADDRESS OF EMPLOYER ?	(d) TRAVEL MODE	(e) IF BUS - GIVE ROUTE NUMBER(S)
FATHER				
MOTHER				
*SISTER/ BROTHER				
*SISTER/ BROTHER				

INTENDED TRAVEL TO JOB INTERVIEWS

5. By what method do you intend to usually travel to a job interview ?

(PLEASE TICK ONE BOX)

BUS	<input type="checkbox"/>
TRAIN	<input type="checkbox"/>
CAR (PASSENGER)	<input type="checkbox"/>
CAR (DRIVER)	<input type="checkbox"/>
MOTORCYCLE	<input type="checkbox"/>
BICYCLE	<input type="checkbox"/>
WALK	<input type="checkbox"/>
OTHER	<input type="checkbox"/>

(IF 'OTHER' - please specify)

6. How much money do you think you will be able to spend each WEEK on travel in your search to get a job ?

(PLEASE TICK ONE BOX)

NOTHING	<input type="checkbox"/>
49p AND UNDER	<input type="checkbox"/>
50p to 99p	<input type="checkbox"/>
£1.00 to £1.49	<input type="checkbox"/>
£1.50 to £1.99	<input type="checkbox"/>
£2.00 to £2.49	<input type="checkbox"/>
£2.50 to £2.99	<input type="checkbox"/>
£3.00 to £3.99	<input type="checkbox"/>
£4.00 to £4.99	<input type="checkbox"/>
£5.00 to £5.99	<input type="checkbox"/>
£6.00 to £6.99	<input type="checkbox"/>
£7.00 to £8.99	<input type="checkbox"/>
£8.00 to £9.99	<input type="checkbox"/>
£10.00 AND OVER	<input type="checkbox"/>

(a) Do you possess a current W.M.P.T.E. Travelcard ?

(PLEASE TICK BOX)

NO	<input type="checkbox"/>	Go to (b)
YES	<input type="checkbox"/>	Go to (c)

(b) IF YES; When does it expire ? _____

(c) IF NO; Have you even owned a travelcard ?

(PLEASE TICK BOX)

NO	<input type="checkbox"/>
YES	<input type="checkbox"/>

JOB INTERVIEW EXPERIENCE

28. Have you been for a job interview (i) before leaving school ? (PLEASE CIRCLE) NO / YES
 OR (ii) since leaving school ? (PLEASE CIRCLE) NO / YES

IF 'YES' TO EITHER (i) OR (ii) - Please give the following details about the interviews you have attended ?
 (IF MORE THAN FOUR - ONLY THE FOUR MOST RECENT)

(d) TRAVEL MODE - CODE	
BUS	1
TRAIN	2
CAR (PASSENGER)	3
CAR (DRIVER)	4
MOTORCYCLE	5
BICYCLE	6
WALK	7
OTHER ()	8

ENTER CODE

TICK ONE
COLUMN

BEFORE
LEAVING SCHOOL

SINCE
LEAVING SCHOOL

(i)	(ii)	(a) TYPE OF WORK ?	(b) NAME AND ADDRESS OF FIRM ?	(c) HOW DID YOU HEAR OF THE VACANCY ?	(d) TRAVEL MODE	(e) WAS JOB OFFERED ?	(f) <u>IF YES</u> - WHY DID YOU <u>NOT</u> ACCEPT OFFER ?
						YES NO WAITING	
						YES NO WAITING	
						YES NO WAITING	
						YES NO WAITING	

PLEASE CIRCLE

INTERVIEWER - IF 'WAITING TO HEAR' - ENTER DETAILS IN 'DIARY' AS AN EXAMPLE

DIARY – BASIC DETAILS OF ALL VACANCIES HEARD OF

(I) VACANCY LIST

(II) OTHER DETAILS

Vacancy No.	Please LIST all the Vacancies you hear of, that are of the job type(s) you as a school leaver, might consider.		When did you hear of Vacancy?	How did you hear of the Vacancy? (e.g. 'friend').	Did you follow-up the Vacancy. (i.e. Did you contact the firm?)
	VACANCY TYPE	NAME AND ADDRESS OF FIRM	DATE	HOW YOU HEARD OF VACANCY	PLEASE CIRCLE 'YES' OR 'NO'
15					Yes No
16					Yes No
17					Yes No
18					Yes No
19					Yes No
20					Yes No
21					Yes No

VACANCY NUMBER (FROM DIARY) _____ NAME OF FIRM _____

RESPONDENT'S NUMBER _____ RESPONDENT'S NAME _____

QUESTIONNAIRE – (A) 'YES': VACANCY FOLLOWED-UP

Questions Possible Answers Response (Please tick box) Instructions

How did you 'follow-up' the Vacancy?
(i.e. How did you contact the firm?)

Telephoned firm	<input type="checkbox"/>	Go to 2
Wrote to firm	<input type="checkbox"/>	Go to 2
Careers Office arranged an interview for me	<input type="checkbox"/>	Go to 4
Friend/Relative arranged an interview for me	<input type="checkbox"/>	Go to 4
Visited firm without arranging interview	<input type="checkbox"/>	Go to 5

Did you find out further details about the Vacancy? **No**
If Yes; Please specify the details you found out; _____ **Yes**

Did the firm offer you an interview?
(If No; Please state why not? _____ and Return to Diary)

Waiting to hear	<input type="checkbox"/>	Tick 'yes' or 'no' when you hear If No - <u>Return to Diary</u>
No	<input type="checkbox"/>	
Yes	<input type="checkbox"/>	

Did you accept the invitation for an interview? **No**
Yes If No - Turnover →

Date of visit to firm?

How did you travel to the firm?

Car(driver)	<input type="checkbox"/>	<input type="text"/>
Car(passenger)	<input type="checkbox"/>	
Train	<input type="checkbox"/>	
Bus	<input type="checkbox"/>	
Cycle/Motorcycle	<input type="checkbox"/>	
Walk	<input type="checkbox"/>	
Taxi	<input type="checkbox"/>	
Other	<input type="checkbox"/>	

If Bus; Please give the Route number of bus or buses.

If Other: Please Specify _____

Did you find out any information at all that helped you get to the exact location of the firm? **No**
Yes

If Yes: Please specify (A) the source of information
and (B) the nature of the information

(A) _____
(B) _____

What times did you travel to and from the firm?
(Please give exact times)

Leave home	_____
Arrive firm	_____
Leave firm	_____
Arrive home	_____

How much did the journey to the firm cost (there and back)? _____

Did the firm offer you the job? **No**
Yes Waiting to hear Tick 'yes' or 'no' when you hear
If No - Return to Diary

Did you accept the offer? **No**
Yes If No - Turnover →

What wage have you accepted? _____

What date do you start work? _____

Will you continue to look for another job before starting work? **No**
Yes If No - Finish Survey
If Yes - Return to Diary

APPENDIX D1

CLUSTER ANALYSIS

APPENDIX D1 - CLUSTER ANALYSIS

The most commonly used terms for techniques which seek to separate data into constituent groups is Cluster Analysis. Techniques under this title provide useful tools for data analysis in many different situations. In general a matrix of 'N' observations and 'P' variables is reduced so that the variation is summarised in several groups of similar observations. Cluster Analysis techniques which achieve this can be divided into several types -

1. Hierarchical techniques; in which the classes themselves are classified into groups, the process being repeated at different levels to form a "tree".
2. Optimization-partitioning techniques; in which the clusters are formed by optimization of a "clustering criterion". The classes are mutually exclusive, thus forming a partition of the set of entities.
3. Density or mode-seeking techniques; in which the clusters are formed by searching for regions containing a relatively dense concentration of entities.
4. Clumping techniques; in which the classes or clumps can overlap.

These four types of techniques, in addition to others which do not easily fall into any one of these, are not necessarily mutually exclusive, and several clustering techniques could be placed in more than one category.

For the purposes of areal classifications such as in this study, it is the hierarchical techniques which are highly suited, but within this group a distinction is drawn between "agglomerative" and "divisive" methods. Agglomerative methods proceed by a series of successive fusions of the 'N' observations into groups, whilst divisive methods partition the set successively into finer partitions. The results of both methods may be presented in the form of a "dendrogram", which is a two-dimensional diagram illustrating the fusions or partitions made at each successive stage. One made a fusion or partition is irrevocable, and the problem of deciding upon the optimal number of clusters, poses one of the chief difficulties involved with the employment of these techniques.

With divisive methods, the first task is to split the initial set of observations into two. Since a set of 'n' individuals can be divided into two sub-sets in $2^{n-1}-1$ ways, this is only feasible in cases where the data set is very small, even with a large and high-speed computer. For purposes as in this study, divisive methods are therefore impractical, and most investigators have in consequence relied upon the alternative agglomerative methods.

All agglomerative methods begin with the computation of a "similarity" or "distance matrix" between the observations, and it is the means by which this is calculated which

creates the variety in the types of agglomerative methods. The Clustan I.A. manual, compiled by David Wishart (1969) and which was employed in this study, lists eight types and these will briefly be mentioned in turn.

(i) Nearest Neighbour or Single link method:

Groups initially consisting of single individuals are fused according to the distance between their nearest neighbours, the groups with the smallest distance being fused. This method tends to find "stragglings" clusters and is usually less successful with large populations due to what is termed "chaining", whereby one group affects the choice of the next.

(ii) Furthest neighbour or complete linkage method:

This is the exact opposite to the single linkage method, in that the distance between groups is now defined as the distance between the most remote pair of individuals. It has been suggested by Wishart (1969) that this method is liable to produce irregular results because the similarity criterion is determined for only two individuals and does not account for group structure.

(iii) Average linkage method:

This method defines the distance between groups as the average of the distance between all pairs of individuals in the two groups. It represents one of the earliest attempts to cater for group structure and though reasonably reliable it is seldom used.

(iv) Centroid method:

This method was originally proposed by Sokal and Michener (1958) and advocated by King (1967). Groups are depicted to lie in Euclidean space and are replaced on formation by the co-ordinates of their centroid. The distance between groups is defined as the distance between the group centroids. Though to a lesser extent than with single linkage, Wishart has found this method to exhibit a chaining effect.

(v) Median cluster analysis method:

One disadvantage of the centroid method is that if the size of the two groups to be fused are very different, the centroid of the new group will likely be very close to that of the larger group, and may even remain within that group. For this reason, Gower (1967) has suggested the use of the median rather than the mean. Although he considered the method to be applicable for both distance and similarity measures, it can really only be interpreted geometrically for distance coefficients.

(vi) McQuitty's method:

An impressive number of clustering techniques have been compiled by McQuitty (1956, 1964 and 1966) and Wishart's manual includes one which can be used with all similarity coefficients, though again it tends to display a chaining effect when the population is large.

(vii) Lance and Williams' flexible method:

The distance between groups used by many of the above methods satisfy a general formula, and based on this formula, Lance and Williams (1966) proposed a clustering scheme which allows the "Beta value" to vary according to the users requirements. They suggest that the value of Beta set at minus 0.25, produces reliable results, but clearly choice of an optimal value further adds to the subjectivity of the analysis.

(viii) Ward's method:

The final method listed in Wishart's manual, is that proposed by Ward (1963) and which operates on the criterion that at any stage in the analysis, the loss of information which results from the grouping of individuals into clusters, can be measured by the total sum of the squared deviations of every point from the mean of the cluster to which it belongs. At each step in the analysis union of every possible pair of clusters is considered and the two clusters whose fusion results in the minimum increase in the error sum of squares are combined. Wishart (1969, p41) describes this method as "... possibly the best of the hierarchical options ..." and its use, besides in this study, has been widespread.

Everitt (1974) has suggested that hierarchical techniques of cluster analysis can be expected to perform reasonably well when the clusters are clearly separated, and himself has carried out an analysis on one data set

using three of the above methods for comparative purposes. Selecting the single linkage method, the centroid method and Ward's method, he found that the resulting dendrograms showed quite strong contrasts between one another although a similar number of groups were identifiable in each solution. The fact that the means of these groups were somewhat different, illustrates some of the difficulties arising and caution required in interpreting the results of any cluster analysis. Furthermore experience has shown that examination of the dendrograms alone is not always likely to be helpful, and may indeed contribute to misleading conclusions. Used with care, however, in conjunction with the linkage coefficients, and in the context of the particular study requirements, cluster analysis techniques can usually provide a realistic classification of a set of observations from which further hypotheses can then be defined and subsequently tested.

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APPENDIX E1

CLASSIFICATION OF JOB TYPES BY SKILL

LEVEL

APPENDIX E1 - CLASSIFICATION OF JOB TYPE S

Unskilled

Agricultural / Horticultural worker
Gardener, Park Keeper
General Farm Hand
Labourer / Warehouse worker / Construction worker
Odd Job man / General Hand
Clerical Junior
Shop Assistant / Butcher / Market Worker
Cashier and other Counter Staff
Canvassing / Pools Collector
Bar Staff
Cleaner / Window Cleaner
Domestic Help / Babysitter
Caretaker
Postman / Sorting Office staff
Petrol Pump Attendant
Doorman / Ticket Collector / Railway Worker
Canteen Assistant / Kitchen staff / Glass Collector
Hospital Porter / Auxillary
Milkman
Playgroup helper / Nursery staff / Child care
Security Guard / Store Detective
Armed Forces

Semi-skilled

Painter and Decorator
Welder
Plasterer
Plumber
Bank, Insurance, Building Society Clerk
Computer Programmer, Data Typist
Typist / Secretary
Wage Clerk / Auditing / Sales Ledger
Driver (bus, taxi, van etc)
Machinist
Salesman (door to door)
Telephonist
Chef / Cook / Baker
Receptionist
Waitress / Waiter / Chambermaid
Lifeguard
Kennel maid / Jockey / Veterinary Assistant
Library Assistant
Trapping
Florist
Craftwork / Toy maker / Brass Polisher
Glass Cutter
Air Hostess / Steward
Spotlight Operator

Skilled

Bricklayer
Patternmaker
Hairdresser
Car Mechanic
Carpenter /Shopfitter
Draughtsman
Electrician
Gunsmith
Jeweller / Watch Repairer / Engraver
Toolmaker / Toolsetter
T.V. / Vacuum /Refrigerator / Post Office Engineer
Foreman /Supervisor / Factory Inspector
Printer
Trainee Management
Electrical /Mechanical /Chemical Engineer
Postal Apprenticeship
Systems Analyst
Nurse /Dental and Medical Assistant
Trainee Dispensing Technician
Social Worker
Actor /Entertainer /Vocalist
Radiographer /Pharmacist
Pilot
Translator
Accountant /Stockbroker
Quantity Surveyor
Planner
Teacher
General Management
Lecturer /Researcher
Journalist
Architect
Tailor /Dressmaker /Upholsterer
Fashion Designer
Professional Sportsman

APPENDIX F1

ACCESSIBILITY TO EMPLOYMENT

APPENDIX F1 - ACCESSIBILITY TO EMPLOYMENT

The 'accessibility to employment' for a given location is a function of travel times, population and employment places; and these have been calculated by the West Midlands County Council in its Joint Transportation and Planning Unit. The base data is derived from the 1971 census and has been updated by the results of the 1976 household survey.

It is assumed, given the low rates of car ownership and the age structure of the sample of school leavers, that job search travel behaviour would be predominantly by bus. Therefore, 'accessibility' has been calculated for travel by public transport. A five minute walk to bus stop and five minute wait time has been assumed. A boarding element and fare scale has been included in a formula to calculate the 'generalised cost' (expressed in minutes) of journeys. The accessibility programme is based on the 'generalised cost' between modes on the public transport network.

FORMULA FOR GENERALISED COST (Note 1)

$$\text{Cost} = 2 \begin{matrix} \text{(walk + wait)} \\ \text{(time time)} \end{matrix} + \begin{matrix} \text{(Fare distance} & \text{Fare boarding)} \\ \text{element} & + & \text{element} \end{matrix} \begin{matrix} \\ \\ \end{matrix} \text{(minutes)}$$
$$i - j \quad \left(\begin{matrix} 1.81 \times d \\ 11.5 \times n \end{matrix} \right)$$

$$d = \text{distance in kilometers} \left(\begin{matrix} (2) \\ \text{speed} = \frac{\text{distance}}{\text{time}} \end{matrix} \right)$$

$$n = \text{number of buses used}$$

Note 1. Constants given by Department of Transport and WMCC Joint Transportation Planning Unit.

Note 2. The average speed of buses in Birmingham is 15.5 mph - Figures provided by West Midlands Passenger Transport Executive.

Figure FI.1



† Home location

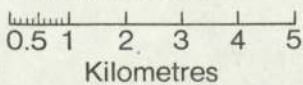


Figure Fl.2

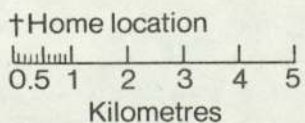
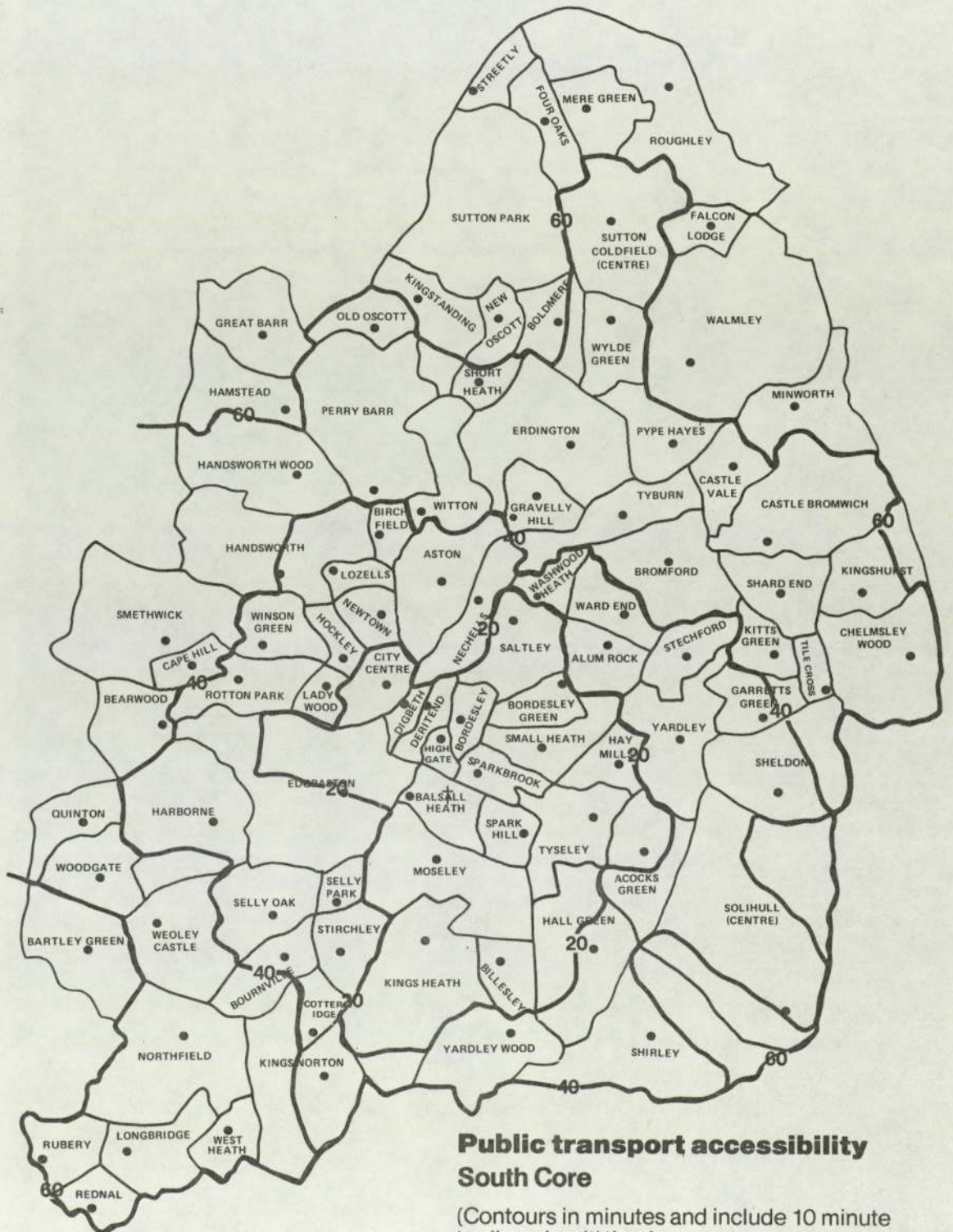
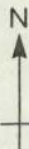
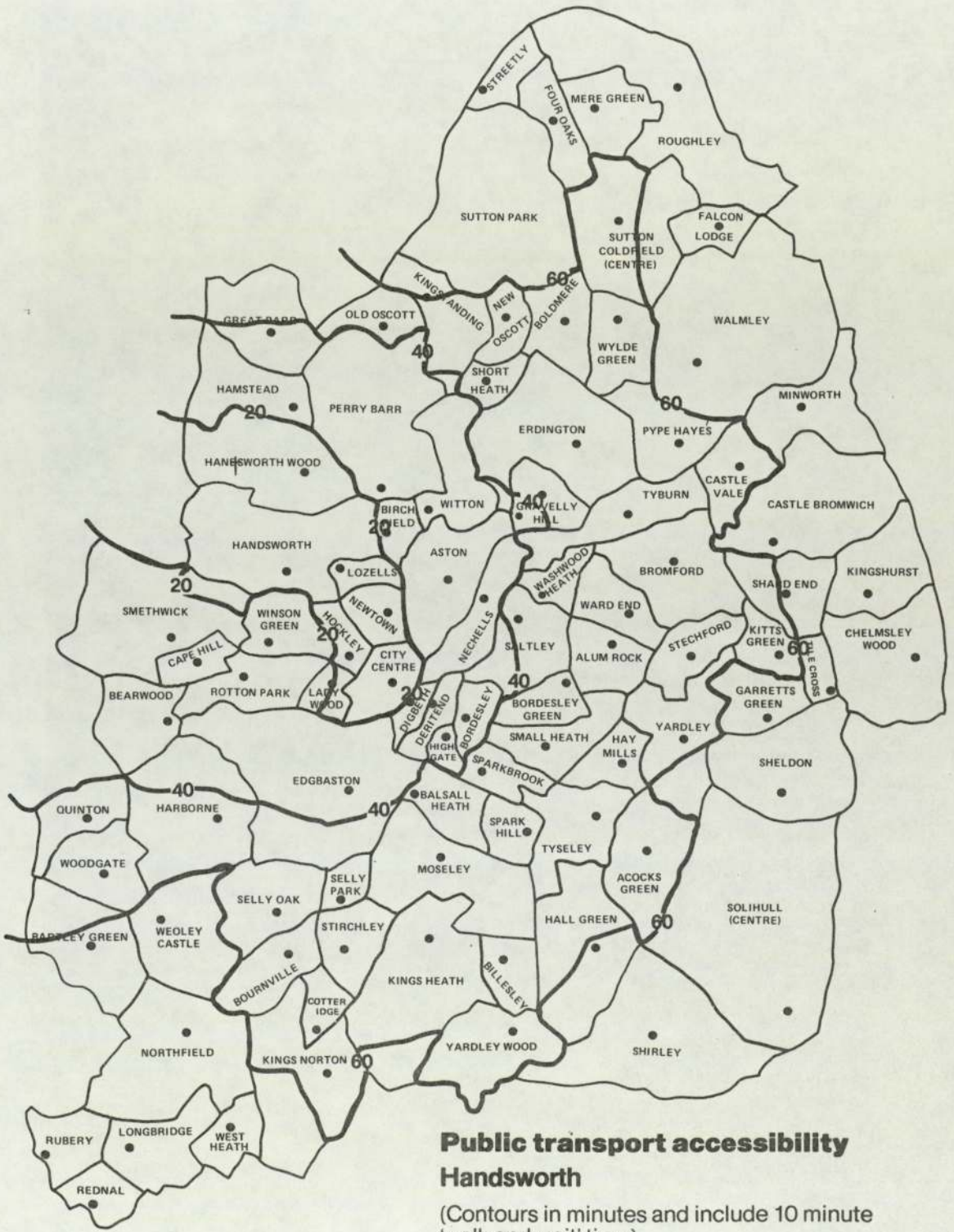


Figure F1.3



Figure F1.4



**Public transport accessibility
Handsworth**

(Contours in minutes and include 10 minute
'walk and wait' time)

† Home location
0.5 1 2 3 4 5
Kilometres

Figure F1.5



† Home location

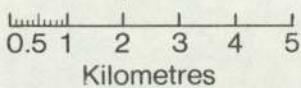
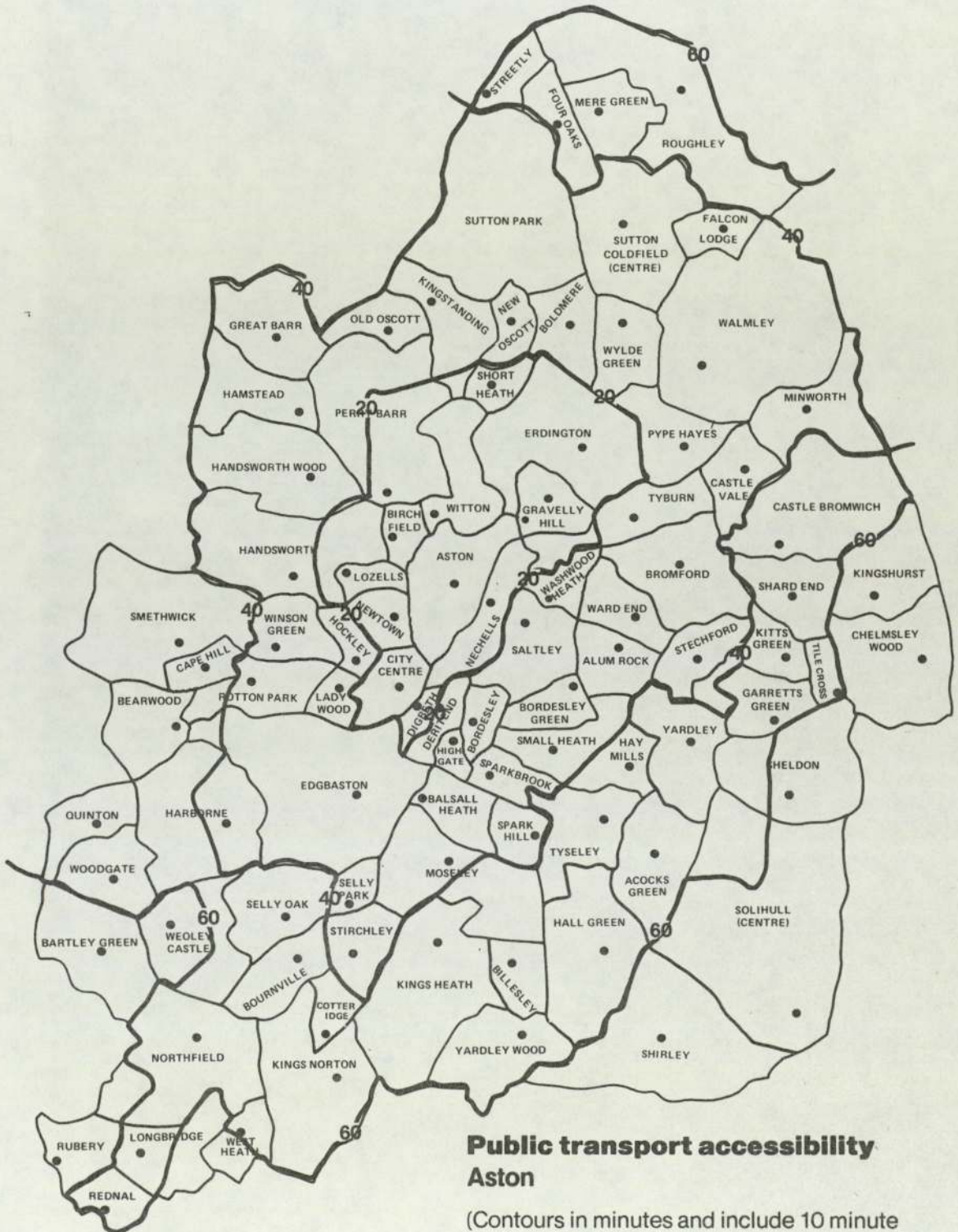


Figure FI.6



**Public transport accessibility
Aston**

(Contours in minutes and include 10 minute
'walk and wait' time)

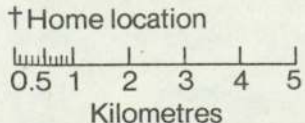


Figure FI.7



Figures Fl.1 to Fl.13 show patterns of accessibility by public transport for the 'locational divisions' of the sample. The 20, 40 and 60 minute divisions were chosen because after an examination of other possible times, '60 minutes' generally reflected the boundary of the area being considered (i.e. the city of Birmingham) and the twenty minute intervals revealed the most legible differences.

The districts of the city accessible to each group of respondents within a total travel time of up to 20 minutes are concentrated around the 'home location'. Districts within '40 minutes' generally conform to two types of patterns. In the case of the 'inner city' groups (figures Fl.1 to Fl.7) the pattern is concentric about the home location and is an extension of the '20 minute' pattern. However, for the 'suburban' groups (figures Fl.8 to Fl.13) the '40 minute' pattern is sectoral and focused on the city centre; thus emphasising the high 'accessibility' of the city centre relative to other destinations of equal distance from the home location. The '60 minute' patterns are again concentric for the 'inner city' groups, and in the case of the suburban groups, the 'gaps' in the '40 minute' sectoral pattern are 'filled' by the addition of another twenty minutes.

The County Council's 'accessibility' programme has the facility to provide employment and population figures for any given generalised cost. Obviously the employment figures for each group are dependent upon the underlying geographical distribution of workplaces. Figure Fl.14 shows that the major centres of employment are concentrated at the city centre and adjacent inner areas. A few major

Figure F1.8

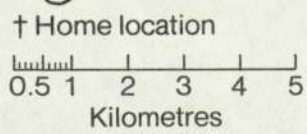
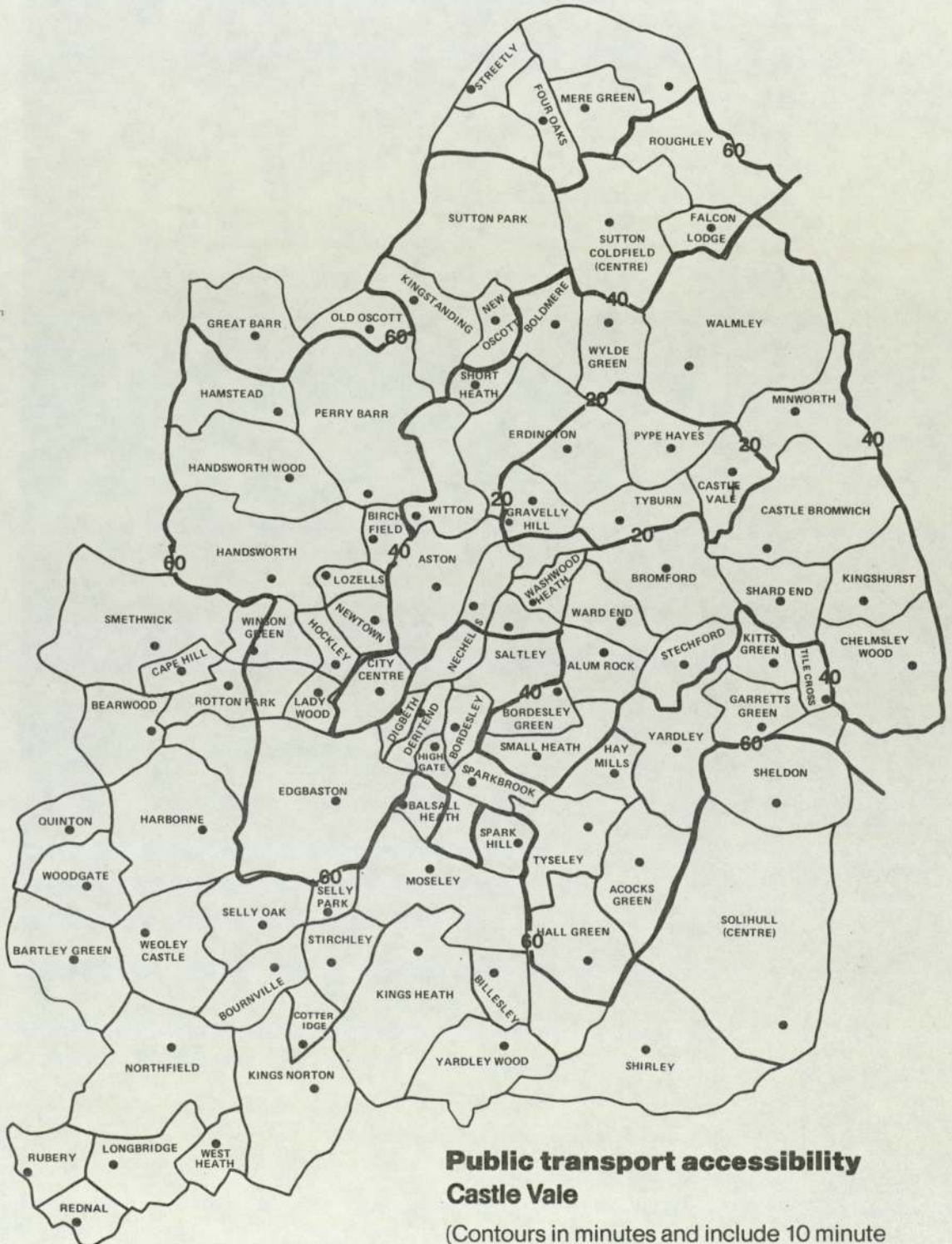
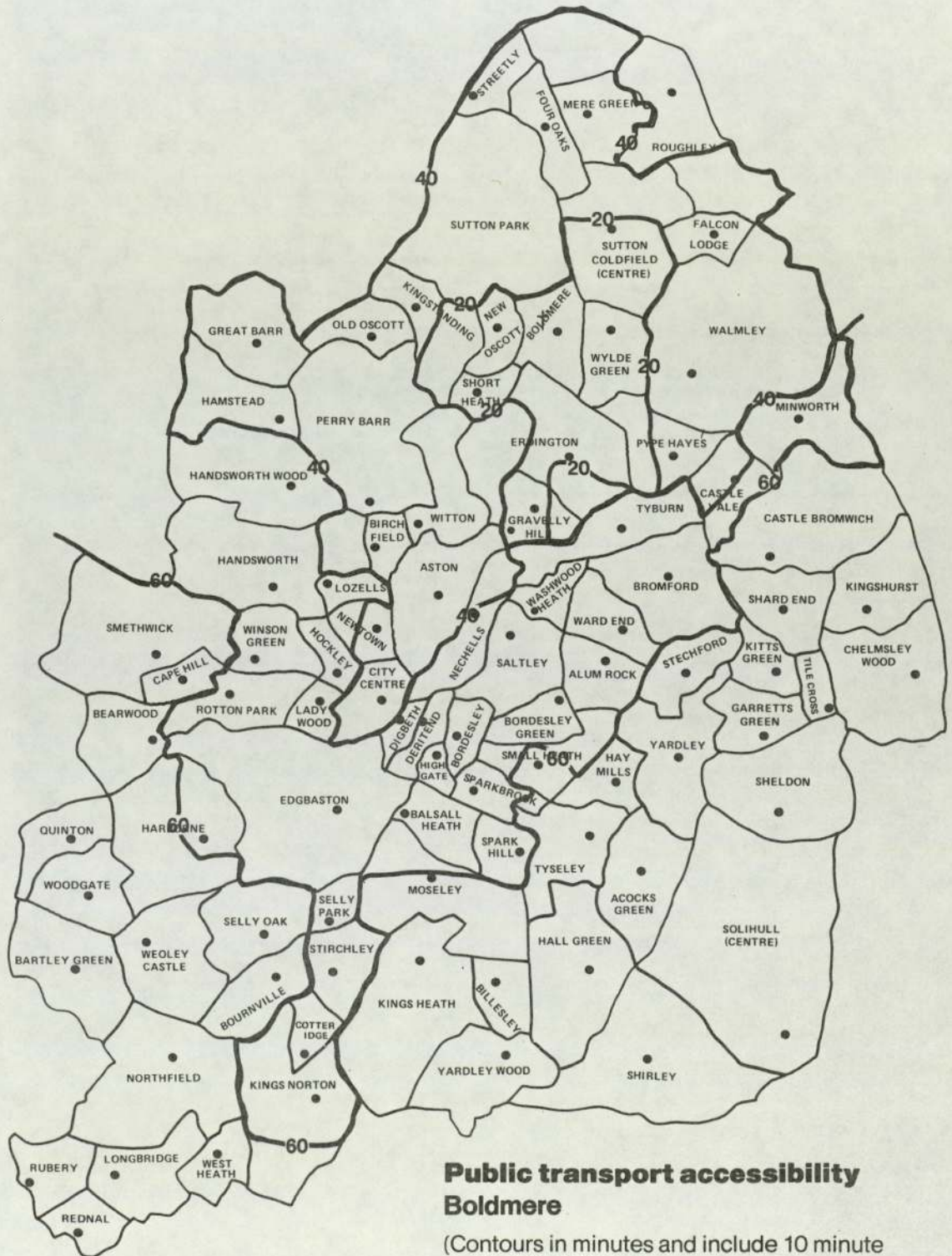


Figure F1.9



**Public transport accessibility
Boldmere**

(Contours in minutes and include 10 minute
'walk and wait' time)

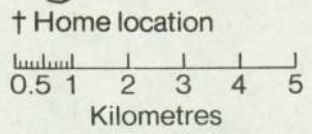
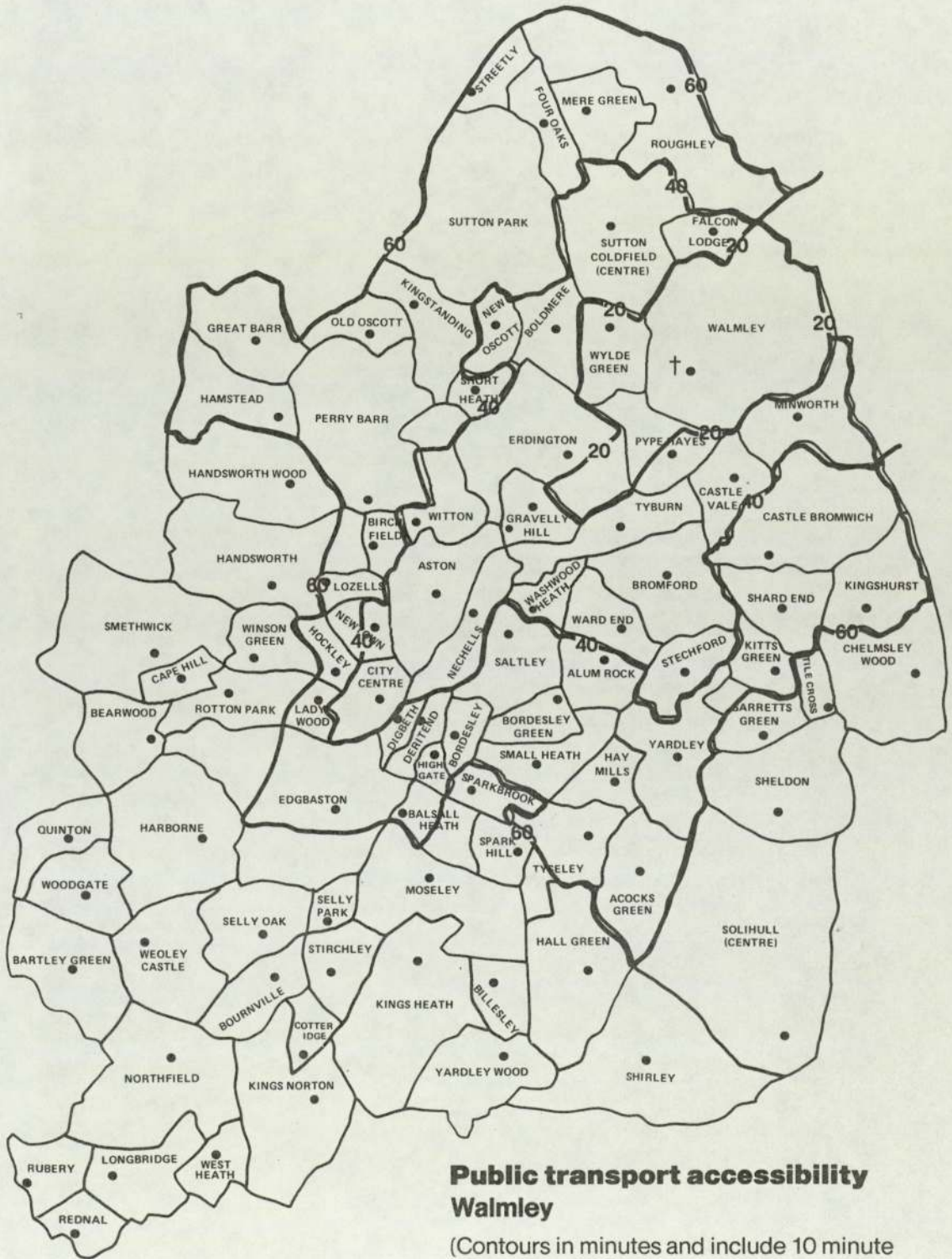


Figure F1.10



† Home location

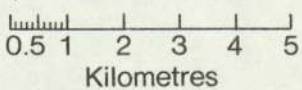
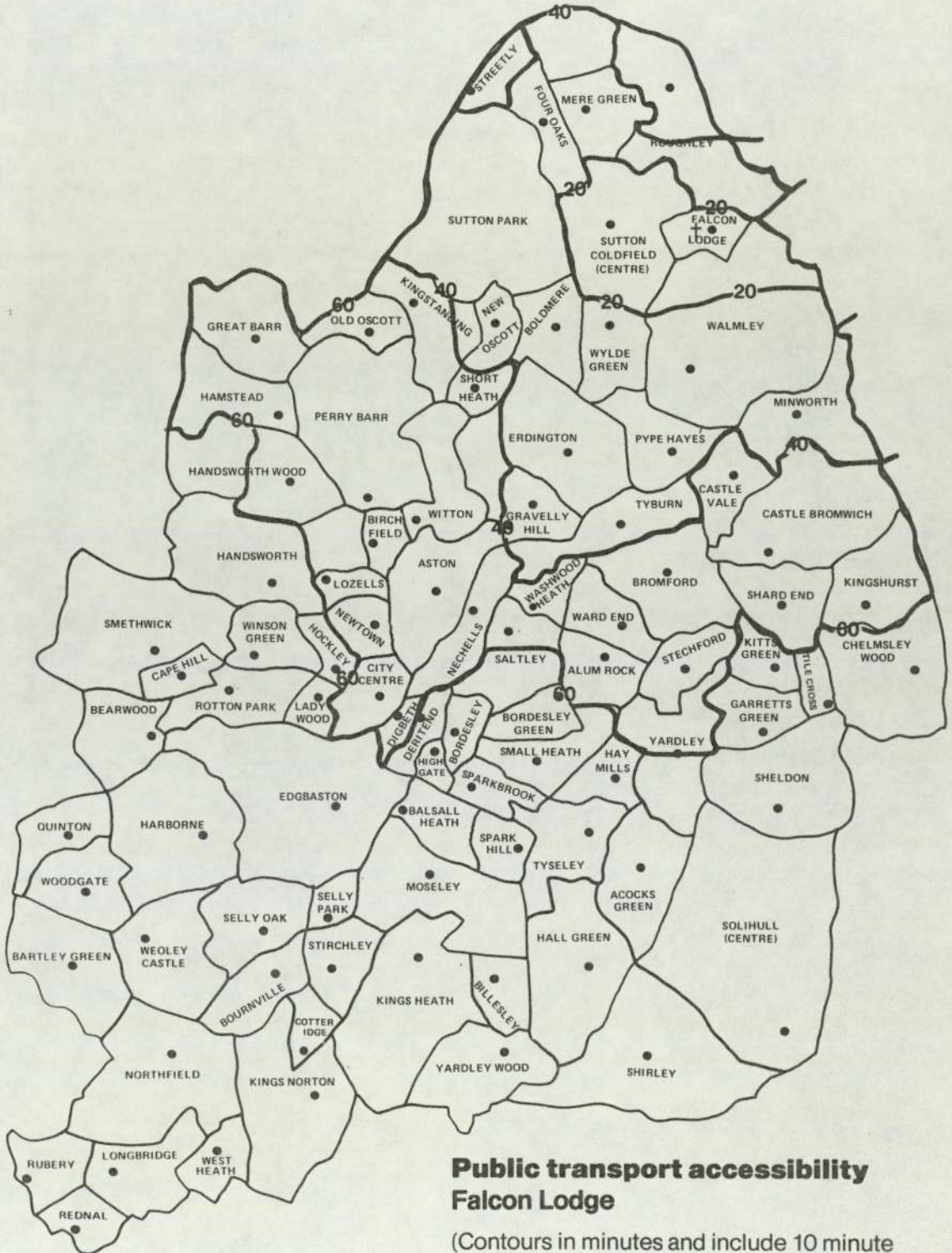


Figure F1.11



† Home location

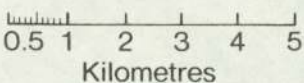
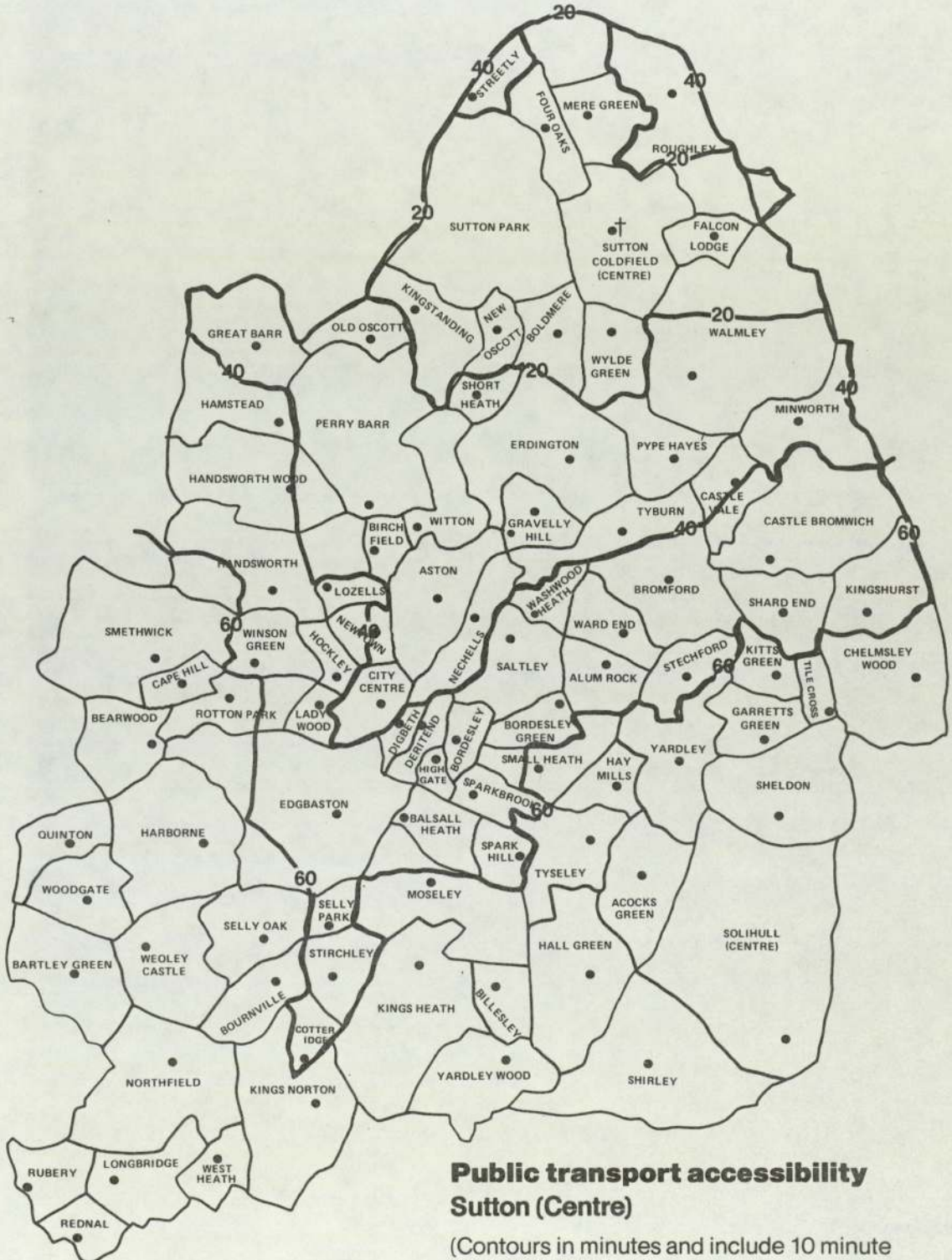
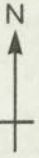


Figure FI.12



† Home location

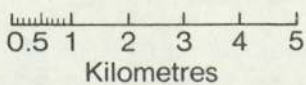
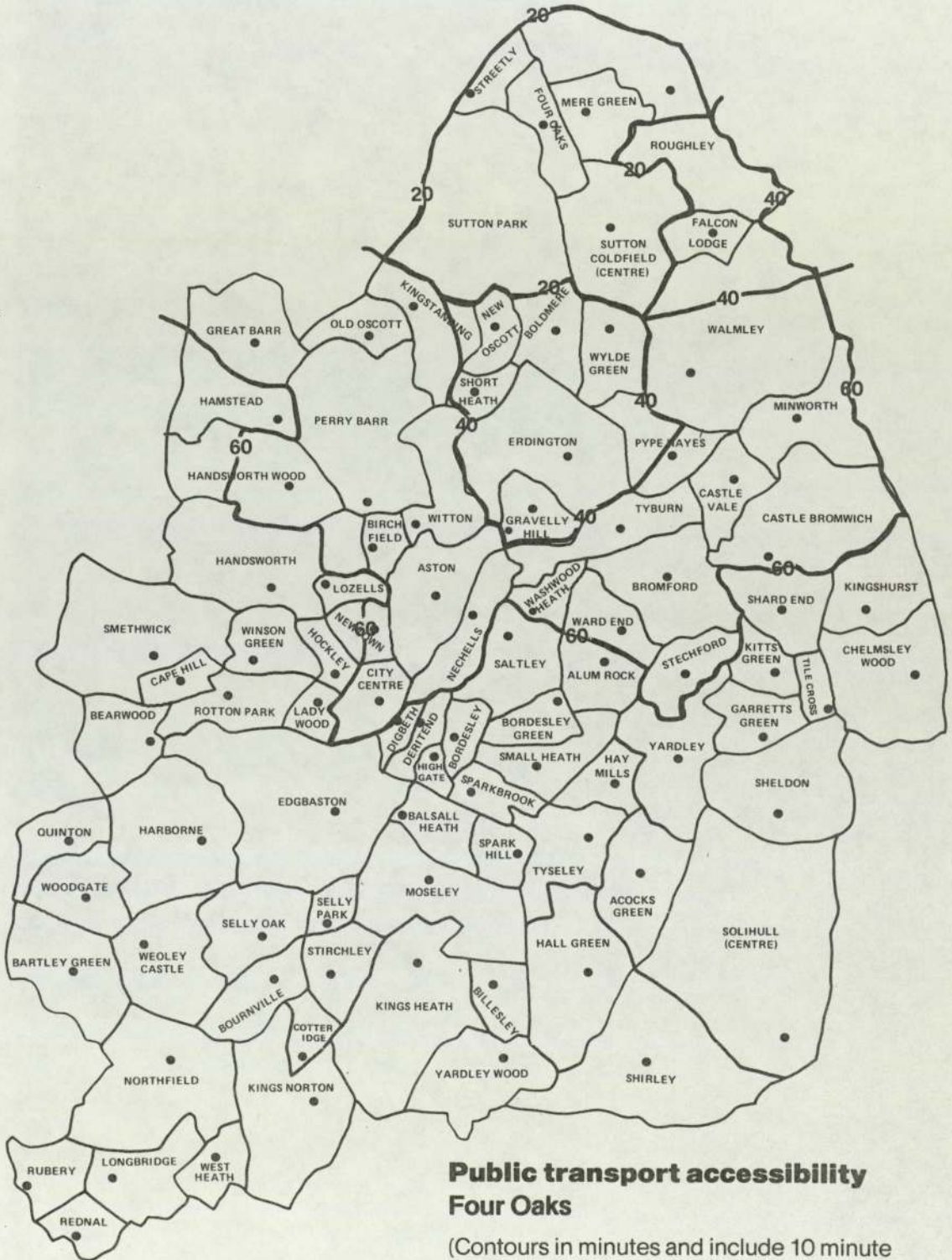


Figure FI.13



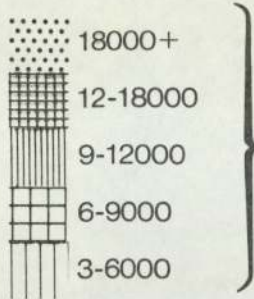
† Home location

0.5 1 2 3 4 5
Kilometres

TABLE F1.1 - ACCESSIBILITY TO EMPLOYMENT IN BIRMINGHAM BY PUBLIC TRANSPORT

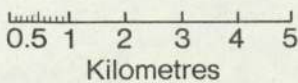
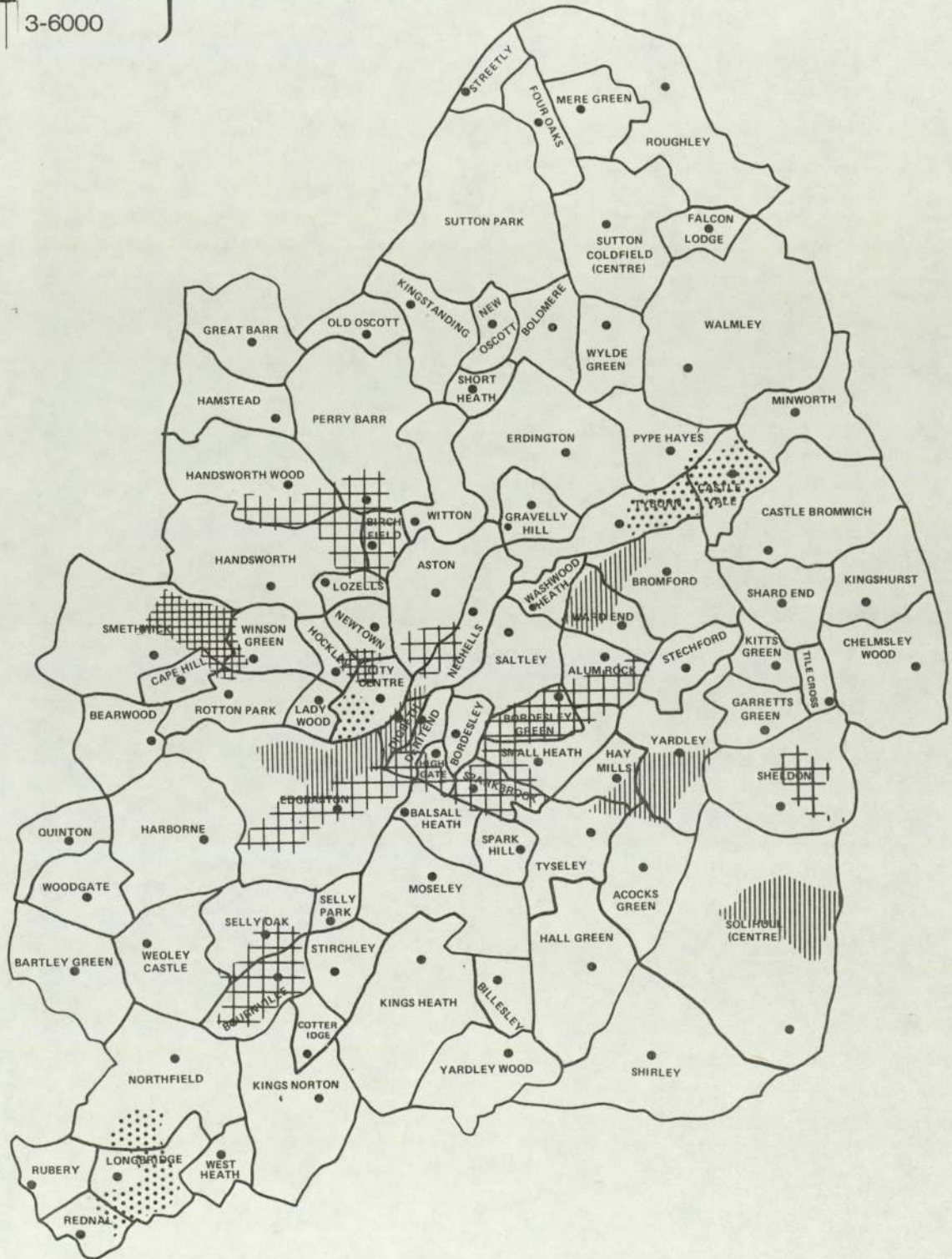
	LESS THAN '20 MINUTES'			UP TO '40 MINUTES'			UP TO '60 MINUTES'		
	EMPLOYMENT PLACES	TOTAL POPULATION	JOBS PER PERSON	EMPLOYMENT PLACES	TOTAL POPULATION	JOBS PER PERSON	EMPLOYMENT PLACES	TOTAL POPULATION	JOBS PER PERSON
TOTAL 'ASTON' SAMPLE	61682	112084	0.55	310720	472662	0.66	540738	993104	0.54
ASTON	134507	103180	1.30	376775	490084	0.77	651048	1203667	0.54
ERDINGTON	61682	112084	0.55	310720	472662	0.66	540738	993104	0.54
CASTLE VALE	22228	39785	0.56	159293	251227	0.63	423627	693679	0.61
TOTAL 'CITY' SAMPLE	191399	148486	1.29	443706	657960	0.67	694779	1344057	0.52
SOUTH CORE	187534	184051	1.02	400334	565594	0.71	653931	122434	0.53
WEST CORE	88348	80133	1.10	403158	509883	0.79	690219	1185317	0.58
EAST CORE	77632	150863	0.52	364553	523052	0.70	564046	1004824	0.56
TOTAL 'HANDSWORTH' SAMPLE	99596	62102	1.60	335996	348379	0.96	662045	1052985	0.62
LOZELLS	193197	142478	1.36	459621	590116	0.78	759204	1412855	0.54
HANDSWORTH	128190	56684	2.26	376225	373513	1.01	717603	1206823	0.60
TOTAL 'SUTTON' SAMPLE	16256	56514	0.29	144253	291496	0.49	448506	673293	0.67
BOLDMERE	14684	48243	0.31	163182	282217	0.58	437224	693526	0.63
FALCON LODGE	8613	14796	0.58	49039	124659	0.39	208473	395228	0.53
FOUR OAKS	9100	24475	0.37	33750	127788	0.26	222266	378094	0.59
SUTTON (CENTRAL)	16256	56514	0.29	144253	291496	0.50	448506	673293	0.67
WALMLEY	7909	27694	0.29	139065	161412	0.86	387592	592319	0.65

Distribution of main employment centres in Birmingham



Employment places

Figure FI.14



peripheral centres of employment are evident at Tyburn, Longbridge, Solihull and Smethwick.

Table Fl.1 displays the figures for the population and the number of employment places accessible by public transport within 20, 40 and 60 minutes for each of the locational divisions of the sample. The table shows that the 'jobs per person' ratio accessible in 'up to 20 minutes' is higher for the inner city than the suburban groups. This difference is less noticeable in the ratio of the figures for accessibility of 'up to 40 minutes' and disappears in the figures for 'up to 60 minutes'. This implies that provided suburban residents are prepared to travel a total journey time between 40 and up to 60 minutes, then the 'jobs per person' ratio is not noticeably different from the ratio for inner city residents.

Some may argue that inner city residents have the advantage of geographical proximity to employment over their suburban counterparts. However the findings of this Appendix tend to reject this argument, especially given the higher levels of car ownership for suburban residents. How far these residents, in the case of unemployed school leavers, are prepared to travel to work is examined in Chapter 5 of this thesis.

APPENDIX G1

JOB SEARCH AND THE DURATION OF
UNEMPLOYMENT

Gl.1 INTRODUCTION

In Chapter Two it was stated that one objective of this research was to investigate possible changes in decisions made by unemployed school leavers in the job search process with the duration of unemployment. Therefore, this Appendix provides an investigation into these possible changes. Special attention is given to the possible influence of travel and to perceptual difficulties in search behaviour with the duration of unemployment. A longer survey would have more adequately investigated changes in the pattern of job search behaviour with the duration of unemployment. However, as discussed in Chapter Three and Appendix C1, a longer survey would have sacrificed the detail of data obtained in this survey necessary to understand decision-making in the process of job search.

The data collected in the 'Job Seekers Diary' was divided into discrete time periods to facilitate analysis of changes in job search behaviour within the early stages of unemployment. This part of the analysis is divided into three sections which discuss temporal changes in the aspects of job search behaviour identified earlier. The Appendix is divided into an investigation (I) possible changes in the job search decision making of individuals in the early stages of unemployment and, (II) how the 'cognitive-behavioural' relationships in this search were affected by the duration of unemployment and finally, (III) a description of the changes in the locational patterns (i.e. vacancy

application space' and 'search activity space') with the continuation of unemployment.

G1.2 DECISION-MAKING IN JOB SEARCH AND THE DURATION OF UNEMPLOYMENT

G1.2.1 The Four Week Period and the Rest of the Survey -

The data on the process of job search can be divided into time periods to facilitate an investigation into possible changes in the decision-making of job seekers. The aggregate figures for the decisions made in the first two weeks and the second two weeks of the survey are displayed in table G1.1. The figures in this table include only data collected in a four week period from 29th June 1980, to 27th July 1980. These weeks have been chosen because during this period all respondents entered job search information in their diaries (Note 1).

School leavers recruited at the beginning of the 'recruitment period' immediately entered details of job search in their diaries. Individuals recruited towards the end of the 'recruitment period' were asked to 'recall' and enter into 'the Diary' any job search during the previous days.

All of this data has been included in previous analysis. However, it is sensible to restrict the analysis of 'Job Search and the Duration of Unemployment' to the four weeks during which all the respondents entered 'continuous' information into the diaries. Before discussing the data for the four week period it is informative to

Note 1 By the end of the period of recruitment some respondents had been recruited one week before other respondents. Hence these four weeks covered diary entries by all respondents.

compare the total figures for the data collected during this period with data for the rest of the survey.

TABLE G1.1 - JOB SEARCH: THE "FOUR WEEKS" AND THE REST OF THE SURVEY

	VACANCY REJECTION	VACANCY APPLICATION				VACANCY DISCOVERY
	TOTAL (%C) A	NO INTERVIEW OFFER NO. (%C)	INTERVIEW OFFER NO. (%C)	TOTAL B NO. (%C)	TOTAL C NO.	
REST OF DATA	590 (54.4)	347 (32.0)	148 (13.6)	495 (45.6)	1085	
4WEEK PERIOD	1580 (60.5)	778 (29.8)	255 (9.8)	1033 (39.5)	2613	
TOTAL SURVEY	2170 (58.7)	1125 (30.4)	403 (10.9)	1528 (41.3)	3698	

Table G1.1 shows that the major difference was between the application / rejection rates which were noticeably lower for the four week period. This is not surprising because respondents were probably able to recall applications and interviews more easily than vacancies discovered but not followed up (i.e. Rejected). The inclusion of figures representing job search outside the four week period clearly did not noticeably affect the total figures. For example the rejection rate was only reduced from 60.5% to 58.7% with the inclusion of the data collected outside the four week period.

G1.2.2 The Total Sample - The data collected during the four weeks period is summarised in table G1.2. The table shows the totals for the first fortnight and the second fortnight.

Vacancy Application rates decreased significantly by 10%. The breakdown of reasons for rejecting a vacancy did not vary greatly. Similarly, a statistically significant

TABLE G1.2 - THE PROCESS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT - TOTAL SAMPLE

DURATION OF UNEMPLOYMENT	VACANCY REJECTION						VACANCY APPLICATION						VACANCY DISCOVERY				
	LOCATIONAL REASONS			OTHER REASONS			(A) TOTAL REJECTION		NO INTERVIEW OFFER		INTERVIEW OFFER		(B) TOTAL APPLICATION		TOTAL C NO.		
	No.	(%A)	(%C)	No.	(%A)	(%C)	No.	(%C)	No.	(%B)	(%C)	No.	(%B)	(%C)	No.	(%C)	
1st Fortnight	299	(37.6)	(21.2)	496	(62.4)	(35.2)	795	(56.4)	464	(75.6)	(32.9)	150	(24.4)	(10.7)	614	(43.6)	1409
2nd Fortnight	266	(33.9)	(22.1)	519	(66.1)	(43.1)	785	(65.2)	314	(74.6)	(26.1)	105	(25.1)	(8.7)	419	(34.8)	1204
Four Week Period	565	(35.6)	(21.6)	1015	(64.4)	(38.9)	1580	(60.5)	778	(75.3)	(29.7)	225	(24.7)	(9.8)	1033	(39.5)	2613

1. Chi-squared value is 20.9 with 1 degree of freedom. Therefore the null hypothesis that there is no statistically significant difference in the proportion of discovered vacancies which were rejected is rejected at the 99.9% confidence interval.

2. Chi-squared value is 2.4 with 1 degree of freedom. Therefore the null hypothesis that there is no statistically significant difference in the proportion of vacancies rejected for locational reasons between the first and second fortnight is accepted.

3. Chi-squared value is 0.7 with one degree of freedom. Therefore, the null hypothesis that there is no statistically significant difference in the proportion of applications which resulted in an interview offer between first and second fortnight is accepted.

difference did not exist in the interviews offered per application between each of the two time periods. This means, therefore, that because applications as a proportion of discovered vacancies decreased over time, the interview offer / discovery ratio also decreased. One possible implication is that with the duration of unemployment, job seekers tended to become discouraged, which is exemplified by the reduction in application rates. However the data used in table G1.2 includes respondents who 'obtained employment'. It has already been established that the 'employed' group of respondents applied for a significantly greater proportion of discovered vacancies than did the group of respondents failing to gain employment by the end of the survey. Therefore, as the 'employed' group left the survey (i.e. accepted a job offer), the sample at each time period was comprised of a greater proportion of respondents who failed to obtain employment. Hence it is possible that the temporal reduction in rate of application per discovery noted in table G1.2 was merely the result of 'employed' respondents leaving the survey. Table G1.3 shows the aggregate figures for the process of job search and the duration of unemployment for those respondents still 'unemployed' at the end of the survey.

G1.2.3 The 'Unemployed' sample - A comparison of vacancy application / discovery rates between table G1.2 and table G1.3 indicates that the removal of respondents who obtained employment within the survey period did not appear to affect significantly the general trend of a decreasing application rate as unemployment continues. The proportion of applications per discovery were marginally higher in

TABLE G1.3 - THE PROCESS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT - THE UNEMPLOYED GROUP

DURATION OF UNEMPLOYMENT	VACANCY REJECTION						VACANCY APPLICATION						(C) VACANCY DISCOVERY TOTAL C NO.				
	LOCATIONAL REASONS		OTHER REASONS		(A) TOTAL REJECTION		NO INTERVIEW OFFER		INTERVIEW OFFER		(B) TOTAL APPLICATION						
	No.	(%A)	(%C)	No.	(%A)	(%C)	No.	(%C)	No.	(%B)	(%C)	No.		(%B)	(%C)	No.	(%C)
1st Fortnight	262	(38.9)	(22.5)	412	(61.1)	(35.5)	674	(58.0)	389	(79.7)	(33.5)	99	(20.3)	(8.5)	488	(42.0)	1162
2nd Fortnight	250	(34.5)	(23.1)	475	(65.5)	(43.8)	725	(66.9)	276	(77.1)	(25.5)	82	(22.9)	(7.6)	358	(33.1)	1083
TOTAL FOUR WEEK PERIOD	512	(36.6)	(22.8)	887	(63.4)	39.5	1399	(62.3)	665	(78.6)	(29.6)	181	(21.4)	(8.1)	846	(37.7)	2245

each time period for the total sample (table G1.2). The difference in proportions, although relatively small, reflect the finding that respondents in the 'employed' group followed up proportionately more vacancies.

The rate at which 'interview offers' were obtained per application was not statistically different for each time period for the total sample. Further inspection of the two tables show that the proportion of interview offers was marginally higher in the both fortnightly periods for the total sample (table G1.2). Again this reflects the finding that the 'employed' group were offered proportionately more interviews per application.

The division of reasons for rejecting vacancies also shows the same trend for the total sample and the still 'unemployed' group. The locational reasons expressed as a proportion of all rejections decreased from the first to the second fortnight. However the locational reasons expressed as a proportion of all vacancies discovered increased very slightly. This is because a greater proportion of discovered vacancies were rejected for 'all reasons'. This means that as unemployment continued, a greater proportion of vacancies were rejected because of an increased non-locational reasons. The implication of these findings is that as a result of job search experience, the school leaver either developed a more accurate knowledge of which vacancies were most likely to produce an interview or the school leaver became disheartened. Probably a combination of the two caused this reduction in application rates.

It is noticeable in table G1.3 that location / transport reasons, expressed as a proportion of all rejections,

TABLE G1.4 - VACANCY REJECTION REASONS AND THE DURATION OF UNEMPLOYMENT - THE UNEMPLOYED GROUP

	REASON	1st fortnight No.	1st fortnight %total	2nd fortnight No.	2nd fortnight %total
LOCATIONAL REASONS					
Never heard of area in which firm is located	A	40	5.9	60	8.3
Don't know how to get to firm	B	83	12.3	96	13.2
Don't like the area in which the firm is located	C	22	3.2	19	2.6
Don't like travelling so far	D	28	4.2	26	3.6
	A-D TOTAL	(173)	(25.6)	(201)	(27.7)
TRANSPORT REASONS					
Takes too much time to travel to firm	E	32	4.8	23	3.2
Costs too much money to travel to firm	F	18	2.7	10	1.4
Impossible (for me) to get to the firm	G	7	1.0	6	0.8
Difficult (for me) to get to the firm	H	32	4.8	10	1.4
	E-H TOTAL	(89)	(13.3)	(49)	(6.8)
WORK CONDITION REASONS					
Pay too low	I	13	2.0	14	1.9
Don't like the hours of work (e.g. shifts)	J	15	2.2	23	3.2
Don't like the arrangements for holiday	K	1	0.1	3	0.4
Unpleasant/dirty working conditions	L	5	0.7	6	0.8
	I-L TOTAL	(34)	(5.0)	(46)	(6.3)
PERSONAL REASONS					
Poor reputation of the firm	M	1	0.1	9	1.2
Not interested in this particular type of work	N	106	15.7	120	16.6
Not sufficiently qualified/experienced to do the work	O	190	28.2	200	27.6
No friends working at the firm	P	8	1.2	8	1.1
	M-P TOTAL	(305)	(45.2)	(337)	(46.5)
OTHER REASONS					
Other Reasons	Q	53	7.9	52	7.2
Reasons not given	X	20	3.0	40	5.5
	Q-X TOTAL	(73)	(10.9)	(92)	(12.7)
LOCATIONAL / TRANSPORT REASONS	A-H TOTAL	262	38.9	250	34.5
WORK CONDITIONS / PERSONAL / OTHER REASONS	I-X TOTAL	4.2	61.1	475	65.5

decreased from the first to the second period. It is suggested, therefore, that job seekers were applying for vacancies (in the second period) located in districts of the city which would have been rejected in the earlier stages of unemployment. Table G1.4 shows a breakdown of the reasons for rejection. It is interesting to note that the proportion of all rejections decreased for reasons C to H in the second period. This implies that respondents might have been more prepared to travel to the more inaccessible firms. (This is examined in the next two sections).

The non-geographical reasons for rejection increased slightly from the first to second period for nearly all the reasons I to X. No single reason appears to have been predominantly more important in the second period than any other non-geographical reason. The breakdown of the data into these time periods has indicated that vacancy applications, as a proportion of discoveries, decreased from the first to the second fortnight. By examining data for the 'unemployed' group it appears that job seekers were either becoming more selective or discouraged in the job search process. As a consequence of this lower rate of application, the proportion of all discoveries resulting in an interview offer also decreased (8.5% to 7.6%). If the total number of vacancies discovered in each time period had increased then the actual number of applications per person might not have altered significantly, despite their lower rate of application. However, it was the case that the number of vacancies decreased from 1162 to 1083 which gives further significance to the decrease in applications per vacancy

discovery.

Table G1.5 shows the average number of vacancy discoveries, applications and interview offers per person for the first and second fortnights of the survey. The averages are calculated for the 'unemployed' respondents in the sample. Table G1.5 also shows the 'Z' test values for the comparison.

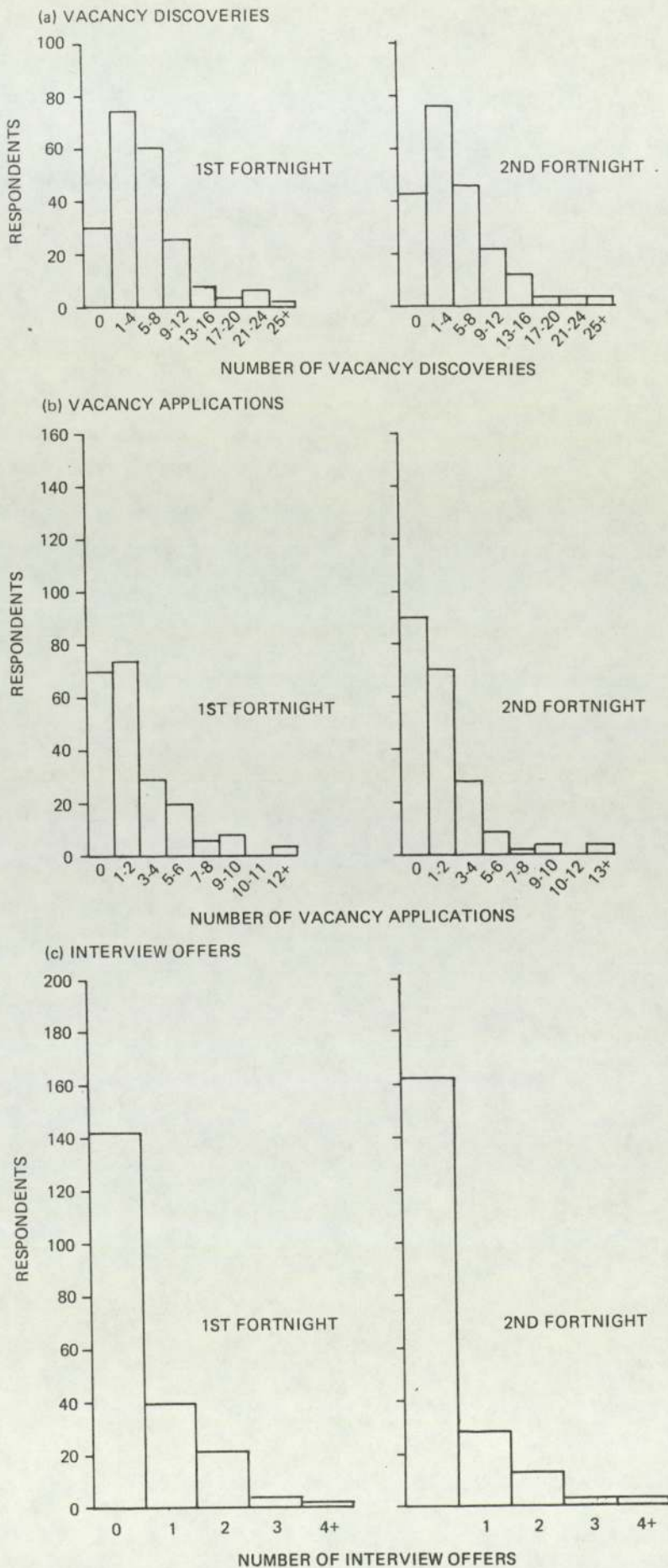
TABLE G1.5 - AVERAGE FIGURES IN THE PROCESS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT - TOTAL 'UNEMPLOYED' GROUP

	VACANCY DISCOVERY		VACANCY APPLICATION		INTERVIEW OFFERS	
	AVERAGE	S.DEV	AVERAGE	S.DEV	AVERAGE	S.DEV
1st fortnight	5.61	5.58	2.35	3.75	0.48	0.85
2nd fortnight	5.23	6.00	1.73	3.07	0.40	1.12
1st & 2nd fortnight	0.67 accept null hypothesis		1.86 reject null hypothesis at 92.8% confidence		0.84 accept null hypothesis	

N.B. The null hypothesis is that there is no statistically significant difference in the frequency distributions of discoveries or applications or interview offers between the first and second fortnight.

Figure G1.1 shows the distribution of discoveries, applications and interview offers per 'unemployed' respondent. Only a small proportion of the respondents discovered over 12 vacancies and only a few applied for more than 6 vacancies in each fortnight. The Figure also illustrates

Figure G1.1 THE DURATION OF UNEMPLOYMENT AND THE PROCESS OF JOB SEARCH – TOTAL SAMPLE



the general decrease in vacancy applications per person, while the distribution of vacancies discovered was relatively constant from the first to the second fortnight. The most noticeable difference was the increase in the number of individuals who did not apply for a single vacancy. This implies that some school leavers were becoming more 'discouraged', after only a few weeks of unemployment. Table G1.6 shows the proportion of respondents who did not make a single vacancy application in each of the fortnightly periods.

TABLE G1.6 - VACANCY APPLICATION AND THE DURATION OF UNEMPLOYMENT - THE 'UNEMPLOYED' GROUP

	No applications	At least one application	Total Respondents
1st fortnight	70 (33.8%)	137 (66.2%)	207 (100%)
2nd fortnight	90 (43.5%)	117 (56.5%)	207 (100%)

The table indicates a difference in the frequency of at least one vacancy application per person between each of the time periods. At first it appears that job seekers were becoming 'discouraged'. However, it is possible that job seekers were becoming more discerning in their decisions on which of the discovered vacancies to follow-up (i.e. apply for). This possibility is enhanced by the fact that the number of interviews per person was not significantly different between the two periods (Table G1.5).

Gl.2.4 The Inner City and Suburban 'Unemployed' Sample -
Tables Gl.7 and Gl.8 show the general trend of increased vacancy rejection with the duration of unemployment for both the 'suburban' and 'inner city' groups. The only noticeable difference in the trends shown in the two tables is that interviews per vacancy discovered increased with the duration of unemployment for the 'suburban' group while the corresponding figures for the 'inner city' group decreased. This is because the suburban group applied for a greater proportion of discovered vacancies than did the 'inner city' group.

Another relevant line of inquiry is to see if vacancy applications were extended to less familiar locations, or that applications were increasingly restricted to more familiar locations as unemployment continued. The next section examines the relationship between awareness score and stages in the job search process for each time period. Possible changes over time in the locational pattern of 'Vacancy Application Space' and 'Search Activity Space' are studied in the final section.

Gl.3 THE RELATIONSHIP BETWEEN JOB SEARCH AND AWARENESS SCORE AND THE DURATION OF UNEMPLOYMENT

Gl.3.1 The Total Sample - Table Gl.9 shows the distribution of vacancies discovered by awareness score for the total sample for each of the two fortnights. The table shows a significant difference in the distribution of vacancies discovered by awareness score between the first and the second fortnight. Although the majority of vacancies were discovered in districts of relatively high awareness there

TABLE G1.7 - THE PROCESS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT -
THE 'UNEMPLOYED' SUTTON GROUP

DURATION OF UNEMPLOYMENT	VACANCY REJECTION			VACANCY APPLICATION					VACANCY DISCOVERY TOTAL C		
	TOTAL A NO.	(%C)	NO INTERVIEW OFFER		INTERVIEW OFFER			TOTAL (B) APPLICATIONS			
			No.	(%B)	(%C)	NO.	(%B)	(%C)		NO.	(%C)
1st Fortnight	209	(53.3)	142	(77.6)	(36.2)	41	(22.4)	(10.5)	183	(46.7)	392
2nd Fortnight	197	(56.8)	104	(69.3)	(30.0)	46	(30.7)	(13.2)	150	(43.2)	347
TOTAL PERIOD	406	(54.9)	246	(73.9)	(33.3)	87	(26.1)	(11.8)	333	(45.1)	739

TABLE - THE PROCESS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT -
THE 'UNEMPLOYED' INNER CITY GROUP (1)

DURATION OF UNEMPLOYMENT	VACANCY REJECTION			VACANCY APPLICATION					VACANCY DISCOVERY TOTAL C		
	TOTAL A NO.	(%C)	NO INTERVIEW OFFER		INTERVIEW OFFER			TOTAL (B) APPLICATIONS			
			No.	(%B)	(%C)	NO.	(%B)	(%C)		NO.	(%C)
1st Fortnight	465	(60.4)	247	(93.2)	(32.1)	58	(6.8)	(7.5)	305	(39.6)	770
2nd Fortnight	528	(71.7)	172	(82.7)	(23.4)	36	(17.3)	(4.9)	208	(28.3)	736
TOTAL PERIOD	993	(65.9)	419	(81.7)	(27.8)	94	(18.3)	(6.3)	513	(34.1)	1506

Note 1 The 'inner city' groups include 12 respondents from Castle Vale which is not located in the 'inner city' of Birmingham. Also these three groups have been combined because comparison of temporal changes in the job search process between all four groups is too cumbersome.

TABLE G1.9- CHANGES IN VACANCY DISCOVERY BY AWARENESS SCORE WITH
THE DURATION OF UNEMPLOYMENT - THE TOTAL SAMPLE

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	109	(7.7)	255	(18.1)	154	(10.9)	101	(7.2)	241	(17.1)	549	(39.0)	1409	(100)
		364	(25.8)			255	(18.1)			790	(56.1)			
SECOND FORTNIGHT	128	(10.6)	216	(18.0)	170	(14.1)	90	(7.5)	172	(14.3)	429	(35.5)	1204	(100)
		344	(28.6)			260	(21.6)			600	(49.8)			
TOTAL FOR PERIOD	237	(9.1)	471	(18.0)	324	(12.4)	191	(7.3)	413	(15.8)	977	(37.4)	2613	(100)
		708	(27.1)			515	(19.7)			1390	(53.2)			

Chi-squared is 16.6 with 5 degrees of freedom. Therefore, the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is rejected at the 99.0% confidence interval.

was a tendency for job seekers to discover a greater number of vacancies in districts of lower awareness in the second period.

How far this trend might extend could only properly be answered using a much longer survey; but data for the first few weeks of unemployment clearly showed a significant 'widening' of the locations considered by school leavers.

In section G1.2 it was recognised that the proportion of discovered vacancies which were rejected increased from the first to the second period. It is possible therefore that while proportionately more vacancies were discovered in 'low awareness' locations (0-3) these were simply rejected more frequently. Table G1.10 shows the application / rejection rates for the total sample for (a) the first fortnight and (b) the second fortnight. These figures are illustrated in Figure G1.2.

Table G1.10 demonstrates that the total average rejection rate was higher in the second period compared to the first period. A closer inspection of (a) and (b) reveals that for all awareness scores except '1' the rejection rate was higher in the second period. An examination of the distribution of vacancy applications by awareness score should indicate the affect of this decision-making for each time period.

Table G1.11 shows that the proportion of vacancy applications generally increased from the first to the second period for awareness scores 0 to 3 while the proportion decreased for scores 4 and 5, but it cannot be concluded that these differences were statistically significant. Therefore this suggests that proportionately

TABLE G1.10- DECISION-MAKING AND AWARENESS SCORE - THE TOTAL SAMPLE

(a) The First Fortnight

(b) The Second Fortnight

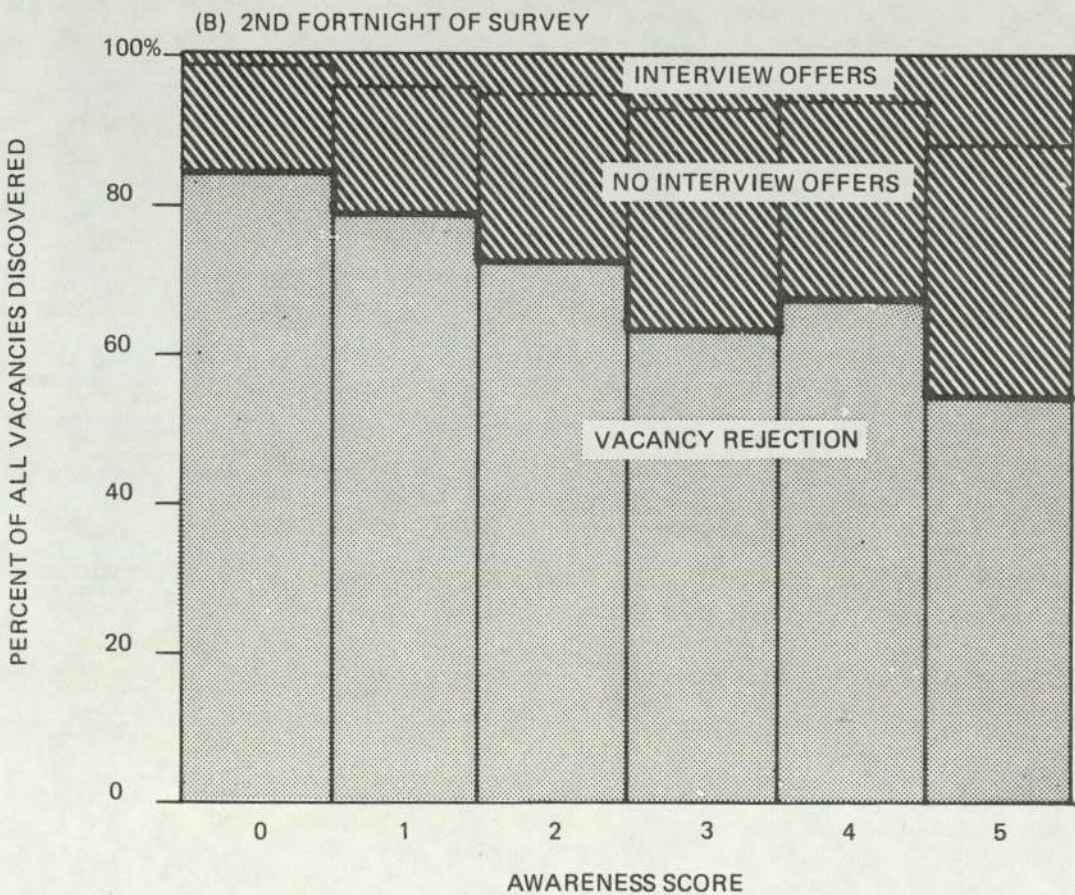
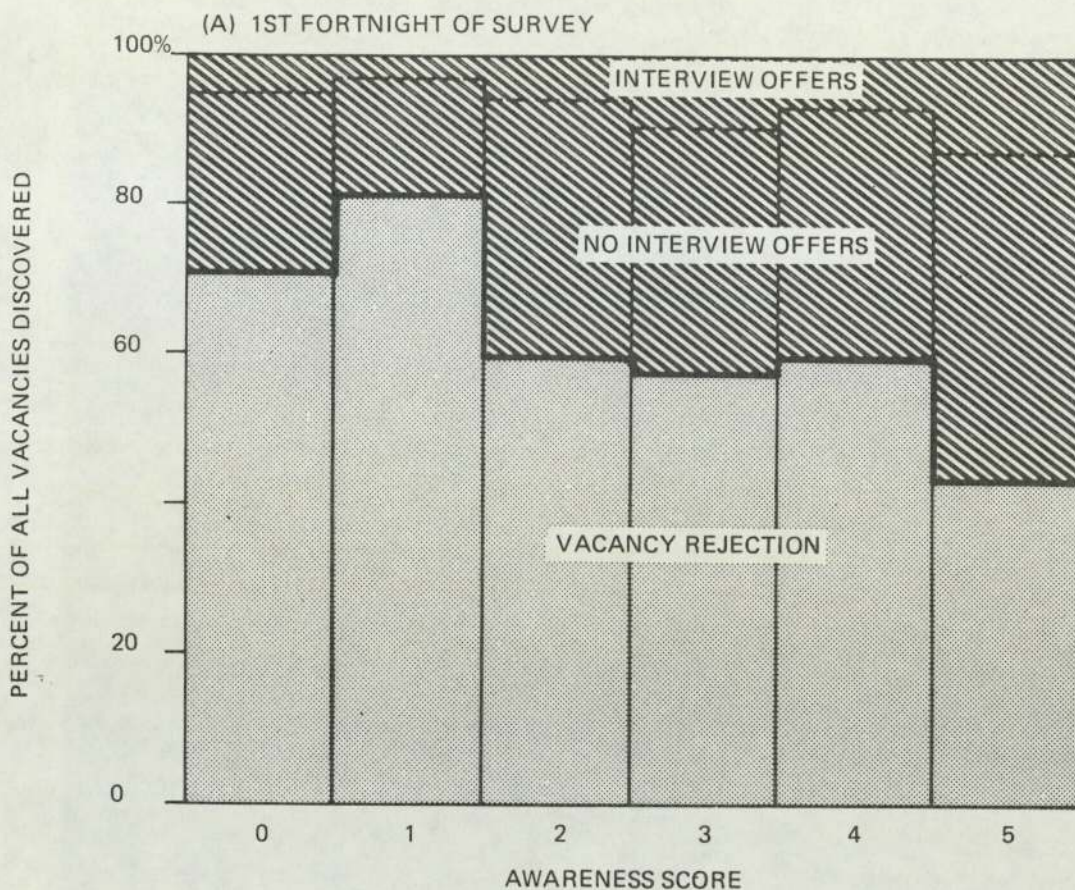
AWARENESS SCORE	VACANCY REJECTION		VACANCY APPLICATION		VACANCY DISCOVERY		AWARENESS SCORE	VACANCY REJECTION		VACANCY APPLICATION		VACANCY DISCOVERY	
	No.	(%)	No.	(%)	No.	(%)		No.	(%)	No.	(%)	No.	(%)
0	78	(71.6)	31	(28.4)	109	(100.0)	0	106	(82.9)	22	(17.1)	129	(100.0)
1	204	(80.0)	51	(20.0)	255	(100.0)	1	167	(77.3)	49	(22.7)	216	(100.0)
2	91	(59.1)	63	(40.9)	154	(100.0)	2	120	(70.6)	50	(29.4)	170	(100.0)
3	57	(56.4)	44	(43.6)	101	(100.0)	3	54	(60.0)	36	(40.0)	90	(100.0)
4	135	(56.0)	106	(44.0)	241	(100.0)	4	111	(64.5)	61	(35.5)	172	(100.0)
5	230	(41.9)	319	(58.1)	549	(100.0)	5	227	(53.1)	201	(46.9)	428	(100.0)
TOTAL	795	(56.4)	614	(43.6)	1409	(100.0)	TOTAL	785	(65.2)	419	(34.8)	1204	(100.0)

TABLE G1.11 - CHANGES IN VACANCY APPLICATION BY AWARENESS SCORE WITH
THE DURATION OF UNEMPLOYMENT - THE TOTAL SAMPLE

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	31	(5.0)	51	(8.3)	63	(10.3)	44	(7.2)	106	(17.2)	319	(52.0)	614	(100)
	82 (13.3%)				107 (17.5%)				425 (69.2%)					
SECOND FORTNIGHT	22	(5.3)	49	(11.7)	50	(11.9)	36	(8.6)	61	(14.5)	201	(48.0)	419	(100)
	71 (17.0%)				86 (20.5%)				262 (62.5%)					
TOTAL FOR PERIOD	53	(5.1)	100	(9.7)	113	(10.9)	80	(7.7)	167	(16.2)	520	(50.4)	1033	(100)
	153 (14.8%)				193 (18.6%)				687 (66.6%)					

Chi-squared value is 6.0 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by aggregated awareness scores between the first and second fortnight is accepted.

Figure G1.2 AWARENESS SCORE AND THE PROCESS OF JOB SEARCH WITH THE DURATION OF UNEMPLOYMENT – TOTAL SAMPLE



more vacancies were rejected in lower awareness scores during the second period. When the awareness scores in table Gl.11 are aggregated (i.e. 0 and 1, 2 and 3, 4 and 5) the differences become statistically significant (Note 1). In order to better understand these changes in job search with the duration of unemployment, it is relevant to compare data for respondents 'employed' and those 'unemployed' at the end of the survey.

Gl.3.2 'Unemployed' versus 'Employed' Respondents - Table Gl.12 and Gl.13 display for each of the time periods the distribution of vacancies discovered by awareness score for the 'employed' and the 'unemployed' respondents.

The 'unemployed' group discovered a greater proportion of vacancies in districts of lower awareness during the second fortnight compared to the first fortnight.

In contrast, a statistically significant difference was not found in the distribution of discoveries by awareness score between the two time periods for the 'employed' group of respondents. A comparison of the two tables also reveals that 'employed' respondents consistently discovered more vacancies located in districts of higher awareness. (This is because the 'employed' respondents generally assigned more districts of the city to the higher awareness scores (Table Gl.13)).

Note 1 Chi-squared value is 5.1 with 2 degrees of freedom. Therefore the null hypothesis that there is no statistically significant differences in the distribution of vacancy applications by aggregated awareness score between the first and second fortnight is rejected at the 99.0% confidence interval.

TABLE G1.12- CHANGES IN VACANCY DISCOVERY BY AWARENESS SCORE WITH
THE DURATION OF UNEMPLOYMENT - THE TOTAL 'UNEMPLOYED' RESPONDENTS

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	92	(7.9)	221	(19.0)	130	(11.2)	93	(8.0)	197	(17.0)	429	(36.9)	1162	(100)
	313 (26.9%)		223 (19.2%)		626 (43.9%)									
SECOND FORTNIGHT	123	(11.3)	195	(18.0)	162	(15.0)	81	(7.5)	155	(14.3)	367	(33.9)	1083	(100)
	318 (39.3%)		243 (22.5%)		522 (48.2%)									
TOTAL FOR PERIOD	215	(9.5%)	416	(18.5%)	292	(13.0%)	174	(7.7%)	352	(15.8%)	796	(35.5%)	2245	(100)
	631 (28.0%)		466 (20.7%)		1148 (51.3%)									

Chi-squared value is 17.5 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is rejected at the 99.0% confidence interval.

TABLE G1.13- CHANGES IN VACANCY DISCOVERY BY AWARENESS SCORE WITH
THE DURATION OF UNEMPLOYMENT - THE TOTAL 'EMPLOYED' RESPONDENTS

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	17	(6.8)	34	(13.8)	24	(9.7)	8	(3.2)	44	(17.8)	120	(48.6)	247	(100)
	51	(20.6%)			32	(13.0%)			168	(66.4%)				
SECOND FORTNIGHT	5	(4.1)	21	(17.4)	8	(6.6)	9	(7.4)	17	(14.1)	61	(55.4)	121	(100)
	26	(21.5%)			17	(14.0%)			78	(64.5%)				
TOTAL FOR PERIOD	22	(6.0%)	55	(14.9%)	32	(8.7%)	17	(4.6%)	61	(16.6%)	181	(49.2%)	368	(100)
	77	(20.9%)			49	(13.3%)			242	(65.8%)				

Chi-squared value is 5.7 with 5 degrees of freedom. Therefore, the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness scores between the first and second fortnight is accepted.

TABLE G1.14 - CHANGES IN VACANCY APPLICATION BY AWARENESS SCORE WITH THE
DURATION OF UNEMPLOYMENT - TOTAL 'UNEMPLOYED' RESPONDENTS

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	27	(5.5)	43	(8.8)	53	(10.9)	40	(8.2)	81	(16.6)	244	(50.0)	488	(100)
		70	(14.3%)			93	(19.1%)			325	(66.6%)			
SECOND FORTNIGHT	20	(5.6)	42	(11.7)	46	(12.9)	30	(8.4)	51	(14.2)	169	(47.2)	358	(100)
		62	(17.3%)			76	(21.3%)			220	(61.4%)			
TOTAL	47	(5.6)	85	(10.0)	99	(11.7)	70	(8.3)	132	(15.6)	413	(48.8)	846	(100)
		132	(15.6%)			169	(20.0%)			545	(64.4%)			

Chi-squared value 3.4 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is accepted.

TABLE G1.15- CHANGES IN VACANCY APPLICATION BY AWARENESS SCORE WITH THE
DURATION OF UNEMPLOYMENT - TOTAL 'EMPLOYED' RESPONDENTS

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	4	(3.2)	8	(6.3)	10	(7.9)	4	(3.2)	25	(19.9)	75	(59.5)	126	(100)
	12 (9.5%)				14 (11.1%)				100 (79.4%)					
SECOND FORTNIGHT	2	(3.3)	7	(11.5)	4	(6.6)	6	(9.8)	10	(16.4)	32	(52.4)	61	(100)
	9 (14.8%)				10 (16.4%)				42 (68.8%)					
TOTAL	6	(3.2)	15	(8.0)	14	(7.5)	10	(5.4)	35	(18.7)	107	(57.2)	187	(100)
	21 (11.2%)				24 (12.9%)				142 (75.9%)					

Chi-squared is 6.3 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is accepted.

Table G1.14 demonstrates that there was no significant difference between the two periods in the distribution of vacancy applications by awareness score for the 'unemployed' respondents, despite the fact that a greater proportion of vacancies were discovered by this group during the second period in districts of low awareness scores (0 to 3). This means that a greater proportion of discovered vacancies must have been rejected during the second period. Although the differences for each awareness score in table G1.14 were not statistically significant, it is noted that in general (i.e. scores 0 to 3 compared with scores 4 and 5) a greater proportion of applications were in lower awareness scores during the second period. The same pattern is more noticeable in the distribution of application by awareness score for the 'employed' respondents (Table G1.15).

G1.3.3 Inner City and Suburban Respondents - Chapter 5 demonstrated that patterns of awareness were noticeably different between groups of individuals resident in 'inner city' locations and residents of peripheral or suburban locations. It is necessary therefore to study the temporal changes in the relationship between job search and awareness score for both 'inner-city' and 'suburban' groups of respondents.

Table G.16 demonstrates that there was no statistically significant difference in the proportion of Sutton / Inner City respondents in the 'employed' and the 'unemployed' groups. Therefore it is concluded that the findings on the differences between 'employed' and 'unemployed' respondents were not simply the result of differences between 'inner city' and 'suburban' respondents.

TABLE G1.16 - INNER CITY AND SUBURBAN RESPONDENTS AND JOB TAKE-UP RATES

	Suburban		Inner City		Total	
	No.	%	No.	%	No.	%
'Employed'	26	(45.6)	31	(54.4)	57	(100%)
'Unemployed'	72	(34.8)	135	(65.2)	207	(100%)
TOTAL	98	(37.1)	166	(62.9)	264	(100%)

Chi-squared is 2.2 with 1 degree of freedom. Therefore, the null hypothesis that there is no statistically significant difference in the proportion of suburban respondents between the 'employed' and the 'unemployed' respondents is accepted.

Tables G1.17 and G1.18 show the difference in the distribution of vacancies discovered by awareness score between the first and second fortnight for the inner-city residents (Aston, City and Handsworth) and the suburban residents (Sutton). The tables demonstrate that there was no significant difference from one period to the next for the suburban group but that there was a significant difference for the 'inner city' group. In the latter case a greater proportion of vacancies were discovered in location of awareness score '0' to '3' in the second period. Tables G1.19 and G1.20 show that the trends for the two groups were reversed in the case of the distribution of vacancy applications by awareness score. The 'suburban' respondents applied for more vacancies in districts of lower awareness in the second period, while the 'inner-city' respondents did not significantly alter the distribution of applications by awareness score. A probable explanation is

TABLE G1.17- VACANCY DISCOVERY BY AWARENESS SCORE AND THE DURATION OF UNEMPLOYMENT - THE TOTAL 'SUBURBAN' GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	30	(6.3)	87	(18.2)	50	(10.5)	30	(6.3)	77	(16.1)	203	(42.6)	477	(100)
	117 (24.5%)		80 (16.8%)		280 (58.7%)									
SECOND FORTNIGHT	24	(6.0)	66	(16.4)	64	(15.9)	27	(6.7)	74	(18.4)	148	(36.6)	403	(100)
	90 (22.4%)		91 (22.6%)		222 (55.0%)									
TOTAL	54	(6.1)	153	(17.4)	114	(13.0)	57	(6.5)	151	(17.1)	351	(39.9)	880	(100)
	207 (23.5%)		171 (19.5%)		502 (57.0%)									

Chi-squared value is 7.9 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is accepted.

TABLE G1.18- VACANCY DISCOVERY BY AWARENESS SCORE AND THE DURATION OF UNEMPLOYMENT - THE TOTAL 'INNER-CITY' GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	79	(8.5)	168	(18.0)	104	(11.2)	71	(7.6)	164	(17.6)	346	(37.1)	932	(100)
	247 (26.5%)		175 (18.8%)		510 (54.7%)									
SECOND FORTNIGHT	104	(13.0)	150	(18.7)	106	(13.2)	63	(7.9)	98	(12.2)	280	(35.0)	801	(100)
	254 (31.7%)		169 (21.1%)		378 (47.2%)									
TOTAL	183	(10.6)	318	(18.3)	210	(12.1)	134	(7.7)	262	(15.1)	626	(36.1)	1733	(100)
	501 (28.9%)		344 (19.8%)		888 (51.2%)									

Chi-squared value is 18.6 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is rejected at the 99.0% confidence interval.

TABLE G1.19- VACANCY APPLICATION BY AWARENESS SCORE AND THE DURATION OF UNEMPLOYMENT - THE TOTAL 'SUBURBAN' GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	13	(5.6)	12	(5.2)	22	(9.4)	21	(9.0)	49	(21.0)	116	(49.8)	233	(100)
		25	(10.8%)			43	(18.4%)			165	(70.8%)			
SECOND FORTNIGHT	8	(4.4)	21	(11.6)	29	(15.9)	15	(8.2)	24	(13.2)	85	(46.7)	182	(100)
		29	(16.0%)			44	(24.1%)			109	(59.9%)			
TOTAL	121	(5.6)	33	(8.0)	51	(12.3)	36	(8.7)	73	(17.6)	201	(48.4)	415	(100)
		54	(13.0%)			87	(21.0%)			274	(66.0%)			

Chi-squared value is 12.8 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is rejected at the 95.0% confidence interval.

TABLE G1.20- VACANCY APPLICATION BY AWARENESS SCORE AND THE DURATION OF
UNEMPLOYMENT - THE TOTAL 'INNER CITY' GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	18	(4.7)	39	(10.2)	41	(10.8)	23	(6.0)	57	(15.0)	203	(53.3)	381	(100)
		57	(14.9%)			64	(16.8%)			260	(68.3%)			
SECOND FORTNIGHT	14	(5.9)	28	(11.8)	21	(8.9)	21	(8.9)	37	(15.6)	116	(48.9)	237	(100)
		42	(17.7%)			42	(17.8%)			153	(64.5%)			
TOTAL	32	(5.2)	67	(10.9)	62	(10.0)	44	(7.1)	94	(15.2)	319	(51.6)	618	(100)
		99	(16.1%)			106	(17.1%)			413	(66.8%)			

Chi-squared value is 3.5 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is accepted.

(as shown in table G1.12) that the inner city residents rejected a greater proportion of discoveries and that they also allocated a greater proportion of these rejections to location / transport reasons.

The previous four tables are based on data for the total sample. The figures for the 'unemployed' group are summarised in tables G1.21, G1.22, G1.23 and G1.24. It can be seen that the general pattern, noted for the total sample, was essentially repeated for the 'unemployed' group of respondents.

The slightly larger proportion of the suburban respondents in the 'employed' group is explained by the fact established in Section 6.10.1 that very few Handsworth respondents gained employment within the period of the survey.

In summary, clear differences were found in the relationship between job search and awareness score with the duration of unemployment for both the employed / unemployed division and the inner city /suburban division of the sample. An important conclusion is that the 'unemployed' respondents experienced some travel difficulties in extending vacancy applications into districts of lower awareness. The significant decrease in applications per vacancy discovery for the 'unemployed' group possibly heralds the early stages of a 'discouraged worker'. It seems that because of lower rates of car ownership the 'unemployed' group (which include a large proportion of inner city residents) experienced difficulty in extending their job search. Given the intense competition for jobs it is possible that those individuals best able to 'extend' job

TABLE G1.21 - VACANCY DISCOVERY BY AWARENESS SCORE AND THE DURATION OF
UNEMPLOYMENT - THE 'UNEMPLOYED' SUBURBAN GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	26	(6.6)	71	(18.2)	44	(11.3)	27	(6.9)	65	(16.6)	158	(40.4)	391	(100)
		97	(24.8%)		71	(18.2%)		223	(57.0%)					
SECOND FORTNIGHT	22	(6.3)	54	(15.6)	63	(18.2)	25	(7.2)	62	(17.8)	121	(34.9)	347	(100)
		76	(21.9%)		88	(25.4%)		183	(52.7%)					
TOTAL FOR FORTNIGHT	48	(6.5)	125	(16.9)	107	(14.5)	52	(7.1)	127	(17.2)	279	(37.8)	738	(100)
		173	(23.4%)		159	(21.6%)		406	(55.0%)					

Chi-squared value is 8.5 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is accepted.

TABLE G1.22- VACANCY DISCOVERY BY AWARENESS SCORE AND THE DURATION OF
UNEMPLOYMENT - THE 'UNEMPLOYED' INNER CITY GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST PERIOD	66	(8.6)	150	(19.4)	86	(11.2)	66	(8.6)	132	(17.1)	271	(35.1)	771	(100)
	216 (28.0%)		152 (19.8%)		403 (52.2%)									
SECOND PERIOD	101	(13.7)	141	(19.2)	99	(13.5)	56	(7.6)	93	(12.6)	246	(33.4)	736	(100)
	242 (32.9%)		155 (21.1%)		339 (46.0%)									
TOTAL FOR PERIOD	167	(11.1)	291	(19.3)	185	(12.3)	122	(8.1)	225	(14.9)	517	(34.3)	1507	(100)
	458 (30.4%)		307 (20.4%)		742 (49.2%)									

Chi-squared value is 10.5 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancies discovered by awareness score between the first and second fortnight is rejected at the 99.0% confidence interval.

TABLE G1.23- VACANCY APPLICATION BY AWARENESS SCORE AND THE DURATION OF UNEMPLOYMENT - THE 'UNEMPLOYED' SUBURBAN GROUP

TIME PERIOD	AWARENESS SCORE						TOTAL	
	'0' No. (%)	'1' No. (%)	'2' No. (%)	'3' No. (%)	'4' No. (%)	'5' No. (%)	No. (%)	No. (%)
FIRST PERIOD	11 (6.0)	9 (4.9)	19 (10.4)	19 (10.4)	37 (20.2)	88 (48.1)	183	(100)
	20 (10.9%)		38 (20.8%)		125 (68.3%)			
SECOND PERIOD	7 (4.7)	141 (19.2)	99 (13.5)	56 (7.6)	93 (12.6)	246 (33.4)	150	(100)
	22 (14.7%)		41 (27.3%)		87 (58.0%)			
TOTAL FOR PERIOD	28 (8.4)	24 (7.2)	47 (14.1)	32 (9.6)	54 (16.2)	158 (47.5)		(100)
	42 (15.6%)		79 (23.7%)		212 (63.7%)			

Chi-squared value is 15.0 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is rejected at the 95.0% confidence interval.

TABLE G1.24- VACANCY APPLICATION BY AWARENESS SCORE AND THE DURATION OF
UNEMPLOYMENT - THE 'UNEMPLOYED' INNER CITY GROUP

TIME PERIOD	AWARENESS SCORE										TOTAL			
	'0'		'1'		'2'		'3'		'4'				'5'	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FIRST FORTNIGHT	16	(5.2)	34	(11.2)	34	(11.2)	21	(6.9)	44	(14.4)	156	(51.1)	305	(100)
	50 (16.4%)				55 (18.1%)				200 (65.5%)					
SECOND FORTNIGHT	13	(6.3)	27	(13.0)	18	(8.6)	17	(8.2)	34	(16.3)	99	(47.6)	208	(100)
	40 (19.3%)				35 (16.8%)				133 (63.9%)					
TOTAL FOR PERIOD	29	(5.7)	61	(11.9)	52	(10.1)	38	(7.4)	78	(15.2)	255	(49.7)	513	(100)
	90 (17.6%)				90 (17.5%)				333 (64.9%)					

Chi-squared value is 2.2 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of vacancy applications by awareness score between the first and second fortnight is accepted.

search were also the more employable, hence the most accessible jobs were obtained by the most mobile job seekers. This leaves the remaining 'unemployed' respondents with a compounded difficulty in extending active job search, which can easily lead to discouragement as indicated by the decrease in application rates. In the next section the geographical aspects of 'Vacancy Application Space' and 'Search Activity Space' are investigated with reference to possible changes with the duration of unemployment.

G1.4 THE LOCATIONAL ASPECTS OF JOB SEARCH AND THE DURATION OF UNEMPLOYMENT

In the previous two sections, differences between the first and second fortnight periods have been established in the rates of application, and in the distribution of vacancies discovered and vacancy applications by awareness score for certain groups of respondents. In this final section attention is given to possible changes in the geographical aspects of this job search process, with particular reference to vacancy application space and search activity space. Earlier in section G1.3.3 it was demonstrated that a greater proportion of vacancy applications were in locations of lower awareness for the suburban compared with 'inner city' respondents. This section examines the geographical patterns of 'Vacancy Application Space' and 'Search Activity Space' in each of the two time periods for the inner city and suburban respondents.

Gl.4.1 Vacancy Application Space - Table Gl.25 summarizes the dimensions of the Standard Deviatonal Ellipses (SDE's) for 'Vacancy Application Space' for the four main groups of respondents. (Figures Gl.3 to Gl.6). 'Applications' are most important because they represent the motivation and the result of decision-making by each individual as unemployment continues.

A significant difference was found for the suburban respondents, but not for the 'inner city' respondents, in the distribution of vacancy application by awareness score from the first to the second period. It is noticeable that in all cases the mean centre of the SDE was further from the home location and closer to the city centre in the second period. This shows the continued attraction of the city centre to job seekers with the duration of unemployment.

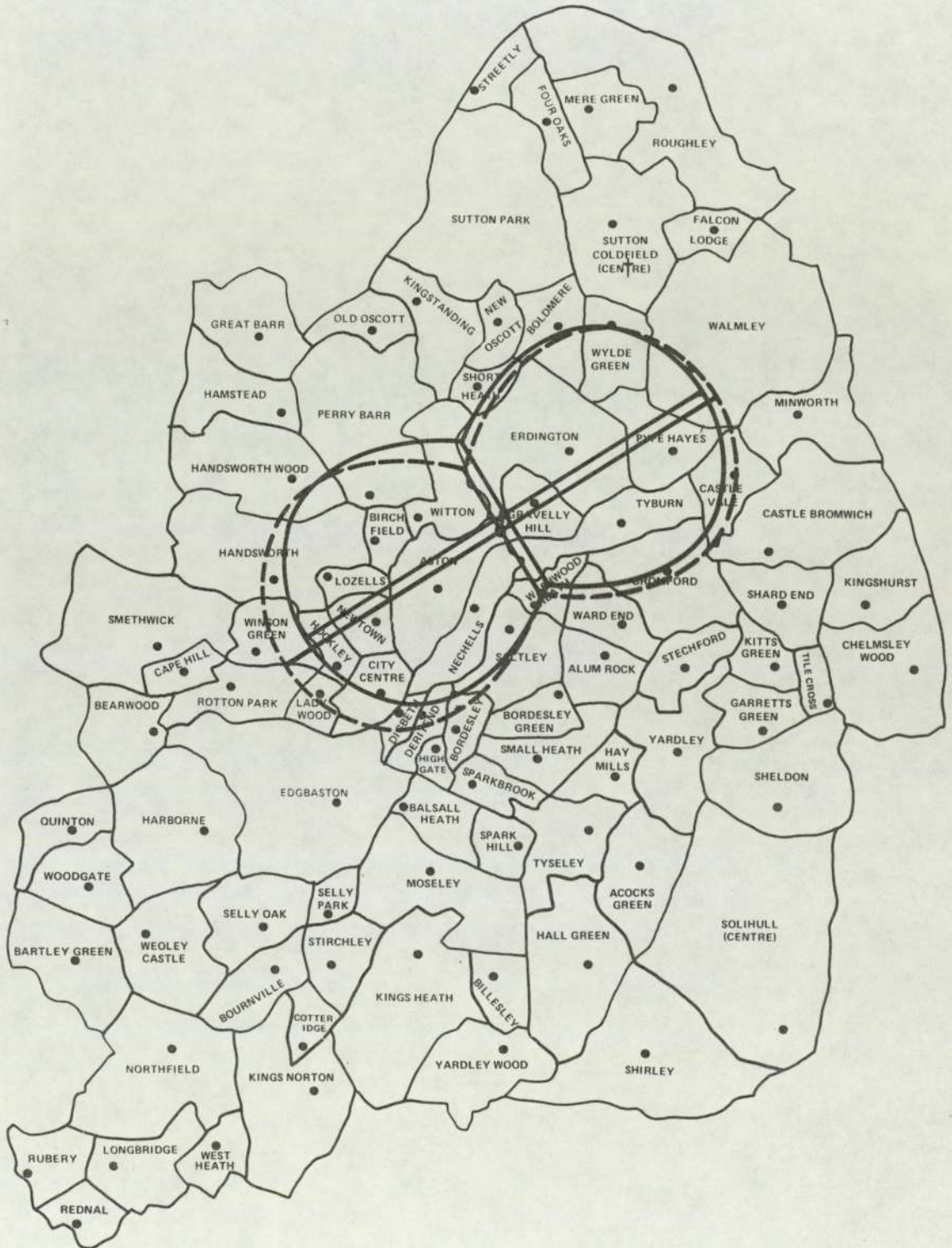
Table Gl.25 reveals that the area of the SDE increased from the first to second period, for the suburban group only. This partly reflects the earlier finding that only the suburban group applied for a greater proportion of vacancies in lower awareness score in the second period. The Figures Gl.3 to Gl.6 demonstrate that the 'suburban' respondents extended their 'Vacancy Application Space' into districts of lower awareness and to destinations further from home. The SDEs also show that the increase was in one direction (i.e. towards, and beyond the city centre). The SDE's for the Sutton sample had the same orientation (60°) in both time periods. This suggests that 'Vacancy Application Space' was extended only within a given sector of the city. It is concluded that the suburban (Sutton) school leavers extended 'Vacancy Application Space' into

Vacancy application space and the duration of unemployment

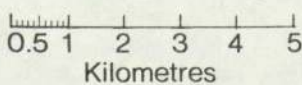
Total 'Sutton' sample

- First fortnight
- - - Second fortnight

Figure G1.3



† Home location *City centre point

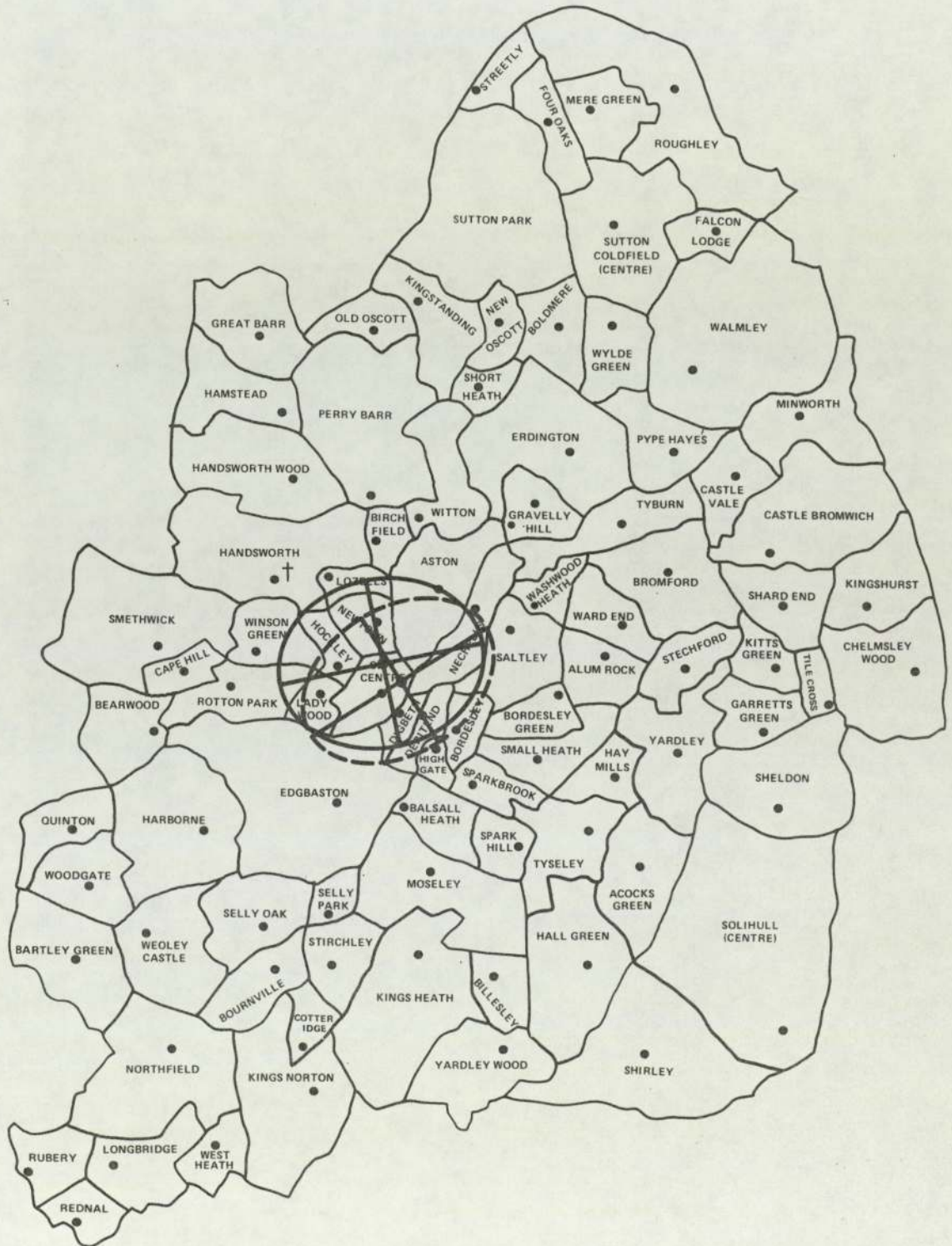


**Vacancy application space
and the duration of unemployment**

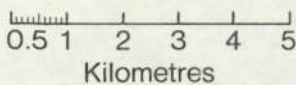
Total 'Handsworth' sample

- First fortnight
- Second fortnight

Figure G1.4



† Home location * City centre point

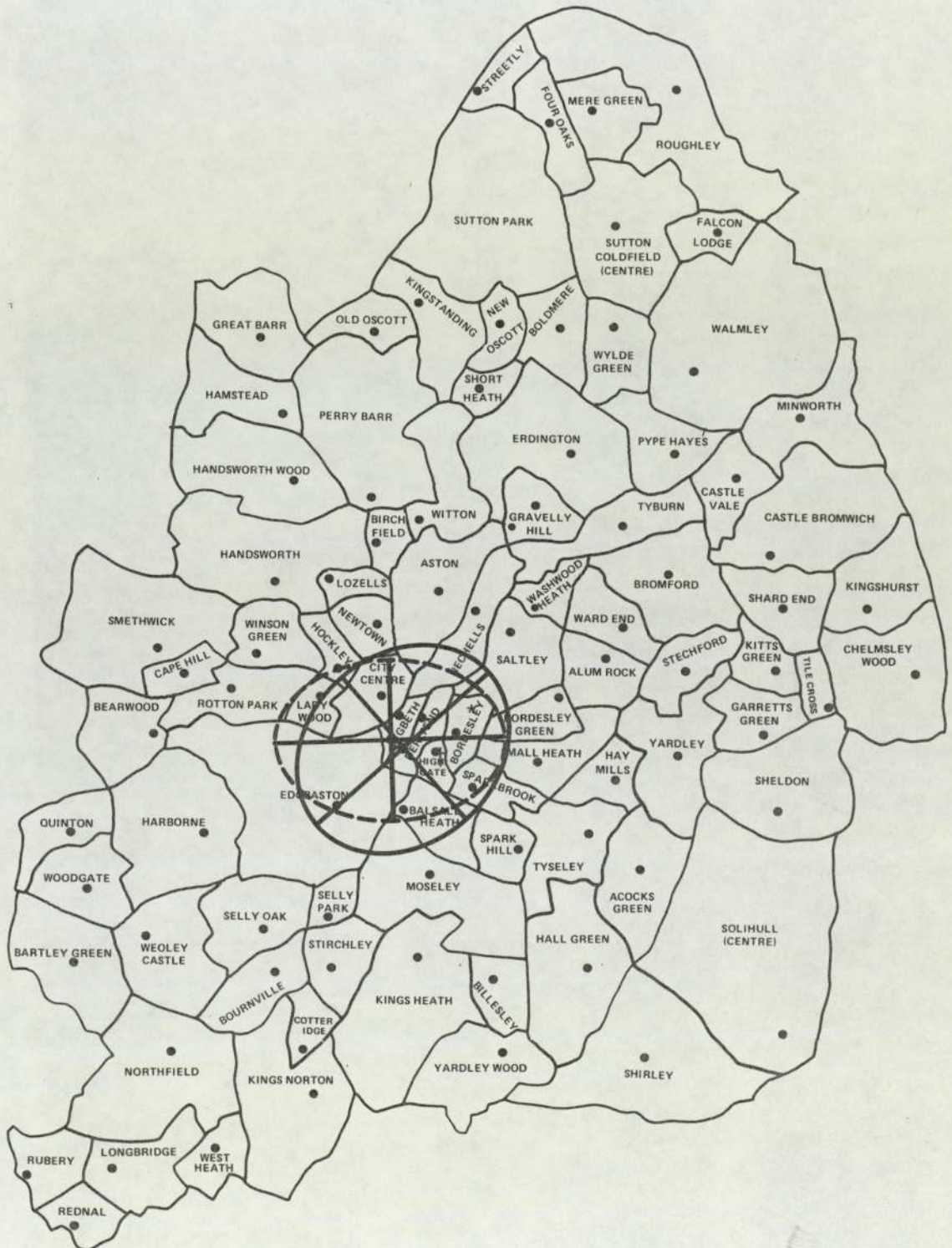


Vacancy application space and the duration of unemployment

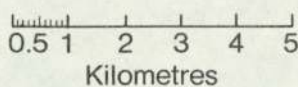
Total 'City' sample

- First fortnight
- - - Second fortnight

Figure G1.5



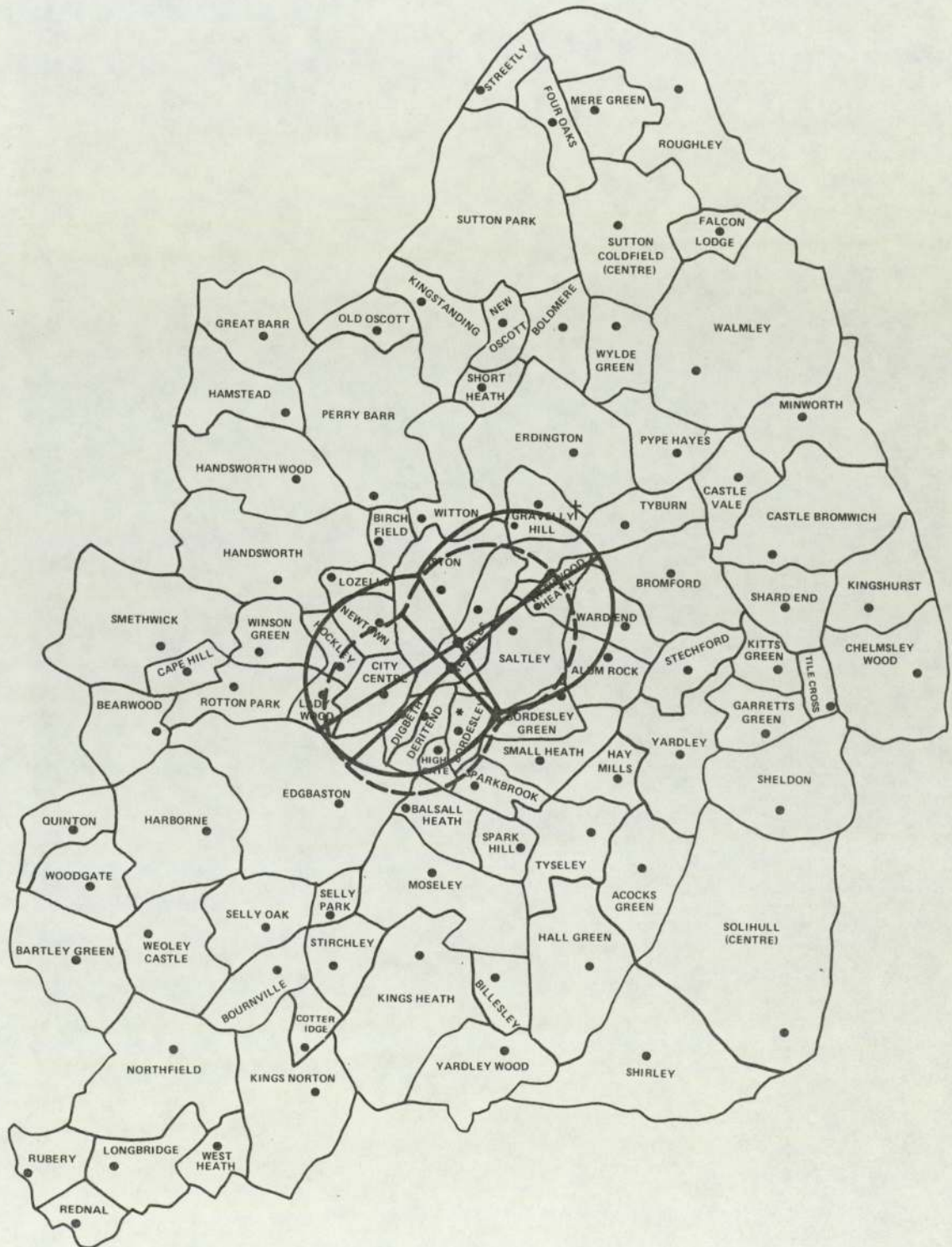
† Home location * City centre point



**Vacancy application space
and the duration of unemployment**
Total 'Aston' sample

- First fortnight
- - - Second fortnight

Figure G1.6



† Home location *City centre point

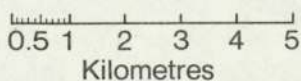


TABLE G1.25 - STANDARD DEVIATION ELLIPSE PARAMETERS
 'VACANCY APPLICATION SPACE' AND THE DURATION OF
 UNEMPLOYMENT - THE FOUR SAMPLE GROUPS

STANDARD DEVIATION ELLIPSE PARAMETERS	FIRST FORTNIGHT	SECOND FORTNIGHT
<u>I SUTTON</u>		
INTERACTIONS	233	182
MEAN X	2.65	2.61
MEAN Y	3.77	3.61
MAJOR AXIS	5.02	5.38
MINOR AXIS	1.80	1.51
ANGLE	60°	60°
COEFF OF CIRCULARITY	0.36	0.28
AREA	44.6	49.1
<u>II ASTON</u>		
INTERACTIONS	71	74
MEAN X	1.29	1.17
MEAN Y	0.97	0.37
MAJOR AXIS	3.53	2.94
MINOR AXIS	1.67	1.55
ANGLE	60°	50°
COEFF OF CIRCULARITY	0.47	0.53
AREA	23.9	17.3
<u>III HANDSWORTH</u>		
INTERACTIONS	123	74
MEAN X	0.06	0.26
MEAN Y	0.57	0.11
MAJOR AXIS	2.33	2.19
MINOR AXIS	1.87	1.37
ANGLE	80°	60°
COEFF OF CIRCULARITY	0.80	0.63
AREA	14.0	10.4
<u>IV CITY</u>		
INTERACTIONS	172	77
MEAN X	0.42	0.15
MEAN Y	-1.23	-1.07
MAJOR AXIS	2.46	2.37
MINOR AXIS	1.94	1.75
ANGLE	50°	90°
COEFF OF CIRCULARITY	0.79	0.74
AREA	15.4	13.6

districts of lower awareness and into the 'inner areas' of Birmingham, with the duration of unemployment.

The area of the SDE's for the three inner city groups did not increase from the first to the second period. It has been shown that there was no statistically significant difference in the distribution of applications by awareness score between the two periods. If the above is considered along with the fact that the orientation of the SDE's altered from the first to second periods in the 'inner city' examples, it is concluded that with the duration of unemployment 'Vacancy Application Space' for inner city residents simply varied within a given awareness of the city. In other words a 'contra flow' of applications by inner city residents to suburban locations of lower awareness did not exist. This reveals that with the duration of a current spell of unemployment the 'suburban' residents increased their competition for job vacancies located in the inner areas, but inner city residents did not increase their competition for suburban jobs. (In fact it remained negligible). One explanation could be that the inner city residents did not have the mobility required to apply for potential suburban job vacancies. An alternative explanation is that very few job vacancies existed in suburban locations, hence it would not be surprising that suburban residents increased their competition for inner city jobs and not vice versa. However, it has been demonstrated in Chapter 5 and in the geographical aspects of discovered vacancies that job opportunities exist on the periphery of the city.

G1.4.2 Search Activity Space - Journeys to interviews are considered by the order in which each journey was attended by the job seeker. It is argued that an individual who made four trips within a given time period (say four weeks) was likely to behave differently in continued unemployment compared to an individual who only made one trip in the same period. Table G1.26 shows the average distance travelled to each interview for the four main groups within the sample.

TABLE G1.26 - AVERAGE DISTANCE TO INTERVIEWS AND THE DURATION OF UNEMPLOYMENT

Interview Number	Sutton	Aston	Handsworth	City	Total
First	6.11	3.99	3.60	3.64	4.78
Second	3.74	5.13	4.04	3.53	4.74
Third	6.44	4.57	3.00	2.40	4.86
Fourth +	5.20	3.83	5.33	1.59	2.86
TOTAL AVERAGE	5.85	4.26	3.69	3.53	4.74

All distances in Kilometres.

A clear pattern is not apparent from the figures in this table. If the first two journeys are amalgamated then it is apparent that the Sutton and Handsworth respondents travelled slightly further to later interviews. Table G1.27 shows the awareness scores assigned by each respondent to the destinations of the first and second journeys compared with the other later journeys (i.e. third and above).

TABLE G1.27 - JOURNEY TO INTERVIEW AND AWARENESS SCORE

JOURNEY NUMBER	AWARENESS SCORE						TOTAL No. (%)
	'0' No. (%)	'1' No. (%)	'2' No. (%)	'3' No. (%)	'4' No. (%)	'5' No. (%)	
1st & 2nd	10(3.9)	17(6.7)	19(7.5)	17 (6.7)	39(15.4)	152(59.8)	254(100)
Third plus	4(3.3)	12(9.8)	12(9.8)	14(11.5)	16(13.1)	64(52.5)	122(100)
TOTAL	14(3.7)	29(7.7)	31(8.2)	31 (8.2)	55(14.6)	216(57.4)	376(100)

Chi-squared value is 5.0 with 5 degrees of freedom. Therefore the null hypothesis that there is no statistically significant difference in the distribution of journey destinations by awareness score between the first two and second journeys is accepted.

The above table demonstrates that after the second journey respondents made journeys to a relatively greater proportion of destinations assigned lower awareness scores (0 to 3). This trend is not however statistically significant.

Figures G1.7 to G1.10 show the 'Search Activity' SDEs for the first two journeys and the remaining later journeys for the four groups of respondents. The SDE parameters are summarized in table G1.28.

The SDEs were smaller in area for the third and above interviews compared to the first two interviews for all groups except Handsworth. This exception might be explained by the comparatively small area of SDE representing the first two interviews by this group. In all cases the 'third and above' SDE is more linear as indicated by the coefficient

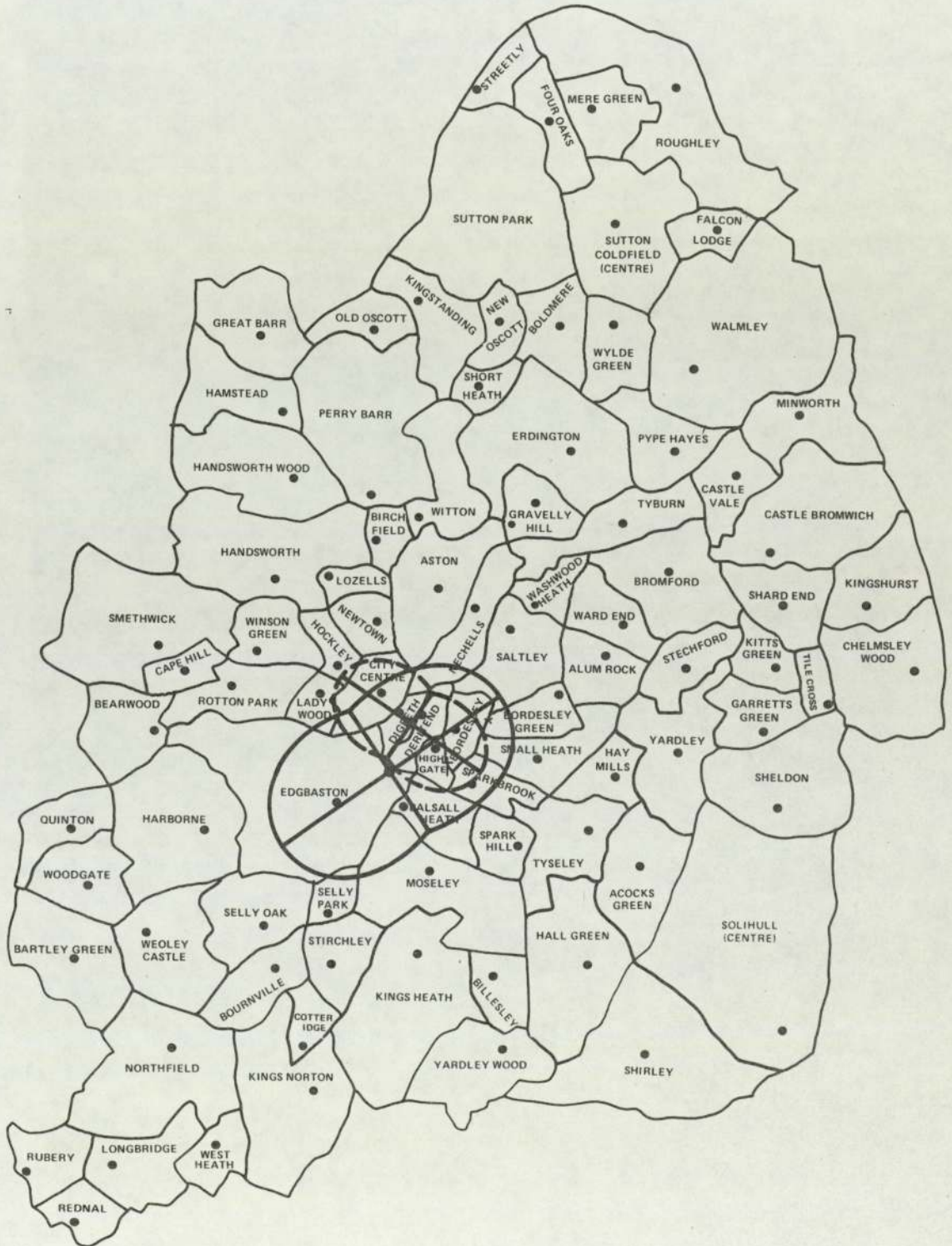
**'Search activity space'
and the duration of unemployment**

Total 'City' sample

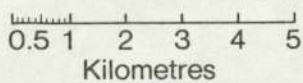
— First and second interviews

--- Third and above interviews

Figure G1.7



† Home location *City centre point

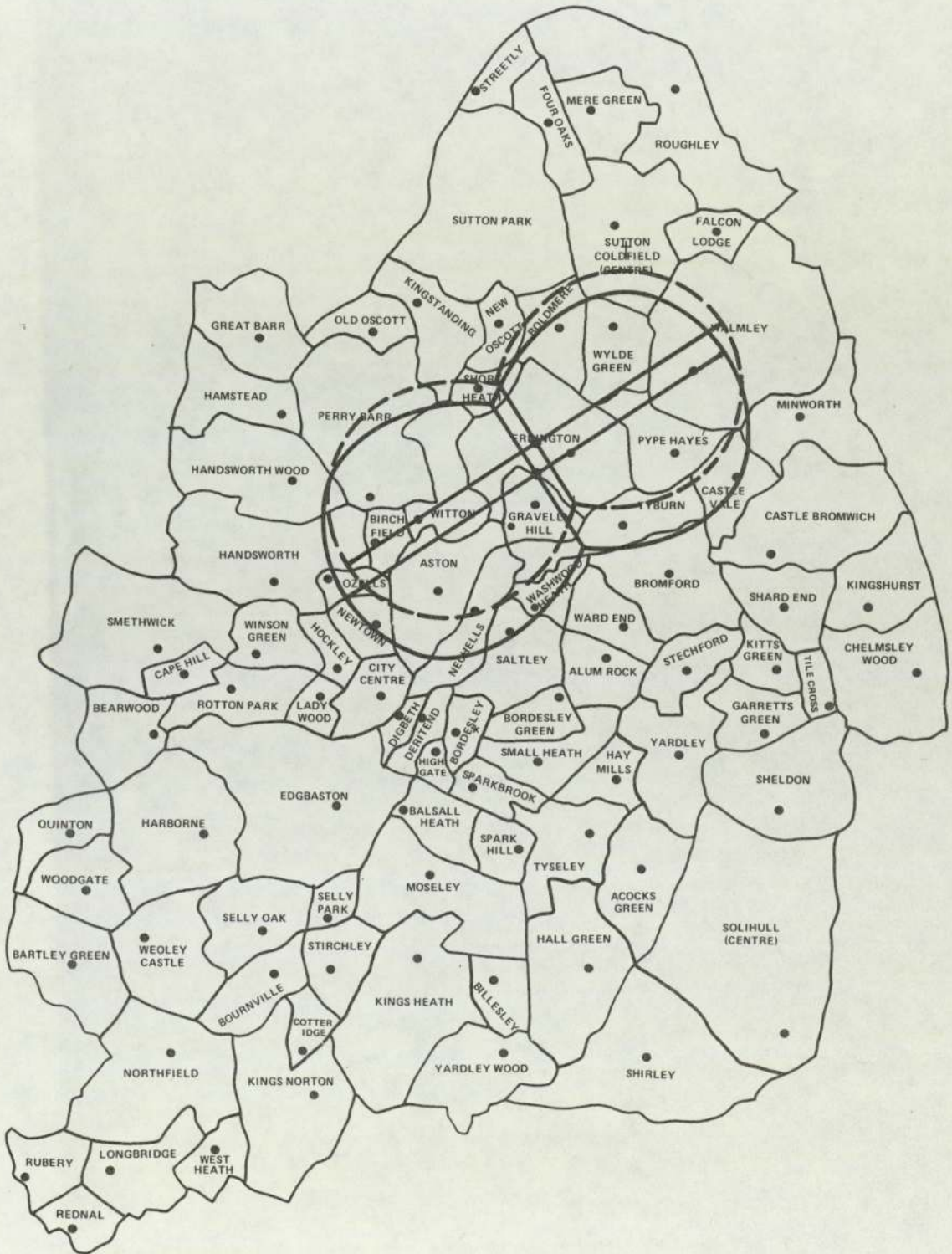


**'Search activity space'
and the duration of unemployment**

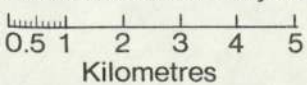
Total 'Sutton' sample

- First and second interviews
- - - Third and above interviews

Figure G1.8



† Home location *City centre point

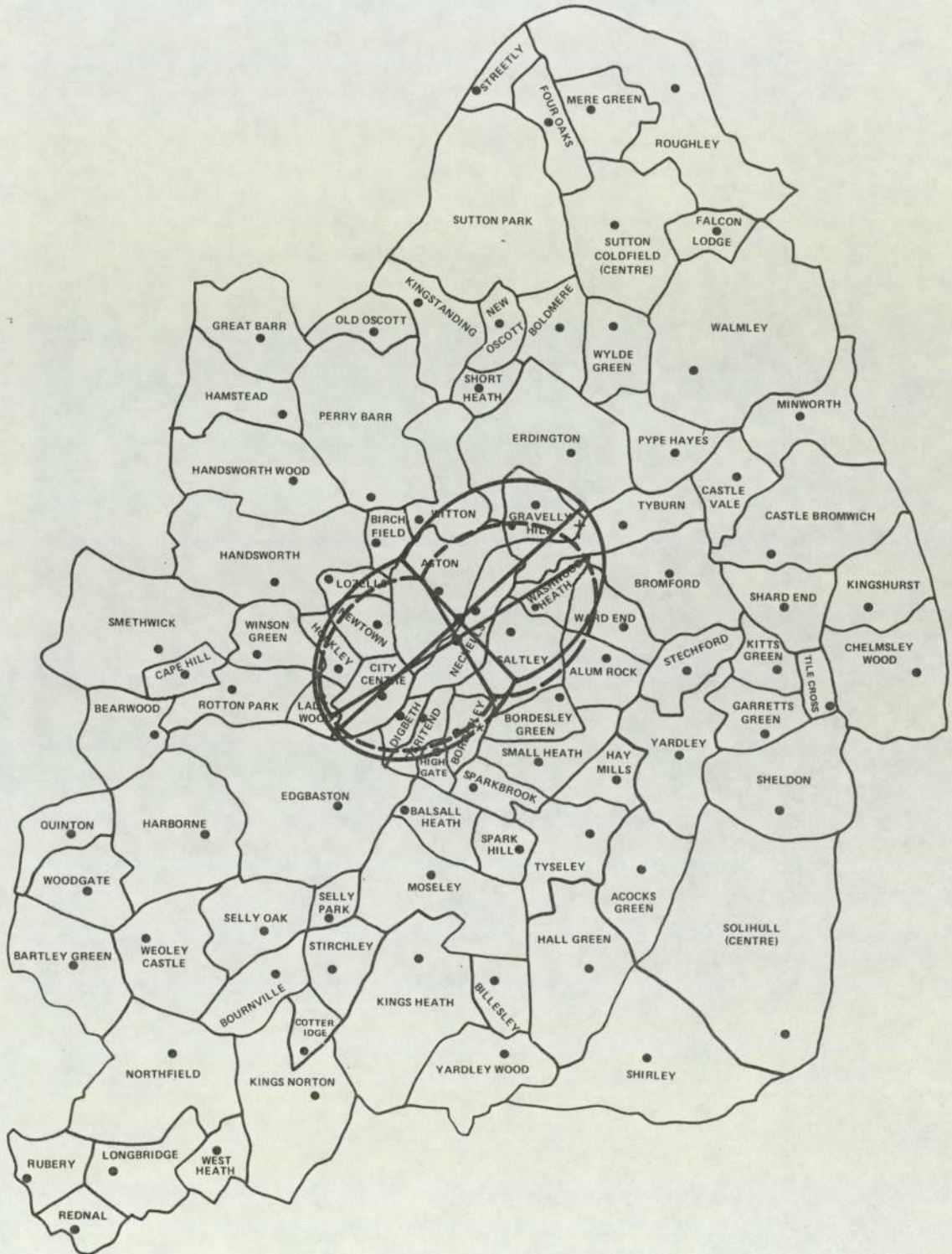


**'Search activity space'
and the duration of unemployment**

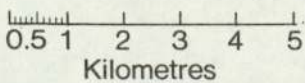
Total 'Aston' sample

- First and second interviews
- Third and above interviews

Figure G1.9



† Home location *City centre point



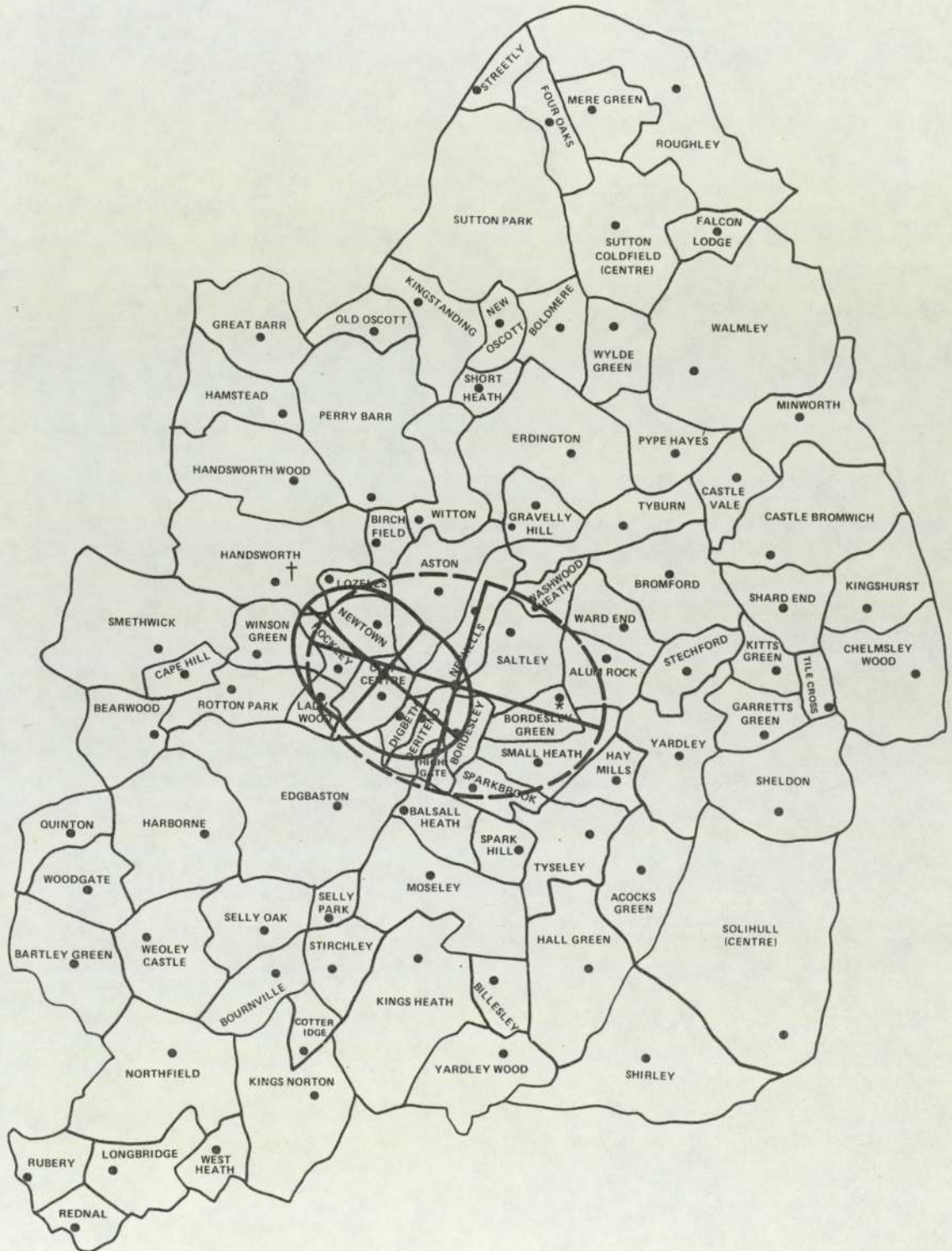
**'Search activity space'
and the duration of unemployment**

Total 'Handsworth' sample

— First and second interviews

--- Third and above interviews

Figure G1.10



† Home location *City centre point

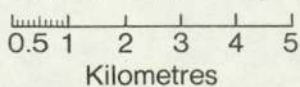


TABLE G1.28 - STANDARD DEVIATIONAL ELLIPSE PARAMETERS
FOR 'SEARCH ACTIVITY SPACE' AND THE DURATION OF
UNEMPLOYMENT - THE FOUR SAMPLE GROUPS

STANDARD DEVIATIONAL ELLIPSE STATISTICS	FIRST AND SECOND INTERVIEWS	THIRD AND ABOVE INTERVIEWS
<u>I SUTTON</u>		
INTERACTIONS	113	62
MEAN X	3.26	3.45
MEAN Y	4.71	5.41
MAJOR AXIS	4.84	4.70
MINOR AXIS	1.76	1.49
ANGLE	60°	60°
COEFF OF CIRCULARITY	0.36	0.32
AREA	41.7	38.3
<u>II ASTON</u>		
INTERACTIONS	48	27
MEAN X	1.60	1.41
MEAN Y	1.72	1.24
MAJOR AXIS	3.60	3.21
MINOR AXIS	1.83	1.38
ANGLE	60°	60°
COEFF OF CIRCULARITY	0.56	0.43
AREA	25.6	19.2
<u>III HANDSWORTH</u>		
INTERACTIONS	45	10
MEAN X	-0.9	1.40
MEAN Y	0.54	0.33
MAJOR AXIS	2.05	3.29
MINOR AXIS	1.43	2.20
ANGLE	135°	110°
COEFF OF CIRCULARITY	0.70	0.67
AREA	9.8	24.6
<u>IV CITY</u>		
INTERACTIONS	60	20
MEAN X	-0.08	0.30
MEAN Y	-1.45	-0.63
MAJOR AXIS	2.78	1.78
MINOR AXIS	1.45	0.88
ANGLE	60°	130°
COEFF OF CIRCULARITY	0.52	0.49
AREA	15.4	6.2

of circularity. The mean centre of the SDE's moved towards the city centre except for the Sutton group.

The implication is that after a couple of interviews, the pattern of 'search activity' became less frequent and concentrated more on a major route between the home location and the city centre. However table G1.27 suggests a possible trend of increased search activity to destinations of lower awareness subsequent to early search travel experience.

A longer survey might have revealed that this trend continued, but firm conclusions can not be made on the temporal changes in search activity.

G1.5 CONCLUSION

The length of survey was probably insufficient to draw long-term conclusions on the development of the job search process with the duration of unemployment. However several patterns have been demonstrated in the initial stages of job search experience of school leavers. The most successful method used by the 'employed' respondents was to continue to discover the same distribution of vacancies by awareness score; but to apply for a greater proportion of vacancies located in districts of low awareness score. The other method, generally adopted by the 'unemployed' group was to discover a greater proportion of vacancies in districts of lower awareness, but to reject a greater proportion of these vacancies by awareness score in the second period. Also, it was revealed in section G1.2 that a significantly smaller proportion of discovered vacancies were applied for by the 'unemployed' respondents in the second period, while

no significant difference was noted in the application rate between the two periods for the 'employed' respondents. This implies that the 'employed' respondents were more effective in terms of widening the locational aspects of their applications (i.e. 'Vacancy Application Space') to include a relatively greater proportion of vacancies in locations of lower awareness score, with the duration of unemployment. This is endorsed by the facts that vacancy applications by the 'employed' group comprised a larger proportion of respondents from car owning households, and that the 'unemployed' group reported significantly more transport / locational reasons for rejections, as well as rejecting a greater proportion of discovered vacancies.

APPENDIX H1

THE PROPOSED TRAVELCARD EXPERIMENT

APPENDIX H1 - THE PROPOSED TRAVELCARD EXPERIMENT

H1.1 INTRODUCTION

As a result of increasing concern about the unemployed and their search for work the Financial and Economic Planning Division of the West Midlands County Council Treasurer's Department considered the possibility of issuing free travelcards to certain groups of the unemployed. During the data collection stage of the "School leavers - Job Search Survey", in July 1980, it was suggested to the Financial and Economic Planning Division that a 'pilot' experiment could be carried out in which half of those school leavers still unemployed at the end of the survey could be given free travelcards. The other half would not be given free travelcards and both 'control' and 'experimental' groups should be monitored using the same survey method for another four weeks to see if the extent, intensity and success of job search of the experimental group either;

- a) Increased compared to the first four weeks
- b) Increased compared to the search by the control group
- c) "Levelled off" while the search of the control group decreased
- d) Decreased at a slower rate than the extent, intensity and success of search decreased for the control group.

The aim of the proposed 'pilot' experiment was to discover if there is any scope for improving extent, intensity and success of job search for inner area

unemployed school leavers by assisting them with free or partially subsidised travelcards for a limited time. Unfortunately, the experiment was not approved by West Midlands Councillors and subsequently abandoned. However, the proposal put to the Councillors is discussed below.

H1.2 THE PROPOSAL

H1.2.1 The original proposal

It was expected that between 25 and 50% of the sample of 300 school leavers would obtain work during the first four weeks of unemployment (i.e. the duration of the survey). Therefore the sample size expected to be available for the experiment was at least 150 (i.e. 50%). The survey finished on 1st August, 1980 and it was proposed to immediately continue with the travelcard experiment. The estimated cost of the original proposal was £2,937 to be funded by the Inner City Partnership for Birmingham under the 'Economy' topic heading.

Cost of 75 travelcards at £11.00	-	£825
Cost of three interviewers for four weeks at £76/week	-	£912
Cost of 150 respondents for four weeks at £2/week	-	£1,200
Total Cost	=	£2,937

However, if job take-up rate is 50% in four weeks then samples of 75 are inadequate for high statistical confidence levels of any results.

SAMPLE SIZES GIVEN PROPORTIONS OF JOB TAKE-UP

Proportion of job take-up	Confidence levels		
	(97.5%)	(95%)	(90%)
.5	1538	384	96
.4	1476	369	92
.3	1291	323	81
.2	984	246	61

Therefore to be confident to a 95% level, given that job take-up rate may have been as high as .5, samples of 400 would have been required. Hence, a before and after survey was proposed using a maximum sample of 400 school leavers issued with free travelcards and a control sample of 400 without free travelcards. Included in this 800 sample would have been 150 respondents from the school leavers survey whose search would have been monitored each week using the diary survey.

This proposal was a neat exercise taking a 'sample within a sample'. The before and after (800) sample could show whether free travel significantly affected the success of job search while the continuously monitored sub-sample provide 'in depth' data on how free travel affected the extent and intensity of job search with the duration of unemployment.

H1.2.2 The final proposal - Interim results (after two weeks of the 'diary' survey) indicated that job take-up rate was less than .2. Therefore the final proposal made to Councillors was to establish three experimental groups drawn at random for all the inner area careers offices, with 250 in each group. One group would have received a

free travelcard, the second would have been offered one at half price and the third group would have been a normal or 'control' group with no advantage offered. A sub-group from the school leavers 'diary' survey would have been included.

The West Midlands Passenger Transport Executive were asked to help in the mechanics of providing the travelcard and to possibly assist in financing the experiment. They agreed to the survey in principle and the need for it, but were only prepared to offer £750 toward the experiment.

The cost of the experiment would have been £6,000 after deducting the £750 P.T.E. contribution. A 75% urban aid grant would have been available making the net cost to the County Council £1,500.

H1.3 COST OF A MAJOR SCHEME

If the concessionary travel experiment had been carried out and if the results were positive, then the cost (1980 prices) of major scheme(s) introduced into the Partnership area is:-

Numbers Unemployed Registered in the Partnership area, May 1980	30,000	
Numbers unemployed more than 12 months, 1980	7,360	(28.8%)
Numbers aged 16 - 18, 1980		(14.6%)

N.B. Assume 80% take-up by unemployed.

(If Scheme is free)

No. of passes	24,000 on issue at any one time
Cost	£841,000
Administration	£ 2,200
TOTAL	<u>£843,200</u>

(If 50% Subsidy)

Cost	£420,000
Administration	£ 2,200
TOTAL	£422,700

AGE (Free Passes)

	<u>% Total</u>	<u>Costs</u>
16-18 years	14.6%	£123,100
19-24 years	23.9%	£201,500
25-44 years	33.7%	£284,200
45+ years	27.8%	£234,400

Length of time unemployed

	<u>% Total</u>	<u>Cost</u>
Up to 4 weeks	10.3%	= £ 86,800
5-8 weeks	11.5%	= £ 97,000
9-13 weeks	10.9%	= £ 92,000
14-26 weeks	19.4%	= £163,600
27-52 weeks	19.1%	= £161,000
52 + weeks	28.8%	= £242,800

Legal Position

The relevant Acts are the Public Service Vehicle (Travel Concessions) Act 1955, and the Transport Act 1968. The 1955 Act specifies categories of persons eligible for concession and introduced powers to local authorities to make concessions. The 1968 Act S138 states that a local authority may enter into an arrangement with an Executive to grant concessions to specific groups of people i.e. elderly, blind and disabled and that the L.A. reimburse the cost incurred. It appears that the local authority is not empowered to grant concessions to any persons including the unemployed, other than those specified in the Act.

A N N E X

ANNEX I

HANDSWORTH AND LOZELLS : INNER AREA STUDY

REPORT OF SURVEY



West Midlands Passenger Transport Executive

**INNER AREA
COMMUNITY BUS STUDY**

(Handsworth and Lozells)

Report of Survey

WEST MIDLANDS PASSENGER TRANSPORT EXECUTIVE

INNER AREA
COMMUNITY BUS STUDY
(Handsworth and Lozells)
REPORT OF SURVEY

Field Survey Unit

February 1980

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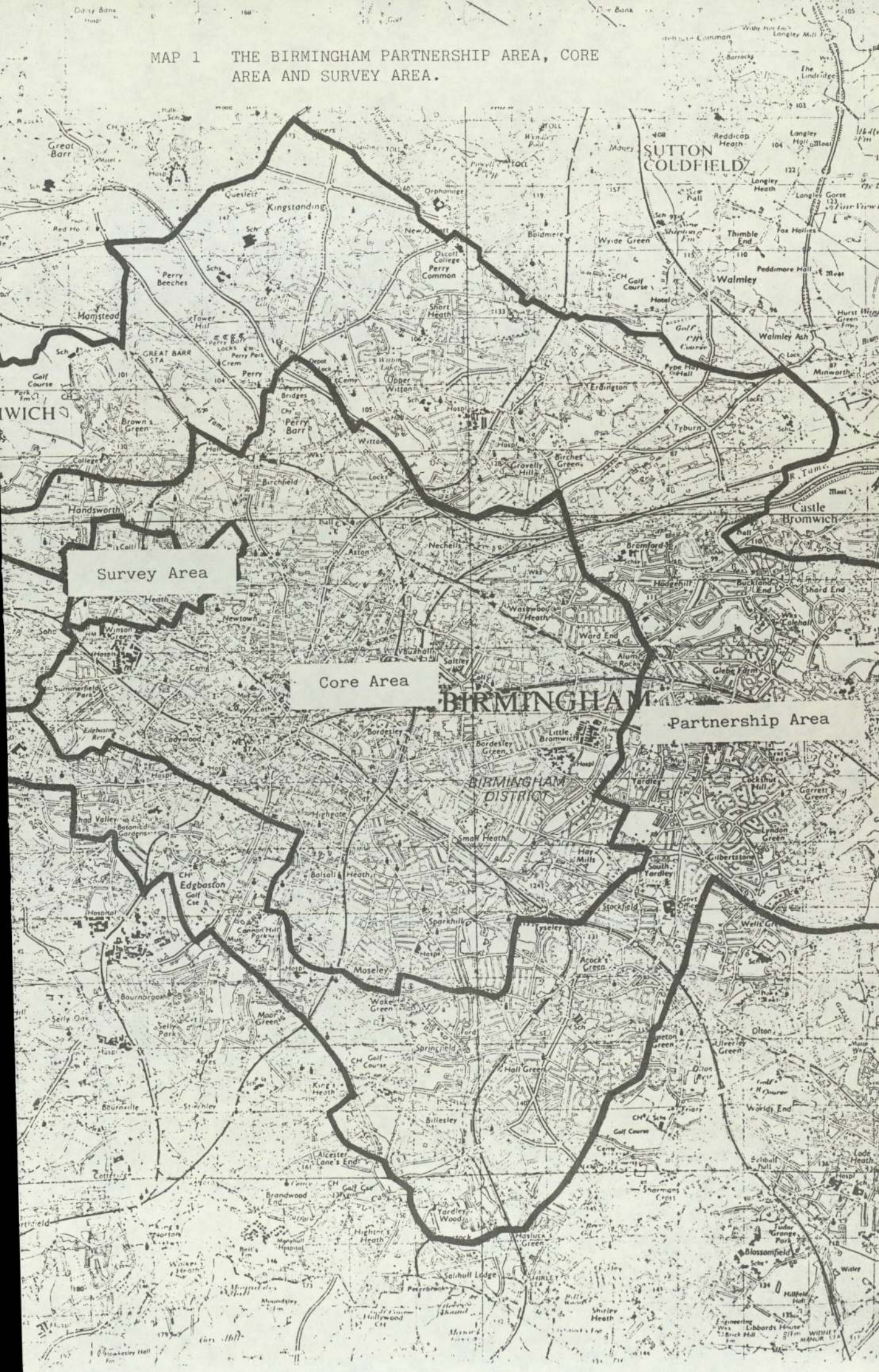
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MAP 1 THE BIRMINGHAM PARTNERSHIP AREA, CORE AREA AND SURVEY AREA.



Survey Area

Core Area

Partnership Area

BIRMINGHAM

BIRMINGHAM DISTRICT

1 INTRODUCTION

1.1. Background

- 1.1.1. Over the past eleven years the problems associated with the inner areas of major British cities has become a subject of increasing concern. Initially the problem was considered simply to be one of poor housing which could be solved by a scheme of massive wholesale redevelopment of 'slum' properties. Later it was realised that the problem was not quite so simple and a general up-grading of the inner city environment was considered necessary. More recently it has been discovered that the 'inner city problem' is far more complex and involves a process of economic decline far worse than that of Britain as a whole. The result has been the setting-up of "inner city partnership committees" to comprehensively approach inner city problems.
- 1.1.2. Birmingham has been designated a partnership city. A 'partnership area' has been defined where extra resources are being made available to promote economic regeneration. The areas which generally have the worst problems have been defined as the 'core' area. Within this 'core' area there are a few districts where inner city problems are most severely concentrated. (See MAP 1) Handsworth and Lozells is such an area.
- 1.1.3. This survey, therefore, has focussed on one of the most deprived areas in the Birmingham Inner City Partnership Programme (B.I.C.P.P.). The B.I.C.P.P. suggests that rates of unemployment, low wages and poor mobility are some of the most crucial problems found in inner areas. This P.T.E. survey of Handsworth and Lozells has been carried out particularly with the problem of mobility in mind.

- 1.1.4. The survey area comprises of parts of Handsworth, Lozells and Winson Green. It has been divided into a total of thirteen zones centred on the main roads of the Outer Ring Road, Soho Road and Villa/Lozells Road.
- 1.1.5. The majority of the bus routes in the survey area operate on a radial pattern out from the city centre. However the western section of the area includes the outer circle (11A,11C) while to the east the inner circle is included (8A,8C). The one remaining route is the 40 which runs from Lozells to Aston tangentially to the city centre. This service is extended to Tyburn Road during peak periods and there are plans to extend the service in the other direction to Bearwood. (See MAP 2)
- 1.2. The form of the report
 - 1.2.1. Readers not requiring full details should read the summary of findings and conclusions. (section 3).
 - 1.2.2. The study is based on a household sample survey. Details of the methodology used are given in Section 4 and Appendices.
 - 1.2.3. The study looks at details of journeys made by residents in the survey area together with the method of transport used and the reason for making the journey. Sections 5,6 and 7 look in detail at the journeys made by residents of the area. For the study the area was split into a number of survey zones and each individual zone has been analysed to see where the majority of all journeys for each method are destined (see Section 8).
 - 1.2.4. Previous work in inner areas has suggested that people living there are deprived of, or have difficult access to various activities. The survey has looked at difficulties residents might have in getting to hospital, the doctor and the post office (see Section 9). Section 10 focuses attention on where people shop this is particularly relevant to provision of off-peak bus services and also to those people who are concerned for the future of shopping facilities in the Soho Road area.

Handsworth
Golf Course
Ark Farm

MAP 2 BUS ROUTES SERVING STUDY AREA



Key. (40) Bus service terminus

- 1.2.5. Because of the expected high dependence on public transport in the area the attitudes and general perception of the bus service has been measured together with an estimate of the journey length of bus journeys made by inner area residents and the type of ticket used; this is important for future policy on services and fares in the inner area. (see Section 11).
- 1.2.6. A further section has been included to discuss the possible potential for a 'community bus'. Although most community buses are being operated in rural areas, it was felt that because of the likely high dependence upon public transport and the generally poor mobility of people in inner areas it was worth testing in the study whether such a service might be beneficial. (see section 12). Because local residents associations form a possible contact for developing a community bus service current membership and awareness of associations was also tested. (Section 13).
- 1.2.7. As a result of the household survey a further survey was carried out by the County Planning Department Inner Area Team. This additional survey was carried out to complete the picture, looking at transport needs from the 'other end' by contacting organisations and establishments to which people travel. The results of this survey are given in Section 14.

2 OBJECTIVES

The main objectives:-

- i) To establish the existing journey patterns in the area by all methods of transport and to assess how well the existing bus network serves the journey pattern.
- ii) To establish the levels of demand for a changed or improved bus service.
- iii) To investigate the dependence on public transport in the area, the attitudes and perceptions of the residents to the bus services and improvements required by them.
- iv) To assess specific travel problems associated with inner areas (ie difficulties of aged, problems visiting hospitals etc) and whether there is any potential for a community bus in the area.

3 SUMMARY OF FINDINGS AND CONCLUSIONS

3.1. Summary of Survey Findings

Background Information (Section 5)

3.1.1. Unemployment - Unemployment in the survey area among the economically active is 10.9% compared to 6.0% for Birmingham as a whole. There is considerable variation in the unemployment levels, reaching as high as 20% in one of the survey zones.

(5.1)

3.1.2. Household Size - The average household size for the survey area was 3.56 persons. Survey zones 01 to 03 (see MAP 3) show large households with a high proportion of the population under the age of 11 years; this contrasts with zones 06, 08 and 11 where household sizes are small and generally old in age profile.

(5.2)

3.1.3. Age - Taking the survey area overall the population is young; 49% of the population is less than 25 years of age compared to only 38% for the West Midlands overall. The proportion of pensioners in this Inner Area is therefore lower than the County average.

(5.3)

3.1.4. Car Ownership - Only 35% of households have access to a car. The number of cars per person for the survey area is 0.11 compared to the national figure of 0.26.

(5.4)

Journey Patterns (Section 6)

3.1.5. The Number of Journeys - The survey area population of 19,000 make 128,000 journeys per week by 'mechanical' means (ie excluding walk trips). For an average weekday this represents some 21,000 journeys, for a Saturday 14,500 and a Sunday 7,800

(6.2)

3.1.6. The Purpose and Method of Travel - On a weekday peak journey purposes dominate over 80% of weekday journeys are to and from work or school. Shopping activity during the week would appear to be very low. On a Saturday shopping trips assume greatest importance and account for over 40% of all journeys.

Bus has a very high share of all journeys as one would expect in an area of low car ownership. Over 70% of weekday journeys are made by bus. Demand for bus travel on a Saturday in the survey area is considerably less than during the week particularly when compared with areas outside the 'inner city core' where Saturday demand is usually similar to a weekday.

(6.3)

3.1.7. Journey Destinations - During the week 60% of journeys are to other parts of the ICP of which 16% are to the City Centre and 44% to other inner areas. Sandwell is also a significant destination (principally West Bromwich and Smethwick area). On a Saturday demand to the City Centre increases and accounts for one third of all journeys; demand to other inner areas is considerably less on a Saturday.

(6.4 and Section 7)

3.1.8. The time of journeys - weekday demand in the survey area is highly 'peaked' reflecting the high proportion of journeys made to work and school. Demand for bus travel from the survey area is particularly low before 1200 hours on a Sunday and there may be a case for reviewing the level of service.

(6.5)

3.1.9. The journey to work - Compared with other areas surveyed by the PTE in its programme the proportion using car for the journey to work (23%) is the lowest encountered. (54% use bus to travel to work and 23% walk).

(6.6)

3.1.10. Work destinations - Besides other Inner Areas the most significant work destination is Sandwell. Bus links to parts of Sandwell are currently poor (this particularly applies towards Smethwick/Oldbury and the 'foundry' area; consequently some people are walking considerable distances due to lack of suitable bus services.

(6.6)

3.1.11. The journey to school - Only two major secondary schools are within the survey area (Handsworth New Road and Holt School, Wheeler St). Only 44% of secondary school children travel to school on foot; 53% are dependent on bus and are required to make considerable journeys (ie to George Dixon, City Road).

This dependence on bus is likely to increase bearing in mind the young age structure of the area, without expansion of secondary school places within the survey area.

(6.7)

Survey Origin Zones - (Section 8).

- 3.1.12. The survey area was split up into 13 separate zones. In section 8 each zone is looked at in detail. The main problems in terms of public transport provision and travel difficulties would appear to occur in zones 04 (Queens Road) and zones 09 (Park Road); both these zones gave high priority to the provision of a community bus facility although this is partly due to the lack of good conventional bus service facilities.

Travel difficulties (Section 9)

- 3.1.13. Hospital - Only 15% of respondents claimed they had difficulty getting to hospital. However for some zones (mentioned above in 3.1.12) it was a particular problem. Most of the problems related to Dudley Road Hospital, the Outer Circle bus route, being the nearest service between the survey area and the hospital, is over 400 metres from the hospital entrance.

The group of people having the most difficulty getting to hospital were not pensioners but housewives and working women in the 16 - 59 age range.

(9.2)

- 3.1.14. Doctor - There is apparently little problem in reaching the doctor only 7% claiming to have any problem. However, the problem is greatest in the area between Lodge Road and Park Road.

(9.3)

- 3.1.15. Post Office - There is no difficulty in gaining access to a post office only 2% reporting any problem.

(9.4)

- 3.1.16. Respondents were asked if there were any other activities (i.e. sport/recreation) which presented a problem because of travel difficulties. Only 3% of respondents suggested they had any problems mostly due to the lack of direct bus services; in terms of location the 'Black Country' area produced the most mentions.

(9.5)

3.1.17. There is no evidence to suggest that jobs have been turned down or not considered due to lack of public transport in any significant numbers.

(9.7)

3.1.18. The proposals to extend the service 40 to Bearwood via Cape Hill (part of the Warley scheme) and the 96 to West Bromwich will improve the links between the survey area and the major employment areas in Sandwell, links which are shown to be difficult at present for some of the survey area.

(9.8)

Shopping (Section 10)

3.1.19. Over half of the households in the survey area carry out their weekly shopping in Soho Road. (51%). The next most important shopping locations were Villa/Lozells Road (20%) and the City Centre (12%). Walk is the main method used to the shops (63%) followed by bus (21%). Only 13% of households shop by car in the survey area.

Of those using the City Centre to shop 78% travel by bus.

(10.1)

3.1.20. As one would expect those zones adjacent to Soho Road and Villa/Lozells Road use the local shopping facilities in the main. However those zones in the south of the survey area around Lodge Road and Soho Hill are attracted to the City Centre; this is due to the lack of comprehensive local facilities within easy walking distance.

(10.2)

3.1.21. Asda Superstore - The survey tested the likely use of the new Asda Superstore at Aston. The results show that potentially the superstore could attract 1,000 shopping journeys a week by bus given a service. Service 40 which currently terminates on the Lichfield Road, Aston in the off-peak could cater for this demand. Additionally it could provide the link to the sports facilities being developed on the same site.

(10.3)

Bus Services (Section 11)

- 3.1.22. Access to Bus - 88% of respondents live within 7 minutes of their nearest bus stop. It is only in zones 04 and 09 that access is bad; these are the zones which reported the most travel problems.
(11.2)
- 3.1.23. The journey data shows that bus has a high share of the market. In total 68% of respondents had used a bus at sometime in the previous week to being interviewed. There were 4 groups of services which accounted for the main bus usage; these were the 74/79 route (36% of journeys), 11 (18%), 70 (14%) and the 90/91 (11%). All the other services which pass through the survey area only account for 21% of journeys.
(11.3. and 11.4)
- 3.1.24. Average journey length and fare structure - The average bus journey made by inner area residents is 3.5 kms compared with 4.5 kms for the PTE South Division (Birmingham and Solihull Districts). The average cost per kilometre is 3.73 pence for inner area residents compared to 3.32 pence per kilometre for the PTE South Division. Inner Area residents therefore are paying at a higher rate for their fares due to the 'taper' in the fare scale.
(11.5)
- 3.1.25. Travelcard ownership in the survey area shows that 21% of those who use a bus to travel to work possess one. For the PTE South Division 36% of peak journeys are made using a travelcard. The evidence is that travelcard at its current price (£8.50 for 4 weeks) is not as attractive to inner area residents because of their relatively short journeys when compared with residential areas outside the 'inner city' core area.
(11.5)
- 3.1.26. Respondents showed a general lack of information about bus services. This is partly reflected by the frequency of service, such that 80% do not bother to find out bus times, and over 90% did not possess any sort of information source/timetable leaflets or books).
(11.6)

3.1.27. Bus service improvements - As with area studies elsewhere respondents were given the opportunity to say which improvements to bus services they would most like to see and to give them some priority order. 'Keeping fares down' was given the highest priority; however, normally reliability and frequency are given the next priority but in Handsworth and Lozells 'more shelters', 'cleaner buses' and 'community bus' all rated more highly.

(11.7)

Community Bus (Section 12)

3.1.28. Those zones giving the highest priority to a community bus were 09 (Park Road), 02 (Thornhill Road), 13 (Heathfield Road/Finch Road), 07 (Bacchus Road) and 08 (Lodge Road). Generally those respondents who use the current bus service the least gave the highest priority to the community bus concept.

(12.5)

3.1.29. Respondents in the survey were asked what they considered would be the most suitable purpose for a community bus. Spontaneous comments gave highest priority to taking pensioners to the shops. However when prompted high priority was given to using such a bus for hospital visits.

(12.6)

Residents Associations (Section 13)

3.1.30. Only 17% of respondents were aware of having a local residents association. (6% of respondents claimed to be members) 29% of respondents said they did not have a residents association. Membership and awareness is therefore very low. The highest awareness was among older respondents (45+ years).

County Planning Department Survey (Section 14)

3.1.31. The Planning Department survey shows that there are some problems with public transport provision although they mostly related to travel needs not met rather than shortcomings with existing services. Schools in particular had problems mainly in relation to long walking distances for some of their pupils (albeit still within the statutory distance of 3 miles).

3.1.32. A common theme amongst schools is the cost of travel not only for daily travel to school but also for after school activities. The survey highlights the problem of children being deprived of contact and competition with other schools because of the high cost of transport.

3.1.33. The survey shows that there are also problems for some groups (old persons, mothers with small children) in getting good access to health facilities etc. mainly because of limited funds.

3.2. Conclusions

3.2.1. Objectives i) and ii) asks the survey to assess how well the existing bus network serves the journey patterns shown by the survey and likely levels of demand for new services. There is evidence that bus routes play a large role in determining where the residents of Lozells and Handsworth chose to work. This is especially prevalent in an area where 54% of all work trips are by bus and 16% walking. It is necessary therefore to ensure that bus routes operate in the inner-city to allow residents optimum accessibility to job opportunities.

Difficulties that were reported were mainly that there are poor bus services into the Black Country (notably Smethwick and the Foundry area. Several zones emerged as having the most travel problems 04, 07, 08 and 09. (Except 07, all zones yield above average (i.e. over 25%) walking to work).

Although the existing bus network appears to cater very well for the journey patterns there are a number of modifications to the existing network of services which could overcome some of the difficulties.

3.2.2. Bus Route Modifications -

(a) Service 40 - Under the 'Warley Scheme' it is proposed to extend this service into Bearwood via Smethwick. This report indicates that such a modification would be well patronized by workers from the western half of the survey area, especially as 38% of respondents who work in Cape Hill travel on foot.

(b) Service 96 - There are similar proposals to extend this service to West Bromwich along Foundry Lane, Cornwall Road, and Lewisham Road, 75% of workers at Foundry Lane travel on foot and 31% are walking at least 2½ km to the Lewisham Road destination zone.

(An informative exercise would be to carry out a 'before and after' study to see if these two extensions can significantly improve job accessibility to Handsworth and Lozells residents).

(c) Service 70 - This service could be re-routed down Ninevah Road and Park Road instead of running along Soho Road. This would help alleviate the difficulties getting to shops encountered by residents in zones 07, 08 and 09 and provide a direct service to city. However diversions off Soho Road between Grove Lane and Hockley would need to be carefully considered.

(d) Asda bus - This bus would provide residents in the survey area with good transport to a modern superstore. Some changes to the 40 service in the off-peak could assist and add potentially 1,000 journeys per week in each direction to the service.

(e) Levels of demand on a Sunday morning suggest that there may be some over-provision of service. (i.e. between 0700 and 1200 hours).

- 3.2.3. Objective iii) asks that the levels of dependence on public transport, attitudes, perception and improvements be investigated.

There is a heavy dependence on public transport, car ownership being particularly low. From comments received during the survey and from the survey data existing bus services were rated better than 'reasonable' for running to time, convenience of bus stops, friendliness of bus crews and existing bus routes and services. However cleanliness of buses, evening services and Sunday services were not rated so highly. Improvements required show that some attention needs to be paid to infrastructure in terms of bus shelter provision and bus cleanliness.

- 3.2.4. Respondents in the survey also say, not unnaturally, that they wish to see fares kept down. There is evidence that because of the existing fare scale and the length of journey made by the residents in the survey area that they pay a proportionately higher rate for their bus travel than residents outside the 'inner city' core area. The pricing of travelcards and the options on fares in the inner areas would appear to warrant more detailed examination.

- 3.2.5. Objective iv) asks the survey to investigate the special travel difficulties associated with the inner area and whether there is any potential for a community bus.

The number of respondents reporting travel problems can be considered low overall (e.g. 15% travelling to hospital) However, for certain parts of the survey area and for some specific groups of people a significant minority do have problems. Surprisingly the aged were not those with the highest proportion of travel problems; visits to hospital or doctors seems to present a greater problem to women in the 25 - 59 age range.

Certain modifications to existing bus services have already been suggested that would overcome some of the problems, however a community bus does offer flexibility for providing for hospital visits etc.

The provision of a community bus, even though it may be considered 'a good thing' and benefit certain sections of the inner area community does pose a number of questions. In 12.8.5. an alternative to a special bus is suggested using the existing PTE private - hire organisation. This would put the onus on the inner area community to organise itself rather than the PTE dictating the type of community bus service. How this provision could best be organised would need to be considered very carefully as our survey shows that it is doubtful if the Residents Associations as they currently exist reaches fully all households.

The survey carried out by the County Planners' Inner Area Team confirms that some groups do have specific problems which could be met by the provision of a community bus scheme. The survey indicates a need for flexibility in any arrangements made, something which would probably fit best into the private hire concept.

- 3.2.6. Detailed discussions will now need to take place between the PTE, the County Council and Birmingham District Council to implement the network changes considered necessary

MAP 3 STUDY AREA ORIGIN ZONES



B20

B21

13

B13

12

B18

B18

B16

B1

Hilltop farm

Brown's Green

Perry

Birchfield

03

02

01

04

05

10

06

07

09

08

WINSTON GREEN

SPRING HILL

EDGBASTON RESERVOIR

Ladywood

OXHILL ROAD

CHURCH LANE

WELLINGTON ROAD

ASTON ROAD

DOUGLAS ROAD

WILKINSON ROAD

SOZELLE ROAD

BOULTON ROAD

WILKINSON ROAD

SOZELLE ROAD

WILKINSON ROAD

WILKINSON ROAD

WILKINSON ROAD

WILKINSON ROAD

WILKINSON ROAD

SPRING HILL

EDGBASTON RESERVOIR

Ladywood

4 METHODOLOGY

4.1. The Study Area

4.1.1. The study area was divided into a total of thirteen zones the majority of which are in the Soho Ward (zones 01,02,03,04,05, 10 and 11). A further four zones are in the All Saints Ward (zones 06,07,08 and 09). Of the two remaining zones, zone 12 is in the Newtown Ward and zone 13 is in the Handsworth Ward. Collectively the survey area has been called 'Handsworth and Lozells'. The entire area is incorporated in the 'core' area as defined by the Birmingham Inner City Partnership Programme. (See MAP 3).

4.2. The Sample

4.2.1. A total of 1,071 households were interviewed in the survey area. In each household any person aged 11 years or over was eligible for interviewing. Travel details were also obtained for all other persons in the household aged 11 years or over. The total number of respondents was 2,896 (aged 11 years or over).

4.2.2. Households were selected by drawing a pre-selected systematic sample of 1 in 5 addresses from the 1978 electoral register. The sample yielded 1403 addresses for the survey area. Some spare addresses in each zone were used as substitutes if the interviewer failed to achieve an interview after three attempts. Therefore the final household sample was 1,071.

4.3. Household Survey

4.3.1. The questionnaires used in the household survey are shown in Appendix 1. The white questionnaire was completed for the person actually interviewed. The respondent gave details of not only journeys made but also household classification information and attitudes towards public transport, a community bus and a direct bus to the Asda Superstore at Villa Park. Details of travel movements by other members of the household aged over 11 were completed on a shorter blue questionnaire (one for each person).

- 4.3.2. All interviewing was conducted at the respondent's home by trained interviewers recruited by the Field Survey Unit (F.S.U.). The interviewers were thoroughly briefed before fieldwork began and were under control of the F.S.U. Field Supervisor throughout the fieldwork period itself. Fieldwork dates for the household survey were January 13th to February 18th 1979.
- 4.3.3. All coding and editing in preparation for computer analysis was carried out by the F.S.U. The main task involved address coding the destinations of nearly 3398 journeys made the previous day and 1,800 work and school destinations.
- 4.3.4. The survey data was transferred to 80-column punch cards and processed by Generale de Service Informatique (UK) Ltd. (previously C.R.C.) to a F.S.U. specification. All tabulations have been 'weighted' using the factors shown in Appendix 2 for each origin zone.

5 PROFILE OF AREA

5.1. Economic Activity and Unemployment

5.1.1. Table 1 shows the economic activity of the survey area (persons aged 11 years or over). Particular attention is paid to the figures for unemployment because of the concern over the concentration of people out of work living in the inner areas.

TABLE 1 WORK STATUS

		%
Full Time (Male)	5861	31
Full Time (Female)	1866	10
Part Time	167	1
Part Time	806	4
Housewife	3386	18
School-child	3007	16
Student	630	3
OAP	2156	11
Unemployed \emptyset	1060	6 \emptyset
Other	118	1
	19,057	100
TOTAL		

\emptyset Unemployment amongst those in economically active age groups (16-64 for males, 16-59 for females) and discounting schoolchildren, students or housewives is 11.6% for males and 8.8% for females giving overall a figure of 10.9%.

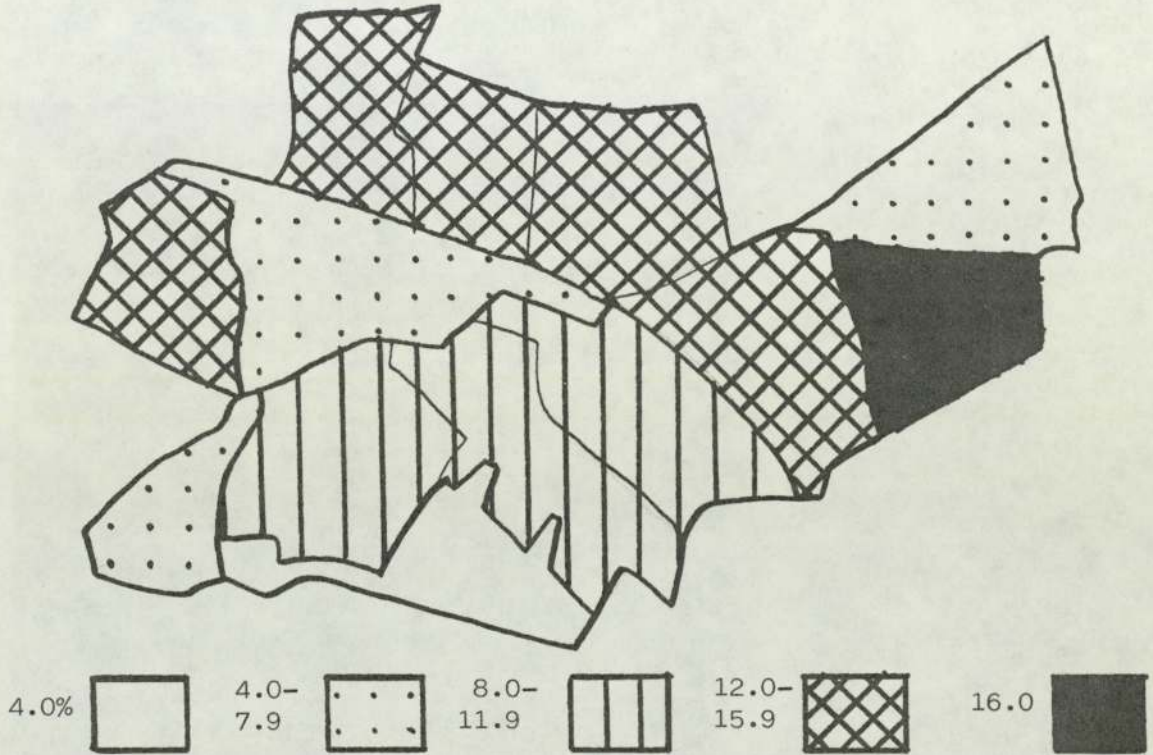
5.1.2. The Manpower Services Commission for February 1979 gave the following figures on unemployment in the Birmingham area. Comparable figures for the West Midlands County are also shown.

TABLE 2 THE LEVEL OF UNEMPLOYMENT

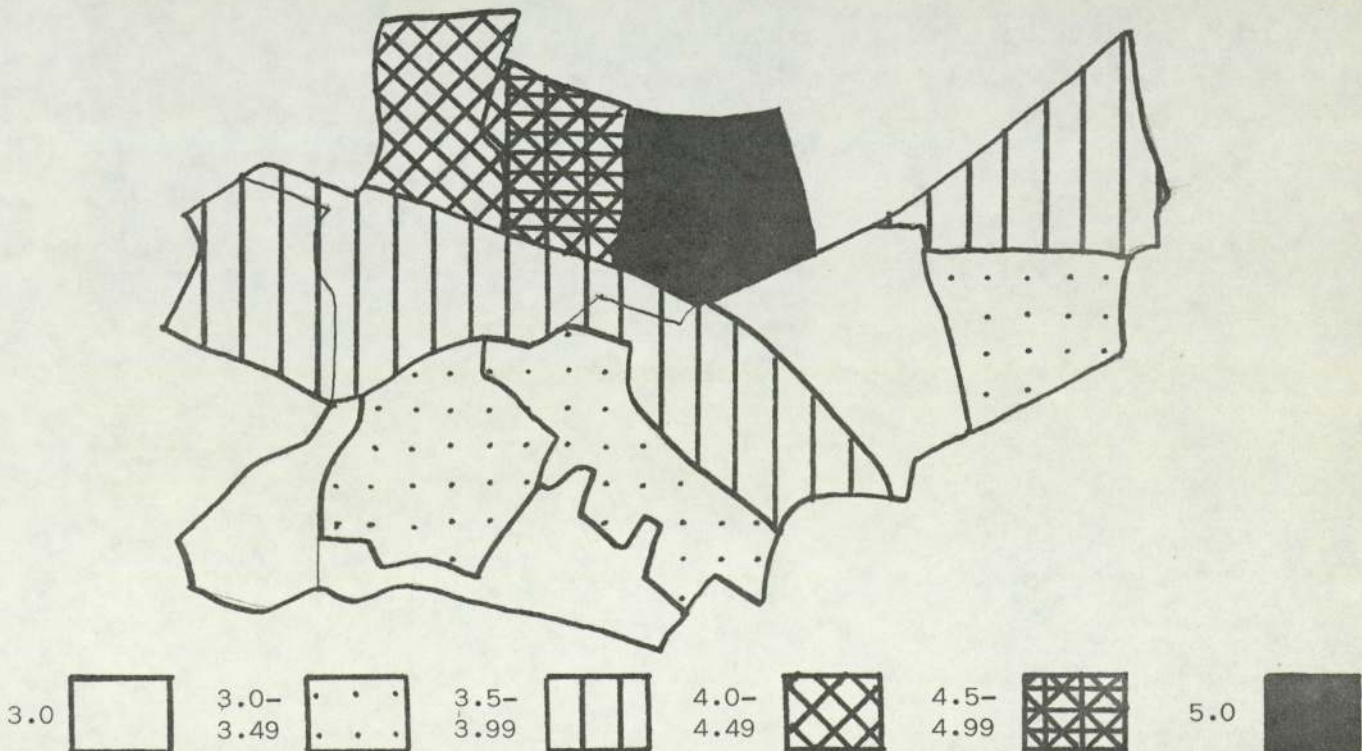
	Handsworth & Lozells	Birmingham Area	West Midlands County
Male	11.6	7.2	6.5
Female	8.8	4.2	4.5
TOTAL	10.9	6.0	5.7

The national unemployment figure for February 1979 was 5.9%.

MAP 4 UNEMPLOYMENT (% of economically active persons unemployed)



MAP 5 PERSONS PER HOUSEHOLD



5.1.3. An analysis of unemployment by zone within the survey area shows considerable variation from zone to zone. Generally those zones to the north of Soho Road (zone 01 to 03) and those between Soho Hill and Villa Road/Lozells Road (zones 11 and 12) exhibit the highest levels of unemployment.

TABLE 3 UNEMPLOYMENT BY ZONE

Zone	Economically Active	Unemployed No.	Economically Active Age Groups	% Unemployment
01	546	80	626	12.8
02	884	151	1035	14.6
03	784	127	911	13.9
04	438	63	501	12.6
05	1322	89	1411	6.3
06	407	35	442	7.9
07	831	74	905	8.2
08	185	-	185	0.0 *
09	288	31	319	9.7
10	634	67	711	9.4
11	442	60	502	12.0
12	627	175	802	21.8
13	1313	110	1423	7.7
TOTAL	8701	1062	9763	10.9

* small sample

5.2. Household Size

5.2.1. TABLE 4 shows that the sample yielded an average household size of 3.56 persons. However there was considerable variation from zone to zone. Zone 01 to 03 show the largest household size. These zones also exhibited higher than average unemployment levels. Zone 08 shows an average household size of 2.03 and almost no young families.

TABLE 4 AVERAGE NUMBER PER HOUSEHOLD BY ZONE

Zone	Sample	Persons under 11		Persons 11 or over		Total	
	Households	No.	per H/H	No.	per H/H	No.	per H/H
01	48	93	1.94	178	3.71	271	5.65
02	85	102	1.20	285	3.35	387	4.55
03	85	102	1.20	250	2.94	352	4.14
04	72	82	1.14	171	2.38	253	3.52
05	137	108	0.79	404	2.95	512	3.74
06	55	22	0.40	127	2.31	149	2.71
07	125	107	0.86	321	2.57	428	3.43
08	36	4	0.11	69	1.92	73	2.03
09	36	20	0.56	96	2.67	116	3.23
10	73	62	0.85	196	2.68	258	3.53
11	78	29	0.37	163	2.09	192	2.46
12	121	98	0.81	297	2.45	395	3.26
13	119	86	0.72	339	2.85	425	3.57
	1070	915		2896		3811	3.56

5.2.2. Comparing the 1971 Census data for the wards which in part make up the survey area and also for Birmingham as a whole gave the following figures:-

Average household size (1971 Census)	
Soho	3.54
All Saints	3.65
Handsworth	3.03
Newtown	3.04
 BIRMINGHAM CB	 3.04

5.3. Age and Sex

5.3.1. TABLE 5 AGE AND SEX DISTRIBUTION

	Male	Female	TOTAL	%	Mid 77 estimate W.Midlands County
under 11	6042		6042	24.1	16.3
11 - 15	1298	1303	2601	10.4	8.6
16 - 24	1927	1765	3692	14.7	12.9
25 - 44	3235	3110	6345	25.3	25.3
45 - 59	1921	1426	3347	13.3	18.4
60 - 64	335	452	787	3.1	5.4
65+	951	1316	2267	9.1	12.1
TOTAL			25,081	100	100

The above table shows that compared to the County as a whole the survey area has a young population some 49% of the population being under 25 years of age compared to 38% for the County as a whole. Consequently the number of OAP's in the population is lower than average for the county; this age structure could therefore have important implications for bus service provision particularly the community bus concept.

5.3.2. The age distribution in each zone varies considerably as one would expect from the information on household size. Broadly the distribution is as follows:-

TABLE 6 AGE DISTRIBUTION BY ZONE

Zone		Age					TOTAL
		<11	11-15	16-24	25-59	60+	
01	(%)	34	10	18	36	2	100
02	(%)	26	15	16	36	7	100
03	(%)	29	12	15	38	7	100
04	(%)	32	6	10	36	16	100
05	(%)	21	8	17	41	12	100
06	(%)	15	9	8	49	20	100
07	(%)	26	8	10	40	15	100
08	(%)	6	11	10	49	25	100
09	(%)	17	14	19	38	12	100
10	(%)	24	13	13	40	10	100
11	(%)	14	12	18	37	18	100
12	(%)	25	6	16	36	17	100
13	(%)	20	12	16	38	13	100

Zones 01 to 03 have particularly young populations with few pensioners. By contrast zones 06 and 08 in particular have old populations.

5.4. Car Ownership

5.4.1. For the sample of 1071 households, 65% did not own a car. (The 1976 County Household Survey shows for the West Midlands that 49% did not own a car). Thus as one would expect car ownership in the survey area is considerably lower than the average as shown in TABLE 7.

TABLE 7 CAR OWNERSHIP

	Survey		West Midlands ^Ø
	Area	%	
None	691	65	48.9
One	352	33	42.5
Two +	25	2	8.6
No response	3	*	-
	<hr/>	<hr/>	<hr/>
	1071	100	100

* less than 0.5%

^Ø County Household Survey 1976

5.4.2. Expressed as the number of cars per person for the survey area the figure is 0.11 (The national figure in 1976 was 0.26 cars per person).

5.4.3. TABLE 8 shows the percentage car owning households and the figure for cars per person by zone.

TABLE 8 HOUSEHOLD CAR OWNERSHIP AND CARS PER PERSON BY ZONE

	Car owning % households	Cars per person
01	52	0.11
02	44	0.10
03	44	0.12
04	39	0.11
05	34	0.10
06	36	0.13
07	36	0.11
08	22	0.11
09	25	0.08
10	37	0.11
11	29	0.12
12	24	0.08
13	35	0.11

Although the proportion of car owning households varies from 52% in zone 01 to 22% in zone 08 because of the variation in household size and age structure cars owned per person varies less on a zone by zone basis.

6 JOURNEY PATTERNS

6.1. Introduction

- 6.1.1. This section of the report gives details of the journey patterns made by the residents of the survey area. It is broken up into a number of sections:- 6.2. gives overall details of the number of journeys made while 6.3. looks at the overall purpose and method of transport used. 6.4. considers the destinations of journeys in broad terms (Section 7 of the report analyses the main destinations in more detail) and 6.5 the times of travel.
- 6.1.2. Because of the concern over high levels of unemployment in the inner city and changes in industry in recent years it is especially relevant to examine in detail, journey to work patterns; 6.6 examines these patterns and highlights some of the deficiencies in the current public transport network in relation to them. Similarly 6.7 looks at the journey to school.

6.2. The Number of Journeys

- 6.2.1. Details of all journeys made by mechanical means (ie excluding walking) the previous day were obtained from the 2,896 respondents aged 11 years or more. In order that daily variations in journeys could be identified the same number of interviews were conducted each day of the week (except Sundays) in each zone. (Interviews which took place on a Monday asked for details of trips on the previous Saturday and Sunday. APPENDIX 3 gives full details of the interview sample and the number of journeys made each day).
- 6.2.2. The average number of single journeys per person for the survey area was 0.95. As one would expect there was a distinct correlation between the number of journeys and household car ownership and socio-economic group with persons in car owning households making more journeys than non-car owning households (see APPENDIX 3).

6.2.3. APPENDIX 3 shows that in total, the survey population made 127,700 single journeys by mechanical means in a week. For an average weekday this represents some 21,000 journeys; the equivalent figures for a Saturday are 14,500 and 7,800.

6.2.4. In the survey details of these journeys were collected for 'one' direction only. The details asked for were:-

- (i) trip destination
- (ii) journey purpose
- (iii) method of transport used
- (iv) time of arrival and departure at destination.

Details were therefore collected for approximately half the totals in 6.2.3. most journeys being of the 'home and back' variety. The figures below show the number of journeys for which full details were obtained.

	Number of journeys (mechanical mode)	Journey details obtained ('one way')
Average weekday (M-F)	21,100	10,407
Saturday	14,500	7,539
Sunday	7,800	4,013

6.3. The Purpose and Method of Travel

6.3.1. TABLE 9 shows purpose of journeys made by the survey population for an average weekday, Saturday and Sunday.

TABLE 9 JOURNEY PURPOSE BY DAY OF WEEK

	Weekday		Saturday		Sunday	
	No		No		No	
Work	6587	(63%)	2298	(30%)	360	(9%)
Education	1898	(18%)	113	(1%)	42	(1%)
Shopping	768	(7%)	3069	(41%)	0	-
Visiting	362	(3%)	821	(11%)	342	(33%)
Recreation	304	(3%)	855	(11%)	1035	(26%)
Medical	121	(1%)	0	-	360	(9%)
Personal	240	(2%)	154	(2%)	114	(3%)
Serve Passenger	80	(1%)	42	(1%)	0	-
Other	48	(*)	186	(2%)	759	(19%)
TOTAL	10,407		7,539		4,013	

* less than 0.5%

As one would expect, during the week the main journey purpose is to and from work/school or college. On Saturday shopping journeys are the most important but work trips are still significant. On Sunday visiting and recreation account for 59% of all trips.

6.3.2. In an area of low car ownership bus is the predominant method of travel. TABLE 10 shows that on an average weekday some 72% of journeys are made by bus. However, the car proportion at weekends increases.

TABLE 10 METHOD OF TRAVEL BY DAY OF WEEK

	Weekday		Saturday		Sunday	
	No	%	No	%	No	%
Bus	7524	72	4621	61	1821	45
Car driver	2054	20	1950	26	807	20
Car pass'r	684	7	776	10	1309	33
Private Coach	15	*	38	1	-	
Cycle/Motor Cycle	39	*	36	*	-	
Other	82	1	118	2	76	2
Total	10,407	100	7,539	100	4,013	100

* less than 0.5%

It is also worth noting that the demand for bus travel in the inner area is considerably less on a Saturday than a weekday by comparison with areas outside the inner city core. Sunday travel is predominantly by car, (driver + passengers, 53%); a large percentage (33%) travelling as car passenger. With car ownership being below average in this area many residents rely on the reduced and somewhat inflexible 'fixed-route' bus system for recreational journeys on Sundays. A community bus could offer these people without cars a greater variety of recreational possibilities at weekends.

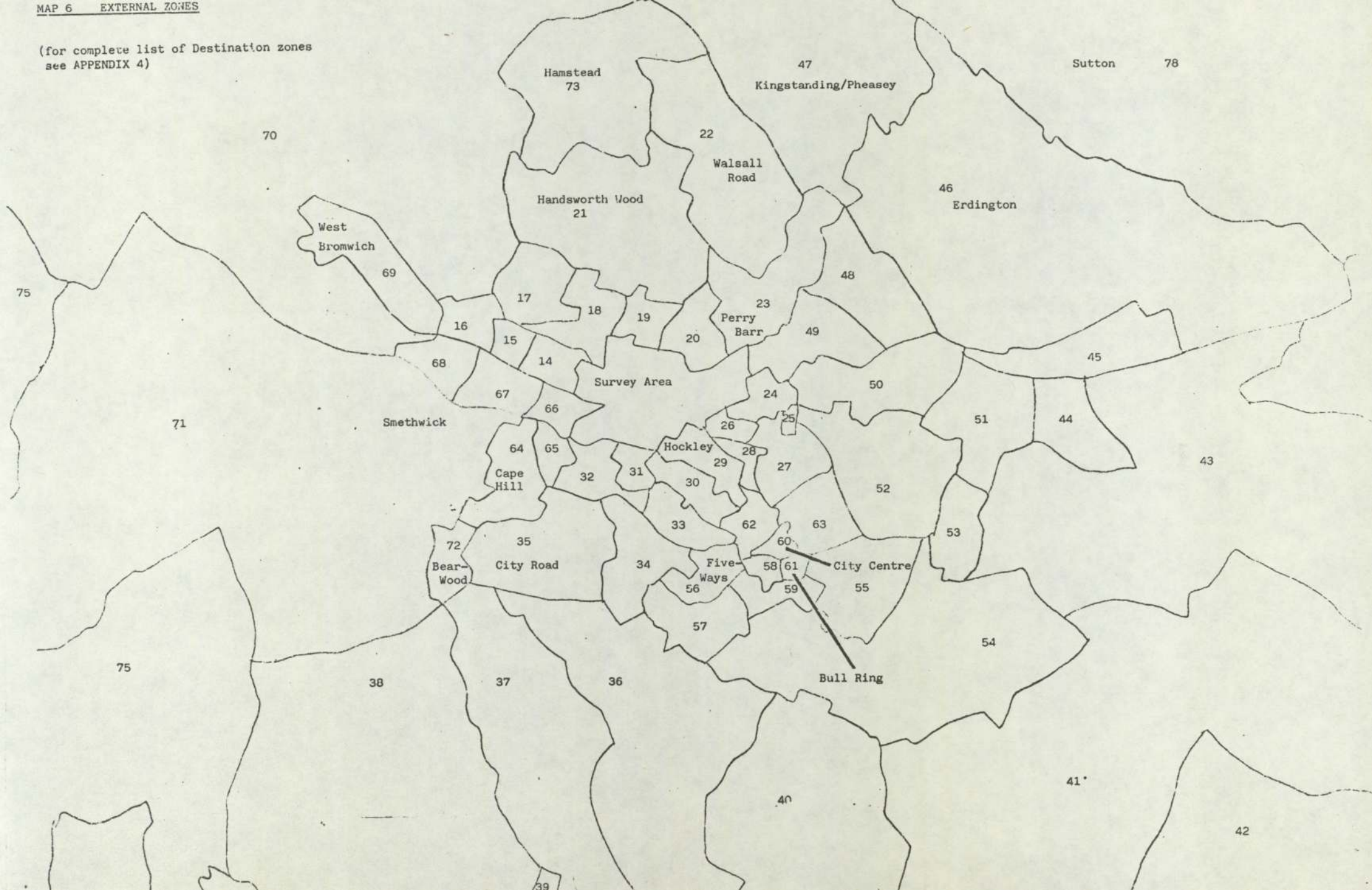
- 6.3.3. Although bus has a high share of all journeys (72% on weekdays), there is some variation in the percentage share depending on the purpose of the journey. Overall the bus share tends to be lower for visiting and recreation purposes. In TABLE 9 we showed that journeys for medical purposes (i.e. hospital visits) are not large in number although they do account for 9% of journeys originating in the area on a Sunday. TABLE 11 below shows that most people making medical visits are dependent on bus services.

TABLE 11 BUS SHARE OF JOURNEYS BY PURPOSE AND DAY OF WEEK

(figures show percentage share of total by bus)	Weekday	Saturday	Sunday
Work	68	62	77
Education	91	100	n.s.
Shopping	86	73	n.s.
Visiting	51	67	45
Recreation	52	32	36
Medical	81	n.s.	79
Personal	70	n.s.	66
Serve Passenger	n.s.	n.s.	n.s.
Other	50	21	21
	—	—	—
All journeys	72	61	45

n.s. = not significant

(for complete list of Destination zones
see APPENDIX 4)

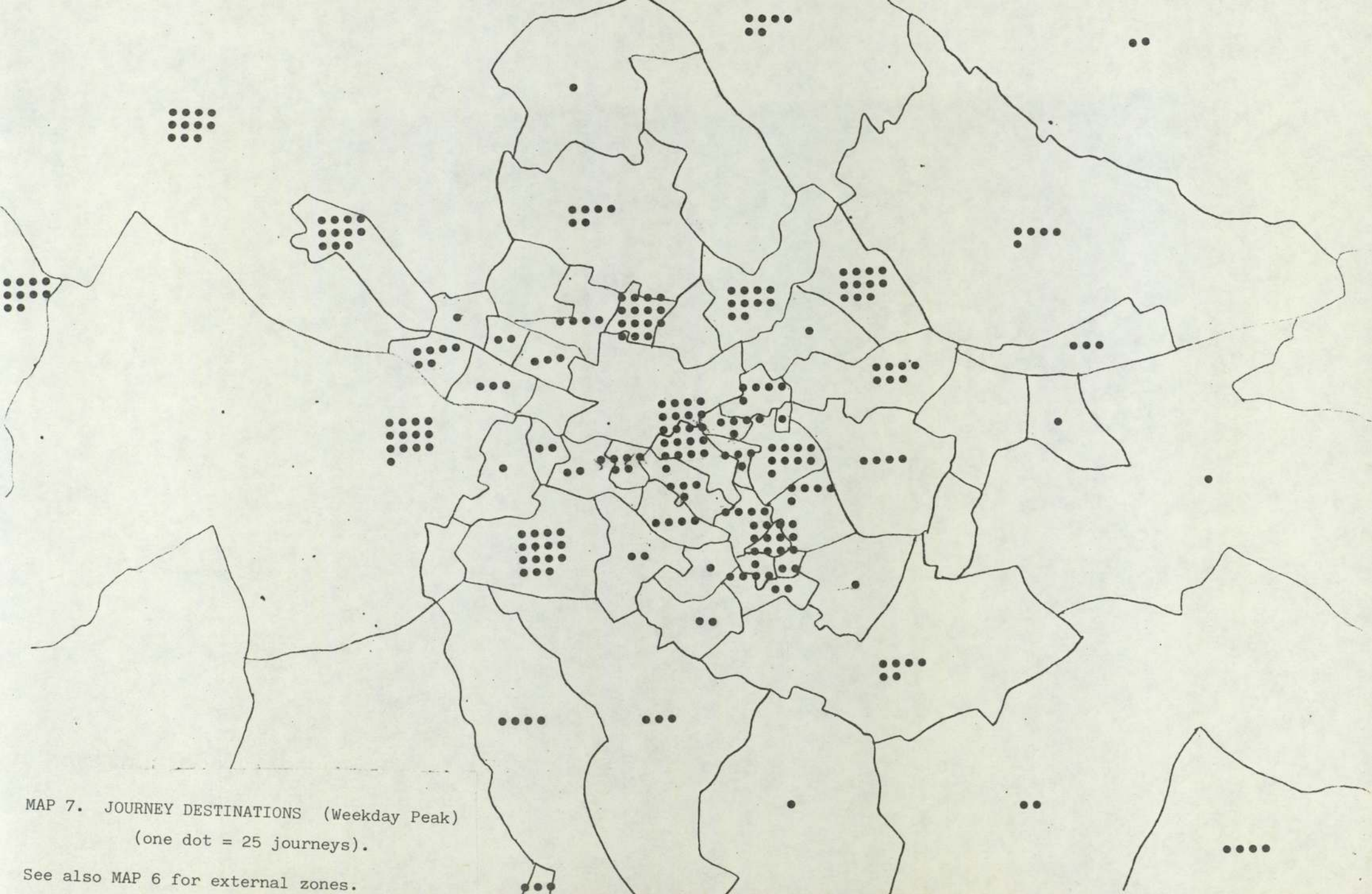




MAP 8. JOURNEY DESTINATIONS (Weekday off-peak)

(one dot = 25 journeys)

See also MAP 6 for external zones.



MAP 7. JOURNEY DESTINATIONS (Weekday Peak)

(one dot = 25 journeys).

See also MAP 6 for external zones.



MAP 9. JOURNEY DESTINATIONS (Saturday)

(One dot = 25 journeys)

See also MAP 6 for external zones.

6.4. Journey Destinations

6.4.1. The survey area was divided into 13 zones. Destinations of journeys outside the survey area were coded to external zones (zones 14 - 79). APPENDIX 4 gives the names of the zones (see also MAP 6) and also groups zones into 6 broad zone categories:-

- i) Survey area
- ii) City Centre
- iii) Inner City (ICP Core Area excluding City Centre)
- iv) Rest of Birmingham
- v) Sandwell
- vi) Other

The journeys destinations for each day of the week are shown in TABLE 12

TABLE 12 JOURNEY DESTINATIONS BY DAY OF WEEK

	Weekday		Saturday		Sunday	
		%		%		%
Survey Area	826	8	1196	16	578	14
City Centre	1666	16	2395	32	724	18
Inner City (ICP excl. City Centre)	4601	44	1691	22	1595	40
Rest of Birmingham	1292	12	579	8	460	11
Sandwell	1469	14	1040	14	272	7
Other	553	5	638	8	384	10
TOTAL	10407	100	7539	100	4013	100

6.4.2. The main movements in TABLE 12 show the relative importance of each area. Destinations within the Inner City Core (excluding the City Centre) account for 44% of weekday trips and as we have seen in 6.3.1. work and school trips account for a large part of these trips. The Inner City Core area assumes less importance on a Saturday when a higher proportion of trips are made to the City Centre (one third of the total).

6.4.3. The main destination zones and the number of journeys originating in the survey area are shown on MAPS 7,8 and 9. The maps distinguish for weekday journeys between the peak and off-peak journeys. As one can see off-peak demand is particularly low.

6.5. The time of journeys

6.5.1. Respondents in the survey were asked the time of their travel. TABLE 13 shows the arrival and departure times at the destination end of the journey. The total column in the table gives an indication of the times of 'two-way' travel demand based on the numbers per hour; it is also represented graphically in FIGURE 1

TABLE 13 ARRIVAL AND DEPARTURE TIMES OF WEEKDAY JOURNEYS

	Arrival time		Departure time		Total flow per hour
		%		%	
0001 - 0554	32	*	60	1	16
0555 - 0654	499	5	98	1	597
0655 - 0739	1228	12	78	1	1741
0740 - 0824	2963	28	47	*	4493
0825 - 0914	2773	27	24	*	3356
0915 - 1154	852	8	176	2	386
1155 - 1404	677	7	839	8	700
1405 - 1524	211	2	529	5	555
1525 - 1624	138	1	2191	21	2329
1625 - 1709	81	1	3017	29	4131
1710 - 1809	228	2	1938	19	2166
1810 - 2400	<u>725</u>	7	<u>1408</u>	14	366
	10407		10407		

* less than 0.5%

6.5.2. The figures show that inner area demand is very peaked FIGURE 2 gives the equivalent demand by bus for each time period and compares this with bus journeys for the WMPTE area overall.

6.5.3. Demand for bus travel on a flow per hour basis is shown in TABLE 14 for a weekday, Saturday and Sunday. This suggests that there may be a case for reviewing the current provision of services in inner areas particularly early Sundays when demand is very low (e.g. Service 69 commences with a half-hourly service from 0713 on a Sunday, service 40 commences at 0723 on a Sunday).

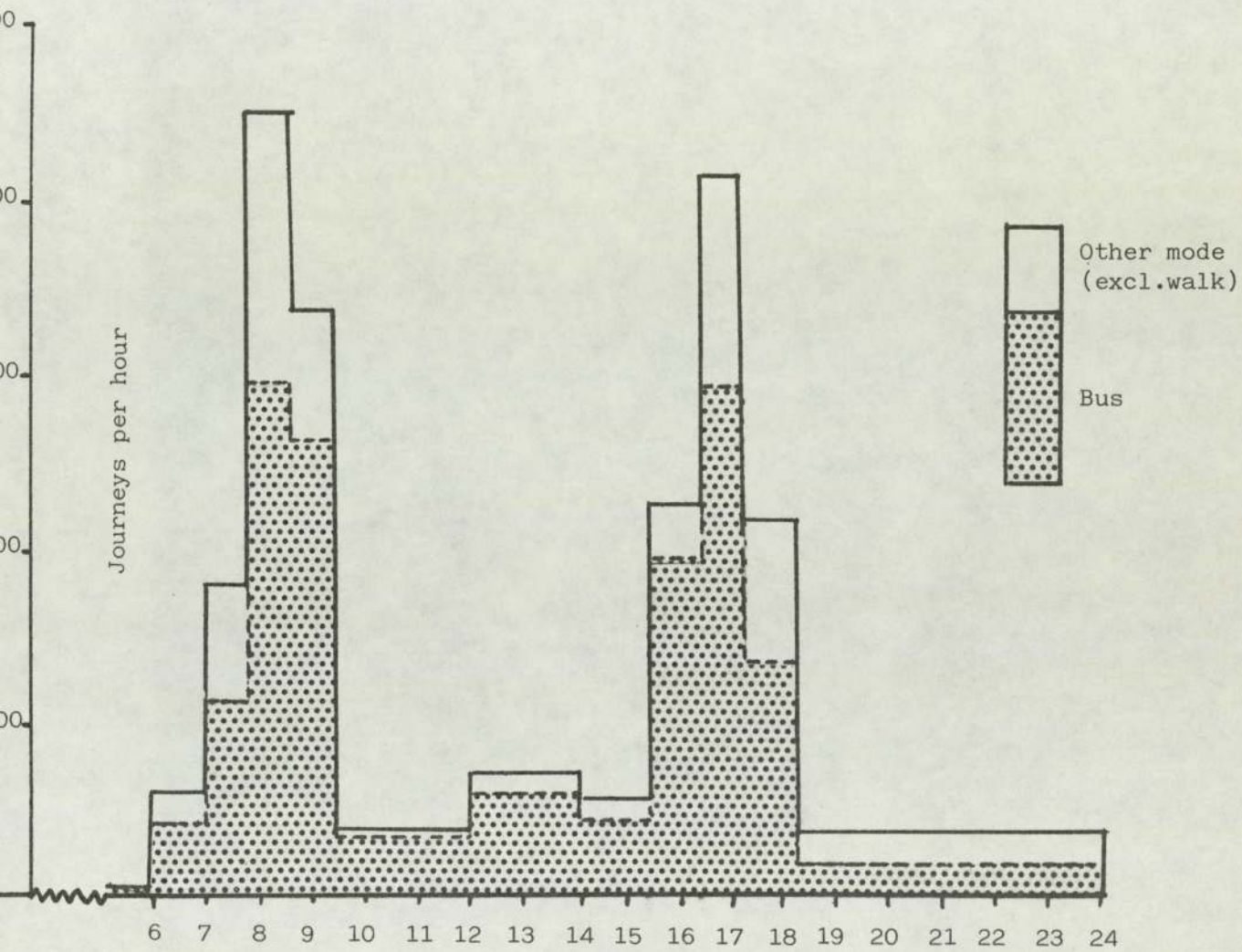


FIGURE 1 WEEKDAY JOURNEYS BY TIME
(all modes and bus)

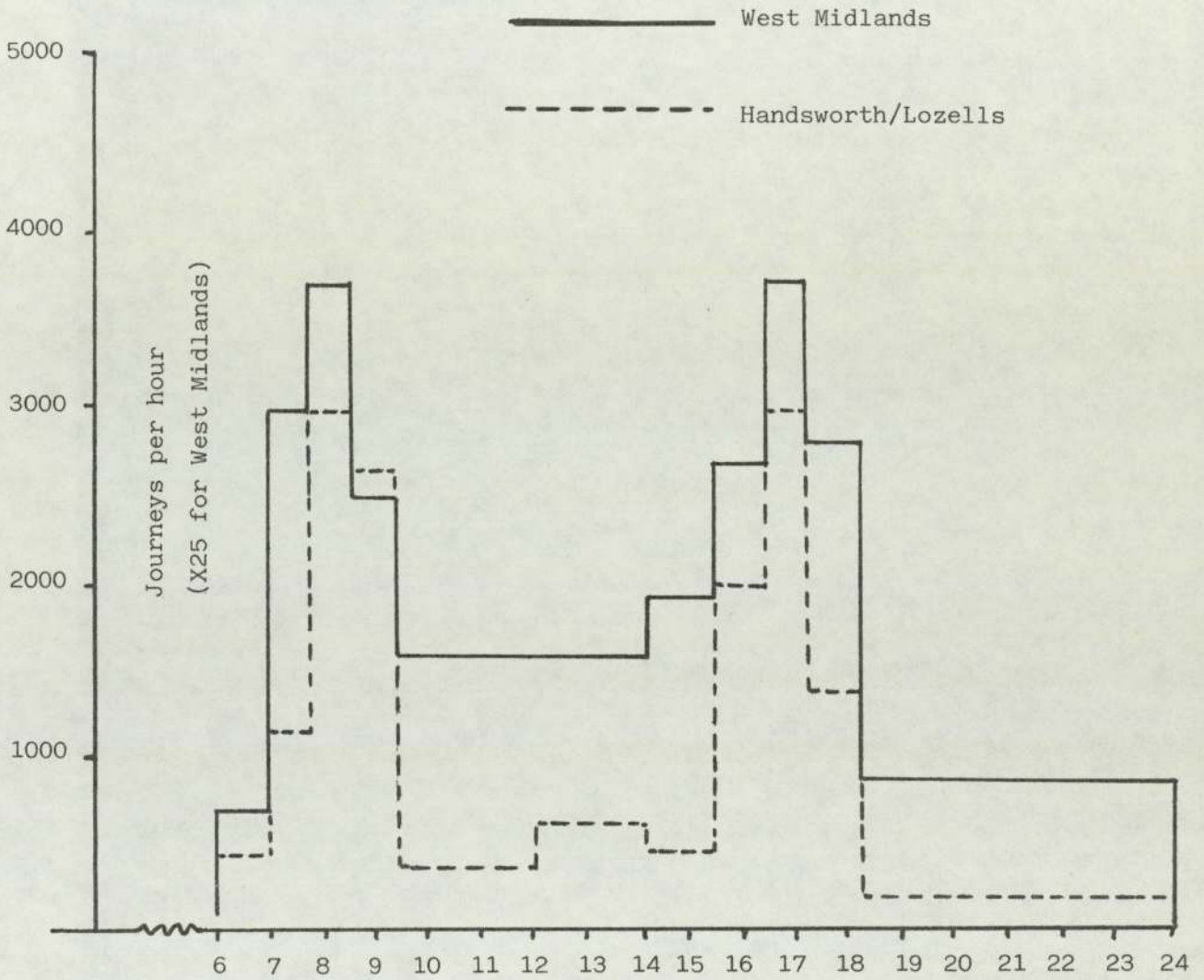


FIGURE 2 BUS PASSENGERS PER HOUR COMPARED TO WEST MIDLANDS COUNTY

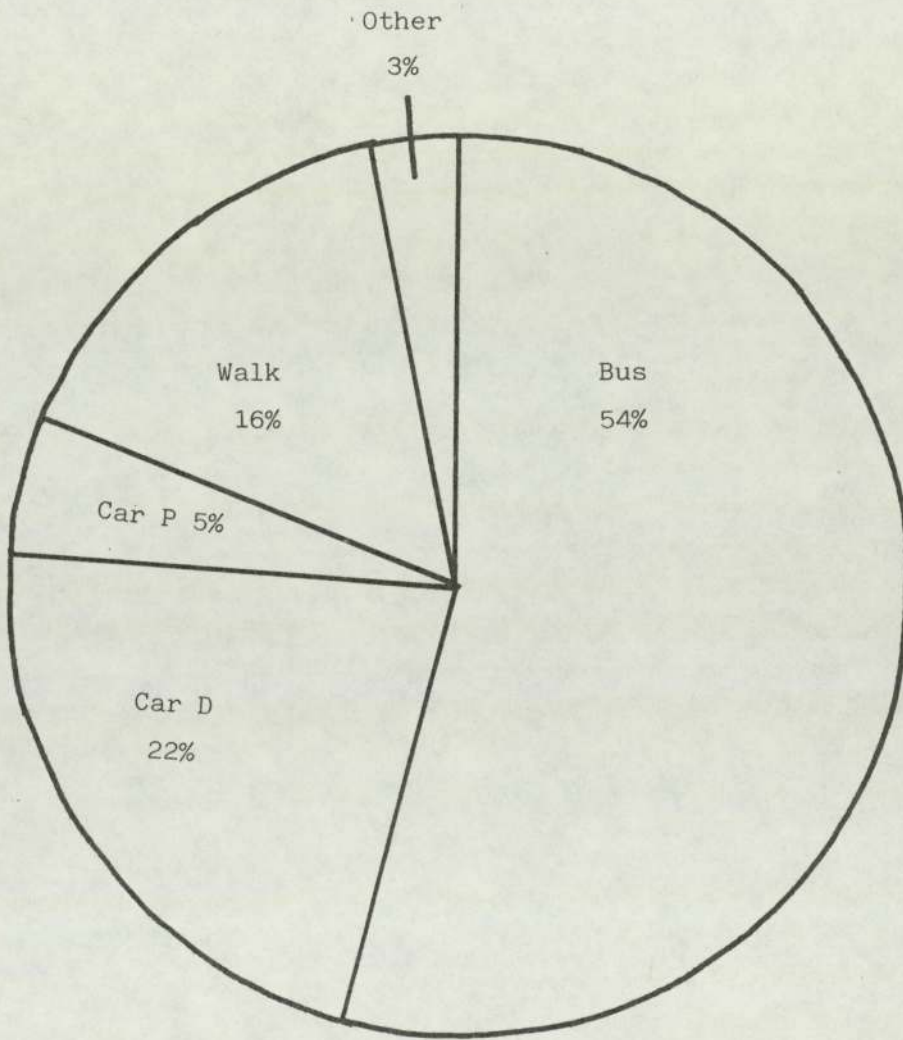


FIGURE 3 METHOD TO WORK

TABLE 14 BUS JOURNEYS PER HOUR BY DAY OF WEEK

	Weekday (flow per hour)	Saturday (flow per hour)	Sunday (flow per hour)
0001 - 0554	12	6	1
0555 - 0654	417	160	17
0655 - 0739	1110	256	11
0740 - 0824	2947	913	9
0825 - 0914	2600	419	11
0915 - 1154	343	494	21
1155 - 1404	580	976	95
1405 - 1524	422	880	58
1525 - 1624	1925	1025	88
1625 - 1709	2941	1128	29
1710 - 1809	1350	479	57
1810 - 2400	195	148	30

6.6. The Journey to Work

6.6.1. In 6.3.1. we showed that journeys to and from work account for 63% of all journeys on a weekday. It is therefore especially relevant to examine the present journey to work patterns because of the high dependence on public transport.

6.6.2. The method of travel to work - In the survey respondents were asked independently about their journey to work so that the level of walk to work journeys could also be measured. TABLE 15 shows the survey findings and FIGURE 3 also illustrates the method used.

TABLE 15 METHOD TO WORK (including walk)

		%
PTE Bus	4456	54
Car driver	1846	22
Car passenger	438	5
Coach	19	*
Mini bus	0	0
Cycle/Moped	52	1
Walk	1365	16
Other	120	1
TOTAL	<u>8302</u>	<u>100</u>

* less than 0.5%

6.6.3. As expected there is a large dependence on public transport for journeys to work (54%). Also a high proportion of people walk to work. TABLE 16 gives comparisons of journey to work and school modal split from other PTE survey reports.

TABLE 16 OTHER F.S.U. SURVEYS (MODE TO WORK/SCHOOL)

Area		Car (Driver)	Car (Passenger)	Bus	Walk	Date of survey
Sutton Coldfield	%	59	5	16	9	Ap/My 75
Willenhall	%	36	9	24	21	Jan 75
Warley	%	32	8	36	8	Ju/Jy 75
Heart of England	%	59	10	5	10	Aug 75
Coventry NE	%	35	11	33	12	Nov 75
Bilston	%	29	7	25	30	Jun 75
Aldridge/Brownhills	%	51	12	27	2	Oct 77
HANDSWORTH/LOZELLS	%	19	4	54	23	Jan/Feb 79

6.6.4. When the mode for journey to work is analysed by profile information (age/sex), some definite patterns emerge. See TABLE below.

TABLE 17 USUAL METHOD TO WORK AND SCHOOL BY AGE/SEX

	(Base)		Bus	Car Driver	Car Pass'r	Private Coach	Cycle/M/C Moped	Walk	Other
<u>MALE</u>									
11 - 15	7	%	100	0	0	0	0	0	0
16 - 24	1122	%	58	17	6	1	16	16	1
25 - 44	2770	%	46	37	5	0	13	10	1
45 - 59	1475	%	54	30	6	0	*	9	1
60 - 64	196	%	60	20	0	0	6	13	0
65+	79	%	51	16	0	0	9	23	0
<u>FEMALE</u>									
11 - 15	14	%	51	0	0	0	0	49	0
16 - 24	620	%	63	4	8	0	0	23	2
25 - 44	1234	%	53	6	7	1	0	30	3
45 - 59	616	%	65	4	2	0	0	27	1
60 - 64	111	%	76	0	0	0	0	19	7
65+	52	%	50	0	0	0	0	50	0

6.6.5. The use of car for the journey to work is highest for males in the age groups 25-44 (37%) and 45-59, (30%), but these percentages are low relative to the rest of Birmingham (eg the method to work in Harborne and Weoley for people in the same age groups was 62% by car).

6.6.6. Similar to age and sex, the modal split varies according to household car ownership and work status, two car households producing more car trips to work (both drivers and passengers) as one would expect. Men working full time form the highest proportion of car drivers.

TABLE 18 METHOD TO WORK BY CARS IN HOUSEHOLD/WORK STATUS

		Bus	Car Driver	Pass'r	Priv Coach	Moped Cycle	Walk	Other
<u>(1) CARS IN HOUSEHOLD</u>								
No Car	(4416) %	72	1	5	-	1	19	2
One Car	(3518) %	35	44	5	*	*	15	1
Two Cars +	(369) %	13	69	9	2	-	4	-
<u>(2) WORK STATUS</u>								
Full time Male	(5602) %	51	31	5	*	1	12	1
Full time Female	(1760) %	62	6	7	1	-	23	1
Part time Male	(145) %	51	13	-	-	1	12	1
Part time Female	(751) %	56	2	3	-	-	35	5
OAP	(6) %	100	-	-	-	-	-	-

* less than 0.5%

6.6.7. Work Destinations - as mentioned in 6.4. the survey zones have been grouped into 6 broad zones. TABLE 19 shows the journey to work method of travel to each zone.

TABLE 19 WORK JOURNEY DESTINATIONS BY METHOD

	Total	Bus	Car	Other (inc. walk)
Survey Area (%)	1155	164 (14)	157 (14)	834 (72)
City Centre	701	537 (76)	158 (23)	6 (1)
Inner City (ICP excl. City Centre)	3410	2132 (63)	795 (23)	483 (14)
Rest of Birmingham	832	447 (54)	372 (44)	13 (2)
Sandwell	1618	836 (52)	563 (35)	219 (13)
Other	575	360 (56)	239 (42)	16 (3)
	<u>8291</u>	<u>4456</u>	<u>2284</u>	<u>1571</u>

From TABLE 19 it is clear that walking to work is the most common method to destinations within the survey area. The proportion of walk journeys decreases with distance from the survey area, as one would expect. However, of those people working in adjacent zones to the survey area a relatively high percentage of walk journeys is maintained (i.e. to parts of Sandwell and the Inner City core). Map 7 gives a detailed picture of the distribution of work trips.

6.6.8. A breakdown of the journeys to work in Sandwell is shown in TABLE 20

TABLE 20 SANDWELL JOURNEYS TO WORK BY METHOD

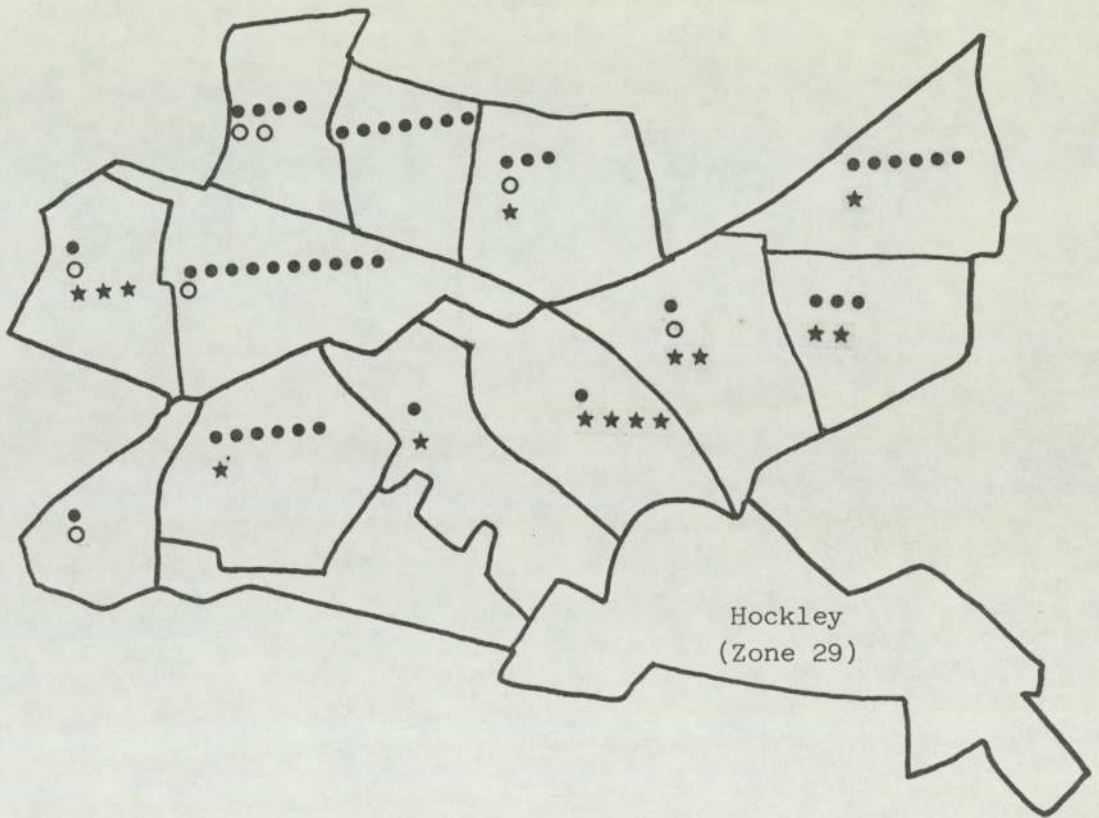
Zone	Total	Bus	Car	Walk	Other
64 Cape Hill	54	6	27	20	1
65 GKN/Cranford St.	59	19	40	-	-
66 Foundary Lane	110	28	-	82	-
67 Lewisham	123	46	26	45	6
68 Birimid/Dartmouth Rd	175	117	38	19	1
69 West Bromwich Centre	310	210	94	-	6
70 Wednesbury/Hill Top/Gt.Bridge	282	182	100	-	-
71 Warley (Oldbury/Smethwick)	466	215	213	32	6
72 Bearwood	6	-	6	-	-
73 Hamstead/Gt.Barr	33	13	19	-	1
	<u>1618</u>	<u>836</u>	<u>563</u>	<u>198</u>	<u>21</u>
TOTAL	1618	836	563	198	21

The large percentage (75%) walking to zone 66 (Foundry Lane) can be accounted for by the fact that this zone is adjacent to the survey area. But it is clear that relatively long distances are walked to work. 11% of trips made to Dartmouth Rd, (a minimum distance of 1½ miles) and 37% to Lewisham Road (1 mile) are on foot.

6.6.9. Hockley is the destination zone (29) that attracts the greatest number of work journeys from the survey area; just over 12% of all work trips end in this small area of Hockley which is adjacent to zones 08, 09, 10. All the radial routes along Soho Road, Villa Rd/ Heathfield Rd, and the Inner Circle bus route link the survey area to Hockley, yet 21% walk to work in Hockley. An examination of the origin of people working in Hockley and their mode of travel is shown on MAP 10. Similarly to the Sandwell zones some people are walking well over half a mile to work.

6.6.10. TABLE 19 in 6.6.7. showed that bus is the most important mode of transport for work journeys to all destination categories, except within the survey area. Over 50%-60% of all trips to zones in the rest of Birmingham, Sandwell and the rest of the County are made by bus. This figure is higher than expected considering that these are longer and more diffused trips. The destination category with the highest proportion of trips by bus is the City Centre (76.6%), however less than 10% of all work trips end in the City Centre. This is a particularly important fact because the bus network is generally oriented along radial routes to the City Centre. It may be significant that the percentage using the bus to get to adjacent zones and the rest of the core area is less than to the city centre. Car as a mode to work is greatest to destinations in the rest of Birmingham 34% and Sandwell 31.5% and the rest of the County 30.5%.

MAP 10 ORIGIN AND MODE OF WORK TRIPS TO HOCKLEY



- Bus
- Car
- ★★★ Walk

(One dot represents 10 trips)

6.7. The Journey to School

6.7.1. Details of school journeys made by children aged 11 years or over were collected in the survey. In total there were 3,155 school-children making a regular school journey. TABLE 20 shows the method of travel to school.

TABLE 20 METHOD OF TRAVEL TO SCHOOL

		%
Bus	1660	53
Car	37	1
Walk	1394	44
Other	64	2
	3155	100

6.7.2. The main school destinations are as follows:-

Zone 06 - Handsworth New Road

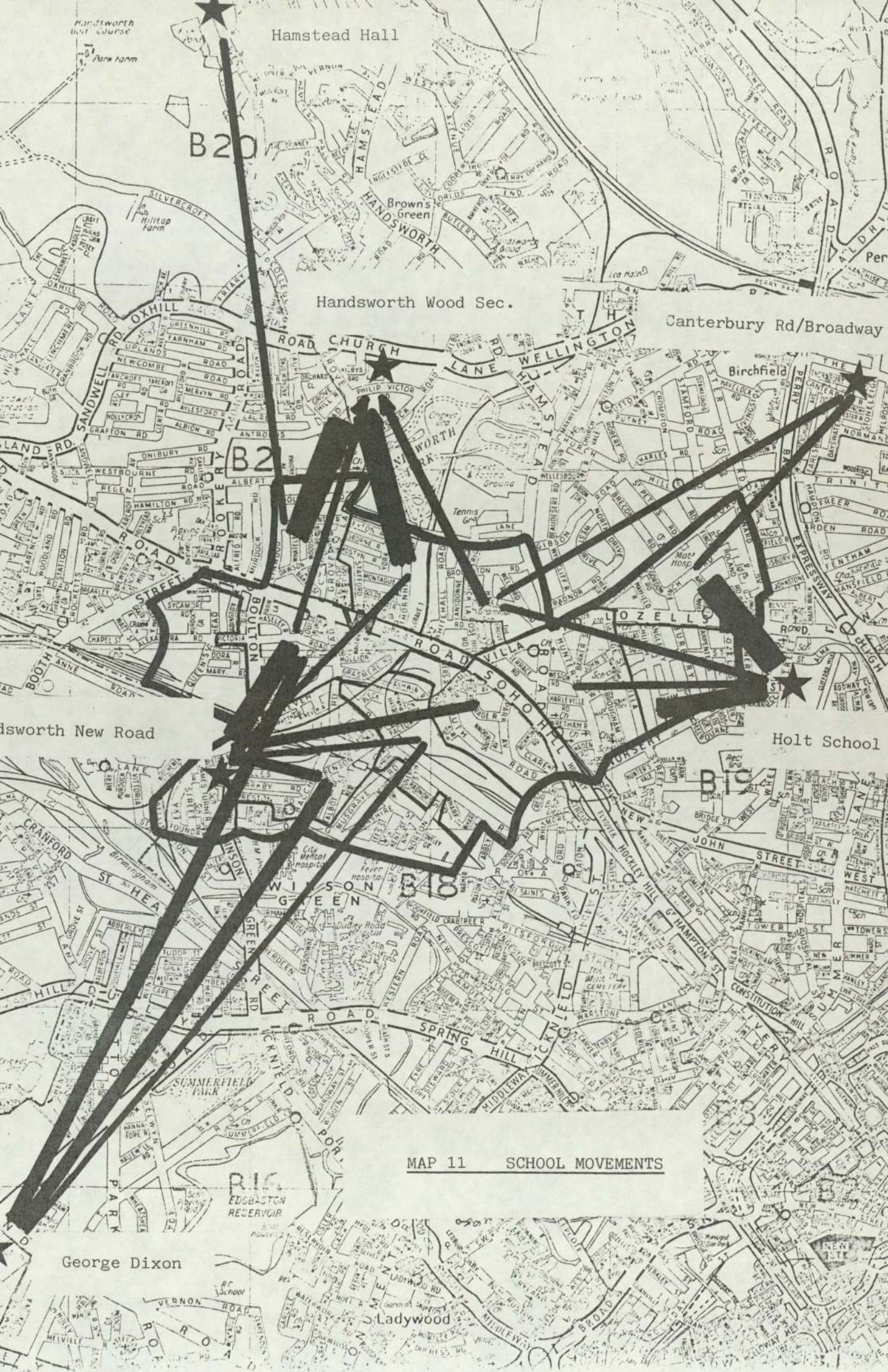
- " 19 - Handsworth Wood Boys/Girls Secondary, Church Lane
- " 21 - Hamstead Hall, Craythorne Avenue
- " 23 - Canterbury/Broadway Schools, Perry Barr
- " 24 - Holt School, Wheeler Street
- " 35 - George Dixon School, City Road

MAP 11 shows the school movements. Some children are therefore travelling some distance to their schools. Generally speaking the bus network which exists caters for school movements, particularly the Outer Circle (No.11) bus route

6.7.3. The method of travel to the main schools is as follows:-

TABLE 21 METHOD OF TRAVEL TO MAIN SCHOOLS

School	(No. of School trips)	PTE Bus	Car	Walk	Other
Handsworth New Rd	(528)	19	1	76	4
Handsworth Wood Sec. Church Lane	(580)	67	1	31	1
Hamstead Hall Craythorne Ave	(183)	81	-	15	4
Canterbury Rd/Broadway Perry Barr	(163)	66	-	34	-
Holt School Wheeler St	(527)	19	-	80	1
George Dixon City Road	(356)	93	7	-	-



Hamstead Hall

B20

Brown's Green

Handsworth Wood Sec.

Church Road

Wellington Lane

Canterbury Rd/Broadway

Birchfield

B20

Lozelly

Soho Hill

Handsworth New Road

Holt School

B19

B48

Green

Edgbaston Reservoir

George Dixon

Ladywood

MAP 11 SCHOOL MOVEMENTS

7 SURVEY DESTINATIONS

7.1. Introduction

7.1.1. In the previous section the main destinations of journeys have been shown. However in order to determine the public transport requirements in detail it is necessary to consider both origins and destinations to discover how these movements are built up.

7.2. Destinations

7.2.1. TABLE 22 gives a breakdown of the major flows originating in the survey area. (Walking trips are not included).

TABLE 22 MAJOR DESTINATIONS

Destination Zone	Weekdays			Saturday journeys
	Total Journeys	Peak	Off-peak	
60 City Centre Loop	790	310	480	1450
29 Hockley	590	510	80	310
19 Handsworth (Church Rd)	420	370	50	40
35 City Road	400	370	30	-
71 Smethwick/Oldbury	380	310	70	150
69 West Bromwich Centre	380	270	110	410
23 Perry Barr	340	260	80	240
70 Wednesbury/Great Bridge	330	280	50	40
48 Witton	320	270	50	130
05 Soho Road	320	90	230	890
75 Dudley	280	250	30	160
24 Newtown/Aston Six Ways	240	130	110	40
27 Summer Lane/Newtown Row	230	220	10	40
21 Handsworth Wood	210	140	70	40
47 New Oscott/Kingstanding	210	150	60	70

The flows shown in TABLE 22 account for 52% of weekday journeys and 53% on Saturdays.

On a Saturday there are important flows to the Bull Ring (320) and Birmingham Shopping Centre (210) parts of the City Centre and also to Erdington (230), Cape Hill (230) and Wolverhampton (200).

7.2.2. TABLE 22 shows clearly that for a weekday the demand in the off-peak is mainly to the City Centre and Soho Road and to a lesser extent towards West Bromwich and Newtown/Six Ways.

7.2.3. MAPS 7 & 8 show the weekday demand to zones outside the survey area for the peak and off-peak. Similarly MAP 9 shows the main destinations for a Saturday.

8 SURVEY ORIGINS

8.1. Introduction

8.1.1. The previous sections have shown the main journey destinations, the overall journey purpose and modal split. This section looks at each zone separately, to give an appreciation of the total picture of all movements and indicate where zones may not be adequately served by public transport. Included in this section is an analysis, by zone, of the allocation of 'improvement points', the times involved in walking to the nearest bus stop; the last time respondents used a bus, and finally an examination of shopping behaviour. The major destinations travelled to the previous day are tabulated for each zone.

Paragraph 8.15 gives a summary for each zone indicating significant complaints that came out in the survey.

8.1.2. A few explanatory notes are useful at this stage:

- i) Throughout this section reference is frequently made to "the average percentage for the total survey area". For a clearer understanding of these forthcoming statements the reader should refer to APPENDIX 5 which gives "the average percentages for the total survey area" for each factor examined.
- ii) With respect to 'improvement points', it should be noted that the survey was carried out in some of the worst weather during a hard winter. Therefore, 'cleaner buses' and 'more shelters' are expected to receive a larger proportion of the points than might have been the case. Special attention is paid to the number of points allocated by respondents in each zone to the concept of a 'community bus'.
- iii) At the beginning of the analysis of each zone reference is made to the bus routes that pass through or run adjacent to that particular zone. TABLE 23 provides full details of every bus route that operated in the survey area (see also MAP 2).

Route No.		Route Description	MON-FRI			
			PEAK	OFF-PK	SAT	SUN
8A/8C	Inner Circle	Saltley, Aston Six Ways, HOCKLEY, Five Ways Sparkbrook, Small Heath, Saltley (Reverse)	2-3 MINS	8-10 MINS	6-12 MINS	10-15 MINS
11A/11C	Outer Circle	Kings Heath, Hall Green, Acocks Green. Yardley, Erdington, Stockland Green, Witton, P.Barr, BOULTON RD, WINSON GREEN, Harborne, Cotteridge	6-7	8-10	7-10	12
16	Hamstead to Yardley	Hamstead, Handsworth Wood, HAMSTEAD RD, SOHO RD, HOCKLEY BROOK, City, Digbeth, Yardley	3-4	10	10	15
25	Kingstanding to City	Kingstanding, Perry Barr, Heathfield Rd, Villa Rd, Hamstead Rd, Hockley Brook, City	15	-	-	-
40	Lozells-Aston	LOZELLS, PIERS RD, VILLA RD, LOZELLS RD, Aston Six Ways, extended during peak to	10	17	17	30
	-Fort Dunlop	Lichfield Rd, Tyburn Rd, Fort Dunlop	10	-	40	-
46	Queslett to City	Queslett. Perry Barr, HEATHFIELD RD, VILLA RD, HAMSTEAD RD, HOCKLEY BROOK, City	8-10	30	20-30	30
69	Lozells to City	MAYFIELD RD, FINCH RD, LOZELLS RD, WHEELER ST, City	8-9	17	8	30
70	Oxhill Rd to City	Oxhill Rd, GROVE LANE. SOHO ROAD, HOCKLEY BROOK, City	3-8	10	10	20
74	Dudley to Birmingham	Dudley, Great Bridge, West Bromwich, Handsworth, SOHO RD, SOHO HILL, HOCKLEY BROOK, Birmingham	6-7	10	6	15
79	Wolverhampton to Birmingham	Wolverhampton, Bilston, Darlaston, Wednesbury, West Bromwich, SOHO RD, HOCKLEY BROOK, Birmingham	6-7	10	6	15
90/91	Pheasey to Hall Green v in City	Kingstanding, P.Barr, HEATHFIELD RD, SOHO HILL, HOCKLEY City then	4-6	16	12	40
		90 carries on to Camp Hill, Wake Green Rd, Hall Green	-	16	12	40
	Pheasey to City	Combined frequency through survey area	4-6	8	6	20
96	Winson Green to City	FOUNDRY RD, LODGE RD, Summer Row, City	12	15	12	20

8.2. Zone 01 (Hall Road)

- 8.2.1. This zone is well served by bus routes 70,74,79,46,91 and 25 which run to the City Centre. Services 90 and 16 provide cross-city services to Hall Green and Yardley respectively. Service 40 links this zone to Tyburn Road during peak periods. 45% of people travelling to work by bus use 74/79 and 16% use 90/91. Although there are a large number of services available to residents in this zone only 4% claimed to live less than a three minute walk to the nearest bus stop. A slightly below average number of people used a bus within the last week (56%). Most improvement points were allocated to the usual lower fares and cleaner buses, but a significant proportion of points were given to 'better evening services'.
- 8.2.2. Handsworth(Soho Rd) is the most popular shopping district for residents in the survey area and 96% of the respondents in zone 01 usually shop along the Soho Road.

The journeys yesterday tables give the following information.
(Mon-Fri)

Main Destinations

		%
Oldbury/Smethwick	72	11.7
Broad St.	56	9.1
Hockley	56	9.1
Newtown	40	6.5
All destinations	616	

Oldbury/Smethwick and Hockley are mainly peak destinations as one would expect.

8.3. Zone 02 (Thornhill Road)

- 8.3.1. Bus routes 74 and 79 run along Soho Road to City while route 70 runs along the eastern and southern edges of the zone. As expected 70% of all bus trips to work are made on one of these three bus routes. Distances to the nearest bus stop were reported to be average for the survey area (ie 29% said the nearest bus stop is less than three minutes, while 55% said the nearest bus is 3-7 minutes). People in this zone are mainly concerned that fares should be kept down but 119 points (15%) were allocated to the idea of a community bus.

- 8.3.2. A larger than average percentage of people in zone 02 shop along Soho Rd but an average proportion shop in the city centre (13%)

The journeys yeaterday tables give the following
(Mon-Fri)

		%
Handsworth Park	181	12.7
New St - shops	112	7.9
Hockley	95	6.7
Broad St	77	5.4
West Bromwich	77	5.4
All destinations	1421	

During the peak periods the Handsworth Park flow is mainly school-children travelling to Church Lane by way of the 70 bus service. The other major work flows are to Hockley and West Bromwich.

8.4. Zone 03 (Grove Lane)

- 8.4.1. The south of the zone is served by routes 74 and 79 on Soho Rd and to the east by route 70 along Grove Lane. The south-western corner of zone 03 is adjacent to a section of the outer circle (service 11). Similar to zones 01 and 02 buses 74/79 and 70 carry most people from this zone to work (41% and 38%, respectively, of all bus trips to work). An average (18%) use service 11. Distances to bus stops in this zone are reported to be slightly below the average for the survey area. Points for improvements were allocated mainly to cleaner buses, low fares, and a community bus ranked third with 15% of the points.

- 8.4.2. 86% of the respondents usually shop along the Soho Road which is to be expected considering the proximity of the zone to the Soho Road shops.

The journeys yesterday tables give the following
(Mon-Fri)

Handsworth Park	119	10.7
Old Oscott	76	6.8
Oldbury/Smethwick	51	4.6
Witton	51	4.6
Soho Road	51	4.6

Similar to zone 02 the movement of schoolchildren to Church Lane during the peak is significant.

8.5. Zone 04 (Queens Road)

8.5.1. Zone 04 is bounded by the Outer Circle (11A, 11C) to the east and the 74/79 to the north. A short distance to the south of zone 04, is the terminus of two 'black country' routes 423 and 223. A very large percentage (61%) of people travelling to work by bus use services 74/79; the outer circle is also well used. However, the overall proportion of residents travelling to work by bus is well below average for the survey area. From the journey to work data, 18.6% of work trips end in three destination zones which are in the adjacent foundary belt of Sandwell. The fact that there is a poor bus penetration from the survey area into this part of Sandwell, may account for the below average share held by the bus for all work journeys.

8.5.2. Distances to the nearest bus stop are well above average as one third of the respondents claimed that the nearest stop was over 8 minutes. 17% which is well above average, could not recall the last time they used a bus. This zone reported the worst problems in getting to hospital (42% of respondents said they had difficulty in getting to hospital). Furthermore, an above average number of people had difficulty in getting to post office and doctor. 10% had difficulty getting to other areas, again, this is the highest for the survey area.

The community bus secured a significant proportion of the improvement points allocated by the residents of this zone. Noticeably the factor 'nearer services' normally neglected by respondents, scored well above average.

8.5.3. As expected the majority of respondents usually shop on Soho Road but an interesting figure is the unusually high (19%) who shop in West Bromwich.

The journeys yesterday tables give the following -
(Mon - Fri)

West Brom - High Street	53	10.4
New St - shops	53	10.4
Soho Road	45	8.8
Handsworth Park	38	7.5
Heath Street	<u>38</u>	7.5
all destinations	510	

8.5.3. continued

Peak journeys are dispersed although as already stated the 'Foundary' belt area and Hockley assume the greatest importance.

8.6. Zone 05 (Soho Road)

8.6.1. Included in this zone are routes 70, 74, 79 and number 11A, 11C. Service 40 just touches the far eastern corner of the zone. 61% of all bus trips to work are on the 74/79. This figure is well above average but not surprising when one examines the shape of the zone which includes a long stretch of the Soho Road. A total of 58% of all work journeys from this zone are made by bus, which is above average. 26% of the respondents had to walk less than five minutes to the nearest bus stop (below average) by the majority (72%) found the walk to the nearest bus stop to be between 3 and 7 minutes. Hospital journeys cause difficulty for 30 people (22%), this is exceeded only in zone 04. Not many improvement points were allocated to a community bus, instead there is a fairly even spread of points. Surprisingly 15% of the points were allocated to 'increased frequency'.

8.6.2. Again Soho Road is the most used shopping area with a minor attraction to West Bromwich (6%).

The journeys yesterday tables give the following -

(Mon - Fri)		%
Hockley	146	9.5
Rotton Pk/N.Edgbaston	107	6.9
New St. - shops	77	5.0
W.Brom - High Street	69	4.5
Oldbury/Smethwick	61	4.0
Cape Hill	<u>64</u>	4.2
all destinations	1540	

Main peak flows are to Hockley, Oldbury/Smethwick and Dartmouth Road area (Birmid). The Rotton Park/North Edgbaston flow is mainly school movements to George Dixon school using service 11.

8.7. Zone 06 (Foundry Road)

8.7.1. Route 96 terminates in this zone and the outer circle (11A/11C) runs along the eastern edge. 61% of all trips to work by bus are made on 11A/11C and 34% use the 96. People in this zone are by far the best off for time taken to walk to the nearest bus stop. Nobody has to walk over 7 minutes and 69% have a walk of less than three minutes. Also, the proportion who had used a bus within the last week (89%) is the highest for the survey area and no one claimed to have never used a bus. Respondents did not report any difficulty in getting to doctor, hospital or post office. In fact this is the only zone to report no travel difficulties. Consequently few 'improvement points' were allocated to a community bus. Most points were given to cleaner buses, lower fares and notably 'greater reliability' (with reference to service 11).

8.7.2. Shopping is still predominantly done on Soho Road. However 33% usually shop in the City Centre which is relatively high and probably aided by the accessibility of route 96 to city, and lack of easily accessible local shops.

The journeys yesterday tables give the following -

		%
West Bromwich	50	12.0
Rotton Pk + N.Edgbaston	41	9.9
Zone 05	33	7.9
Hockley	33	7.9
Icknield St/S.Hockley	33	7.9
New St. - shops	<u>33</u>	7.9
All destinations	415	

Journey to work data shows the main peak flows to be to the City Centre, Hockley and the Jewellery Quarter. Service 96 would appear to cater for these flows particularly well. There is also some movement to West Bromwich which the 96 proposed extension would make more convenient.

8.8. Zone 07 (Bacchus Road)

8.8.1. This zone is served by two bus routes, being bounded by routes 11A/11C and 96. As one would expect well above average proportions of residents use route 11A/11C (60%) and 96 (20%) bus and walk are below average for mode to work. In fact 29% use a car (driver and/or passenger) which is the highest for the survey area.

Times taken to walk to the nearest bus stop is about average for the survey area with 84% being within 7 minutes. 16% reported having difficulty in getting to hospital which is average. After 'cleaner buses', 'lower fares', and 'more shelters' improvement points were given to the idea of a community bus.

8.8.2. Soho Road is the most prominent area for daily shopping (66%). However 10% shop locally.

The journeys yesterday tables give the following -

(Mon - Fri)		%
Rotton Pk/N.Edgbaston	133	12.8
Soho Road	81	7.8
New St.- shops	66	6.3
Hockley	59	5.7
Foundry Road	44	4.2
Holloway Head/Bromsgrove St.	44	4.2
	<hr/>	
	1041	

Main peak flows are to Hockley and Oldbury/Smethwick. Dartmouth Road (Birmid) and West Bromwich also feature in the Peak. Extension of service 96 to West Bromwich will therefore bring some benefit to this zone.

8.9. Zone 08 (Lodge Road)

8.9.1. Service 96 passes through the middle of this zone and the Outer Circle is a short distance away. As one would expect a large percentage of respondents use the 96 for journeys to work (40%). However over half of those using bus use 11A/11C. Respondents walk to work while an average percentage use the bus. (See origin and destination table for journeys to work) 50% have to walk under 3 minutes to get to the nearest bus stop. No significant difficulties were reported for getting to hospital but 28% of respondents (highest for the area) reported a difficulty in getting to a doctor. 29% of the improvement points were allocated to new shelters. However a relatively high (13%) of points were allocated to 'different routes'. The community bus suggestion received the next highest proportion of improvement points. Perhaps, the role of a community bus in this zone could be to help residents get to a doctor.

8.9.2. A majority of residents shop along the Soho Road but the Dudley Road is also relatively important. 11% said they shopped 'locally'.

The journeys yesterday tables give the following -

(Mon - Fri)		%
Handsworth Park	23	13.6
Witton	23	13.6
Soho Road	15	8.9
Icknield St./S.Hockley	15	8.9
Spring Hill/Sand Pits	15	8.9
All destinations	169	

(Due to clearance the total number of journeys generated from this zone was particularly low.).

The main peak movements are to Heath St and Dudley Road Hospital - a high proportion of these peak trips were made on foot which may explain the above average call for different routes.

8.10. Zone 09 (Park Road)

8.10.1. This zone is the most poorly served by buses in the survey area. No route passes through the zone nor does any route border the zone. 65% of bus journeys to work are of the 74 and 79, which is the highest percentage for any origin zone, yet most of the zone is greater than $\frac{1}{4}$ mile from Soho Road. 42% have between an 8 and 12 minute walk to their nearest bus stop. Not surprisingly the largest percentage of any zone walk to work (39%). Below average number of people used a bus within the last week. 19% had never used a bus (survey average = 12%). Also, the travelcard possession is the lowest in this zone (3%). The highest proportion of respondents of any zone reported difficulty in getting to a post office from this origin zone (22%). The respondents in this are the only group of people to give more 'improvement points' to a community bus than to any other suggestion (22%). The second highest number of points were allocated to "nearer services."

8.10.2. Journeys made yesterday tables give the following -

(Mon - Fri)		%
Rotton Park/N.Edgbaston	44	17.7
Dudley	37	14.9
Edgbaston/Selly Park	29	11.7
Hamstead Road	15	6.0
Dartmouth Road	15	6.0
Hockley	15	6.0
	249	

Peak journey demand is principally local to the zone, Lodge Road and Hockley areas. 20% of respondents work in the survey area which accounts for the high percentage of walk journeys to work. Hockley is probably less than half a mile for most residents.

8.11. Zone 10 (Soho Hill)

8.11.1. This zone is bounded by routes 70, 74 and 79. Services 40, 90, 91, 16, 46 run along part of the Soho Hill section of this zone. The majority of people travelling to work by public transport use buses on the 74/79 routes. Services 8 and 40 are also well used for journeys to work. The modal split for journeys to work/ education is exactly average for the whole of the survey area.

Bus	54%
Car driver	17%
Walk	25%

35% of respondents said that the walk to the nearest bus stop was under 3 minutes. Usage of buses is marginally more frequent than average. 15% reported difficulty in getting to hospital and 6% reported difficulty getting to a doctor (both figures are average for the area). Improvement points were allocated to lower fares, more shelters and a community bus.

8.11.2. The highest percentage of any zone shop in the city centre (37%). 32% shop along the Soho Rd and 20% in the Villa/Lozells Rd area.

Journeys yesterday tables give the following -

(Mon - Fri)		%
New St Shops	48	7.8
New St. Station	40	6.5
Oldbury/Smethwick	40	6.5
Foundry Road	32	5.2
All destinations	<u>616</u>	

The main peak movements are to Hockley and locally within the zone. Also of some significance were peak movements to Oldbury/Smethwick and the City Centre.

8.12. Zone 11 (Villa Road)

8.12.1. The zone is bounded by several services 90,91,46,16,70,74,79, 40 and 8. This zone is well served by bus and an above average proportion of people use the bus to get to work (62%). An average percentage walk while very few people travel to work by car (9%).

The highest percentage of any zone use routes 8 and 16 to travel to work as one might expect. Very few people have to walk over 7 minutes to their nearest bus stop (3%). An average figure of 68% had used a bus within the last week. No problems were reported in getting to hospital, doctor or post office. Most improvement points were given to lower fares, cleaner buses and more shelters. Community bus ranked an average fourth.

8.12.2. 60% of people living in this zone usually shop at Villa Road/Lozells Road area. An above average percentage shop in the city centre. Only 3% shop along Soho Road.

Journeys yesterday tables give the following -

		%
New St. shops	65	12.8
Perry Barr	29	5.7
Thornhill Road	22	5.7
Rookery Road	22	5.7
Newtown	22	5.7
Hockley	22	5.7
Rttn Pk/N.Edgbaston	<u>22</u>	<u>5.7</u>
All destinations	509	

8.13. Zone 12 (Lozells Road/Burbury St)

8.13.1. The zone is bounded by routes 40,69 and the inner circle no.8. The largest percentage of any zone use service 40 and 69. An above average proportion walk to work from this zone. A large majority of respondents (85%) claimed that to walk to the nearest bus stop would take between 3 and 7 minutes. An average 66% had used a bus within the last week. A less than average percentage of people reported difficulty in getting to hospital and no respondent had difficulty gaining access to doctor or post office.

- 8.13.2. 70% of people in zone 12 generally shop at Villa/Lozells Rd. 14% shop at Newtown. Again, similar to zone 11 only 3% usually obtain goods from Soho Road.

The journeys yesterday tables give the following -

(Mon - Fri)		%
New St. shops	58	7.2
Newtown Row/Summer Lane	51	6.3
Hockley	44	5.5
Aston	44	5.5
Soho Road	36	4.5
Aston University	36	4.5
All destinations	805	

Peak demand is mainly to the Hockley and Newtown/Summer Lane although Witton and Aston assure some importance (served by services 8 and 40).

8.14. Zone 13 (Heathfield Road/Finch Road)

- 8.14.1. This zone is served by routes 90/91 and 46 on Heathfield Road and routes 40 and 69 on Lozells Road. The mode of travel to work is similar to the average for the survey area. Access to bus is good 94% claiming to live within 7 minutes of their nearest bus stop. 21% claimed that travel to hospital was difficult from this zone which is higher than from the adjacent zones; however access to doctors and post offices was not considered a problem. Improvement points were mainly allocated to 'low fares' (40% against the survey average of 24%). After 'low fares' the community bus received the next highest number of improvement points.

- 8.14.2. Villa Road/Lozells Road was the most important shopping location for this zone (55%). The rest of the respondents were fairly widely dispersed with similar numbers shopping on Soho Road, Newtown, Perry Barr and the City Centre.

The journeys yesterday data shows that the main destinations are:

(Mon - Fri)		%
New St. shops	220	15.6
Witton	70	5.0
Small Heath	62	4.4
Newtown	62	4.4
Newtown Row/Summer Lane	62	4.4
All destinations	1408	

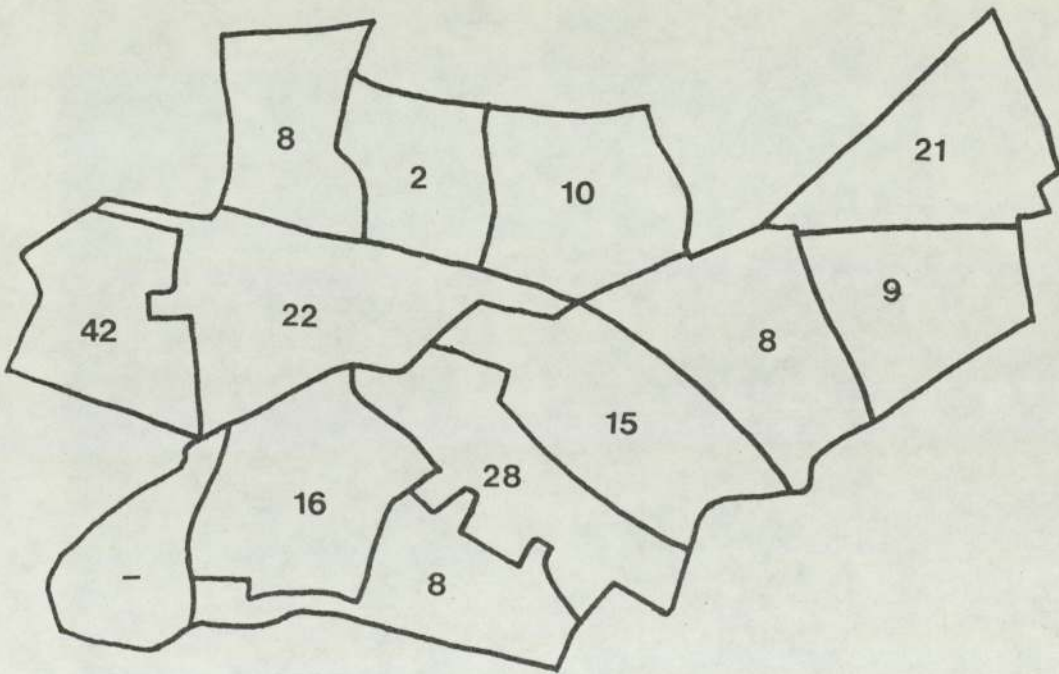
The main peak destination zone is Witton.

8.15. Summary

- 8.15.1. Below is a very brief summary of each zone, indicating any significant complaints that came out in the survey.
- 8.15.2. Zone 01. A significant complaint was that better evening services were required. 17.4% work trips end in Oldbury/Smethwick. Above average percentage use bus to get to work.
- 8.15.3. Zone 02. The main flows are quite adequately catered for by bus routes, particularly services 74/79 to Hockley and West Bromwich which are major work destinations.
- 8.15.4. Zone 03. Community Bus scored the third highest number of improvement points. Car as a mode to work is above average. Noticeably work destination zones of prominence include Oldbury/Smethwick and a long zone following the outer circle from Bearwood to Cotteridge.
- 8.15.5. Zone 04. Distances to nearest bus stop are well above average. Residents requested 'nearer services' and a community bus. Car and walk modes are both above average. The destination zone which includes Rabone Lane and Rolfe Street is a major attraction for work trips, re-inforcing the case for extending service 40 into the Smethwick area of Sandwell as proposed.
- 8.15.6. Zone 05. This zone and zone 04 both reported above average difficulty in getting to hospital. 5.4% work in this zone.
- 8.15.7. Zone 06. Despite being a relatively long distance away shopping is still predominately done along Soho Road. Residents did complain that nearer shops are required.
- 8.15.8. Zone 07. Above average numbers had difficulty getting to a doctor. Journeys to work by car are highest in this zone and three 'black country' zones are major work destinations. Again a possible case for a bus route linking the zone with Sandwell. This zone might also benefit if service 70 was diverted through the zone and carried on to the city centre.

- 8.15.9. Zone 08. Work destinations are all relatively close to the origin zone. This may account for the exceptionally high proportion of people walking to work.
- 8.15.10. Zone 09. This zone is poorly served by bus routes. Most 'improvement' points were allocated to a community bus. The average distance to the nearest bus stop is the highest for the area. 20.9% of respondents work in the survey area which presumably accounts for the very high percentage of walk journeys to work.
- 8.15.11. Zone 10. The modal split for journeys to work/education are roughly the same for the total survey area. An even distribution of places where shopping is usually done.
- 8.15.12. Zone 11. Service 40 to Tyburn Road begins in this zone and indeed Tyburn Rd suddenly appears as a major destination for journeys to work. Only 3% of respondents shop along Soho Rd which is exceptionally low considering the overall popularity of Soho Rd.
- 8.15.13. Zone 12. Again only 3% shop along Soho Rd. Bus as a mode to work is above average and all major work destination zones are in fact on appropriate bus routes.
- 8.15.14. Zone 13. Above average difficulty reported in getting to hospital. 14% shop along Soho Rd. Therefore it seems that for some reason residents in zones 11 and 12 are reluctant to shop on Soho Rd.

MAP 12 ACCESS TO HOSPITAL.



Figures show the percentage of respondents in each zone who have difficulty getting to hospital.

9 TRAVEL DIFFICULTIES

9.1. Introduction

9.1.1. Respondents in each zone were asked if they had any difficulty getting to a hospital, the doctor or the post office. They were also asked if they had difficulty travelling to any other activities by bus and if anywhere else is difficult to get to by bus. In the previous part of the questionnaire respondents were asked if they had ever turned down or not considered a job because public transport is inadequate. This question has been included in view of the recent concern that there are less appropriate and fewer job opportunities available to local residents in the inner city. Where significant travel difficulties are discovered reference shall be made to the applicability of a community bus in possibly overcoming some of the disadvantages.

9.2. Hospital

9.2.1. Fifteen per cent of all respondents in the survey area claimed they had difficulty getting to hospital (i.e. 162 respondents). However, for certain zones accessibility to hospital was definitely even more of a problem. (See MAP 12).

For example; 42% (i.e. 30 out of 72 respondents) in zone 04 reported a difficulty getting to hospital. Note also that the proportion with difficulty in zone 09 (the zone with the poorest access to bus services) is also well above average (28%)

9.2.2. An examination of the table below shows that the greatest percentage and number of people with difficulty getting to hospital do not have access to a car.

TABLE 24 TRAVEL TO HOSPITAL DIFFICULT BY CARS IN HOUSEHOLD

<u>Hospital Difficult</u>	CARS IN HOUSEHOLD							
	<u>Total</u>		<u>None</u>		<u>One</u>		<u>Two+</u>	
		%		%		%		%
Yes	162	15	116	17	44	13	2	8
No	905	85	574	83	307	87	23	92
Total	1069		691		352		25	

9.2.3. 44 housewives (25%) and 20 full time working females (22%) reported the most problems in getting to hospital. Similarly, the greatest proportion of age/sex groups answering 'yes' are females aged:

- 16-24 (30%)
- 25-44 (22%)
- 45-59 (23%)

Old aged pensioners do not emerge as a group reporting the most difficulties in getting to hospital (possibly because of the ambulance service); 13% of the 224 OAP's interviewed said they had difficulty

9.2.4. The interviewers used for the survey suggested that a useful role of the "community bus" would be, not to just take patients to hospital, but also to bring visitors during visiting hours (especially Dudley Road Hospital).

9.3. Doctor

9.3.1. Overall, less difficulty was experienced by residents in Lozells and Handsworth in getting to a doctor. Out of the 1069 respondents 75 people (7%) claimed to have difficulty getting to a doctor.

TABLE 25 TRAVEL TO DOCTOR DIFFICULT BY ORIGIN ZONE

	01	02	03	04	05	06	07	08	09	10	11	12	13	Tt
Total	48	84	85	72	137	55	125	36	36	71	77	119	119	1069
Yes	1 2%	2 2%	1 1%	12 17%	11 8%	0 0	24 19%	10 28%	4 11%	4 6%	2 3%	0 -	4 3%	75 7%
No	47 98%	82 98%	84 99%	59 82%	126 92%	55 100%	101 81%	26 72%	32 89%	67 94%	75 97%	118 99%	114 96%	991 93%

Zone 08 included 28% of respondents that claim to have poor accessibility to a doctor. Apart from zone 08, all other zones producing higher than average proportions of people with difficulty in getting to a doctor also had difficulty getting to the hospital. Zone 04 (17%); 07 (19%); 09 (11%) are all figures well above the average 7% of respondents have difficulty getting to a doctor.

9.3.2. An age/sex division again shows that it is females who have the highest proportions saying that they have problems travelling to a doctor.

Females 16-24	(11%)
Females 24-44	(12%)
Females 45-59	(14%)

While housewives have the greatest proportions with difficulty getting to hospital, when going to a doctor, part-time employed females register the highest number of complaints.

9.4. Post Office

9.4.1. Out of the 1069 respondents in the survey area only 21 people said that they had difficulty getting to a post office (i.e. 2%). The average number of people saying 'Yes' in each zone is 1.6 persons. However, yet again zone 09 comes out worst of all, with 22% reporting a difficulty getting to the nearest post office.

9.5. Other Activities - travel problems

9.5.1. Only thirty-one respondents (3%) suggested that they had travel difficulties with other activities; the highest proportions being found in zones 04 (10%) and 05 (7%). These thirty-one respondents gave 39 examples located in a total of 18 different destination zones. The table below gives a breakdown of the number of examples given for each geographical area of interest and indicates the travel problem.

TABLE 26 TRAVEL PROBLEM - OTHER ACTIVITIES

	Too far to walk	No direct bus	Too Expensive	Times inconvenient	Other	Total
Survey Area	3	5	-	-	-	8
Rest of Inner Area	-	4	1	1	-	6
City Centre	1	2	3	1	2	9
'Black' Country	-	10	-	1	-	11
Rest of County	2	2	-	1	-	5
Total (39)	6	23	4	4	2	39

9.5.2. The travel problem is predominantly (60%) associated with there not being a direct bus route available. The location of the activities which are difficult to get to are quite uniformly distributed, although it is noticed that the Black Country is mentioned the most frequently.

9.5.3. The table reveals that one major problem encountered by respondents is the lack of direct bus routes into the 'Black Country.' This adds further support to the suggestion that bus services should be improved across the boundary between the Birmingham and the Smethwick area of Sandwell.

9.6. Places difficult to reach by bus

9.6.1. TABLE 27 shows that zones 04, 07 and 08 again yield the highest number of respondents with travel difficulties. Note that in this section the three zones (11, 12 and 13) in Lozells include a relatively large number of people who have difficulty travelling to certain locations by bus. The areas that respondents in these three zones have most difficulty travelling to by bus, are the rest of the inner city and other areas of Birmingham, Solihull and Coventry.

TABLE 27 ANYWHERE ELSE DIFFICULT BY BUS

Zone	01	02	03	04	05	06	07	08	09	10	11	12	13	Total
Survey Area	-	-	-	1	-	-	8	3	1	-	-	-	-	13
Rest of Inner City	1	1	-	3	-	-	-	4	1	-	2	3	7	22
City Centre	-	-	-	1	-	-	-	1	-	-	-	1	-	3
Black Country	-	1	3	2	-	1	-	2	1	-	-	-	2	12
Rest	-	1	1	1	-	-	1	-	-	-	4	2	1	11
Total	1	3	4	8	0	1	9	10	3	0	6	6	10	61
% of All Respondents	2%	4%	5%	11%	-	2%	7%	28%	8%	-	8%	5%	8%	6%

The geographical divisions show that those residents who have difficulty travelling by bus find movement in the rest of the inner city 22 (36%) the most difficult.

9.7. Employment Opportunities Turned Down

9.7.1. Respondents were asked if they or anyone else in the household had ever refused, turned down or not considered a job because public transport was not adequate. Only fifteen respondents answered 'yes' to this question. An analysis of the answers provided by these respondents is most important because, although relatively small, it is possible that the respondent would not know if other members of the household had turned down a job because of transport problems.

TABLE 28 WORK STATUS

	Total 1069	Full- Time Male	Full- Time Female	Part- Time Male	Part- Time Female	House- wife	School child	Stud- ent	OAP	Unemp loyed	Other
<u>Job Turned Down</u>											
Yes	15 1%	5 1%	1 1%	0 -	1 2%	4 2%	1 2%	0 -	1 *	2 3%	0 -
No	1041 97%	336 97%	92 99%	13 100%	62 98%	167 96%	50 94%	25 100%	219 98%	67 97%	10 100%
Don't know	11 1%	4 1%	0 -	0 -	0 -	3 2%	2 4%	0 -	2 1%	0 -	0 -
Total	1069	345	93	13	63	174	53	25	224	69	10

* Less than 0.5%

TABLE 28 above shows that at least one respondent for each 'work status' group, except part-time females and O.A.P's had in fact turned down a job because of poor public transport.

9.7.2. An age/sex breakdown shows that one-third of the total number turning down jobs are males in one particular age group 45-59. The women who said that they had turned down a job because of poor public transport are not concentrated in any one single age group, but do make up a third of all respondents who have had to refuse jobs.

9.7.3. TABLE 29 shows the Socio-Economic Group of those respondents who have turned down a job because of inadequate public transport.

TABLE 29 SOCIAL CLASS OF THOSE WHO HAVE TURNED DOWN EMPLOYMENT BECAUSE OF POOR PUBLIC TRANSPORT

	Total	AB	C1	C2	DE
<u>Job Turned Down</u>					
Yes	15	0	1	1	13
	1%	-	1%	*	2%
No	1041	3	80	321	636
	97%	100%	99%	99%	97%
Don't Know	11	0	0	3	8
	1%	-	-	1%	1%
Total	1069	3	81	325	659

* Less than 0.5%

The largest proportion are in the unskilled manual labour group (DE) whose incomes and car ownership are traditionally well below average.

9.7.4. The fifteen respondents who had turned down jobs reported twenty transport problems of seven different types. An analysis of the type of transport problems shows that the main problem is lack of a direct bus service. As one might expect the greatest number of respondents had not taken up jobs in the 'Black Country' and other areas of Birmingham and Solihull. Inadequate public transport has not stopped any respondents from obtaining jobs in the city centre where buses provide an excellent service.

9.7.5. Again the implication for a community bus is that it could operate where there is no direct bus route in order to improve the accessibility to job opportunities for residents in the survey area. However there may be scope for revising existing or conventional services to give a wide range of opportunities (see 3.2.2.)

9.8. Conclusions

9.8.1. Overall respondents did not report many travel difficulties. However, this chapter has highlighted that some residents do encounter problems. Certain origin zones such as 04, 07, 08 and 09 repeatedly produced above average number of respondents with travel difficulties. Getting to hospital proved to be the most difficult activity and the absence of any direct bus route the major cause of most travel difficulties.

9.8.2. In conclusion it appears that a community bus might serve the following useful purposes.

(a) Transport residents of Lozells and Handsworth to parts of the 'Black Country' for specific activities although the revised routing of services 40 and 96 could overcome this.

(b) Help residents gain access to a greater number of job opportunities.

(c) Move people about within the survey area.

(See also section 12)

10 SHOPPING

10.1. Choice of Shopping Centre

10.1.1. Respondents were requested to provide details of where the main Household shopping was obtained and the mode of transport employed to travel to and from the 'shopping' destination. Table 30 and Table 31 both illustrate how Handsworth (Soho Road) is overwhelmingly the most popular centre and that walking is the most common method.

TABLE 30 SHOPPING CENTRE USED

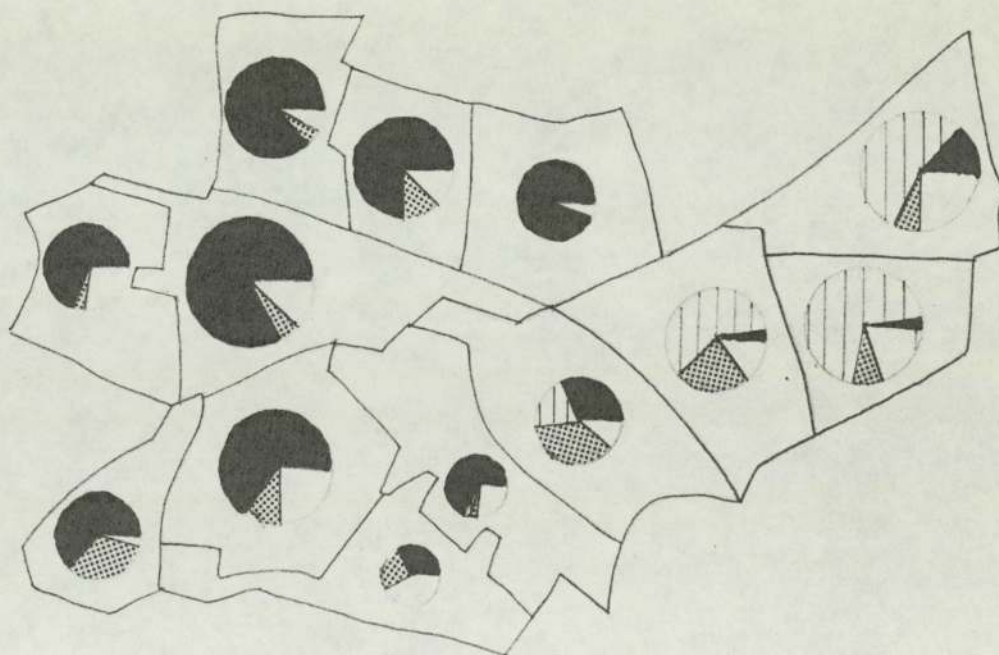
Shopping Centre		%
Handsworth (Soho Road)	550	51
Villa/Lozells Road	213	20
City Centre	129	12
Newtown	44	4
West Bromwich	37	3
Local	33	3
Perry Barr	21	2
Other	20	2
Dudley Road	10	1
Don't know	6	1
Cape Hill	5	*
Total	1069	100

* Less than 0.5%

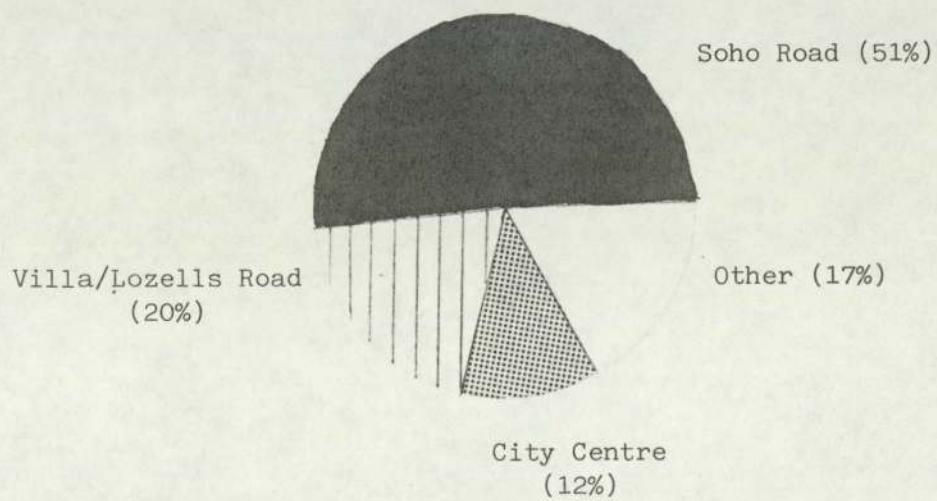
TABLE 31 MODE TO SHOPS

Mode		%
Car, driver	89	8
Car, passenger	52	5
Bus	227	21
Walk	678	63
Other	18	2
Total	1069	100

MAP 13 SHOPPING CENTRE USED



SURVEY AREA AVERAGE



- 10.1.2. The modal split for each shopping destination is more complex than the previous two tables suggest; walking is the most important mode for trips to the local shopping centres, i.e. Handsworth, Villa/Lozells Road, Newtown. It is because these centres attract the largest number of all shopping trips in the survey area that the overall modal split shows walking to be the most common mode (63%). However, when one looks at the remaining shopping destinations, the bus or car is the main mode of travel.
- 10.1.3. Bus carries the largest proportion of respondents who usually shop at Perry Barr (71%) and the City Centre (78%). (The latter figure is expected when one considers the nature of the bus network which focuses on the city).
- 10.1.4. The modal split for journeys to the remaining shopping centres, West Bromwich, Dudley Road, Cape Hill and 'other' is fairly evenly split between bus and car (see TABLE 32).

TABLE 32 METHOD OF TRAVEL TO SHOPPING CENTRE
Mode to Shops

Shopping Centre	Total	Car Driver	Car Pass	Bus	Walk	Other
Handsworth	550	40	20	59	427	2
	%	7	4	11	78	*
Newtown	44	3	5	17	19	0
	%	7	11	39	43	-
Villa/ Lozells Rd	213	6	3	4	196	4
	%	3	1	2	92	2
Dudley Rd	10	1	3	4	2	0
	%	10	30	40	20	-
Cape Hill	5	2	1	1	1	0
	%	40	20	20	20	-
Perry Barr	21	5	1	15	0	0
	%	24	5	71	-	-
City Centre	129	15	9	101	2	1
	%	12	7	78	2	1
West Bromwich	37	11	6	18	2	0
	%	30	16	49	5	-
Local	33	0	0	3	26	4
	%	-	-	9	79	12
Other	20	6	4	4	0	6
	%	30	20	20	-	30
Don't know	6	0	0	2	2	1
	%	-	-	33	33	17
Total	1069	89	52	227	678	18
	%	8	5	21	63	2

* less than 0.5%

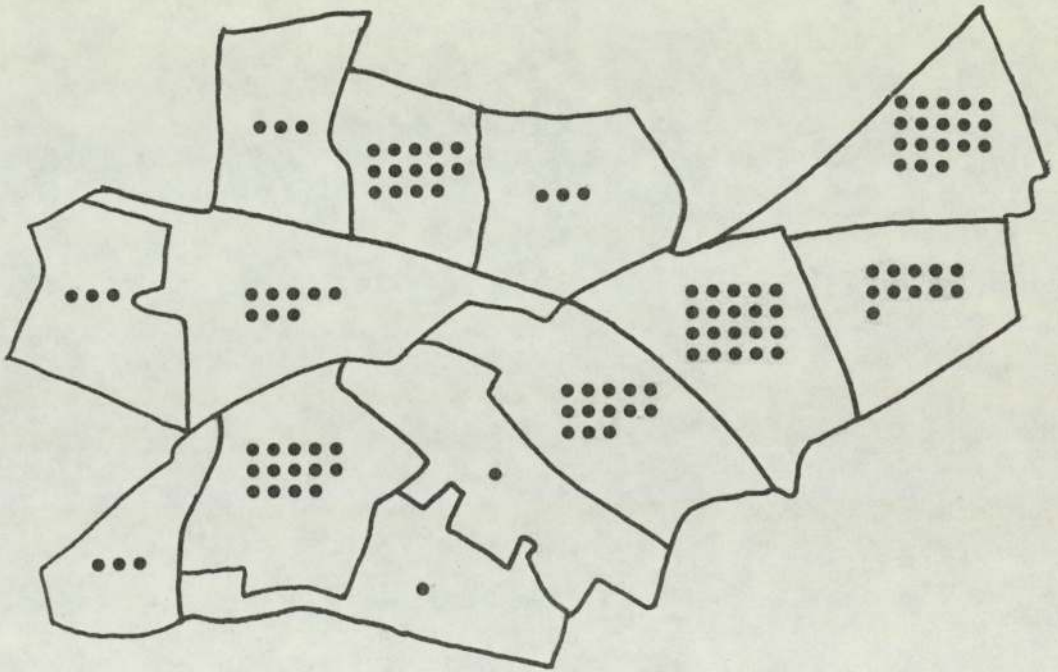
10.2. Shopping Centre Used and Origin Zone

- 10.2.1. Map 13 shows for each zone the main shopping centres used. Zones 01 to 05 which lie adjacent to Soho Road produce a high proportion (70% or more) who carry out their shopping there. The area to the south of Soho Road zones 06 to 09 also produce a high proportion shopping in Soho Road.
- 10.2.2. The second most popular shopping area is in Lozells Road/Villa Road and a large proportion of households in the immediately adjacent zones (11,12 and 13) use this area.
- 10.2.3. Zone 10 respondents split fairly evenly between shopping in Soho Road, Villa/Lozells Road and the City Centre (see MAP 13)
- 10.2.4. The City Centre emerges as an important centre for household shopping. As many as 1 in 4 respondents from zones 06,08,10 and 11 usually obtained their shopping from the City Centre. (See TABLE 33). There exists good bus connections to City from zones 06 and 08 via service 96 and from zones 10 and 11 via the large number of services converging along Soho Hill. It is particularly interesting to highlight zones 06 and 08, the Lodge Road area. Although Soho Road still remains the most important shopping area for the respondents in zones 06 and 08, despite the distance involved and absence of a direct bus route, one might conclude that residents in these two zones would prefer to shop more locally, but are attracted to shopping in the City Centre because of the direct bus link.

TABLE 33 SHOPPING CENTRE USED BY LODGE ROAD AND SOHO HILL AREAS

	Zone			
	06	08	10	11
	%	%	%	%
Handsworth	64	33	32	3
Villa/Lozells Road	-	-	20	60
City Centre	33	25	37	23
Local	5	11	-	
Other	-	19	11	13
No answer/Don't know	8	12	-	1

MAP 14 POTENTIAL USE OF ASDA, VILLA PARK



One dot represents 10 shopping trips per week.

10.3. Asda Superstore, Villa Park - Potential for a Bus Service

10.3.1. Shortly after the survey period (January - February 1979) Asda were expecting to open a new superstore adjacent to Aston Villa Football Ground. Respondents were asked if they were likely to use the store when it opened. TABLE 34 shows respondents answers to the question.

Use New Asda?	LIKELY TO USE NEW ASDA	
		%
Yes	170	16
No	601	56
Don't know	298	28
TOTAL	1069	100

16% of respondents indicated they are likely to use the new Asda. MAP 14 indicates the likely usage by origin zone.

10.3.2. When one looks at the current shopping centre used by the potential Asda users it is clear that they are likely to come from the three main shopping centres currently used i.e. Soho Road, Villa/Lozells Road and the City Centre. The highest proportion changing to Asda is from those currently shopping in the City Centre.

Current Shopping Centre		Likely to use Asda	% loss to Asda
Handsworth	550	61	-11
Villa Rd/Lozells Rd	213	35	-16
City Centre	129	41	-32
Other	171	33	19
Don't know	6	-	-
TOTAL	1069	170	-16

10.3.3. TABLE 35 shows that the largest number of respondents (96) saying they will shop at Asda do not own or have access to a car. (An obvious potential for a shoppers bus!). A number of respondents owning one car (20%) said that they are likely to use the store; this is to be expected when one considers that superstores usually aim at the car owning shopper and provide adequate parking facilities. It would be unfortunate if residents in the survey area who do not own a car are not given equal access to such a modern shopping facility, although it may be considered that providing a bus service to Asda is contributing to the decline of Villa Road/Lozells Road.

TABLE 35 LIKELY USE OF ASDA BY HOUSEHOLD CAR OWNERSHIP

<u>Use New Asda?</u>	Cars in Household			
		None %	One or more %	
Yes	96	14	74	20
No	406	59	195	52
Don't know	188	27	106	28
TOTAL	691	100	377	100

10.3.4. Respondents who said they would not use Asda were asked if the provision of a direct bus service would make any difference. Based on respondents answers it is likely that a further 64 respondents would shop at Asda at least once per week. Together with the 170 respondents who already indicated they would shop their, provision of a direct bus facility would increase the number of households shopping at Asda from 16% to 22%.

10.3.5. Based on 160 respondents wishing to use a bus to reach Asda and grossed up to the total households within the survey area, the Asda superstore could attract 1,050 bus journeys per week or some 200 per day from the survey area. The present service 40 could cater for this demand particularly if it were extended at off-peak times from its current terminus on the Lichfield Road Aston to the new superstore. (Undoubtedly potential also exists from areas outside the survey area i.e. Victoria Road).

10.3.6. In conclusion, it seems that the Asda superstore at Villa Park will attract a significant number of shoppers from the survey area. A relatively large percentage of car-owners in the survey area will be attracted to the 'car-oriented' superstore. However, because of the 'inner-city' location of the store, many non-car owning respondents said that they are likely to use the store. Bearing in mind that 28% of respondents are not sure, and that a direct bus service will probably attract further shoppers, there is sufficient evidence to suggest that a direct shoppers bus will be useful and well patronised.

11 BUS SERVICES

11.1. Introduction

11.1.1. A number of questions included in the questionnaire relate to (i) the use of bus services (ii) knowledge of bus times and (iii) attitudes to bus services. Particular emphasis is placed on the use of bus services because of the importance in assessing the suitability of the existing route pattern and fares structure for the inner areas.

11.2. Access to Nearest Bus Stop

11.2.1. Respondents were asked how long it took to walk to their nearest bus stop. TABLE 36 shows that 88% live within 7 minutes of a bus stop.

		%
3 mins	306	29
3 - 7 mins	636	59
8 -12 mins	83	8
12 mins	25	2
Don't know	19	2
	<hr/>	<hr/>
	1069	100

Residents living in zone 09 have the poorest access to bus with over 50% being more than 7 minutes from their nearest stop. Zone 04 also has poor access with 30% claiming to be more than 7 minutes from their nearest bus stop. It is worth noting that in section 9 of the report these two zones reported the greatest travel difficulties in travel to hospital.

11.3. Last Time Used Bus

11.3.1. Respondents were asked when they last used a bus. For the survey area as a whole the following answers were given.

Within last week	68%
Within last month	11%
Over 1 month ago	9%
Never/Can't recall	12%

In zones 04,08 and 09 40% of respondents had not used a bus within the last week.

11.3.2. The highest percentage (88%) of any age/sex group of respondents who have used a bus within the last week are males 11 - 15 and females 11 - 15. Males and females between the ages 16 - 24 also use the bus more frequently than average. Males and females 25 - 44 tend to use a bus the least often.

11.3.3. In a 'work status' breakdown 92% of students and 89% of schoolchildren had used a bus within the last week. These are the highest proportions. The lowest proportions for using a bus within the last week are full time employed males (67%) and housewives (61%).

11.4. Use of Bus Services

11.4.1. Respondents in the survey area who make a regular journey to work or school by bus were asked which bus services are normally used to and from work. TABLE 37 shows respondents replies. (MAP 2 shows the route network in the area).

TABLE 37 BUS SERVICES USED FOR JOURNEYS TO WORK AND SCHOOL

Service	Number	%
8	335	6
11	1047	18
16	210	4
40	405	7
46	87	2
69	183	3
70	795	14
74/79	2024	36
90/91	609	11
96	202	4
Other	498	9
TOTAL	5691	100

As one would expect the 74/79 route which runs through the area along Soho Road is the main service used by survey respondents. Also of some importance to the survey area are services 70 and the Outer Circle (service 11).

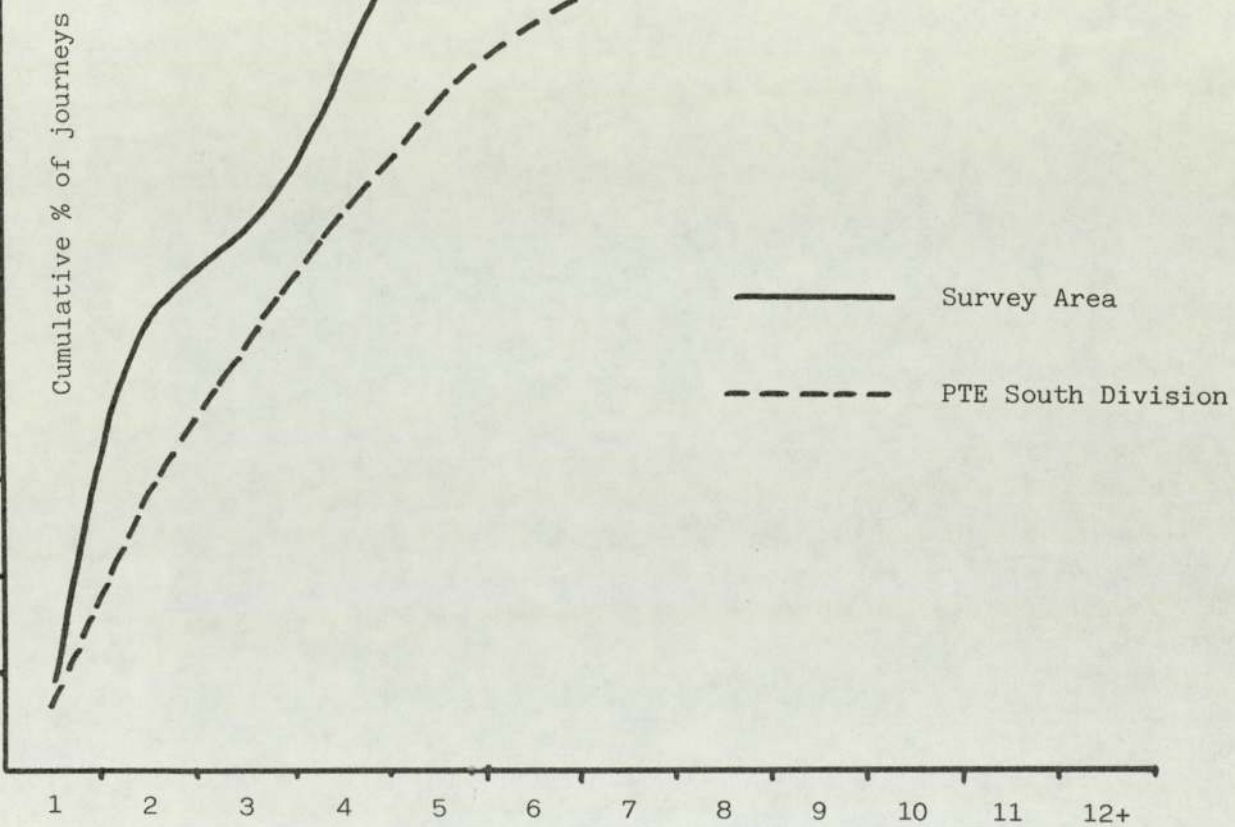


FIGURE 4 COMPARISON OF JOURNEY LENGTHS IN THE SURVEY AREA COMPARED TO PTE SOUTH DIVISION.

(The graph shows a cumulative frequency distribution based on TABLE 38. An example of the interpretation is that within the survey area 88% of journeys are 5 stages or less whilst for the South Division the comparable figure is 71%).

11.5. Average Journey Length and Fare Structure

- 11.5.1. Introduction - In section 6 we have shown 64% of work trips by bus (TABLE 19) end within the inner areas of Birmingham or the City Centre. A similar picture is also apparent when one looks at the destinations of non-work trips by bus.

This implies that bus journeys made by inner area respondents are usually shorter than those bus journeys made by people living in the rest of the Birmingham area. Under the current fare structure shorter journeys cost more per kilometre than longer journeys due to the 'taper' in the fare scale (see FIGURE 4). This means that the inner area residents are paying proportionately more per kilometre for their bus trips than those resident in more peripheral areas because they are generally shorter in length.

- 11.5.2. Using data from the W.M.P.T.E. Continuous On-Bus Survey system it is possible to calculate the average distance travelled by passengers throughout the whole of the South Division and the average cost per kilometre charged to these passengers. One can also calculate the average distance travelled by passengers and the average cost per kilometre charged to passengers who board buses within the Handsworth and Lozells survey area.

The data on the Services listed in TABLE 23 shows that the average distance travelled by inner area residents by bus is 3.5 kms. This compares with an average distance of 4.5 km for the PTE South Division overall which includes the whole of the ICP core area. Although the data has not been analysed, for areas outside the ICP core area the average length of journey will therefore be higher than 4.5 km.

11.5.3. TABLE 38 shows the distribution of the number of stages travelled for bus journeys originating in Handsworth and Lozells compared to the PTE South Division overall.

TABLE 38 DISTRIBUTION OF STAGES TRAVELLED

Stages*	Survey Area	PTE South Division
	%	%
1	9.9	6.1
2	33.4	23.8
3	12.2	14.3
4	18.0	13.9
5	14.7	12.4
6	3.9	7.6
7	2.7	5.8
8	2.1	5.3
9	1.0	3.7
10	0.5	3.5
11	0.4	1.4
12+	1.2	2.2
	100	100

* Each stage is approximately 1 kilometre in length

FIGURE 4 also illustrates the distributions.

11.5.4. Applying the standard PTE fare scale to both distributions shown in TABLE 38 gives an average cost of 3.73 pence per kilometre for journeys originating in the survey area compared to 3.32 pence per kilometre for the PTE as a whole. Based on the journey length the average fare paid is 13.19pence for the Inner Area and 15.04 pence for the South Division overall (see TABLE 39).

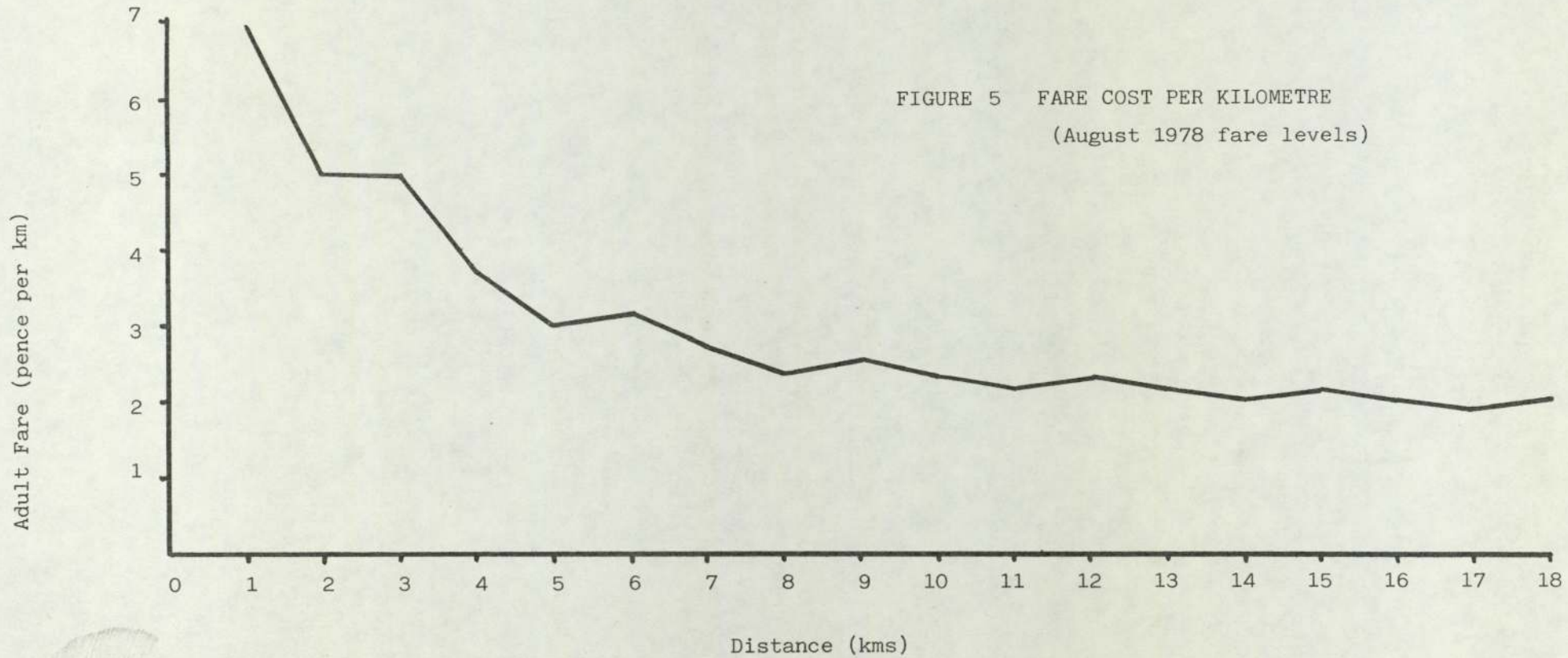


TABLE 39

AVERAGE JOURNEY LENGTH AND FARE (August 78 fare levels)

	Handsworth & Lozells	PTE South Division
Average journey length by bus (kms)	3.5	4.5
Average fare (p)	13.19	15.04
Average cost per km	3.73	3.32

The current fare structure means, therefore, that inner area travellers have to pay more money per kilometre than travellers from more peripheral areas. Passengers from Handsworth and Lozella pay 0.41p per kilometre more than other passengers in the South Division. (Note - that the South Division in fact includes Handsworth, Lozells and all other inner areas). This has implications for the suitability of the existing charging structure for the inner areas and whether lower single fares, Inner Area Travelcards, 'Personal Travelcards' should be further investigated.

- 11.5.5. Travelcard - Respondents who make a regular journey to work were asked if they possessed a travelcard. Of the 976 in the sample who use a PTE bus to work or school 201 possessed a Travelcard (21%). For the PTE South Division as a whole some 36% of bus journeys are made by Travelcard¹. This therefore suggests that Travelcard ownership in the inner areas is not as high as the Birmingham suburbs outside the ICP 'core' area. Considering the high dependence on public transport in the area one might expect this figure to be a little higher; this may be because inner area residents are generally making shorter distance journeys which makes the present price of Travelcard economically unattractive. Also, a high proportion of the people in inner areas may not be prepared to lay out a large sum of money in advance on bus fares. It is feasible that a 'zone travelcard' could be so defined as to benefit inner areas, provided that the operational objections could be overcome.

1. Based on data from WMPTE Continuous On-Bus Survey for September 1978

11.5.6. A further idea is that special facilities should be provided for those people generally needing them, which does not include all residents or visitors to the inner areas. One proposition would be to issue an identity card to individuals which allowed them to travel either by paying on-bus or purchasing travelcards at a concessionary fare. The difference between the value of travelcards and the fare which would otherwise have been charged could be identified and charged to the Inner Area Programme.

11.6. Knowledge of Bus Information

11.6.1. Table 40 below shows the relative importance of each information source by people to find out the times of buses.

TABLE 40 INFORMATION SOURCE

Source	Number	%
Timetable Book	47	4
Bus Stop Timetable	39	4
Visit Enquiry Office	2	*
Phone Enquiry Office	15	1
Ask Inspector	51	5
Ask Friend	40	4
Don't Find Out	870	81
TOTAL	1069	100

The majority of respondents (81%) do not find out bus times. However, of those that do find out information asking an inspector or friend is the most popular source. Not very many people use an enquiry office as an information source.

11.6.2. Respondents in each household were asked whether they possessed any bus timetables. 91% replied that they did not. TABLE 41 gives details of the responses.

TABLE 41 TIMETABLE POSSESSION

	Number	%
Yes, book	31	3
Yes, leaflets	22	2
Yes, book & leaflets	23	2
No	969	91
Don't know	22	2
	<hr/>	<hr/>
TOTAL	1067	100

11.6.3. From TABLE 40 earlier, it is shown that 870 respondents do not find out bus times (ie 81%). However this high number is not because information is difficult to obtain. TABLE 42 below shows that 79% of those that do not see a timetable, claim that they have no difficulty finding information. (Probably, the majority of people have not really attempted to find out information because of the generally high frequency of bus services in the survey area.)

TABLE 42 INFORMATION OBTAINABILITY

(Those that do not see a timetable)

	Number	%
Yes	51	5
No	803	79
Don't Know	160	16
	<hr/>	<hr/>
	1022	100

11.7. Improvements to Bus Services

11.7.1. Respondents were given a list of twelve possible improvements to the bus services and asked to choose three that they most preferred. In an attempt to establish the importance individuals placed on these improvements, respondents were requested to distribute a total of ten points between their three preferred improvements.

11.7.2. TABLE 43 shows the total number of points allocated to each proposed improvement.

TABLE 43 IMPROVEMENT POINTS

Total	Total Number of Points	%
Reliability	782	8
Different Routes	235	2
Keeping fares down	2508	24
Community Bus	1127	11
Increased Frequency	872	9
Friendlier Drivers	293	3
More Shelters	1579	15
More Evening Services	385	4
Nearer Services	287	3
Cleaner Buses	1569	15
Better Publicity	276	3
Better Sunday Services	327	3

Particular attention is paid to the idea of a community bus to see how it competes with other possible improvements to public transport in the area. In all of the areas surveyed by the PTE; 'keeping fares down' has received the greatest number of improvement points.

11.7.3. In the inner city, where incomes are below average, one would expect 'keeping fares down' to continue to receive the most points; this is the case in Lozells and Handsworth, 24% of all points being allocated to this particular improvement. TABLE 43 also reveals that the next two highest ranking improvements are 'cleaner buses' and 'more shelters', each receiving 15% of the total points. It must be pointed out that during the four weeks of the survey the weather conditions were most harsh with periods of heavy snowfall. Therefore it is assumed that the total number of points allocated to more shelters and cleaner buses may have been exaggerated by the weather conditions; if this is the case it infers that the community bus 'improvement' carries even more significance than the 11% allocation of points already suggests.

11.7.4. Section 8 provided an indication of the importance attached by respondents from each origin zone to those suggested improvements. It is also useful to look at each age/sex group to see which improvements are allocated above average points. Young people 11-15 of both sexes allocated an above average proportion of points to 'lower fares' (40% - 45%). Women 16 - 24 are concerned that there should be friendlier drivers, while males in this age group give a greater than normal allocation of points to more evening services (7%). Significantly men and women between 25-59 who are most likely to be employed gave above average points to nearer services (6%) and increased frequency (11%). Respondents over 65 are the only groups to allocate the majority of points to 'cleaner buses' and 'more shelters'. Also, this elderly group gave the highest proportion of points to a 'community bus', especially women 65+ (19%).

11.7.5. The examination of work status groups, reinforces the distribution of points by age/sex groups. For instance 'nearer services' and 'increased frequency' received above average points from all part-time and full-time employed persons. The 'community bus' improvement commanded 17% of the OAP's point allocation; while students and schoolchildren are particularly concerned that fares should be kept down (30%).

It may be that an inner city travelcard of some form, at a reduced price may in fact allow inner area residents similar freedom of movement in the county that a community bus could provide.

12 COMMUNITY BUS

12.1. Introduction

12.1.1. Throughout this report special attention has been paid to certain facts which have direct relevance to the possibility of operating a community bus in the area.

12.2. Origin Zones

12.2.1. In the analysis of each origin zone in section 8 a number of zones frequently provided the most evidence of a demand for a 'community bus'. These zones are notably 04, 07, 08 and 09. Residents in three of these, zones 04, 08 and 09 have the longest walking time to the nearest bus stop. Respondents in zone 08 reported the most difficulty getting to a doctor. Indeed throughout the analysis of 'travel difficulties' in Section 9 zones 04, 07 and 09 repeatedly contained respondents with above average travel difficulties. In fact the residents of zone 09 allocated the largest proportion of points to a 'community bus' improvement.

12.3. Travel Difficulties

12.3.1. Many respondents reported that they had problems travelling to hospital. A community bus could provide an excellent means of transport to hospital for both patients and visitors. Respondents when interviewed, were asked if they had difficulty getting anywhere else or to any other activity. Those travel problems that emerged were mainly that there was no direct bus route, especially to the 'Black Country'. Difficulties were also mentioned in travelling to destinations within or adjacent to the survey area, where bus routes do not operate. These findings provide evidence that a community bus could be used to improve mobility within the survey area, particularly in areas not well served by the existing services, and help improve accessibility to job opportunities.

12.4. Shopping

12.4.1. The majority of respondents obtained their shopping by walking to either Soho Road or Lozells/Villa Road. These two shopping centres are 'local' to most of the survey zones except those in Winson Green, where most of their 'local' shops have been demolished. Many of the residents in zones such as 06, 07 and 08 would use and benefit from a bus taking them to Soho Road or Villa/Lozells Road; or to the new Asda superstore.

12.4.2. In fact there is sufficient evidence to suggest that a special shoppers bus linking the survey area to the Asda store at Villa Park would be possible (see 10.3).

12.5. Improvements

12.5.1. The idea of a community bus as an improvement to the bus services collected a substantial proportion of the total number of points (11%). In most zones, more points were only awarded to the perennial improvement, 'low fares', or to those related to the harsh weather conditions i.e. 'cleaner buses' and 'more shelters'. Only four zones gave the community bus a particularly low rating (01, 05, 06 and 12). TABLE 44 below shows the zones in which residents allocated the largest proportion of their points to a community bus improvement.

TABLE 44 COMMUNITY BUS PREFERENCE

Zone	%	Improvement Points
09	22	78
02	15	119
13	14	154
08	14	49
07	13	158
<hr/> TOTAL \emptyset	<hr/> 11%	<hr/> 1127

\emptyset Survey area average

- 12.5.2. The age groups allocating the largest proportion of improvement points to a community bus are young people under 15 years and old people over 60.
- 12.5.3. Respondents who use the bus the least frequently allocate the most points to the idea of a community bus. Only 9% of improvements points were allocated to the community bus idea by those who had used a bus the previous week, whereas the average for the less frequent users was 15% of points. This implies that respondents who do not use a bus very often might use and benefit from a community bus; or that they think other people in the area would benefit from such a bus.
- 12.5.4. Respondents possessing a travelcard allocated very few (4%) of their points to a community bus. This indicates that respondents may consider that because a travelcard provides easy travel throughout the County there is no real need for a special type of bus. One can presume that travelcard possession would be higher if the price was more representative of the short distance travel patterns found in inner areas such as Handsworth and Lozells. There might be a case for spending 'inner-city' funds on providing a special 'inner-city travelcard' at a reduced cost, instead of on a special community bus.

12.6. Community Bus Purpose

- 12.6.1. Respondents were asked what they thought would be the most useful purpose for a community bus in the survey area. The question invited unprompted comments but the interviewer could prompt an answer from the respondent by suggesting possible ways the community bus might be used. TABLE 45 gives the results.

TABLE 45 COMMUNITY BUS PURPOSE

	Unprompted		Prompted	
		%		%
Old to Shops	304	28	177	17
Hospital Visits	112	10	195	18
Other	105	10	46	4
Shopping	101	9	106	10
Old to G.P.O.	72	7	139	13
Childrens Outings	67	6	121	11
	<hr/>	<hr/>	<hr/>	<hr/>
	761	71	784	73
No comments	308	29	285	27
	<hr/>	<hr/>	<hr/>	<hr/>
	1069	100	1069	100

Providing transport for the old to get to the shops was the most quoted unprompted purpose for a community bus. When prompted respondents placed greater emphasis on hospital visits.

- 12.6.2. 10% of respondents suggested various 'other' purposes without being prompted. The majority of 'other' suggestions were that the community bus should take people to work at places and times not served by regular buses, and link up with the present bus network by taking people to Soho Road.
- 12.6.3. Respondents in zones 02 and 05 were more concerned than those in any other zone that the community bus should visit the hospital. (See TABLE 46). The majority of respondents who were not prompted living in zones 07, 08 and 09 suggested that the most useful purpose for a community bus would be to take residents shopping. This follows from the analysis earlier that the zones around Winson Green offer poor shopping facilities. Taking the old to shops accrued the most votes from respondents in zone 01 (60%); 02 (40%) and 13 (50%). Above average 'other' purposes have been suggested by respondents in zones 06, 07, 08 and 11.

TABLE 46

COMMUNITY BUS PURPOSE BY ORIGIN

Origin	Purpose of Community Bus (Unprompted Comments)			
		Old to Shops	Hospital Visits	Other Comments/No answer
01	%	60	2	38
02	%	40	19	41
03	%	44	15	41
04	%	6	13	83
05	%	18	20	62
06	%	7	-	93
07	%	11	10	79
08	%	22	3	75
09	%	14	3	83
10	%	31	13	56
11	%	35	17	48
12	%	30	3	67
13	%	50	3	47

12.7. Conclusion

- 12.7.1. The concept of a community bus has been discussed, where appropriate, in the separate sections. It appears that it might be a good method of improving inner area residents' mobility particularly in view of the high dependence on public transport. Indeed, the 'community bus' idea received a surprisingly large proportion of the points allocated by respondents to the improvements they most preferred.
- 12.7.2. The examination of respondents' views on the best purpose for a community bus ties in quite well with many of the proposals made throughout this report. For instance, residents of certain zones have poor access to shops, in other zones they require more direct transport to work. It seems therefore that some zones and certain groups of people have specific needs for a community bus. Hopefully it will be possible to co-ordinate all these demands so that the bus can be used to its fullest potential.

- 12.7.3. Several respondents, however told interviewers that they thought a community bus irrelevant considering the high frequency of buses in the area. But most bus services are radial and do not offer the flexibility that a community bus would provide. It has been shown that movement is relatively localised within the survey area and largely dependant on public transport. However it is doubtful whether a community bus will offer non-car owning residents the improved mobility which would give them equal opportunity with car owners to travel to various work and leisure destinations.
- 12.7.4. In section 11 the way the current fare scale works against inner area residents because of their shorter journeys was highlighted. It may be better to provide additional mobility, if this is considered 'a good thing', by making provision for lower fares on conventional bus services than provision of a special community bus.
- 12.7.5. A special community bus poses a number of questions, how is it financed and administrated and marketed to make the best use of the investment in resources? An alternative to the community bus concept, but which ties in with current procedures may be to allow bona-fide groups within the inner area a discount on private hire rates with the discount being paid for by ICP funds. The onus would then be on the local community to organise itself and take advantage of such a scheme rather than the PTE dictating the type of community bus service.

(The police in Handsworth have responded favourably to the idea of a community bus. Some of the views of the Chief Inspector at Handsworth Police Station are documented in APPENDIX 6)

13.1. Level of Membership and Awareness

- 13.1.1. Respondents were asked if they were aware of a 'Residents' Association', for their area and whether they were members. This will give some idea of levels of awareness and participation in local organisations.

TABLE 47 RESIDENTS ASSOCIATION AWARENESS

		%
Aware of Residents Association - member	68	6
- non-member	117	11
No Residents Association	305	29
Don't know	576	54
No answer	3	
	1069	100

Overall only 17% of respondents were aware of a local Residents Association and 6% claimed to be members. 29% said they did not have a Residents Association.

- 13.1.2. The awareness of a Residents Association varied from zone to zone. Highest awareness was recorded in zones 04, 05, 11 and 12. In zones 06, 09 and 10 only one respondent said that he/she is a member. It appears that in these zones a local Residents Association does not exist. (Note that zones 06 and 09 have frequently emerged as zones with the greatest number of difficulties).
- 13.1.3. The age groups with the highest percentage replying either 'yes, member' or 'yes, non-member' are males and females between ages 45 - 59 (22%), 60 - 64 (26%), and over 65 (21%). Evidently, the older respondents are the most aware, and have the highest membership, in residents associations.

Further analysis of membership also shows that the lowest socio-economic groups (DE) show only 4% membership, compared to 10% for the non-manual and skilled manual population.

13.1.4. Membership and awareness of Residents Associations is important as they form a possible organisation through which activities connected with a community bus could be focussed. However membership and awareness appears to be low and therefore it is open to question whether they are the best body (or the only body) through which to organize community bus activities.

14 SURVEY OF ESTABLISHMENTS (County Planning Department)

14.1. This survey has been undertaken by members of the Inner Areas Team, West Midlands County Planning Department, and it is to be read as continuation of the WMPTE Field Survey Unit report entitled 'Inner Area Community Bus Study (Handsworth and Lozells)' - Report of Survey.

14.2. BACKGROUND

14.2.1. The door to door survey has given an indication of transport needs based on a sample of residents within the survey area. In order to complete the picture, it was decided to look at transport needs from the 'other end' and to contact organisations and establishments to which people travel.

14.2.2. A standard letter (see APPENDIX 7) was sent out to Health Centres, Hospitals, Primary Schools and Secondary Schools, Old Peoples Homes etc., (for full list see APPENDIX 8), to determine whether the people who used such premises experienced any difficulty when travelling to them by public transport. The letters were followed up by telephone calls, and in some cases, interviews, and from this, many travel difficulties came to light, although in many cases these related to travel needs which are presently not met rather than problems with existing services.

RESULTS OF SURVEY

14.3. PROBLEMS EXPERIENCED BY LOCAL SCHOOLS

14.3.1. Hamstead Hall Secondary School is situated half a mile from the nearest bus stop (see MAPS 2 and 11) on the number 16 route, to the east, and a mile from the numbers 11 and 70 bus routes to the South. Most of the 550 pupils who walk to school each day live in Handsworth, and consequently, a large number of them are of Asian or West Indian origin. The children on their way to school, have to cross Oxhill Road or Church Lane, both of which are heavily trafficked. The Headmaster Mr Swinfen, has registered these complaints with the Education Authority and the WMPTE. He says his pupils often arrive at school during the winter months in a terrible condition because they simply don't have the proper warm clothing.

14.3.2. The pupils of Handsworth Wood Secondary School share certain facilities with Hamstead Hall School, and consequently, the children have to travel between the two schools which means a walk of half a mile if they then catch the number 16 bus, or a mile if they walk straight there.

14.3.3. Mr Gray, Headmaster of George Dixon Secondary School, has noticed that an increasing number of his pupils are walking to school despite the school being well served by public transport. In Mr Gray's opinion, this is because the children just can't afford the bus fares. (School children are issued free bus passes, only if they live more than three miles away from their school).

- 14.3.4. The majority of Secondary Schools mentioned that they were in need of a mini-bus for sport and after-school activities. Example; Handsworth New Road Secondary School complained that because they didn't have a School mini-bus, after-school activities have never been able to flourish because of the cost of hiring transport. Holte Secondary School hire a field centre in North Wales for a couple of weeks in the summer each year, giving some children a chance to get out into the countryside, however, the cost of hiring transport to get to and from the field centre is forcing up the price, and many children are now not able to go because their parents can't afford it. (Holte Secondary School has 400 plus children receiving free school meals, which gives an indication of the amount of poverty in the area). Sport fixtures with other schools are seldom arranged because the children rely upon teaching staff to taxi them to and from their school. (The Education Authority do provide transport to take children from their school to the nearest playing fields, but does not provide transport for children travelling to other sports grounds to play against another school team).
- 14.3.5. The Headmistress of Broadway Secondary School pointed out that teaching staff are reluctant to take children on public transport because it is often difficult to control children in front of members of the public. Also, the journey takes longer and more staff are required in the event that not all the children can get on one bus.
- 14.3.6. After contacting a number of primary schools within the area, it became apparent that for some, organising school outings were becoming more and more difficult because of the rising transport costs. All the schools tried to give each class a proper day outing each year, some gave each class an outing each term. Primary School staff do not seem to mind too much about using public transport for short local trips, but additional staff are always needed to accompany children when public, rather than private hire transport is used. Certain primary schools do receive money from the Education Authority for day trips and outings, but an average is only £50 per school per year, and this is an important constraint on the number of trips which can be undertaken.
- 14.3.7. A sum of money is also available to schools to pay for children whose parents will not, or can not, pay for their child's outing. However, there appears to be a lot of difficulties attached to the allocation of this money, which involves enquiries into the income of the child's parents. This money is consequently not used very often, and instead, money is drawn from a restricted amount available from school funds to pay for the children's outings.
- 14.3.8. Only one Primary School complained about children having to walk any distance to school, this was the Sacred Heart Roman Catholic Junior School, Earlsbury Gardens. Children have to walk the whole length of Trinity Road from Witton to Birchfield Road (about $\frac{1}{2}$ mile).

14.3.9. The Steward Centre is run along school lines, but is slightly different from a normal school in that it is a re-orientation centre for newly arrived immigrant children between the age groups of eleven and eighteen. Pupils travel to the centre from as far away as Northfield and Sutton Coldfield, which involves two, sometimes three, bus trips. The Steward Centre undertake a course which aims to introduce the students to Birmingham, this involves a number of journeys and outings around Birmingham. Public transport is used at the moment, but a mini-bus would be more convenient because there would be less delay, and it would be more flexible.

14.4. OTHER ORGANISATIONS AND INSTITUTIONS

- 14.4.1. Acorn Grove Working Boys Hostel provides accommodation for boys who have left school and are now working or undergoing training. The hostel provides the boys with breakfast and evening meal and a bed for the night. The Hostel receives £30 per boy per year for his holidays, the money coming from the Social Services Department. The Hostel has sixteen boys between the age groups of fifteen to eighteen. Because of their lack of transport, they have been unable to enter a five-a-side football league, and unable to go on week-end trips, simply because they can't afford to hire private transport. At the moment, the boys only go on one weeks holiday a year, either to the Lake District or Devon. This holiday has to be financed by the £30 per boy per year, and as can be imagined, takes up virtually the whole of the allowance.
- 14.4.2. Children attending the Speech Therapy Clinic at Lozells Road, have to catch two buses (in some cases three), to get to the clinic which they attend once every week. The children are young, between four and six, and so most of them are accompanied by their parents. Approximately six to eight children attend the clinic each week day. A special bus service, which would be able to transport these children to and from the clinic would be a great advantage, particularly as many parents are in full-time employment.
- 14.4.3. The Leverells and Tyber Drive Old People's flats are not on the public transport network, and many of the residents of these flats cannot manage to walk to the nearest bus stop, (all of the residents are over seventy-five). Thus, many old people remain tied to their flats for long period of time. There is a particular need for a transport facility able to take old residents to the Day Centre at Crick Lane, (off Holly Road) where old people can meet and get a good meal.
- 14.4.4. The Victor Yates Old Persons Home are very keen to use a community bus. The Home has sixty residents, and many of them i.e. thirty to forty at any one time, would like to go on day trips and outings, given the opportunities, which are at present fairly limited, owing to the cost of hiring private transport. The Home receives no funds from outside agencies for outings, and day trips, so the Home has to rely upon their own funds and contributions from the residents to make ends meet.

- 14.4.5. Mr Bates of the Adult Training Centre, Hockley, would like to be able to draw upon the use of some form of subsidised travel, so that he can develop social and recreational activities for his trainees. Attempts are being made to launch an appeal for a mini-bus, but because of the generally poor background that the trainees come from, an appeal for a mini-bus will be an uphill struggle.
- 14.4.6. Louise Road Day Nursery mentioned the problems experienced by mothers who are ill who have to bring their young children to the Day Nursery by public transport. There is at the moment, a social services taxi which collects the children at home and takes them to the Day Nursery, but this service has an uncertain future, especially with the latest Government cutbacks.
- 14.4.7. The Willows Home for the mentally handicapped receives no money/funds for day trips and outings. The Home has to organise fund raising activities and rely upon charity to subsidise the cost of hiring private transport. For short trips into town, the staff do not mind using public transport, provided that there aren't more than four or six residents going on one trip with two or three staff. It is the aim of the home to integrate the residents with the community at large as far as possible. However, the residents of Willows Home have connections with Monyhull Hospital, Kings Norton, but travelling there by public transport is difficult, being able to privately hire a coach or mini-bus would make things a lot easier, and require less staff to accompany the residents. The Willows Home can claim small amounts of money from petty cash to pay for residents bus fares, example, a group who attend a club every Monday night along Soho Road, have their bus fares paid for from this. The officer in charge does try and organise holidays for the residents, but the cost of hiring private transport are becoming very expensive, (this summer it cost the home £300 to pay for a coach to take a group of residents, and staff, to Kent one week-end and to bring them back the following week-end).
- 14.4.8. The Community Child Health Department run a Day Nursery for mentally and physically disabled children. The Nursery is held at either the Carnegie Institute, Hunters Road, Handsworth, or at the Newtown Health Centre. This nursery provides the opportunity for parents of the children to meet, and for professional advice to be given on how to care for such children. They have an immediate problem arising from the fact that there is no organised transport available from the D.H.S.S. which will collect children and parents from home, and take them to the Day Nursery, and hence attendance is very low. A community bus would enable more people to attend and make the scheme more successful. This service would be needed to collect children and parents from the whole of the West District of the Area Health Authority.

ANNEX II

THE COMMUNITY BUS PROJECT

10th December, 1980

Birmingham Inner City Partnership Programme

Community Bus Project - Application for support by

Shared Transport Service

1. Purpose of the Report

To seek the Committee's support for a voluntary sector application under the Urban Programme for the continuation of the Shared Transport Service.

2. Recommendation

1. That subject to the concurrence of Finance Committee approval be given to fund the operations of the Shared Transport Service for 3 years commencing in April, 1981 at a cost of £13,000 per annum, subject to 75% grant aid under the Birmingham Inner City Partnership Programme. The project to be funded on the basis set out in Section 7 of this report.
2. That your Committee consider whether it wishes to make a nomination to the Steering Committee of that project.

3. Background

In view of the particular reliance of inner city residents on public transport, the Birmingham Inner City Partnership has been concerned to explore ways in which inner city problems might be relieved through improvements in the transport system, thus enabling residents to have easier access to work, educational, social opportunities etc.

An initial study carried out by the PTE Field Survey Unit of part of the Handsworth/Lozells area has been completed and has shown:-

- a) That certain groups of residents have problems in reaching their place of work or shopping facilities - these problems appear to be potentially capable of resolution by the re-routing of certain bus services. These route alterations are being examined by the PTE and certain service revisions have already been made.
- b) The study has also shown that certain groups of people within the area (old people's clubs, boys hostels, homes for mentally handicapped etc.) have specialised transport requirements i.e. they need special vehicles or have special journey requirements. These requirements cannot be satisfied by the normal PTE services.

Further details of this study are given in Appendix 1.

The approved Birmingham Inner City Partnership Programme includes a limited financial provision for the introduction of alternative transport arrangements on an experimental basis, in the event of specific transportation needs being identified which are not capable of being met through the normal fixed route service.

4. Shared Transport Service

The Shared Transport Service (STS) was set up in June 1979. It was established following the results of surveys which showed that there was a considerable under use of vehicles owned by voluntary and other organisations which was paralleled with a considerable unmet need for specialised transport facilities by other groups and organisations. Since its establishment STS has acted as a co-ordinating agency by bringing these two groups together wherever possible.

This objective is achieved by (1) contacting organisations with vehicles at their disposal who are willing to make them available when convenient to other groups at a charge, which helps to offset the operating costs. (This charge is agreed between user and hirer). (2) Publicising the service to various user groups, (3) Channelling requests for transport (ranging from private cars, to mini buses, coaches and specialised vehicles for the handicapped) to appropriate members of the scheme who have transport available of the type, and at the time, required.

The Shared Transport Service is financed by a grant from the Centre for Policy on Ageing, this is due to expire on 31st March, 1981 and as the project was initially established purely as a short term experiment this grant is not likely to continue. On the basis of results to date it is felt that the scheme merits support for a further period with a revised brief. STS has therefore applied to the Partnership for fundings in order to enable it to continue in operation. The project employs 1 fulltime co-ordinator with a part-time secretary. It is governed by a Steering Committee including representatives from Birmingham Voluntary Services Council, Social Services Voluntary Liaison Section, and the Birmingham Settlement. Appropriate representation would naturally be accorded to your Committee should you decide to support the project and wished to have some involvement in guiding its development.

5. Proposal

It is considered that STS provides a valuable means of securing transport for those in need at least cost and for this reason goes some way towards meeting the deficiencies outlined in the Handsworth/Lozells report.

At present the project includes Birmingham and Sutton Coldfield, and its scope would have to be limited to user groups within the Birmingham Partnership Area only in order to qualify for partnership funding. In discussions with STS it has been apparent that there is scope to considerably extend the usage of the scheme by increasing publicity and by attracting more transport to the "pool". In this latter connection, informal discussions with the PTE have indicated that there may be scope to make certain vehicles (particularly those adapted for the disabled which are operated on contract to Birmingham City Council but not used fully at off-peak periods), available to the scheme at an appropriate charge.

It is proposed that besides being extended in scope, the project should in future incorporate a research element in order to identify the number and type of transport needs emanating from organisations which the STS is not capable of meeting and for what reasons. This basically an extension of the work done in the Handsworth/Lozells survey and should in particular throw further light on the question of whether the Inner City Partnership should consider further the need to provide specialised transport facilities, as well as measuring the value of the service and indicating any changes that may be needed.

6. Conclusions

The Shared Transport Service, by providing the better usage of existing vehicles, is providing a means of increasing the availability of transport to groups in the inner city at a relatively minimal cost. It is thereby giving people means of access to social, educational or recreational opportunities which would otherwise not exist. The service will almost certainly cease in 1981 unless an alternative source of finance is forthcoming.

7. Financial Implications

The cost of running the Shared Transport Service is as follows:-

	£
Employees (1 full-time co-ordinator and 1 part-time Secretary)	10,000
Running Expenses (office, telephone, publicity etc.)	3,000
<u>Total</u>	<u>13,000 per annum for 3 years.</u>

The 1981/82 Revenue Budget has not as yet been improved by the County Council, but provision for this scheme has been earmarked in the Transport Committee's Draft Revenue Budget.

The scheme will be funded under the Birmingham Inner City Partnership Programme for Movement and will be eligible for 75% grant aid from the Department of the Environment. The cost to the County Council, net of grant will be £3250 per annum. As there is no approved budget head for this expenditure, approval of the project is subject to the concurrence of Finance Committee in accordance with financial regulations.

This report has been agreed by the County Treasurer and the Director General of the PTE has been consulted and has no objection.

APPENDIX 1

Summary of Handsworth/Lozells Survey Results

1. The PTE Field Survey Unit carried out a survey during early 1979 which examined the public transport needs in the Handsworth and Lozells area.
2. The main part of the survey comprised interviews with the representatives of about 1,000 households in Handsworth and Lozells. The survey was designed to probe the effectiveness of the existing bus services in meeting local needs, and to ascertain whether there was any potential for some form of specialised transport provision in the area - hence the "community bus" concept.
3. This part of the survey identified a number of problems in the fields of routeing, fares, comfort and convenience. In addition a limited number of unsatisfied journey demands were identified (to hospital, doctors etc.) - it did not however indicate a sufficient case for the establishment of a social fixed route Community bus service.
4. The household survey was followed up by a survey of establishments in the area - schools, old people's homes, boy's hostels, clinics, nurserys etc. A large number of these organisations were found to have problems in obtaining transport facilities partly because of limitations on funds and in many cases this was found to be significantly restricting their role in relation to the sort of service they were able to offer their clients.
5. Conclusions drawn from this survey work indicated that there is a need to co-ordinate specialised transport requirements in an area which would best be met by the hire of appropriate vehicles at appropriate rates. This is the type of work at present being carried out by the Shared Transport Service.

- (1) The service is being funded, during the period April, 1979, until March 1981, by the Centre for Policy on Ageing. This body is a registered charity supported by the Nuffield Foundation and generally promotes research work on the elderly.
- (2) The Steering Committee of the Shared Transport Service consists of the Birmingham Settlement the Centre for Policy on Ageing, Community Transport, Birmingham Voluntary Services Council and Birmingham Social Services Voluntary Liaison.
- (3) The Birmingham Settlement is responsible for the running of the Shared Transport Service and provides accommodation and office services. The service has one full-time co-ordinator and a part-time secretary.
- (4) The object of the project is to provide transport for voluntary organisations who cannot afford to own and maintain their own (sometimes specialised) vehicles and who find it difficult to meet commercial hire charges.
- (5) This objective is achieved by (i) contacting organisations with vehicles at their disposal who are willing to make them available when convenient to other groups at a nominal charge which helps to offset some of the running costs. (This charge is agreed by user and hirer). (ii) publicising the service to various user groups, (iii) channelling requests for transport (ranging from private cars, to mini-buses, coaches and specialised vehicles for the handicapped) to appropriate members of the scheme who have transport available of the type and at the time required.
- (6) The service at present covers the areas of Handsworth, Aston, Newtown, Soho and for a contrast for its research work, Sutton Coldfield. (However, this will be altered to cover the inner areas of Birmingham if Partnership funding is made available).
- (7) Membership of the scheme is free to those contributing transport to it - notwithstanding that they may also be users. Organisations who do not own transport pay a nominal enrolment free (currently £2) and an annual subscription (currently £5.00) which contributes towards the costs of the service.
- (8) During September requests were made to move 483 people of which the service was not able to meet the requirements of 70. In an average month it receives 40/50 requests for transport or information. It is anticipated that with the proposed alteration to the area covered, this figure will increase significantly.
- (9) Examples of the usage made of the scheme are as follows:-
 - (i) Various Community Groups - O.A.P.s and Play Groups for days outings to Dudley Zoo, Drayton Manor, etc.
 - (ii) Bordesley Youth Club - for taking teams to football, table tennis fixtures etc.

(9) continuation

- (iii) Alcoholics Anonymous - for collecting materials for handicraft workshop, mini-buses for theatre trips.
 - (iv) Various associations for handicapped use specialised vehicles for outings.
- (10) STS has negotiated discount rates for servicing, spares and hire of commercial vehicles which is an incentive for membership.

ANNEX III

ACTION FOR THE EIGHTIES

SUMMARY OF THE 1982 STRUCTURE PLAN ANNUAL STATEMENT OF THE WEST MIDLANDS COUNTY COUNCIL

1. INTRODUCTION

1.1 This is the second Annual Statement prepared since the County Structure Plan was completed in 1980. While it is part of a regular programme of Annual Statements this is a particularly important report for two reasons. First, it draws attention to the major changes which have happened since the Structure Plan was produced. Secondly, it is the opportunity for the County Council elected in 1981 to explain its views on the future of the West Midlands and in particular on the need for changes to the Structure Plan. These changes will be considered in more detail over the next six months during which discussion will be held with the District Councils, other bodies and members of the public.

1.2 The Secretary of State has endorsed the Regional Strategy of regeneration. Within this context, the County Council remains fully committed to the Structure Plan strategy or reviving the inner areas of Birmingham, Coventry and the Black Country - the Priority Areas. During the last year, however, greater priority has been given to the initiatives to revive the economy of the West Midlands.

1.3 The review of the Structure Plan will need to take account of recent legal decisions, particularly in relation to the review of policies relating to public transport. It will also need to include a re-appraisal of policies relating to the waste disposal strategy following the recent public inquiry.

2. PROGRESS MADE IN THE LAST YEAR

2.1 The County Council and the District Councils have continued their efforts to achieve the regeneration of the Priority Areas but in some cases progress has been slow. On the credit side derelict land reclamation has continued almost untouched by restrictions on spending, with reclamation expenditure in the County planned to increase from £0.8m in 1977/78 to £3.2m in 1981/82 (November, 1980 prices). The land reclamation programme is now beginning to provide land for housing and industry and showing that the Priority Areas can be regenerated. Similarly, the Inner City programmes in Birmingham, Wolverhampton, and Sandwell have continued to receive financial support from the Government with about £20.8m expected to be available for 1981/82. Property blight has been reduced by the revocation of some major road schemes, and additional revocations will continue to aid the regeneration of the older urban areas.

2.2 On the other hand progress on housing has been disappointing with migration to the surrounding Shire counties from the West Midlands, although falling, continuing at a higher level than assumed in the Structure Plan. Dwelling starts in the County fell from 7,400 to 4,700 between 1979/80 and 1980/81 with renovations falling from 13,500 to 11,500 over the same period. There are, therefore, unmistakable signs that the 100,000 new houses required by 1991 will not be built and that despite valuable initiatives such as the Birmingham envelope schemes our older houses are not being properly maintained and repaired.

2.3 During the last year the County Council has begun to prepare a package of economic initiatives to stimulate

the economy of the West Midlands and has announced its intention to establish an Enterprise Board and to expand its Task Force. District Councils have also been active in encouraging new industrial investment. Both Birmingham and Coventry are establishing science parks linked to Aston and Warwick Universities respectively, in the latter case with the help of the County Council.

3. RECENT CHANGES

3.1 The major changes which have happened since the Structure Plan was produced have been the deepening recession in the national economy, greater restrictions on local authority spending and increased social problems. These have been national trends but each has had an impact on the West Midlands.

The Economy

3.2 The world, national and local economic recession has deepened and the pace of technological change in industry has increased. Factory closures and redundancies have continued with monotonous and increasing frequency.

3.3 In the West Midlands traditional metal based firms have been the worst affected and only limited numbers of new enterprises have been created in these vital sectors to take their place. Many industrial sites and buildings lie vacant and are likely to remain so whilst large areas of industrial land are being proposed in the Shire counties. New industrial investment has been slow and few new industries have been established.

3.4 The result has been a severe increase in unemployment, particularly in the last three years. Between January, 1980 and January, 1981, unemployment in the West Midlands increased from 80,000 to 226,000 persons. The unemployment rate is now 16% compared with the national rate of 12% and has risen so rapidly that of all the Metropolitan Counties only Merseyside is worse off than the West Midlands. Within the inner city e.g. Handsworth and Salfley, rates of over 25% are experienced with ethnic minorities and the young more vulnerable than other groups. With the notable exception of Telford, unemployment rates tend to be considerably lower in the surrounding Shire Counties.

Local Authority Investment

3.5 The Structure Plan was based on what was thought at the time to be a realistic assessment of local authority expenditure in the period up to 1991. This took account of the deteriorating economic position and continuing constraints on local authority investment. However, recent events have shown even these forecasts to be optimistic, at least in the short term. The increased restrictions on local authority investment have affected almost every field of their activities including housing, education, social services and transport. As a result local authority expenditure is planned to fall by 25% between 1975/76 and 1983/84 compared to an increase of 5% in central government spending; excluding social security payments central government expenditure is planned to reduce by 9%. Over this same period local authority capital investment is planned to reduce by 70% compared with a reduction of 20% in central government capital spending.

3.6 Reduced investment means in almost every case lower standards. When the Structure Plan was prepared it was estimated that over 260,000 houses in the West Midlands would need to be replaced or improved over the next ten years. As a direct result of cuts in local authority investment it now seems likely that 100,000 of these houses will receive no attention. There is no evidence that the private sector will be able to help significantly although the increased interest of the building societies is welcome. Many of these houses are owned by the local authorities.

3.7 The picture for transport and road investment is similar. Government financial support per head of population in the West Midlands for 1982/83 is only about half the average for other Metropolitan Counties. While the Structure Plan was criticised for being defeatist in accepting the advice of the Government on limited spending on both public transport and roads, it now seems that only three-quarters of the road schemes included in the Plan will be carried out. Since it was accepted in the Plan that congestion would become worse the restrictions imposed since then can only increase the damage to the efficiency of transport in the West Midlands.

3.8 At the same time the economic recession resulted in a fall in the number of people travelling both by car and by bus. The only exception was in rail travel which rose mainly as a result of the new Four Oaks - Longbridge service.

Social Problems

3.9 The combination of a national economic recession and reduced local authority spending has had a disproportionate impact on the unemployed, school-leavers and other minority groups. Traditionally, coloured groups have experienced a higher rate of unemployment than white groups and this has been the case in the current recession.

3.10 This undoubtedly played a part in the series of riots which took place in 1981. The stimulus for these riots varied and the West Midlands escaped relatively lightly. Nevertheless they were at least in part an expression of a deep-seated inner city problem which has not been solved in spite of the efforts made by the Government and local authorities since the mid-1970's. Lord Scarman in his report on the riots in Brixton concluded that "..... justice requires that special programmes be adopted in areas of acute deprivation. In this respect the ethnic minorities can be compared with any other group with special needs, such as the elderly, or one-parent families". This emphasises the need for action.

4. PROGRAMME FOR ACTION

4.1 The changes of the last two years have in no way weakened the need for regeneration in the West Midlands. They have rather increased the need but have also raised questions as to how that regeneration can best be achieved. The regeneration of the economy of the West Midlands is of critical importance but the quality of life for people living in the Priority Areas is equally important. Housing has an essential part to play in improving the quality of life in the Priority Areas but other environmental improvements are also needed.

Economic Regeneration

4.2 The County Council will, in the Structure Plan Review, re-examine the existing strategy for regeneration of the County economy to ensure that the support is given to existing firms and that the West Midlands is in the best possible competitive position for attracting new industries. There is a need to make a major contribution to economic regeneration by investing in selected medium sized companies which have potential for long-term growth including growth in employment. This would help the creation and preservation of employment and the improvement of long-term prospects for firms. Social and environmental factors are also important.

4.3 These initiatives will complement existing County Council programmes to bring potential industrial land in the Priority Areas forward for development. This programme will continue with the help of the Land Forum in bringing together the resources of the local authorities, other public bodies and the private sector. The whole economic development programme will, however, depend on the extent to which the national economy improves.

4.4 Increased attention will be given to the promotion of the West Midlands as an attractive area for new industries and commerce. As part of this effort the industrial land allocated in the Structure Plan will be examined to assess the need for a limited number of more attractive sites, particularly on the edge of the built-up area and near motorway junctions. The County Council will also look at ways of controlling the development of such sites to ensure that their assets are properly used.

4.5 The growth of industry on the edge of the built-up area could have a big impact on the surrounding areas since it might intensify the demand for houses in such areas and increase movement of people out of the County. Conversely transport benefits are likely to accrue. In some cases potential industrial sites could be outside the County in one of the surrounding Shire Counties. The review of industrial land allocations will, therefore, have to be done with the co-operation of the Shire Counties.

The Contribution of Transport

4.6 Good transport is important to industry. Even accepting the limit on money available for transport the County Council will continue to give a high priority to road improvements which help existing industry or provide access to potential industrial sites.

4.7 Efficient Public Transport is essential to major urban areas. Many conurbation authorities have invested in some form of new public transport system. The most recent of these is at Tyne and Wear. Different systems are suitable to different locations but their common characteristics is the ability to move large numbers of passengers quickly. Their achievements to date have been limited and their capital costs are far above the spending assumed in the Structure Plan. Nevertheless, the benefits of a new public transport system could assist urban regeneration. The introduction of such a system for the West Midlands particularly on a regional scale would require special funds possibly involving the Common Market. As part of the Structure Plan Review, an examination of alternative

public transport systems will begin. Alternative means of funding such systems and opportunities for strengthening public transport links between the County and the surrounding Shire will be explored.

4.8 Increased goods movement was expected in the Structure Plan to be catered for by larger vehicles. The Plan contained proposals to aid the movement of freight and minimise the environmental effects of commercial vehicles. In accordance with these proposals road conditions have been improved by highway schemes, a preliminary survey has been undertaken to identify sites suitable for major road freight distribution centres and bids for help in providing private rail sidings have been supported where this would result in more freight being carried by rail. Although the number of vehicles based in the West Midlands has fallen, their environmental impact is causing concern and this may be increased if the proposal in the Government White Paper for raising the maximum gross vehicle weight to 40 tonnes is adopted.

4.9 The development of improved passenger and cargo facilities at Birmingham International Airport will generally enhance the attractiveness of the County to business and widen the market for local goods and services. It will substantially improve the capacity for and quality of air travel.

The Quality of Regeneration

4.10 Preliminary results from the 1981 Census show that between 1971 and 1981 the population of inner Birmingham fell by 50,000 with, for example, Duddeston losing 45% of its population. The County Council remains convinced that the Structure Plan is right in its efforts to improve the quality of life in the inner city and to provide the essential opportunities and services if we are to convince people that they need not move out and even attract back people who have already moved out.

4.11 The County Council will, therefore, look closely at the Structure Plan to see how a greater emphasis can be given to improving the quality of life in the Priority Areas. The balance of industry, housing and open space may need to be changed to reduce the emphasis on industrial development and to provide more land for housing, parks and other leisure uses. The derelict land declamation programme will be used as a major tool in improving the environment of the Priority Areas. This would require a significant change in some policies in the Structure Plan which are designed to encourage industrial development in the Priority Areas and the allocation of additional resources by Central Government for reclamation. As a further contribution to improving the quality of the inner city environment, the County Council will continue to remove blight from road schemes and other development proposals, and will examine alternative means of providing for an improved road network in the longer term.

The Quality of Housing

4.12 The County Council and the District Housing Authorities are increasingly concerned that the condition of the older housing stock is deteriorating. Together, the local authorities will, therefore, emphasise to Central Government and local M.P.'s the need to increase resources

available to the local housing authorities as a matter of urgency. Otherwise, neither the local authorities nor the private builders will be able to keep pace with increasing obsolescence. Current policies will inevitably lead to a need for large-scale redevelopment, which must be avoided.

4.13 In the short term, efforts will have to be concentrated on the areas of greatest need. Other sources of money for housing, principally from the private sector and building societies will become increasingly important. As part of the Structure Plan Review the County Council will examine the housing land to identify opportunities for increasing the rate at which that in the inner city is developed. It will also look at whether peripheral development in other locations, e.g. Keresley, Coventry, is still necessary in the light of revised housing needs which will be prepared following the analysis of the 1981 Census.

Vulnerable Groups

4.14 County Council policies for increasing employment opportunities and for improving housing conditions and the environment, will help those people who have been most vulnerable to the effects of the current recession.

4.15 The existing programme of renewing old factories and providing small industrial workshops in the Priority Areas is already producing opportunities for new jobs although these are not always taken up by inner-city residents. The County Council Task Force is also being increased in size and is beginning to take on a wider range of projects. This work will be continued.

4.16 But more needs to be done. The County Council will, therefore, work with the Districts and other bodies to involve local communities directly in its work on regeneration. A Community Action Programme will be considered in which County Council support and financial aid would be given for small scale economic, environmental, and other self-help projects to be undertaken by communities in their own areas. Unemployment is likely to continue to be serious and we cannot allow these human resources to be wasted. A Community Action Programme would provide opportunities for unemployed local skills and talents to be used to improve conditions for local communities.

4.17 The County Council will, therefore, use the results of the 1981 Census and other indicators to identify those areas and groups in most urgent need of attention. This will include a review of the boundaries of the Priority Areas and other policy mechanisms for concentrating action.

4.18 The County Council will also co-operate with the Districts in publicising the availability of welfare rights to ensure that they are fully used. Other County policies serving the needs of vulnerable groups will be kept under review.

4.19 The economic policies recently adopted by the County Council include a commitment to support training and apprenticeship programmes which can be used to improve the skills of young people who at present have little chance of getting a job.

5. CONCLUSION

5.1 The County Council is taking action to regenerate the economy of the West Midlands and results are already being achieved. Additional initiatives are being developed.

5.2 The regeneration of the Priority Areas will continue to be a major task of the County Council. A review of the means of achieving regeneration and providing a better quality of life will be carried out by Autumn 1982. This will include the possibility of establishing, with the District Councils, a Community Action Programme giving local communities a leading role in regeneration.

5.3 The County Council will as far as possible concentrate its own investment in areas with the greatest needs. It will also tap new sources of investment and encourage others to concentrate on particular areas.

5.4 It is already clear that some of the targets set in the Structure Plan will not be met unless more money is found. This means that the economy of the West Midlands would continue to suffer and that people living in the West Midlands would have to accept poorer housing and other services. Further outbreaks of social disturbances could occur as a result.

5.5 The County Council does not accept that position. Even when national resources are limited the recent cuts in local authority investment are not inevitable. They are in marked contrast to increases in central government spending. The local authorities are responsible for essential services and the need for these services has been increased by the current economic recession. The County Council with other local authorities will continue to press the Government to review its priorities.

5.6 The County Council believes that its package of programmes, policies and action will make a significant contribution to the regeneration of the West Midlands.

5.7 But this cannot be achieved by the County Council alone. Everyone with interests in the West Midlands has a role to play. Together we can plan positively for the Eighties. Help the County Council and the District Councils to help you.

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1 INTRODUCTION

1.1 The West Midlands, once the 'workshop of the world' is facing the worst economic crisis in its history. About 225,000 people, 16% of the County's workforce of 1.4 millions, are now without a job and in some inner city areas unemployment rates are almost certainly in excess of 25%. At the same time public spending on housing, transport and other services is being severely curtailed. The public disturbances which last year erupted on the streets of Brixton, Toxteth and Moss Side were echoed in Handsworth, Smethwick, Wolverhampton and Coventry, reflecting discontent with the worsening situation in the fortunes of the inner city. This is the background against which the County Council's second Structure Plan Annual Statement is prepared.

1.2 The County Structure Plan was submitted to the Secretary of State for the Environment in November, 1980, as a replacement for the separate Structure Plans previously covering the County area. Its strategy is based on the need to improve the economy of the West Midlands and, in particular, to renew its older urban areas. These are identified as "Priority Areas" where public and private investment should be concentrated. Complementary policies restrict housing and industrial development in peripheral areas. This strategy, which forms part of a wider regional strategy of urban regeneration, has now been endorsed by the Secretary of State.

1.3 The Structure Plan contains a commitment to produce an Annual Statement "to show progress in the implementation of the Strategy, to update information and policies and to provide guidance for implementing agencies" (para. 17.6). The 1981 Annual Statement, published four months after the Plan's submission, was a selective document related to the Examination in Public of the Plan. This year's statement has wider objectives:

- (i) to review the extent to which it has been possible to make progress in implementing the Strategy;
- (ii) to examine the main changes in circumstances which have occurred since the Plan was prepared;
- (iii) to indicate the need for new initiatives and actions to be undertaken by both the public and private sectors.

1.4 A major function of this Annual Statement is, therefore, to form a prelude to a review of the Structure Plan, identifying and seeking comment upon possible directions in which the Plan might be changed. The County Council remains committed to the Structure Plan strategy of revitalising the inner areas of Birmingham, Coventry and the Black Country - the 'Priority Areas'. What is in question is how this can most effectively be brought about. In particular the County Council is now giving increased priority to measures which will help to revive the overall economy of the West Midlands and to create new employment, through the establishment of the West Midlands Enterprise Board and other initiatives. Resultant changes to the Structure Plan will be considered in more detail over the next six months, during which time discussions will be held with the District Councils, other bodies and the public. Proposed changes will be considered by the County Council's Committees in the Autumn of 1982.

1.5 It is essential that co-ordinated policies are pursued at the regional level, by the Metropolitan County and neighbouring Shire Counties, particularly with regard to the surrounding 'Middle Ring' areas which are closely associated with the metropolitan core, by journey-to-work and other social and economic ties. To this end, the County Council is undertaking strategic studies jointly with the surrounding Shire Counties. It is also liaising with other Metropolitan County Councils on matters of common concern. This work is a key component of the Structure Plan Review.

1.6 Furthermore, while the Structure Plan is primarily concerned with a 10-15 year time-span, due regard is necessary to longer-term perspectives. The County Council has, therefore, in collaboration with relevant outside organisations and individuals, commenced a study aimed at identifying longer-term economic and social trends. This work has contributed to the Annual Statement and will influence the forthcoming Structure Plan Review.

1.7 However, it is only too apparent that whatever initiatives are taken by the local authorities and other public and private sector agencies locally, the future of the West Midlands is substantially, and increasingly, influenced by national policies. For example, even if the local authorities were able to create, or save, 5,000 jobs per year, this would be of relatively little avail if the recession and national economic policies resulted in the loss of 50,000 jobs. Likewise, the mobilisation of additional private or voluntary sector resources towards house improvements could be completely negated by further cuts in Housing Investment Programme allocations. Therefore, this Statement makes the case for a number of changes of direction in national policy and/or the allocation of more resources by central government to the West Midlands, without which any local strategy to revitalise the economy or regenerate the older urban areas can have but very limited success.

1.8 The Annual Statement is selective in its coverage. It concentrates on the activities of the County Council but this does not imply a lack of recognition of the role of other authorities and the private sector. There is already evidence that the public and private sectors are working together for the future of the West Midlands. This Statement represents the continuing contribution of the County Council to that work.

2 PROGRESS MADE IN THE LAST YEAR

Structure Planning

2.1 Since the publication of last year's Annual Statement, the submitted County Structure Plan has received the broad endorsement of the Panel which conducted the Examination in Public and of the Secretary of State for the Environment, who has proposed only limited modifications. At the Examination, held in March 1981, the County Council was put under some pressure from District Councils and others who felt that the emphasis given to the Priority Areas had produced housing and industrial policies which could not be achieved. The Panel was, however, satisfied that, with only a single exception, the strategy was realistic.

In spite of the difficulties involved in the Plan, they concluded:

"We think that the strategy is by so much the better than any other, that the Plan should stand and public authorities should be expected to implement it".

2.2 The only substantial dissent on the part of the Panel was over the housing capacity of the Priority Areas within Birmingham - which comprises the 'Core Area' of the Birmingham Inner City Partnership. Here the submitted Plan proposed to locate some 13,000 dwellings, or 40% of Birmingham's total provision. The Panel doubted the feasibility of this target and, therefore, proposed that allowance be made for an additional 2,400 dwellings on the edge of the built-up area south-east of Sutton Coldfield. The Secretary of State has proposed a modification to this effect, which has been accepted by the County Council on the understanding that land would not be released until substantial progress is made with development in the inner city. The Final Modifications from the Secretary of State are expected shortly.

2.3 The Secretary of State also welcomed the agreements on overspill levels reached between the County Councils in the Region. He agreed that additional housing provision in the rest of the Region would detract from the concentration on the Priority Areas. During the past year the West Midlands Forum of County Councils has been established, to supersede the West Midlands Planning Authorities Conference. Its activities are directed to strategic planning at the regional level and it has already initiated a number of studies in this respect.

Inner Cities Programme

2.4 The Urban Programme remains the only significant source of Government support for the Priority Areas. Nonetheless it excludes large parts of the County and has in fact been cut in real terms.

2.5 During 1981/82, approximately £17m is being made available through the Birmingham Inner City Partnership, £3.2m through the Wolverhampton Programme and £0.6m through the arrangements for Sandwell.

2.6 Within the Birmingham Inner City Partnership, the County Council is responsible for schemes in four topic areas - Economy, Physical Environment, Movement and Society.

2.7 Economic projects have been allocated 25% of Partnership resources in its first three years and in the light of the dramatically worsening employment situation this is being increased to 35% from 1982/83 onwards. Recent projects relate particularly to the provision of small 'nursery' workshop units - for which there is a continuing demand which is not being met by the private sector. A number of schemes have been completed or are in progress in the Aston, Bordesley, Small Heath, Highgate and Handsworth areas. A site has been acquired at Camp Hill for the relocation of firms affected by the Middle Ring Road and Small Heath By-Pass road schemes and three Industrial Improvement Areas have been declared - at South Aston (Gun Quarter), the Jewellery Quarter and Bordesley/Digbeth.

2.8 Support is also being given under the Economy Topic Area to projects run by voluntary organisations, in particular, those providing training and work experience for the young unemployed, and advice services. Some of these projects are funded jointly with the City Council and many are aimed particularly at ethnic minorities.

2.9 Such initiatives alone clearly cannot 'solve' the unemployment problems of the inner city. However, early results from monitoring small factory units provided under the Inner City Construction Package, which pre-dated Partnership, indicates that about 200 new jobs have been created although not all of these have gone to inner city residents.

2.10 A range of schemes is also being implemented by the County Council under the Physical Environment topic area of the Birmingham Partnership. Particular attention is concentrated upon shopping centres, which act as the focus of local communities and many of which have been declining in recent years. A major renovation scheme has been undertaken at Soho Road, Handsworth and others are being prepared, for example at Greet.

2.11 Approximately 5% (£0.83m) of the total BICPP funds are allocated to the Movement Topic Group whose main role is providing support for the Inner City regeneration policies of the other topic areas. This has been achieved by traffic management schemes, access roads for industrial development and works associated with housing improvements. The Topic Group is also involved in the support of a group that co-ordinates additional use for underused voluntary sector mini-buses.

2.12 Society Topic Group of the Birmingham Inner City Partnership has 5% of the total Partnership allocation amounting to some £0.8m in 1982/83. Its main aim is to improve the quality of life for inner city residents and particularly to promote those schemes that support community initiatives, alleviate deprivation or help special groups in urgent need. 29% or £0.23m of the total Topic Group budget in 1982/83 is allocated to the County Council, which funds the Lozells Community policing project in Handsworth; and three types of probation activity - activity centres, community based projects and the Birmingham Wheels project.

2.13 Under the Wolverhampton Programme, the main schemes implemented in the last year are related to the economy - the Horseley Fields Industrial Improvement Area, the refurbishment of industrial buildings at Commercial Wharf, and the servicing of the former Stafford Road Gasworks site for new industrial development.

2.14 Under the Sandwell Programme the County Council has principally been involved in the provision of small industrial units at Cradley Heath and in the refurbishment of shops in Oldbury Town Centre. The latter is part of a programme of co-ordinated action for the regeneration of the Town Centre, which has experienced, in an extreme form, the problems of decline common to many of the older shopping centres in the County. As a result of co-operation by the County Council, Sandwell District Council and private developers, the centre is in the process of transformation. A ring road has been built; a new bus station provided; derelict land reclaimed; and a

12,500 sq.m. hypermarket with 1,000 car parking spaces has opened right in the town centre. Grants have been provided for the improvement of existing shops and a limited redevelopment scheme providing new small shop units is imminent. Further stages involving the completion of the ring road, pedestrianisation and the provision of an open market are programmed.

Task Force

2.15 A significant initiative during the past year has been the expansion of the County Council's 'Task Force'. This is being developed with the co-operation of the Manpower Services Commission (M.S.C.) to provide:

(a) work experience and training programmes for the long-term unemployed including the provision of training workshops;

and

(b) the implementation of projects which benefit the community particularly in the Priority Areas.

2.16 Since May 1981 there has been a deliberate and significant build-up to 270 staff. A further expansion to 400 is agreed in principle. Wages are paid by the M.S.C. principally under the Community Enterprise Programme and partly under the Youth Opportunity Programme. The County Council employs managerial and support staff and provides basic 'infrastructure'.

2.17 Bases are being established to serve Birmingham; Wolverhampton/Walsall; Sandwell/Dudley and Coventry/Solihull. A wide range of projects is already being undertaken mainly associated with environmental improvements or community needs in the Priority Areas. Links with local communities and voluntary organisations are regarded as particularly important and a number of projects have been initiated in this way.

District Council Initiatives

2.18 Most District Councils are also involved in providing assistance to industry. In addition to normal advice and promotional services, Birmingham, Coventry, Dudley and Wolverhampton provide various loans and grants. All districts with the exception of Dudley have been providing new small factory units, and a total of nearly 500 have now been completed. Birmingham, Dudley and Wolverhampton have refurbished existing industrial buildings for sub-division into small units and Birmingham, Coventry and Dudley have opened or are proposing to establish New Enterprise Workshops. Birmingham, Walsall and Wolverhampton have each declared or are in process of declaring Industrial Improvement Areas.

Land Supply

2.19 A key aspect of the Strategy is ensuring an adequate supply of development land. The County Council is concentrating attention on two aspects:

(i) the Land Development Programme and Land Forum;

(ii) the Land Reclamation Programme.

2.20 The first Land Development Programme, providing details of housing and industrial sites included in the Structure Plan, has been published, with the aim of assisting the capital programming of all agencies concerned with land development and stimulating the development of land.

2.21 The County Council's Land Forum, which comprises representatives of local authorities, statutory undertakers and the private sector, has moved forward to study certain aspects of land development, notably:

(i) specific site studies to draw general lessons about land development;

(ii) mechanisms for public/private sector partnerships;

(iii) sources of development finance,

(iv) land monitoring (including a revised Land Development Programme).

2.22 Reclamation of derelict and waste land has continued relatively untouched by recent public expenditure restrictions. Approximately £1.6m is being spent by the County Council in 1981/82: £1.0M on site works, £0.1m on site investigations and £0.5m on land acquisition. Most of the land acquisition and site works cost is grant aided by the Department of the Environment.

2.23 The Structure Plan strategy involves a re-ordering of priorities so that land for housing and industrial uses is reclaimed as quickly as possible. Only a small proportion of land currently being reclaimed is for these uses but work has already started to ensure that in 1982/83 a number of major housing and industrial sites are reclaimed. Projects due to start in that year, therefore, include sites at Broad Lanes (Bilston), Bilston Gasworks and Daisy Street, Dudley, for housing, and at Stafford Road Gasworks (Wolverhampton), Leamore Lane (Walsall), and Swan Village Gasworks (Sandwell) for industry. This new emphasis is assisted by the recent change in Department of the Environment derelict land grant regulations where priority is now given to grant aiding derelict sites for development, preferably in partnership with the private sector. The private sector, encouraged by the Land Development Programme and by assistance for site investigations, has now acquired and reclaimed a number of derelict sites in the County.

Housing

2.24 The number of new houses started has dropped dramatically from about 7,400 in 1979/80 to only 4,700 in 1980/81. In all, only about 12,900 were started in the 27 months up to mid-1981 - an average of 480 per month. The impact of this fall has not yet been shown in the number of houses completed although it will be felt in the next few years. Some 10,200 new houses were completed in the County in the financial year 1980/81, compared with 8,500 in 1979/80. Overall, in the 27 months from the Structure Plan 'base date' of 1st April, 1979, to the end of June, 1981, 20,100 were completed - an average of 740

per month compared with approximately 700 per month required to achieve the Structure Plan 'target' of 97,500 - 103,000 by 1981.

2.25 House improvements and renovations totalled only about 11,000 in 1980/81 as compared with 12,500 in 1979/80, well below the Structure Plan target of about 20,000 per year. There has been a considerable reduction in the take-up of grants for private improvements although local authorities have been increasing the rate of renovation of their own older housing stock.

2.26 The implications of the reduction in investment in housing are therefore likely to be extremely serious. In particular many people in housing need will not have these needs met, more households will live in unsatisfactory houses, and more families will move out of the County as housing conditions deteriorate.

2.27 The rate of take-up of housing land has been similar in most of the districts of the County and broadly in line with Structure Plan expectations, although in Wolverhampton, nearly 40% of the total 12-year allocation of dwellings has already been completed and a land shortage could develop here during the Plan period.

2.28 However, the major problem is one of finance and, on the basis of current expectations of resource availability, a major shortfall in both new building and renovation seem inevitable. The implications are discussed further in Part 3.

Transport

2.29 The low level of capital allocation for 1981/82 noted in last year's statement has led to a slowing down in the number of road schemes. However, it has proved possible to complete the Coventry Inter-District Link Road and to commence a number of schemes which will contribute to accessibility in the Priority Areas - most notably the final section of the Wolverhampton Ring Road and a further stage of the Birmingham Middle Ring Road.

2.30 Work also commenced during the year on developing the new passenger terminal and aircraft apron at Birmingham Airport which will allow the airport to handle 3m passengers per year on domestic services and short-haul services to Europe (as compared with the current figure of about 1.5m). The development includes the MAGLEV rapid transit system which will link the new terminal with Birmingham International Railway Station and the National Exhibition Centre. It is seen as a prestigious location in which to demonstrate new British technology with worldwide export potential.

2.31 Outside the County a number of steps have been taken towards the extension of the motorway network serving the Midlands. Work has now commenced on the M.54 which will link Telford with the M.6. Work is due to start in 1982/83 on the Bromsgrove to Solihull section of the M.42, which will complete the link between the M.5 and M.6 to the south of the County. A final decision on the Coleshill-Tamworth and Tamworth-Nottingham Sections of the M.42 is awaiting the inquiry report, while a line has now been published for the remaining sections of the M.40 (Solihull-Oxford) which will provide the

West Midlands with a second motorway route to London as well as links to the south coast ports. Finally, routes are now under investigation for the northern orbital which will link the M.54/M.6 with the A.38 to the north-east of the conurbation.

2.32 The Department of Transport and the British Railways Board have, during the year, published a review of options for further main line electrification. Strong support will be given by the County Council to potential schemes such as Derby-Birmingham-Bristol and Birmingham-Reading primarily because of the improvement in accessibility that would result. The County is also supporting the development of a new Iner-City station at Oldbury.

2.33 The advantages of electrification have led the County to undertake a feasibility study into the electrification of commuter rail services in and around the West Midlands. This will enable a programme of local electrification to be established phased in with a national main line programme.

2.34 Following the County Council elections of 1981 public transport fares were reduced by an increase in revenue support. The policy was designed to help those who did not have access to a car, to reduce traffic congestion and as a result to restrict the need for new road schemes. This reversed the previous decline in use and contributed to an increase in the number of passengers carried to some 8% above that prevailing a year previously. A number of additional services were also introduced.

2.35 The recent Law Lords ruling on the GLC case has resulted in fares being increased by about 70% (30% on the levels prevailing before the reduction) as from March, 1982. No further increase is planned for 1982/83.

Waste Disposal

2.36 There have been a number of developments in Waste Disposal and Pollution Control in the past year. In particular, a public inquiry was held to examine waste disposal matters including the Draft Waste Disposal Plan. The Independent Assessor's report was received by the Council on the 8th March, 1982 which resolved to take its contents into account in the formulation of a new Waste Disposal Plan and any associated policy matters. The Assessor considered that the Public Inquiry had been a bold initiative, more than justified by the public response, to involve all interested parties in the formulation of a waste disposal strategy. He felt there was a continuing role for incineration, subject to periodic review, within a balanced overall strategy. He considered that it would be worthwhile investigating in detail schemes for the recycling of materials from waste provided the general economics were taken into account and he agreed with the Council's policy of strengthening its role in relation to the monitoring and control of toxic waste disposal to ensure the protection of the environment and the safeguarding of public health.

2.37 The Council has commenced investigations into the possibility of converting the former incinerator at Castle Bromwich into a plant for reclaiming materials, and producing fuel from waste. Work is also in hand to set

up a bottle bank scheme, and all new public waste disposal sites are being provided with waste oil tanks.

2.38 Construction work on converting the former incinerator at Lifford in Birmingham to a transfer station is well advanced, and work has commenced on substantial improvements to an existing transfer station at Rotton Park Street, also in Birmingham. Development work also commenced during the year on a large landfill site at Booths Lane, Queslett, Birmingham, and also on a smaller site near Meriden. As part of its programme to acquire strategic landfill capacity the Council commenced a Compulsory Purchase action to secure capacity at Himley, to the west of Dudley.

2.39 As part of its programme to improve services to the public, a number of new or improved public waste disposal sites were commenced during the year:-

- i) at the Perry Barr incinerator, the new site was opened in September, 1981;
- ii) at the Tyseley incinerator and at the Lifford Transfer Station, construction commenced in the Autumn of 1981;
- iii) at the Crown Street, Wolverhampton site, work to enlarge the site started early in 1982, as did work to improve the site at Mucklow Hill, Halesowen;
- iii) a site was acquired in Bloxwich to construct a totally new site, to replace the site at Bentley Lane, Walsall, which provides a very low standard facility.

2.40 Increased emphasis on the control of environmental pollution has led to a re-appraisal of the Council's work in this field, and to the recruitment of more qualified staff to undertake the inspection of facilities treating and disposing of wastes, particularly those regarded as hazardous. The House of Lords Committee on Hazardous Waste Disposal reported during the year and recommended, among other things, that planning for waste disposal should be undertaken on a regional basis. There is already an informal group of waste disposal authorities in the West Midlands Region. The County Council, therefore, is already committed to planning on a regional basis.

New Initiatives

2.41 During the past year it has become apparent that other initiatives, besides the Structure Plan policies, are required. The new County Council, on assuming office, decided that these initiatives needed to be integrated into a wider ranging and more comprehensive approach if a significant contribution were to be made to regenerating the West Midlands economy. It, therefore, set about developing a new strategy to defend and promote employment and investment levels in the West Midlands County area.

2.42 The principal agency of this strategy is the West Midland Enterprise Board which has now been formally established and which will make substantial investments in medium to large size companies with the aim of securing employment potential while at the same time obtaining

long-term growth in the value of the public investment involved. The County Council is able to take a longer-term view of viability and growth potential than are many of the private sector financial institutions and the Board will, therefore, be able to make a significant contribution to promoting economic growth.

2.43 The County Council is also pursuing a range of other initiatives, through its Economic Development Unit. These include the promotion of co-operatives - through the establishment of the Co-operative Development Agencies, based in Birmingham, Coventry and the Black Country and through grants to existing and new co-operatives. The County is supporting the provision of new enterprise workshops in each District of the County to provide starter premises for co-operatives and small firms. They also include support for Unemployed Workers Centres, Trade Union Resource Centres and the Unit for the Development of Alternative Products based at Lanchester Polytechnic, Coventry.

2.44 The County Council has launched a welfare benefits campaign in conjunction with Birmingham City Council in order to increase the income of the poorest sectors of the County's population, many of whom live in the Priority Areas as defined in the Structure Plan.

2.45 The County Council is also taking initiatives in the field of training, particularly skill training where major cut backs threaten the ability of the area to respond to any upturn in the economy. A package of measures has been developed (principally in association with the Engineering Industries Training Board) costing in all over £1m and particularly directed at providing worthwhile skill training opportunities for disadvantaged groups.

2.46 Science Parks, providing industrial research development facilities, are being established by the University of Aston, in association with Birmingham City Council; and by the University of Warwick, in association with Coventry City Council and the West Midlands County Council. This involves the development of a 24 acre site adjacent to the University campus, and will be meeting the cost of road and drainage works for the first 10 acres of the site.

2.47 The County Council regards advocacy as another important part of its role in relation to the local economy. It has recently submitted to Government a proposal that Coventry and Walsall should be accorded Programme status under the Inner Urban Areas Act and that Sandwell should be up-graded from Designated district to Programme status. The recent effects of the recession in the West Midlands have been such that these three districts are now in a worse position on many criteria than other districts nationally where these arrangements already apply.

2.48 It has also submitted a proposal for a radical review of regional policy.

2.49 The County Council has expanded its role of advocacy in relation to the severe housing problems of the County. It has brought together information on the scale of the problems being experienced by the district councils and has lobbied central government and local MP's on their behalf. It has helped to finance and organise an extension

of the recent national housing condition survey to provide up-to-date information on the state of the existing housing stock and has also taken the lead in an examination of housing problems in the region in association with the shire counties. Through the Land Forum it is seeking in association with the district councils, the private sector and other implementing agencies not only to ensure their land is brought forward for development but is also, in discussions with various financial institutions, to examine ways in which funds can be increased and channelled towards areas with the most urgent problems.

2.50 The County Council now undertakes a comprehensive programme of public participation, consultation and publicity. In addition to normal statutory consultations opportunities for the public to respond to proposals have been increased by arranging more public meetings and the greater use of radio broadcasts. Following such consultations in Aldridge/Brownhills and Keresley, Coventry, the County Council is currently reviewing development proposals for these areas.

2.51 More emphasis than previously is given to wide publicity to the activities of the County Council. Exhibitions have been organised at public events and gatherings such as the Birmingham Show. Structure Plan initiatives, Derelict Land Reclamation schemes, canal improvements and Inner Area projects, such as shopping centre schemes, have thereby been brought to the attention of the population.

2.52 With regard to Waste Disposal the Council has already decided to take immediate steps to strengthen the Pollution Control Division in order to have closer monitoring and control of toxic waste disposal sites. The Council is also initiating bottle bank, tin-can, and waste oil recovery schemes and is carrying out development work on a recycling/waste derived fuel plant. Furthermore, a programme to improve public waste disposal sites is underway.

3 CURRENT TRENDS

3.1 Three over-riding trends have emerged since the Structure Plan was prepared. These are:

- (i) the deepening of the recession in the national economy, with particularly severe repercussions in the West Midlands;
- (ii) further reductions in local authority spending;
- (iii) increased social problems reflected in the street disturbances of the Summer 1981.

3.2 These trends affect both the nature of the problems confronting the local authorities and their capacity to tackle them. This section, therefore, analyses the main trends as a prelude to County Council action.

The Economy

3.3 Employment in the County has been falling since the mid-1960's. During the eleven years from 1966 to 1977, total employment fell by 221,000 (14%) and jobs in manufacturing by 229,000 (26%). However, the decline

in employment has accelerated rapidly over the past few years. Nearly 83,000 redundancies were reported in the County between May, 1979 and October, 1981 and the number of jobless increased by 140,000 (56,000 per year) during this time. Approximately, 79,000 of the redundancies were in manufacturing, including 69,000 in the metal-based industries which form the basis of the local economy. The County unemployment rate, which was close to the national average at around 5% during the later 1970's has now reached about 16% while the national rate has climbed to 12% (Fig. 1). The local rate of unemployment is now similar to that in Tyne and Wear and second only to Merseyside amongst the Metropolitan Counties. The West Midlands has in fact lost a higher proportion of its manufacturing jobs in recent years than has Merseyside, although Merseyside has had a more severe contraction in its service sector.

3.4 All western economies have been suffering increased unemployment in recent years due to the international recession. However, the increase since 1979 has been much greater in U.K. (Fig. 2). This has been due to the relative uncompetitiveness of British Industry, which has suffered from a lack of investment over a long period of time (Table 1) and to recent national economic policies which have emphasised unsuccessful attempts to combat inflation through monetary controls which have led to a massive rise in unemployment.

3.5 The repercussions of these national trends for the West Midlands have been particularly severe due to the concentration of vulnerable sectors of manufacturing in the region. Indeed, the West Midlands has suffered the greatest economic reversal of all U.K. regions in recent years and is rapidly assuming the same relative status as the North West and Northern Ireland within the national economy. Public resources and investment are currently flowing out of the Region at a rate of £119 per year for every head of resident population, while the equivalent figure for the South East, which is supposed to be assisting other regions, is only £36 per head.* Research covering a large number of major industrial regions in Western Europe has shown that the West Midlands had the lowest industrial investment per head during the '70s and the lowest investment per employee when compared with the national average in each country. Relative decline and lack of investment on this scale needs some new and clearly defined policies and emphasises the importance of the County Council's new economic initiatives especially its attempts to attract investment from pension funds through the West Midlands Enterprise Board.

3.6 Within the region, the Metropolitan County is particularly disadvantaged. In January, 1982, the County employment rate stood at 16.3% as compared with the regional rate of 15.3%. All the travel-to-work areas in the County exceeded the regional average, with Walsall highest at 17.5%. Outside the County only Oakengates (which includes Telford New Town) and Redditch were above the regional average (Table 2).

NOTE * Cambridge Economic Policy Review, July 1980.

FIGURE 1 Unemployment Rates in Metropolitan Counties

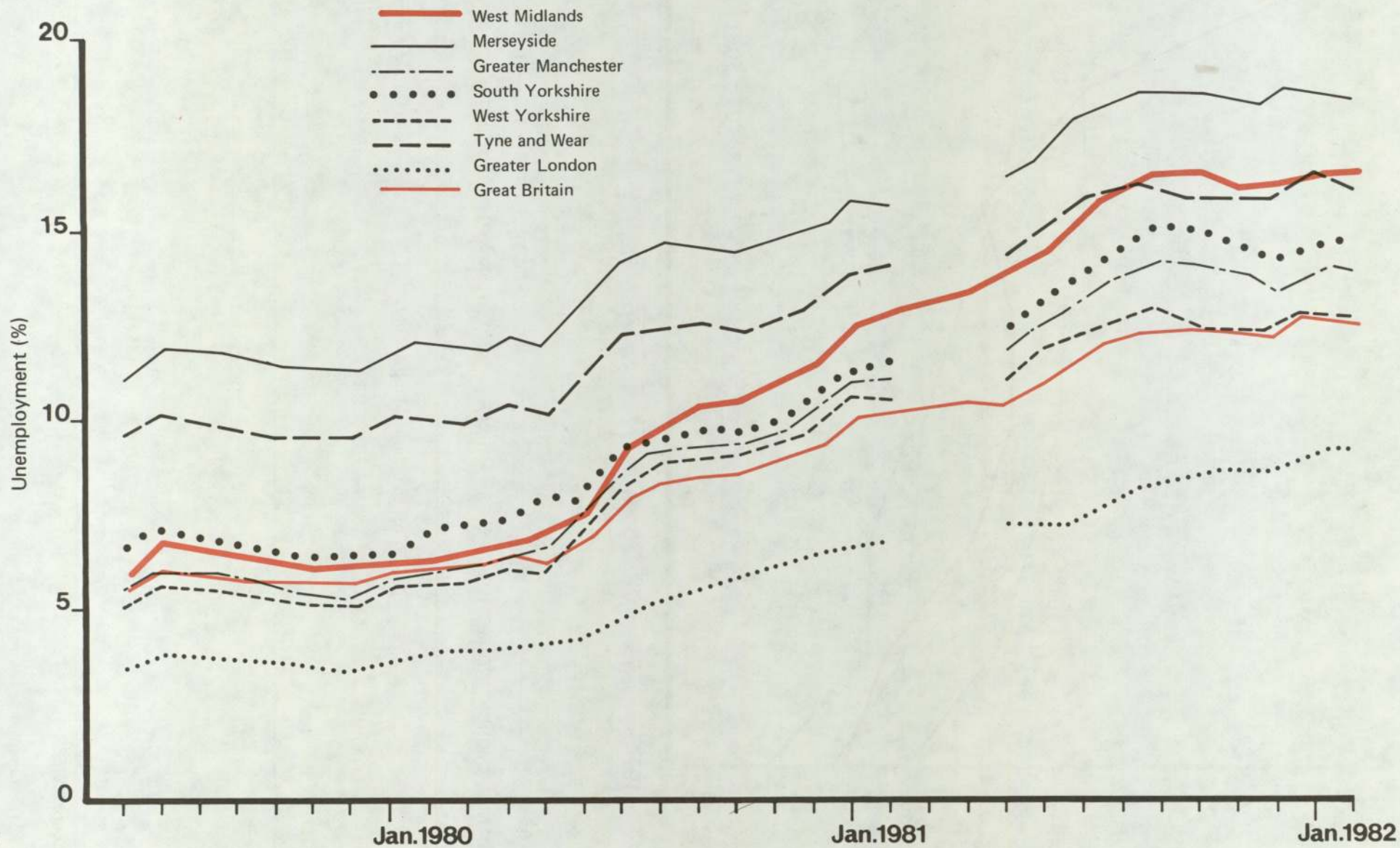


FIGURE 2 Unemployment in Western Europe

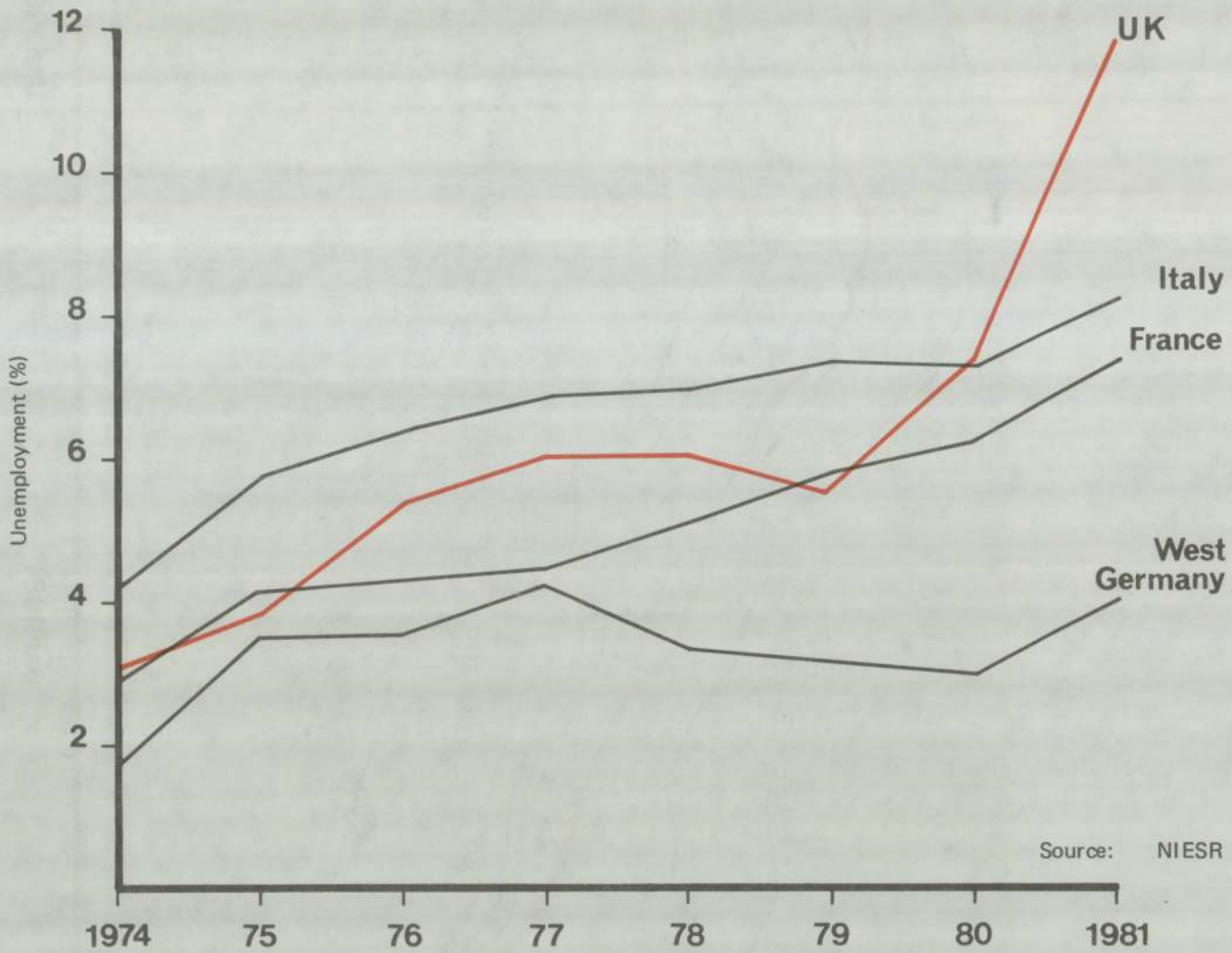


TABLE 1

MANUFACTURING INDUSTRY IN WESTERN EUROPE – PRODUCTION AND PRODUCTIVITY

Country	% Change in Industrial Production				% Change in Output/Person Hour	
	1951	1966	1974	1979	1974	1979
	-66	-74	-79	-81	-79	-81
France	127	56	10	-8	+25	+2
Italy	227	53	10	6	+15	0
W. Germany	185	43	10	-1	+23	+2
U.K.	57	18	-1	-14	+5	+3

Source: NIESR

NOTE: Comparable figures not available for Japan and U.S.A.

TABLE 2

UNEMPLOYMENT, WEST MIDLANDS REGION, JANUARY, 1982

Travel-to-Work or Employment Exchange Area	Number Unemployed	% Rate
Oakengates	12,100	20.2
Walsall	29,500	17.5
Wolverhampton	24,400	16.7
Birmingham	115,200	16.5
Redditch	5,700	16.4
Coventry	38,900	16.0
Dudley/Sandwell	47,000	15.4
Regional Average	(15.3%)	
Stoke-on-Trent	28,700	14.0
Kidderminster	5,600	13.8
Rugby	3,900	12.7
Worcester	8,700	12.1
Shrewsbury	4,600	11.1
Leamington	5,300	10.4
Stafford	4,600	8.4

Source: DE/MSC

3.7 This pattern is consistent with the recent Manpower Services Commission Report* which concluded that labour demand would be weakest in the conurbation - affecting the young, women and ethnic minorities in particular - whereas the surrounding County towns will be relatively stronger.

3.8 At the local level there are indications that the older urban areas of the County are suffering particularly severely. Unemployment rates in Handsworth and Saltley, for example, are over 25%. The ethnic minorities have traditionally experienced substantially higher unemployment than the indigenous population and there are indications that they have been suffering more than their 'share' of the increase. For example, in the Birmingham Partnership Area the number of unemployed from ethnic minorities increased by 24.4% compared with 21.5% for the rest of the population between November 1980, and May 1981. Youth unemployment is a severe problem and becoming worse. At January 1982 some 36,100 people between 16 and 19 years old were unemployed. This was an increase of 28% since April 1981.

3.9 Closures have been widespread but a number of very large closures involving thousands of workers have affected local areas particularly severely, including: Bilston Steelworks, Triumph (Coventry). Between September 1981 and January 1982 approximately 12,500 redundancies were announced (see table 3). There has been an increase in vacant industrial floorspace on the market from 2m ft² in 1979 to over 6m ft² now.

3.10 Immediate prospects for the national economy are disastrous. The Structure Plan anticipated that Gross Domestic Product would fall by 2.5% in 1980 and then

grow at about 1% in each of the following three years. However, the fall for 1980 was ultimately around 2.8% and final figures for 1981 seem likely to show a further fall - of about 2%. Current forecasts indicate that there should be no further decreases in 1982 and some modest growth in 1983, of around 1%. Nevertheless, even if this materialises the net effect over the four years 1980-83 would be an overall decline of about 4% as compared with the small increases (of about 0.5%) implied by the Structure Plan forecasts. Britain is for the first time in the post-war period, experiencing a real reduction in the standard of living, extending over several years.

3.11 The proportion of the population receiving free school meals, rent and rate rebates and other benefits has been increasing and it is clear that poverty is becoming more extensive.

3.12 These economic problems undoubtedly played a part in the disturbances which occurred in 1981. They were, at least in part, an expression of a deep-rooted inner city problem which has not been solved in spite of the efforts of government and local authorities in the 1970's. They focused public attention on urban deprivation in general and the problems faced by ethnic minorities in particular. Unless major progress is made in urban regeneration there is a real danger that civil disorder may recur perhaps on an even greater scale.

3.13 Nevertheless, the prospects for reducing unemployment are daunting. The potential labourforce is increasing as young people born during the period of high birthrate in the 1960's enter the labour market, substantially exceeding the age groups born during and immediately after the first world war who are now reaching retirement. Nationally, it is estimated that 700,000 additional jobs are required over the next five years for this reason alone before any impact is made on the level of unemployment. This problem is particularly marked in the

NOTE * "Labour Market Trends in the West Midlands Region to 1983" MSC, 1981

TABLE 3

ANNOUNCED REDUNDANCES IN WEST MIDLANDS COUNTY, SEPTEMBER 1981

Date	Number	Company	Reason
Sept. 81	95	Rabone Chesterman, Birmingham	Recession
	130	Wimet, Coventry	Re-organisation
	500	Brit. Ind. Plastics, Streetly	Re-organisation
	450	Aston University, Birmingham	U.G.C. cuts
	100	T.D. Cross, Great Barr	Cycle sales recession
	80	Clarkson Int. Tools	Recession
	70	Mansill Booth, Smethwick	Falling demand
		C.E.G.B. Birmingham	Closure of Neshells Power Station
		C.E.G.B. Walsall	Closure of power station
	28	H.R. Owen, Halesowen	Loss of R.R. franchise
1,500	B.L., Longbridge	End of Allegro assembly	
Oct. 81	400	GKN, Smethwick	Re-organising fastener division
	1,000	Lucas, Birmingham	Car industry recession
	75	Bill Switchgear, Great Barr	Recession
	1,500	B.L. Cov. Engines, Coventry	B.L. engine making rationalisation
	56	Webley & Scott, West Bromwich	Low orders, recession
	77	Black Lake Foundry, W. Brom.	Falling orders
	240	Hale & Hale Foundry, Tipton	Falling orders
	100	BSA Guns, Small Heath	Move to new factory
	1,600	B.S.R. Halesowen	Low sales
	240	W.T. Avery, Smethwick	Attempted return to 5 day week
Nov. 81	150	Chas. Richards Fastners, Darlaston	Trading losses
	120	Bradley & Foster, Darlaston	Falling demand
	325	John Harper, Willenhall	Heavy engineering
	740	Guy Motors	B.L. Truck re-organisation
Dec. 81	150	Birmal Castings, Smethwick	Losses
	100	Osram, Witton	Recession/low orders
	180	Schrader Valves, Tyburn Road	Non-comp. with overseas plants
Jan. 82	360	Brico, Coventry	Motor vehicles, recession
	600	Rolls Royce Aero (Parkside) Coventry	Company re-organisation
	50	Courtaulds, Coventry	Falling demand for nylon
	200	Robinsons Bakery, West Brom.	Low sales
	70	Ward Bros. Wolverhampton	Building Industry recession
	250	B.L., Drews Lane and Longbridge	B.L. rationalisation
	273	Cincinnati Milacron, Birmingham	Japanese imports
	77	Speedwell Gearcase, Witton	Decline in engineering demand
	280	Supalink, Bickenhill	Loss of Sainsbury's Contract
	100	Price, Saltley	Far East competition in cutlery
	725	Massey Ferguson, Coventry	Company re-organisation
	400	B.S.R. Cradley Heath & Stourbridge	Foreign competition in Audio
	750	B.L. Longbridge and Drews Lane	End of Allegro production
	<hr/> 12,423 <hr/>		

West Midlands. The County, for example, currently has more persons in the 10-14 age group than the national average.

3.14 It is essential that the economic problems of the County are viewed in a sub-regional perspective. The metropolitan area is an important source of employment for many residents in the adjoining Shire Counties particularly those living in the 'Middle Ring' of towns immediately beyond the Green Belt, including Cannock, Lichfield,

Tamworth, Nuneaton, Leamington, Redditch, Kidderminster and Telford. The relationship between labour supply and demand, both within the Metropolitan County and in the Middle Ring is a critical one. Residents of the Middle Ring are often in a strong position to compete for jobs in the metropolitan area due to many factors including their occupational skills and the types of job opportunities available.

3.15 Furthermore, the population seeking work is likely to increase even more rapidly in the Middle Ring than in the Metropolitan County due to its relatively youthful population and its gains of population by migration from the metropolitan area. The implications are that competition for jobs in the Metropolitan County by Shire County residents could become more intense in the future, while at the same time employment locations in the Middle Ring could become relatively more attractive than those in the County due to the local labour supply and better environment. In this context it is significant that Shire Counties are often providing in their plans, large areas of land for industry based on an assessment of resident labour supply which assumes a zero rate of unemployment.

Transport

3.16 Transport is a key element of the Structure Plan strategy, with two important parts:

- (i) improving the road and rail network to provide more efficient movement and contribute to the economic regeneration of the Priority Areas;
- (ii) providing an effective integrated public transport service giving access to jobs, shops, schools and recreation, with particular attention to the Priority Areas.

3.17 The Structure Plan was prepared in the context of what was then expected to be the most likely level of resources available for transport, although it stated that this would not be adequate to meet all the Plan's objectives. Despite this, the Government has reduced its allocations to the County. It now seems that no more than three quarters of the road schemes included in the Plan will be implemented while it will also be impossible to meet the policy objectives for public transport.

3.18 For 1981/82 the County received an allocation for capital expenditure that was little more than half the national average figure (per head of population). This low level was particularly unjustified because the bid had been in accordance with the level proposed in the Structure Plan, which was itself considered too low to solve the many transport problems of the County.

3.19 The County Council anticipated in last year's Annual Statement that this would be a once-and-for-all reduction and that future settlements would be more favourable. Accordingly, a bid of £25m (at November, 1980 prices) was made for the 1982/83 year, as compared with the resource-constrained Structure Plan level of £26m. The TSG settlement* accepts capital spending equivalent to only about £17m at November, 1980 prices. At some 3.8% of the national settlement this is one third up on the previous years. On a per capita basis it is close to the average for all the Metropolitan Counties. However, overall these areas are receiving only about 60% of the national average allowance for capital spending (Table 4). In spite of the concentration of problems in urban areas, Central Government has been switching resources away from the Metropolitan Counties.

NOTE *Under the TSG (Transportation Supplementary Grant) system, Central Government deems a certain level of expenditure as "acceptable" and provides a proportion of this amount in grant.

TABLE 4
EXPENDITURE ACCEPTED FOR TRANSPORT SUPPLEMENTARY GRANT 1982/83

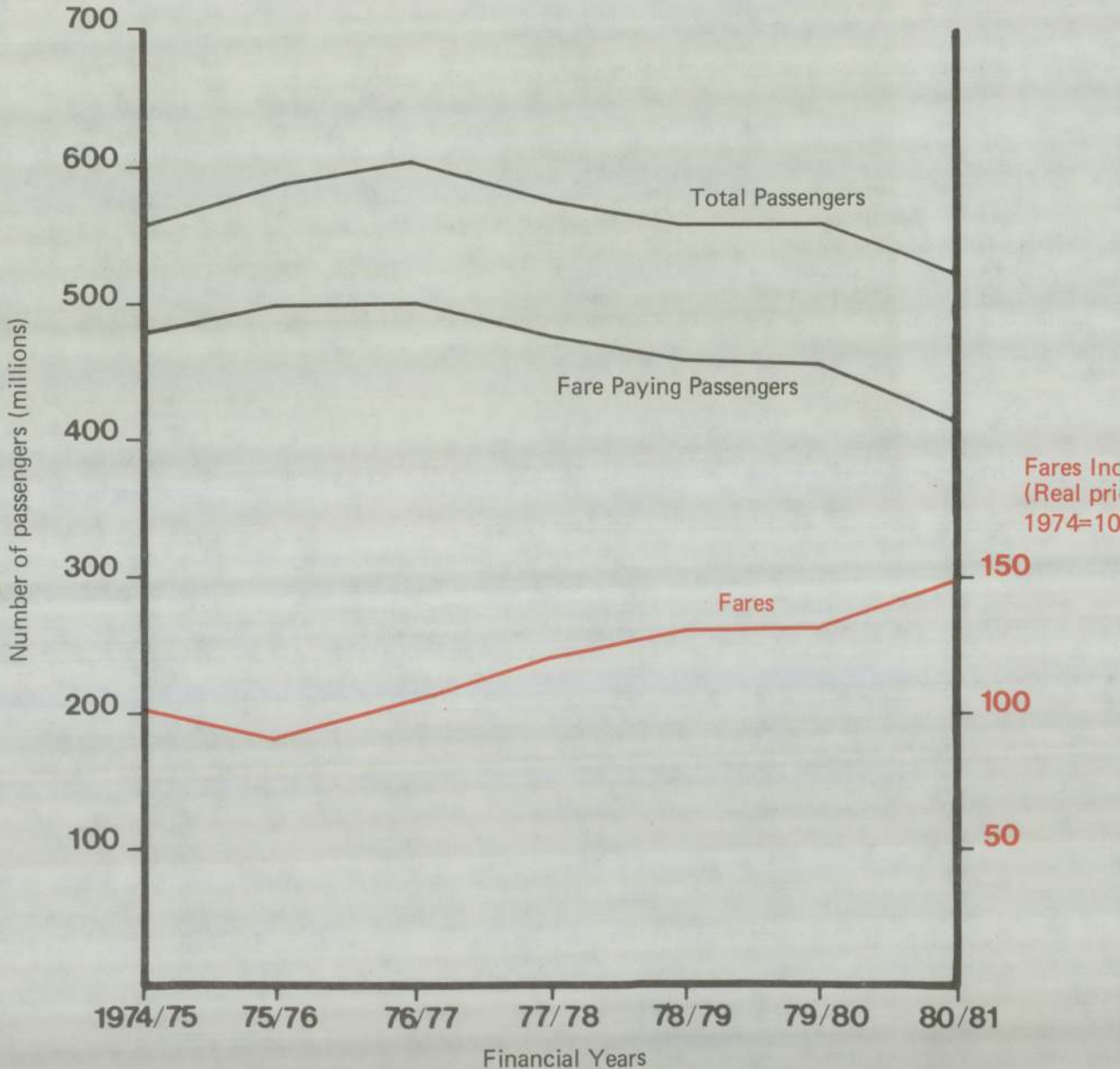
£ per head, anticipated cash prices					
Area	Revenue Support	Maintenance Etc.	Capital	Total	
Metropolitan Counties					
Merseyside	23.1	16.8	10.1	50.0	
West Yorkshire	14.9	17.3	7.1	39.2	
South Yorkshire	11.8	17.4	7.2	36.4	
Greater Manchester	14.0	14.6	5.4	34.0	
Tyne & Wear	12.5	17.1	4.0	33.5	
West Midlands	7.5	15.3	7.4	30.2	
All Metropolitan Counties	13.4	16.1	6.9	36.4	
Greater London	13.3	17.5	29.3	60.2	
Shire Counties	2.6	17.7	8.7	29.0	
Total	ENGLAND	6.8	17.3	11.2	35.3

Source: Department of Transport

3.20 In common with other urban public transport operators, the West Midlands Passenger Transport Executive has been faced with an underlying decline in demand due to factors outside its control, such as reductions in population density and numbers, and increasing car ownership. The Passenger Transport Executive has also been hit severely by the economic recession, which has reduced demand for travel to work and for optional journeys in the evenings and at weekends. The scope for further economies in operation is small as one-man operation is now complete. Further economies could be made by greater investment in other systems such as a fixed system.

3.21 During the period 1974-77, fares were broadly held constant in real terms and for this reason and, in part due to the extension of the travelcard system, fare paying use increased (Figure 3). However, between 1977, and 1980, fares were increased overall by about 50% in real terms as part of a policy of reducing revenue support. Initially, the reduction in use was less than anticipated due to the continued success of the travelcard policy. However, fare increases in 1980, together with the effects of the recession, led to a steep decline in use. Services were reduced by about 10% in November, 1980, but nevertheless, revenue support for the year 1980/81 had to be increased.

FIGURE 3 Public Transport Patronage and Fares
April 1974 – March 1981



Source: TPP 1981

3.22 A general fare reduction averaging 23% was, therefore, introduced in September, 1981, along with a flat rate fare for children, and the need for a higher level of revenue support was accepted. Following the introduction of these changes there was an immediate increase in use amounting to about 8% on the levels prevailing a year previously - a considerable achievement when set against the previous pattern of decline, and greater than had been anticipated by the Passenger Transport Executive. Additional services were also introduced. There are some indications that previous car users were being attracted to public transport. For example the number of vehicles crossing the Birmingham Middle Ring Road declined by 3.5% between November, 1980 and November, 1981, while the number of bus users stabilised.

3.23 However, the policy has had to be amended in the light of the House of Lords' ruling by the Greater London Council case and of the level of expenditure allowed by Central Government. A fares increase averaging 70% is being implemented as from March, 1982 and the flat fare for children withdrawn. As well as affecting mobility and the cost of living of the poorer sections of the population who tend to be particularly dependent on public transport, the change will also affect the viability of services. The Passenger Transport Executive has estimated a reduction of 16% in use (7% on the levels prevailing a year ago) as likely to arise from the March increases. However, it is acknowledged that the situation is uncertain and the substantial fare increases imposed in 1980 generated a greater than expected reduction in use.

3.24 The maintenance of the reduced fare levels would have required a revenue support in 1982/83 equivalent to approximately £21.40 per head (at cost prices). With the proposed 70% increase in fares, the need for revenue support, on government assumptions concerning inflation and wage increases, will be equivalent to about £9.70 per head. However, the TSG settlement (Table 4) allows for support at only £7.50 per head of population. This is well below all the other Metropolitan Counties. The average for these other five counties is around £15.30 per head, while the accepted level for Merseyside is even above what would have been required in the West Midlands to maintain the low fares policy. The West Midlands is now receiving less support for its public transport from the Government than any other Metropolitan area.

Population Trends

3.25 The preliminary national results of the 1981 Census - which have been published since last year's Annual Statement was produced - show two general trends - a continued movement from north to south and a movement away from the regions centred on conurbations.

3.26 Like the other conurbations, the West Midlands County lost population - nearly 149,000 (5.3%) since 1971. Birmingham, Coventry, Sandwell and Wolverhampton, all lost between 6% and 8.5% of their populations and Waslall 3%. Dudley and Solihull had small gains. The Priority Areas as a whole lost about 9% of their population and the Birmingham Priority Area (the Inner City Core) lost 16.6%. (Fig. 4).

3.27 During the last ten years the proportion of pensioners in the population of the County has increased significantly from 13.9% in 1971 to 16.5% in 1981. At the same time the reduction in the birth-rate and continuing movement of young families out of the County have resulted in the proportion of people less than 16 years old falling from 26.5% to 23.2%.

3.28 The surrounding Middle Ring gained 141,000 people (12.9%) during the decade and more than half of this increase was accounted for by Tamworth, Redditch and Telford, each of which gained about 25,000 people (Fig. 5). The balance between County and the Middle Ring continues to change as the decentralisation of population proceeds. Whereas less than a quarter of the combined County/Middle Ring population lived in the Middle Ring in 1961, nearly one third does so now. (Table 5).

3.29 The Census results also suggest that migration away from the region altogether may be greater than anticipated. This is particularly the case in Coventry where the Census population is 31,000 (nearly 10%) below the Structure Plan's expectation for 1981, and 24,000 below the preceding government estimate (mid-1980). This shortfall is apparently due to substantial migration out of the West Midlands Region.

TABLE 5
POPULATION OF COUNTY AND MIDDLE RING 1961-81

Area	1961		1971		1981	
	Pop (m)	%	Pop (m)	%	Pop (m)	%
West Midlands County	2.732	75.8	2.793	72.0	2.645	68.3
Middle Ring	0.873	24.2	1.086	28.0	1.227	31.7
TOTAL	3.605	100.0	3.879	100.0	3.872	100.0

Source: 1981 Census Preliminary Results

FIGURE 4 Population Changes by Ward, West Midlands County 1971 - 81

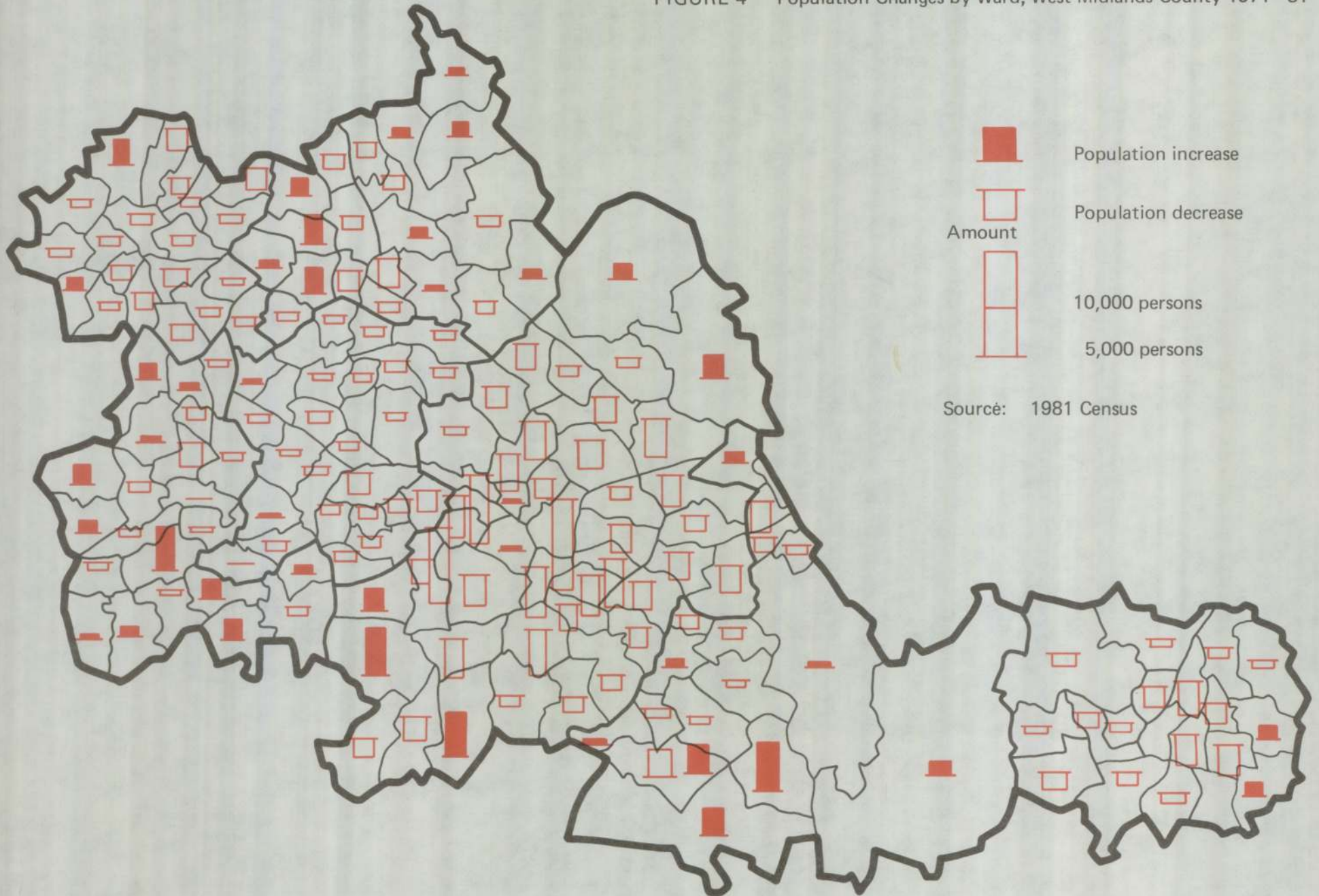
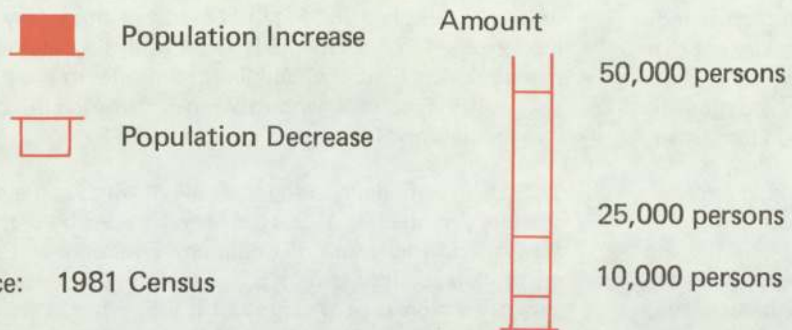
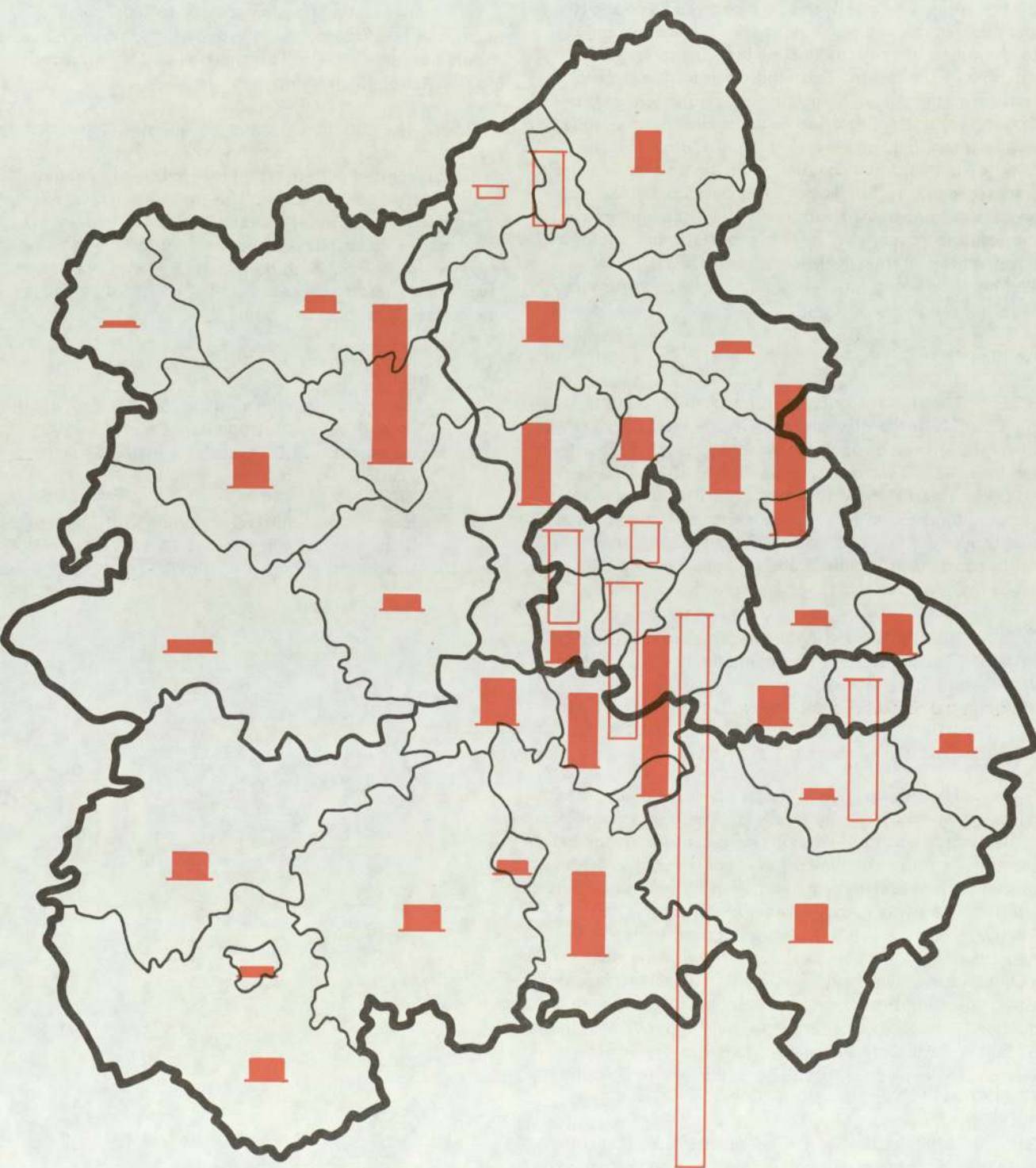


FIGURE 5 Population Changes, West Midlands Region 1971 - 81



Source: 1981 Census



3.30 Latest annual estimates from the National Health Service Central Register (NHSCR) data give further indications of short-term migration trends. These suggest that inter-regional migration away from the County as a whole is running at close to the Structure Plan anticipation of about 7,000 persons per annum net. Migration into other parts of the region, particularly the Middle Ring, seems, however, to be running at above Structure Plan expectations for 1981-91, in spite of the virtual ending of 'planned overspill' into the North Worcestershire housing schemes (i.e. about 9,000 per annum compared with the expected 7,000). The implications will need to be examined in the Structure Plan Review.

3.31 Migration out of the County tends to be socially and economically selective. It is taking place not only to the towns of the Middle Ring but also to rural areas throughout the region. This tends to lead to a concentration of relatively disadvantaged groups within the County. In future, migration could be even more selective due to increasing emphasis on building for sale in the Middle Ring. With the completion of the North Worcestershire schemes, the Tamworth Town Development Scheme and the winding-up of Redditch in 1984, the only remaining location potentially able to provide public sector housing for migrants on any significant scale will be Telford. This is not, however, a popular location for West Midlands residents.

Housing

3.32 The severe reduction in housebuilding starts in the County, in recent years, has already been noted in Chapter 2. Figure 6 shows the pattern since 1975/76. The fall from 10,000 starts per annum in mid-1970s to under 5,000 in 1980/81 reflects cutbacks in the public sector (local authority and housing association building), particularly over the last two years. Private building has been fairly constant at around 3,000 units per year, although starts in this sector also fell last year.

3.33 Housing is suffering the largest share of cutbacks in public expenditure. Government intends that public sector housing finance will be reduced by 63% between 1975/76 and 1983/84 compared with reductions of 31% in transport and 23% in education, and an increase of 12% in defence/law and order.

3.34 The cuts in public sector housing finance have had a severe impact locally (Table 6). There is as yet no evidence that private housebuilding can make up for the shortfall in terms of numbers. Private developers have to some extent been expanding the range of housing needs which they meet (e.g. by the provision of 'starter homes'). There are, however, very large areas of need (most of the households currently on local authority waiting lists for example) for which they are unlikely to be able to provide. Given these limitations, and expectations of further reductions in public sector resources, only about 70% of the 97,500 - 103,000 dwellings anticipated in the Structure Plan for the period up to 1991 seems likely to be built (Table 7 and Fig. 7).

3.35 Similarly, the Structure Plan estimated that some 234,000 older houses required renovation over the period 1979-91. However, at present expectations of resource

availability, it seems that less than 110,000 (45%) may be dealt with (Table 8 and Fig. 8). On top of this, many more modern dwellings, particularly those built for local authorities by unconventional building techniques in the 1960s are requiring increasingly costly repairs, or even in extreme cases replacement.

3.36 A national housing shortage of up to half a million dwellings by the mid-1980s has been forecast by both the A.M.A. and the House of Commons Environment Committee as a result of current and anticipated housebuilding and renovation rates. A study of housing in the region, carried out by the West Midlands Forum of County Councils notes that unless there is a rapid recovery from the present low level of housing activity in the Region, a comparable shortage of the order of 45,000 dwellings could develop by 1986. This shortfall will be most severe in the Metropolitan County and the Middle Ring.

3.37 The current emphasis on building houses for sale places great importance on providing attractive sites. This can conflict with the need for regeneration of inner city areas. It could also result in those in greatest need particularly in the rented sector - the poor, old and disadvantaged - continuing to live in deteriorating housing and environmental conditions, which the public sector was unable to remedy because of the lack of sufficient resources. This could result in:-

- (i) more overcrowding;
- (ii) more sharing, with perhaps 60,000 households sharing in the Metropolitan County in 1991 rather than 21,000 assumed in the Structure Plan;
- (iii) fewer opportunities for families to improve their housing conditions either by improving their existing homes or moving to better homes.

FIGURE 6 Housebuilding — West Midlands County 1975/76 - 1980/81

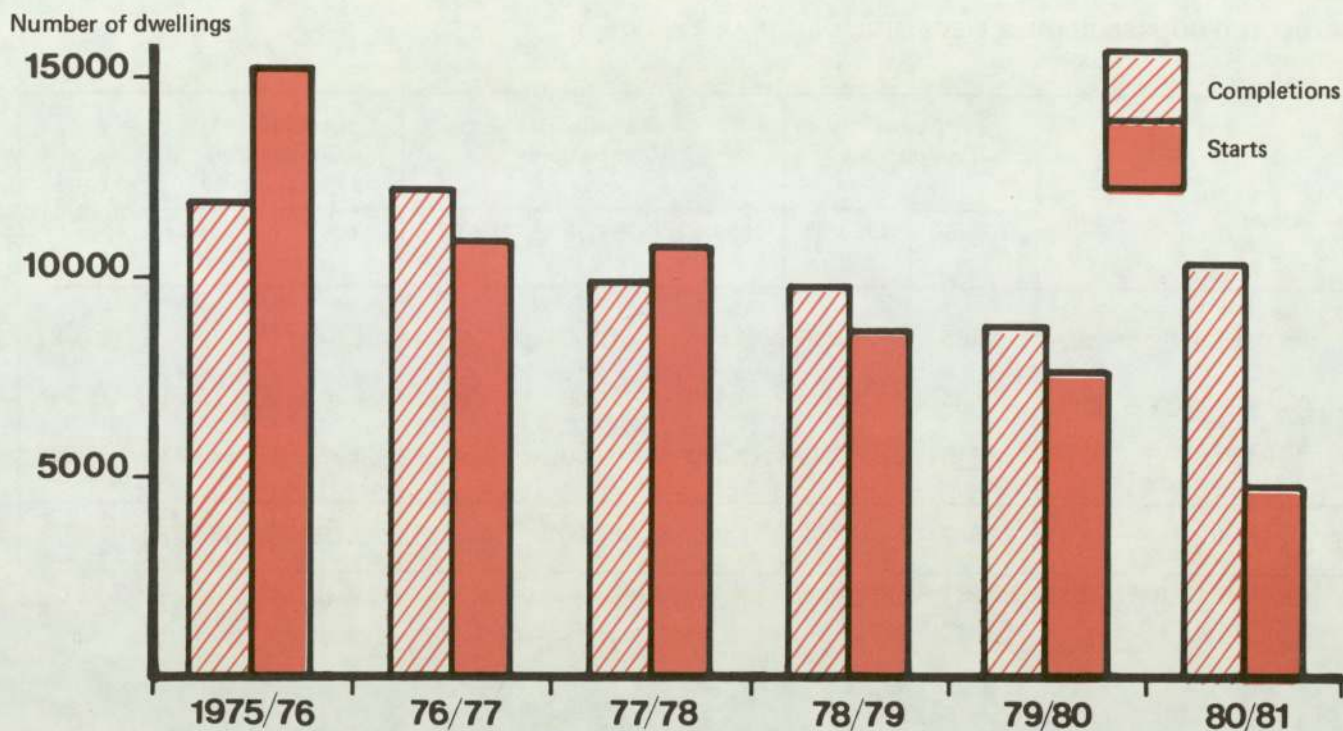


TABLE 6
HOUSING RESOURCES IN THE WEST MIDLANDS COUNTY

Area	HIP bids/allocations (£m at November 1980 prices)			
	1980-81		1981-82	
	Bid	Allocation	Bid (Revised in March 1981)	Allocation
Birmingham	97.7	60.0	108.0	39.3
Coventry	33.1	10.4	28.0	6.5
Dudley	21.9	10.3	25.3	6.6
Sandwell	44.3	19.6	29.8	12.3
Solihull	5.6	2.9	9.4	4.1
Walsall	22.0	12.8	18.4	6.7
Wolverhampton	41.3	20.0	30.7	11.6
TOTAL	265.9	136.0	249.6	87.1

Source: DoE and individual District Councils

TABLE 7

PROJECTED HOUSEBUILDING, WEST MIDLANDS COUNTY, 1979 - 91

Sector	Actual Completions		Anticipated Completions			Anticipated Completions 1984/85 - 90/91		Total 1979/91
	1979/80	1980/81	1981/82	1982/83	1983/84	p.a.	Total 7 years	
Local Authority	4,465	3,216	1,500	1,150	1,050	1,100	7,700	19,081
Housing Association	1,426	2,990	1,400	1,200	980	1,050	7,350	15,346
Private	2,716	3,852	3,390	3,000	3,000	3,000	21,000	36,958
Total	8,607	10,058	6,290	5,350	5,030	5,150	36,050	71,385

Source: WMCC, HIPs, GOVERNMENT FORECASTS

FIGURE 7 Projected Housebuilding, West Midlands County April 1979 - March 1991

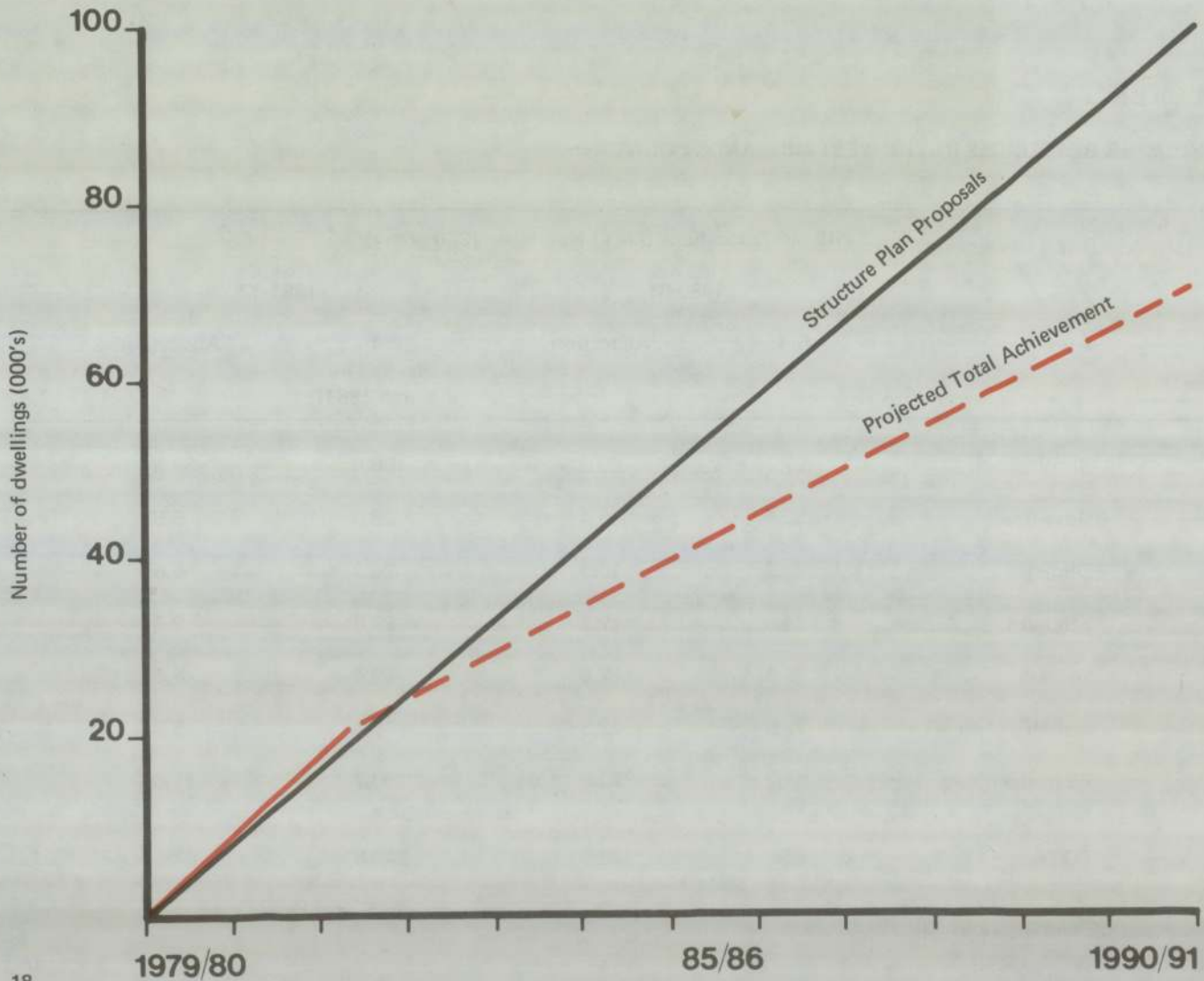


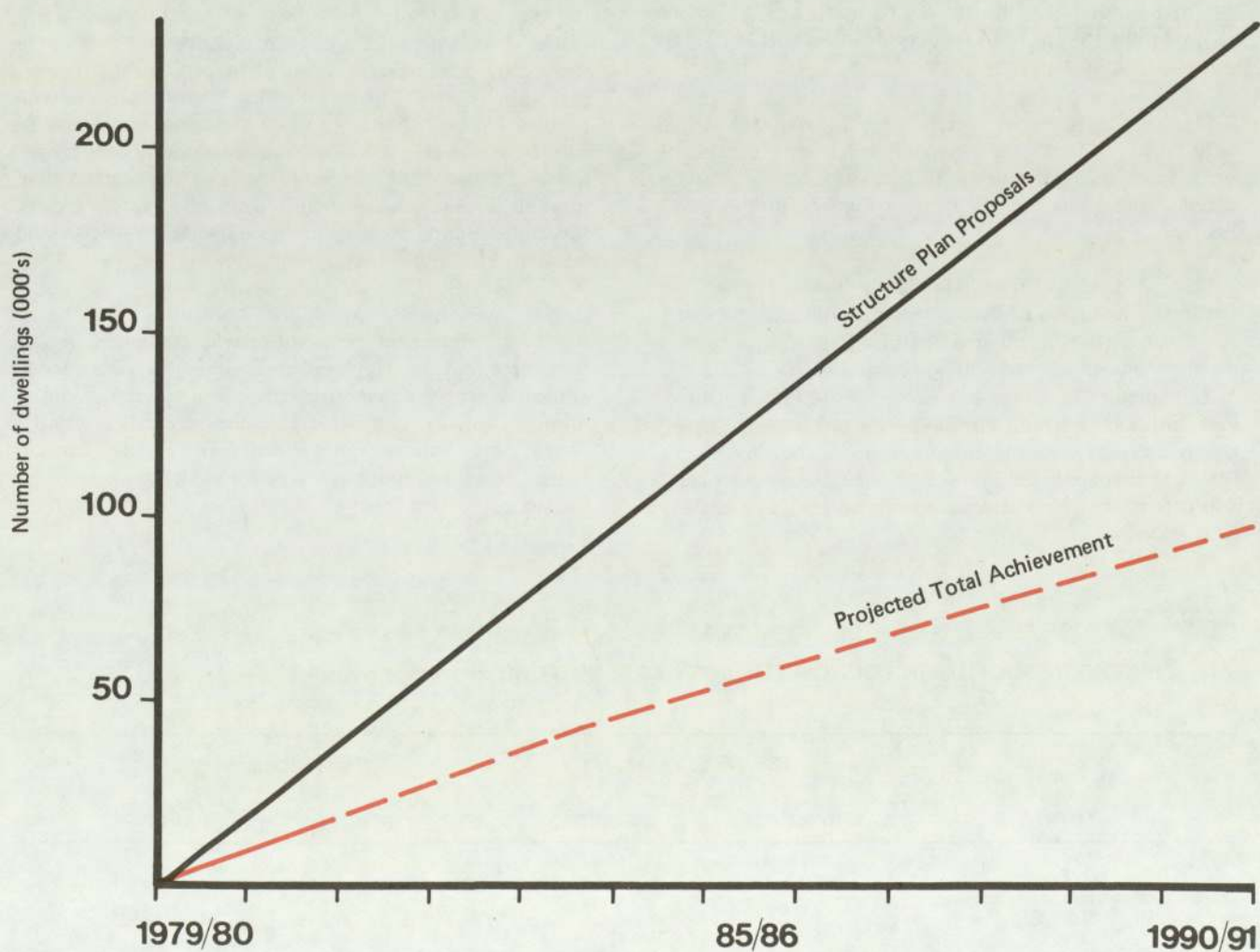
TABLE 8

PROJECTED RENOVATIONS, WEST MIDLANDS COUNTY, 1979 - 91

Sector	Actual Renovations		Anticipated Renovations			Anticipated 1984/85 - 90/91		Total 1979/91
	1979/80	1980/81	1981/82	1982/83	1983/84	p.a.	Total 7 years	
Local Authority	7,950	5,924	6,600	5,700	4,700	5,000	35,000	65,874
Housing Association	2,176	1,840	1,600	1,400	1,150	1,250	8,750	16,916
Private	2,432	3,160	2,900	2,100	1,900	1,900	13,300	25,792
Total	12,558	10,924	11,100	9,200	7,750	8,150	57,050	108,582

Source: WMCC, HIPS

FIGURE 8 Projected Renovations, West Midlands County April 1979 - March 1991



Resources

3.38 The Structure Plan was based upon what was thought at the time to be a realistic assessment of resource availability in the period up to 1991. This took account of the deteriorating economic position and continuing constraints on local authority expenditure. However, subsequent events have shown even these forecasts to have been optimistic, at least in the short term.

3.39 As already indicated, GDP has declined more than anticipated when the Plan was prepared. At the same time the public sector, and more particularly the local authority sector is suffering greater than expected cutbacks.

3.40 The division of resources within the economy between the public and private sectors is dependent upon Government policy decisions. The Government's current economic strategy is to reduce public expenditure in real terms and encourage a shift of resources into the private sector. The latest White Paper on Public Expenditure (Cmnd 8175) in March, 1981, indicated that public expenditure (including social security payments as a proportion of GDP had been reduced from 46.5% of GDP in 1974/75 to 44.5% in 1980/81, in spite of a large increase in social security payments resulting from increased unemployment. The overall level of public expenditure shows a reduction of 2.5% over the period 1975/76 to 1980/81 and the plans for the period up to 1983/84 show no growth in 1981/82 and reductions in 1982/83 of 1.6% and 1983/84 of 2.4%.

3.41 Local authority spending is being reduced particularly severely. Table 9 shows how anticipated local authority spending in the years 1981/84 was scaled down between the 1980 and 1981 Public Expenditure White Papers.

3.42 These reductions will clearly have an impact on the implementation of Structure Plan policies. The Plan itself was written in the context of a deteriorating economic position and continuing constraints on local authority expenditure forecast in earlier White Papers. However, although medium term expectations have not been reduced drastically from those current at the time the Plan was prepared, the immediate allocations have been, and it is these which affect that can be achieved in the next few years.

3.43 Overall, local authority current expenditure is planned to fall by 24% between 1975/76 and 1983/84 compared with a 5% increase in Central Government current expenditure. Excluding welfare payments, Central Government current expenditure is planned to reduce by 9%. Over the same period local authority capital expenditure is planned to reduce by no less than 70% compared with a reduction of 20% in Central Government capital spending.

3.44 Furthermore, as is apparent in the case of housing and transport, a large shift of resources away from the metropolitan areas is taking place. Continued funding of the Inner Cities Programme and of the Derelict Land Programme has been only a palliative in the context of the cuts in main programmes which have been enforced.

3.45 At the same time, local authorities' one remaining area of relative financial economy: to raise and spend money locally by determining revenue budgets and rates is being reduced as a result of procedures initiated by the Secretary of State and now reinforced in the Courts. During the past year, the Secretary of State for the Environment has continued to express concern over the level of local authority expenditure. Penalties, in the form of further reductions of grant, have been introduced for local authorities which seek to maintain services by raising additional rate revenue, and additional controls are expected. The exact form of these is currently uncertain but they are likely to have a further impact on local authorities' freedom of action. If Local Government becomes manifestly little more than an agent of Central Government, then participation in the local political process will become increasingly irrelevant - with serious consequences for democracy. Furthermore, the uncertainty over target levels of expenditure and likely levels of grant means that local authorities are working in a situation which makes forward planning of programmes extremely difficult and frequent Planning Reviews inevitable.

3.46 New capital expenditure controls are also having significant impact on local authority programmes. At the same time that the Government is aiming to reduce local authority capital expenditure there is a very strict definition as to what is defined as capital expenditure and hence counts against capital allocations. This puts further pressure on the amount available for capital programmes. In particular most local authorities are finding that there

TABLE 9

ANTICIPATED REDUCTION IN LOCAL AUTHORITY EXPENDITURE (Excluding Housing)

YEAR	1980 White Paper		1981 White Paper	
	Current	Capital	Current	Capital
1981/82	-2%	-5%	-4%	-13%
1982/83	-1%	-6%	-1%	- 3%
1983/84	-1%	-3%	-0.5% -1%	- 4%

s considerable pressure on their 'other services' block allocation. In the case of the County Council a limited allocation is to meet expenditure on waste disposal, the fire service, derelict land, planning, consumer services, administrative and support services. Following pressure from certain local authorities, expenditure on derelict land will be subject to a separate allocation from 1982/83.

4 PROGRAMME FOR ACTION

Introduction

4.1 The slow progress being made towards regenerating the County, particularly the inner city areas, and the dramatic changes that have taken place over the last three years since the existing Structure Plan was prepared suggest a need for more positive action.

4.2 The County Council remains committed to regeneration as this is critical to the future of the West Midlands. It therefore proposes, over the next few months, to:

- a) Consider how regeneration can best be achieved in these changed circumstances; and
- b) Review the constituent parts of the regeneration strategy, to see whether any change of emphasis is necessary.

4.3 Land use policies alone cannot improve the quality of life for those living and working in the West Midlands. In reviewing the Strategy therefore, consideration will be given not only to the land use policies and their implementation but also to complementary policies achieving economic and social objectives. Furthermore we need to examine how the Implementation Programme can be made more effective in converting strategic policies into action 'on the ground'.

4.4 In short, we need a Programme for Action to plan positively for the 1980's and the County Council is determined to mobilise the resources and co-operation of all the various agencies in its endeavours. The Programme for Action now outlined will, over the next few months, prepare the ground for possible changes to the Structure Plan strategy and associated initiatives which will be finalised in the autumn.

Current Action

4.5 The County Council has already introduced a number of initiatives particularly in the field of economic policies. These are outlined in paragraphs 2.39 to 2.43 and reflect not only the high priority the County Council gives to economic development but also an increasing emphasis on measures which will help people directly.

4.6 The County Council is making the attack on the twin problems of unemployment and low incomes its premost priority. Human resources cannot continue to be wasted; the effects of unemployment on personal and family lives cannot be tolerated and we cannot afford to let the economy decline any further for want of applying sensible policies towards industry and commerce.

4.7 Central to the County Council's strategy for regenerating the economy will be the West Midlands Enterprise Board which will help to channel investment towards West Midlands Industry. It will be supported by the Economic Development Unit which will also be responsible for developing other economic policy initiatives.

4.8 THE COUNTY COUNCIL WILL SUPPORT SELECTED LOCAL FIRMS WHICH HAVE POTENTIAL FOR LONG TERM GROWTH, INCLUDING GROWTH IN EMPLOYMENT.

4.9 Priority will be given to medium and large firms indigenous to the West Midlands, including those with prospects for diversification and technological development. Many such firms are in danger of closing down or retracting from planned expansion because of the decline of industrial sectors or groups of companies. Individual companies could remain viable by attracting long term investment capital.

4.10 County Council and Enterprise Board investment will be supported where appropriate by planning agreements with the firms concerned. Employment, training, and commitment to stay in the County area will be taken into account.

4.11 While the County Council will continue to encourage the establishment of expansion of small firms by providing unit factories and workshops which sometimes provide a "seedbed" for growth, this is not seen as a major contribution to stimulating the regional economy. There is no evidence that the decline of the U.K. economy in general, or that of any single region, has been caused by an under-representation of small firms; nor that more dynamic economies elsewhere e.g. West Germany, are assisted by a more substantial small firms sector. Furthermore, the greatest job losses have occurred in large firms and small firms can only play a small part in compensating for these losses.

4.12 SUPPORT WILL ALSO CONTINUE FOR TRAINING AND APPRENTICESHIP PROGRAMMES AND THE ADEQUACY OF LOCAL PROVISIONS WILL BE EXAMINED.

4.13 This will help to improve the skills and job prospects of the unemployed and other disadvantaged groups. Furthermore, the regeneration of the West Midlands economy will be influenced by the availability of appropriate skills of its labour resources. Support will include County Council initiatives with advocacy to Central Government being undertaken if County Council investigations show that reduction in Government and private sector support for training has resulted in local facilities being inadequate.

4.14 THE COUNTY COUNCIL WILL CO-OPERATE WITH THE DISTRICTS IN PUBLICISING THE AVAILABILITY OF WELFARE RIGHTS.

4.15 The aim will be to ensure that these benefits are fully claimed. It is estimated that up to £18m of benefits are unclaimed in the County possibly because of the lack of knowledge of potential claimants. Work has already started by the County's Economic Development Unit on

leaflet publicity which has a proven record in increasing benefit take-up in such places such as Strathclyde. A campaign in Birmingham, the largest in the country is under way. Such campaigns will benefit those on the lowest incomes in the County as well as attracting substantial spending power into the County area.

Economic Regeneration

4.16 THE LAND ALLOCATED FOR INDUSTRIAL DEVELOPMENT IN THE STRUCTURE PLAN WILL BE REVIEWED TO ASSESS THE NEED FOR A LIMITED NUMBER OF MORE ATTRACTIVE "PRESTIGE" SITES ON THE EDGE OF THE BUILT-UP AREA AND NEAR TO MOTORWAY JUNCTIONS. THE INVESTMENT CRITERIA OF THE NEW TECHNOLOGICAL AND SCIENCE BASED INDUSTRIES WILL BE EXAMINED AND A CAMPAIGN WILL THEREFORE BE UNDERTAKEN TO PROMOTE THE WEST MIDLANDS AS AN ATTRACTIVE AREA FOR NEW INDUSTRY AND COMMERCE.

4.17 It is important that the West Midlands is in the best possible competitive position to attract industries and commerce in the growth sectors of the national and international economy. A continued under-representation in the County of these sectors compared with other parts of the U.K. and the E.E.C. is not conducive to future prospects for economic growth.

4.18 Located at the heart of the national motorway and rail network, surrounded by attractive countryside and tourist attractions, containing desirable residential areas and recreation facilities and possessing the National Exhibition Centre and Birmingham Airport, the West Midlands possesses potential commercial assets that are as yet untapped.

4.19 If the County Council's investigations indicate a proven need for the release of such sites, the scale of operations required and the strategic importance of such decisions will need to be balanced against local factors, including environmental and green belt considerations. Other factors will also need to be taken into account. Any new industrial land allocations will involve changes to the structure plan policies E3 and E4.

4.20 Although transport benefits would accrue from reverse commuting, the growth of industry on the edge of the built-up area would have an impact on the surrounding rural areas since it might intensify the demand for houses in such areas and thereby increase the movement of people out of the County.

4.21 Furthermore, potential sites might be located in the surrounding Shire Counties and the economic links between industry in the rest of the West Midlands Region and the County would need to be investigated with these local authorities. Similarly, the County Council will need to consider improving transport services to peripheral sites to ensure that jobs are accessible to inner city residents, particularly the most vulnerable groups. To date the County Council has sought to persuade the Shire Counties to reduce their industrial land allocations in support of the Priority Areas Strategy.

4.22 IN THE DEVELOPMENT OF ANY PRESTIGE SITES THE COUNTY COUNCIL WILL LOOK AT WAYS OF CONTROLLING LAND RELEASE.

4.23 A major objective will be to prevent any new sites from diverting potential investment away from the Priority Areas. The possibility of reserving land for prestige industrial development was discussed at the Structure Plan Examination In Public in March 1981. The Secretary of State accepted the view of the Panel that land ownership was the only realistic means of ensuring that such sites once allocated, were reserved for the kind of development for which they were intended. Methods of controlling development will be examined in co-operation with the Districts, and where appropriate, with the surrounding Shire County authorities. They could require the introduction of a new Structure Plan Policy limiting development in certain locations.

4.24 THE COUNTY COUNCIL AS PART OF ITS STRATEGIC FUNCTION WILL CONTINUE TO BRING TOGETHER MORE EFFECTIVELY THE RESOURCES OF THE LOCAL AUTHORITIES, OTHER PUBLIC BODIES AND THE PRIVATE SECTOR IN THE DEVELOPMENT OF POTENTIAL INDUSTRIAL LAND IN THE PRIORITY AREAS. IN ADDITION THE COUNTY COUNCIL WILL DIRECT ITS OWN RESOURCES TO THE RECLAMATION OF INDUSTRIAL LAND AND THE PROVISION OF INFRASTRUCTURE IN THE PRIORITY AREAS.

4.25 The County and District Council's Derelict Land Reclamation Programme and other main programmes, such as the T.P.P. (Transport Policies and Programme) and Inner City initiatives, are crucial to ensure that "difficult" sites are brought into industrial and commercial use to provide for the expansion of existing firms and to help attract additional concerns.

4.26 The activities of the County Council's Land Forum and Land Development Programme will continue to harness the resources of the various implementing agencies to maximum effect and to co-ordinate the removal of development constraints. Efforts to achieve the objectives identifying the derelict land reclamation policy Env. 3 will be intensified.

4.27 But these initiatives alone are not enough. County Council surveys, in collaboration with the other local authorities in the West Midlands and the surrounding Shire Counties will indicate the extent to which restructuring is taking place. The County Council believes that the existing industrial land strategy may not be fully equipped to achieve a restructuring of the County economy.

The Contribution of Transport

4.28 An effective and integrated transport system is fundamental to the County Council's objectives of regenerating the County economy and for improving access of the unemployed to jobs and encouraging employment. Priority will therefore, be given to these objectives in reviewing the County's transport policy.

4.29 THE COUNTY COUNCIL WILL REVIEW ITS TRANSPORT PROPOSALS TO ENSURE THAT THE MOST EFFECTIVE SUPPORT IS GIVEN TO ECONOMIC REGENERATION.

4.30 Good transport can contribute to the County's economy in a wide variety of ways. Some proposals can contribute directly for instance by providing uncongested links between major industrial sites and the motorways system or interchanges with the B.R. rail freight system. Other proposals contribute less directly, for example, improvements to the environment, as a result of reducing traffic congestion in shopping and commercial centres. Existing transport proposals will be reviewed to ensure that they are still consistent with policy Tp1 in the Structure Plan.

4.31 The County Council, in re-assessing its transport proposals will review the access to existing and potential industrial sites particularly to the national transport systems. In this context it is essential that the Black Country Route, linking the A4123 and industrial areas of the Black Country with the M6 is constructed as quickly as possible. Similarly the contribution to economic regeneration of improved inter-city links for the Black Country will be discussed with B.R. together with the implications of the programme for electrification of the national network.

4.32 The current development of Birmingham International Airport for passenger and cargo activity with a new terminal linked to Birmingham International Railway Station and the National Exhibition Centre, in addition to the reconstruction of cargo facilities and improved passenger air travel capacity will generally enhance the attractiveness of the County to commerce and widen the domestic and international markets for local goods and services. The potential of this local asset needs to be fully developed if the regeneration of the County is to include an increasing representation in the West Midlands of new national and multi-national companies. Action is also being undertaken to improve cargo handling at the Airport.

4.33 These national scale initiatives will be complemented, within the constraint of limited resources, by a re-assessment of more local proposals. In order to minimise the environmental effects of commercial vehicles the County Council will continue to give attention to the management of freight movement and wherever feasible encourage a switch from road to rail freight. A preliminary survey has been undertaken to identify sites suitable for rail associated freight distribution centres, and bids to aid the development of private rail sidings have been supported where they would reduce the amount of road borne freight in the County. Although the number of commercial vehicles based in the West Midlands Traffic Region has declined since the beginning of the Structure Plan period by approximately 10% their environmental impact continues to cause concern. The environmental impact of freight movement will be assessed, taking account of the proposals in the Government White Paper (Lorries, People and Environment).

4.34 A REVIEW WILL BE UNDERTAKEN OF CHANGES THAT ARE LIKELY TO AFFECT FUTURE DEMAND FOR TRAVEL AND WITHIN THIS CONTEXT

THE COUNTY COUNCIL WILL RE-ASSESS THE TRANSPORT SYSTEM REQUIREMENTS.

4.35 Any adjustments to existing transport policies will need to take account of changes in the overall level of demand for travel. This means re-assessing the validity of the various assumptions underlying the present forecasts and the needs of the Structure Plan Review Strategy.

4.36 The transport element of the Structure Plan Strategy was based upon forecast levels of demand for public and private transport and the extent to which alternative policies designed to cope with these forecast levels could best contribute to the Structure Plan objectives. The levels of demand at both County-wide scale and to the central areas of Birmingham, Coventry and Wolverhampton are regularly monitored together with other factors influencing the demand.

4.37 Particularly important factors are income, car ownership, the relative cost of travel by different modes (including levels of revenue support), the distribution of population, employment and other activities. Present indications are that car ownership has increased approximately in line with Structure Plan expectations, although the 1981 Census will shortly provide up-to-date information.

4.38 THE COUNTY COUNCIL WILL UNDERTAKE A COMPREHENSIVE REVIEW OF PUBLIC TRANSPORT POLICY. THIS WILL INCLUDE AN EXAMINATION OF ALTERNATIVE PUBLIC TRANSPORT SYSTEMS, REVENUE SUPPORT AND ALTERNATIVE METHODS OF FUNDING, AND OPPORTUNITIES TO IMPROVE PUBLIC TRANSPORT LINKS BETWEEN THE WEST MIDLANDS AND SURROUNDING SHIRE COUNTIES.

4.39 An effective public transport system is essential to the viability of the County, and particularly to a strategy aimed at helping the plight of those vulnerable groups of society suffering most from the effects of the current recession. In his proposed Modifications to the existing Structure Plan, the Secretary of State has commented upon the need "to support a public transport system capable of meeting the needs of the priority areas". Of particular significance also will be the way in which public transport serves the land use strategy, providing inner area residents with access to employment opportunities (including those on the periphery). The role of public transport in relation to policy Tp2 will be reviewed. The land use strategy itself will be developed taking into account the ability to provide good public transport. In this review, standards for the public transport system will be developed in relation to accessibility, frequency, quality of service and modal split.

4.40 Attention will need to be given in this review, however, to potential problems of increasing competition for Priority Area jobs from workers in the suburbs and beyond, and, conversely, to the possible benefits of improving public transport links between the West Midlands and the surrounding Shire Counties. In this context the review will look at alternative methods of funding and will examine the experience of other public transport services elsewhere in the U.K. and abroad.

4.41 The major investment proposal for public transport in the existing Structure Plan is for the extension of the Solihull and Shirley rail services from Moor Street to Snow Hill, to be followed by the linking of the services with the Stourbridge line by means of the rail route from Snow Hill through Hockley and Soho to Smethwick West, thus providing a second cross-city line (East-West line). Other potential rail developments, including some extending outside the County boundary, were considered in preparing the Structure Plan, but the levels of potential patronage were not considered to justify investment at the time. Some of these will be reconsidered as part of the review of links with the Shire Counties. If necessary amendments will be made to policies Tp3 and Tp4.

4.42 Existing railway rolling stock on local services is nearing the end of its useful life, and urgent consideration needs to be given to its replacement. At the same time the alternative of electrifying those lines currently operated by diesel trains, and the relationship with British Rail's national electrification programme, will be reviewed.

4.43 Conventional buses are, and will continue to be, the main means of public transport in the County for many years to come (they currently carry 500m passengers per annum as against 20m on the local rail system). Apart from the East-West line, public transport investment under the current proposals is mainly directed at improved bus station and garage facilities, with a limited number of minor road works and traffic management schemes. In the review, investments which will increase the efficiency, convenience and attractiveness of the bus system will be afforded high priority.

4.44 Although conventional buses will continue to be the main means of public transport, the possibility of a more radical approach assumes considerable importance in the context of its possible contribution to urban regeneration. Many conurbation authorities have invested in some form of new public transport system including in this country, Tyne and Wear. The possibility of a rapid transit form of development for the North-South rail route (with a new section in tunnel from Aston to Five Ways) was considered as part of the Birmingham Rapid Transit study in the early 1970's, but a more limited upgrading of the existing rail route was eventually implemented.

4.45 Different types of rapid transit are suited to different circumstances but their common characteristic is the ability to move large numbers of passengers quickly. The relevance of such systems to the West Midlands will need evaluation, but international experience suggests that new rapid transit systems can stimulate investment along their routes and could therefore offer a valuable contribution to the regeneration strategy. They could also be relevant in meeting a future energy shortage - although in this context trolley buses or other electric vehicles would be equally relevant.

4.46 The capital costs of rapid transit systems are high and are far above the spending assumed in the Structure Plan. The introduction of such a system in the West Midlands, particularly on a regional scale, would require special funds possibly involving the E.E.C. As part of the Structure Plan Review, an examination of alternative public

transport systems will begin. Alternative means of funding such a system will also be explored.

4.47 THE COUNTY COUNCIL WILL CONSIDER THE IMPLICATIONS OF REDUCED CAPITAL RESOURCES ON THE STRUCTURE PLAN TRANSPORT OBJECTIVES.

4.48 The level of resources being made available for transport will be monitored and the implications for the strategy assessed. The existing Structure Plan was prepared in the context of the most likely level of resources available for transport. The Plan, however explicitly stated that the level of resources was insufficient to meet the strategy objectives.

4.49 The Transport Supplementary Grant allocation for 1982/83 discussed in Section 3 of this Annual Statement suggests that a lower than anticipated capital allocation is to continue into the future while at the same time the County Council is being expected to reduce its revenue support to a level well below those accepted in all the other metropolitan counties.

4.50 If a 2% per annum growth is accepted and capital spending in line with the Structure Plan expectations is assumed from the present base, the total capital expenditure over the Plan period would be some £187m compared with the assumed level of £238m. All of the schemes identified in the Structure Plan are important in achieving the strategy, but based on a total expenditure of £187m, many of the schemes in the last five year period could not be carried out, thus putting the plan period back some two to three years. It will therefore be necessary to consider the alternatives of (a) maintaining Structure Plan (while lobbying Central Government for a greater capital allocation); or (b) accepting a lower level of capital investment over the plan period and re-assessing the capital programme in terms of the schemes included and their phasing, and develop other appropriate policies for dealing with traffic demand.

4.51 The implications for public transport of present levels of accepted expenditure are even more serious. On the experience of 1979-81 it is extremely unlikely that revenue support could be reduced to the implied level without causing a major rundown of the public transport system and placing an intolerable burden on remaining users. The Structure Plan Review will need to consider the effects on mobility, (particularly on the large sections of the population without access to cars) and congestion, together with the relationship to overall transport policy and to the achievement of Structure Plan objectives.

Quality of Regeneration

4.52 The County Council remains convinced, that the Structure Plan is right in its efforts to improve the quality of life for people living and working in the inner city. It is important to provide for the essential opportunities and services if we are to convince people that they need not move out and even to attract back people who have already left the inner areas.

4.53 THE STRUCTURE PLAN WILL BE EXAMINED TO ASSESS THE NEED TO CHANGE THE BALANCE

OF INDUSTRY, HOUSING AND OPEN SPACE IN THE PRIORITY AREAS WITH A VIEW TO INCREASED EMPHASIS ON THE ENVIRONMENT.

4.54 The deliberate emphasis of the existing Structure Plan on economic development in the inner city is not conducive to improving the attractiveness of these areas or to retaining their population. Continuation of existing policy will probably encourage further migration. Simultaneously, much land in the inner city, currently allocated for industrial development is unlikely to be taken up in the foreseeable future because of a likely overprovision in relation to demand, the changing characteristics which attract industry and limited resources available for the reclamation of difficult sites.

4.55 Therefore, whilst the County Council will continue to support inner city industrial development a change of emphasis will be investigated. The Land Forum will provide a commentary on the likely rate of take-up and re-use of existing redundant commercial land and buildings and the views of communities will be sought on the improvements necessary to enhance the environment of the Priority Areas, including the need for increased provision of housing, urban parks and other leisure facilities. The County Council will co-operate with the Districts and other agencies in initiatives to improve the quality of provision of public services. The results of this work could be reflected in changes to the Structure Plan employment policies E2, E6 and E9.

4.56 THE COUNTY COUNCIL WILL ALSO REAPPRAISE THE ENVIRONMENTAL IMPROVEMENT STRATEGY WITH A VIEW TO CONCENTRATING PROJECTS IN THE PRIORITY AREAS.

4.57 This work will involve the possible need to divert some resources away from peripheral green belt locations and to concentrate some environmental projects as part of a comprehensive package of projects in specific inner city locations i.e. through proposed Action Scheme procedures as suggested in Policy Env. 1.

4.58 THE DERELICT LAND RECLAMATION PROGRAMME WILL ALSO BECOME MORE SIGNIFICANT IN IMPROVING THE ENVIRONMENT OF THE PRIORITY AREAS. BIDS TO CENTRAL GOVERNMENT WILL BE MADE FOR ADDITIONAL RESOURCES TO UNDERTAKE THIS WORK.

4.59 As a result the existing Structure Plan strategy of concentrating reclamation resources towards providing land for industry (and housing) may need to be amended.

4.60 The Secretary of State, in approving the Structure Plan has noted the Panel's comment that reclamation is the cornerstone of the strategy. Despite reductions in local authority capital expenditure the County Council has attempted to maintain its level of expenditure as agreed with the Panel. But more resources are necessary if the objectives behind the Structure Plan Policy Env. 2 are to be achieved.

4.61 THE COUNTY COUNCIL WILL CONTINUE TO REMOVE BLIGHT ARISING FROM ROAD SCHEMES AND OTHER LONG TERM DEVELOPMENT PROPO-

SALS AND WILL EXAMINE ALTERNATIVE MEANS OF SAFEGUARDING FUTURE ROAD IMPROVEMENT LINES.

4.62 Long term road schemes and other development proposals, particularly in the inner city areas, are not conducive to encouraging property maintenance, construction and improving morale, future prospects and confidence in these areas. Whilst the revocation of many road schemes has already removed blight from many properties, other road and development proposals that are unlikely to be implemented in the foreseeable future need to be reviewed in accordance with Policy Tp9 in the Structure Plan.

4.63 To this end and in order to obtain a more accurate assessment of the various causes of blight the County Council will undertake case studies of selective inner city locations. It will subsequently plan accordingly, with the appropriate agencies, for minimising or removing these problems.

4.64 FURTHERMORE, THE COUNTY COUNCIL WILL EXPLORE, WITH THE DISTRICTS, WAYS OF ENCOURAGING ENVIRONMENT EDUCATION.

4.65 Appreciation of the benefits of an enhanced environment and the part they can play in its improvement and maintenance, is recognised by the County Council as crucial to the quality of life enjoyed by local communities. Environmental self-help schemes will, therefore, be encouraged as part of the proposed Community Action Programme outlined in this Annual Statement. Prospects for improving community pride in the local environment should thereby be improved. Additional initiatives to be explored will include possible County Council discussions, talks and exhibitions in schools and community centres.

4.66 THE COUNTY COUNCIL WILL ALSO CONSIDER AND AMEND AS NECESSARY, IN THE LIGHT OF THE INDEPENDENT ASSESSORS REPORT ON THE RECENT PUBLIC INQUIRY INTO WASTE DISPOSAL MATTERS, SUCH PARTS OF THE STRUCTURE PLAN AS ARE APPROPRIATE.

4.67 The existing waste disposal strategy has recently been scrutinised by a public inquiry instigated by the County Council and advised by an independent assessor. Following consideration of the assessor's report, the Waste Disposal Plan will be modified as necessary and any land-use implications incorporated into the waste disposal policies of the Structure Plan.

Quality of Housing

4.68 THE COUNTY COUNCIL WILL, COLLABORATE WITH THE DISTRICT COUNCILS IN EMPHASISING TO CENTRAL GOVERNMENT THE SEVERITY OF HOUSING PROBLEMS IN THE WEST MIDLANDS AND THE NEED TO INCREASE RESOURCES AVAILABLE TO THE LOCAL HOUSING AUTHORITIES AND OTHER HOUSING AGENCIES AS A MATTER OF URGENCY.

4.69 The County Council is concerned that, if recent trends continue, not only will insufficient new dwellings

be built but the existing stock will deteriorate at an increasing rate. Whilst housing is primarily a responsibility of the District Councils, the problems are of strategic as well as local significance and thereby of concern to the County Council as the structure planning authority. The County Council is, therefore, well placed to co-operate with the Districts and to advocate to Central Government the seriousness of the housing problem and the need for changes in national policy in order to achieve the objectives of Housing Policy H9.

4.70 Otherwise neither local authorities nor private builders' activity will be able to keep pace with increasing obsolescence, with the inevitable need for large scale re-development which must be avoided. Advocacy to Central Government has already included representations to local Members of Parliament and initiatives through the Association of Metropolitan Authorities and the West Midlands Forum of County Councils and these will continue.

4.71 THE COUNTY COUNCIL WILL ALSO INVESTIGATE WITH THE DISTRICT COUNCILS, OPPORTUNITIES TO MOBILISE OTHER SOURCES OF FINANCE, PRINCIPALLY FROM THE PRIVATE SECTOR AND BUILDING SOCIETIES, FOR INVESTMENT IN HOUSING.

4.72 At least in the short-term, access to additional sources of finances, particularly for housing improvement, will be crucial. The reductions in Housing Investment Programme allocations by Central Government have forced the local authorities to review their priorities and many have transferred funds to the maintenance of Council dwellings at the expense of grants to the private sector. In addition the low take-up of grants by private tenants and owner occupiers, due to the effects of the recession and associated Central Government policies, on personal incomes, is of serious concern. Hence, there is a need to explore ways of increasing finance devoted to housing from all possible sources and encouraging discussions have already taken place with building societies. In the long-term, however, this substantially holding operation will become inadequate to tackle our major housing problems and supplementary finance from Central Government is required.

4.73 THE COUNTY COUNCIL WILL ALSO IDENTIFY, WITH THE DISTRICT COUNCILS, PRIORITY GROUPS FOR HOUSING INVESTMENT.

4.74 Guidance to the Districts through Housing Investment Programme procedures to suggest that limited investment should be directed to those in greatest housing need will help to cushion the effects of the recession in the short-term.

4.75 The combined effects of the recession on effective demand for housing, the results of the 1981 Census and the need to concentrate on housing provision in the inner city are likely to indicate a need to re-appraise the overall demand for dwellings and the land supply requirement.

4.76 THEREFORE, AS PART OF THE STRUCTURE PLAN REVIEW, THE COUNTY COUNCIL WILL RE-EXAMINE THE EFFECTIVE DEMAND FOR HOUSING

AND CONSIDER THE BALANCE OF PROVISION AS BETWEEN THE INNER CITY AND PERIPHERAL HOUSING DEVELOPMENTS.

4.77 Within the context of revised estimates of housing demand and the need to improve the quality of regeneration in the Priority Areas there may be a need to impose stricter control on the allocation and release of peripheral housing land. Of particular concern will be whether certain peripheral housing sites in locations such as Keresley (Coventry) are still required. If necessary changes will be introduced to Policy H3 and H4.

4.78 GREATER PRIORITY WILL BE GIVEN TO COMPLEMENTARY COUNTY COUNCIL INVESTMENT AND OTHER INITIATIVES TO BRING FORWARD HOUSING LAND IN THE PRIORITY AREAS THROUGH THE MEDIUM OF THE LAND DEVELOPMENT PROGRAMME WILL BE EXAMINED.

4.79 The need for housing provision to involve a more significant contribution to the quality of life in the inner city strengthens the importance of increasing the momentum of residential land development at the heart of the West Midlands. The County Council's Land Development Programme and the activities of the Land Forum will help in co-ordinating the removal of constraints to the development of "difficult" residential sites and the possible re-zoning of industrial land in the inner city for housing purposes will increase the opportunities for new house building, where it is most needed. In addition recent changes in derelict land grant procedures will make the reclamation of waste land for housing, more practical.

4.80 THE COUNTY COUNCIL WILL RE-EXAMINE THE BALANCE OF HOUSING IMPROVEMENT, RE-NEWAL AND REDEVELOPMENT.

4.81 This will be undertaken in the light of the House Condition Survey, currently being undertaken, and the limited progress being made on the improvement and maintenance of the existing housing stock. It is likely that greater emphasis will need to be given in the Structure Plan Review to the replacement of outworn dwellings although large scale redevelopment should be avoided if possible. If necessary Policy 119 will be strengthened to reflect the need for urgent action.

Vulnerable Groups

4.82 Attention has already focussed on the plight of vulnerable groups, such as the young and ethnic minorities, who are hardest hit by the problems facing the West Midlands. The outbreak of public disturbances during the Summer of 1981 are considered by the County Council as expressions of their understandable discontent, a major comment already made to Lord Scarman.

4.83 The commitments in this Annual Statement to various initiatives to tackle these problems of deprivation are also, therefore, intended to provide a co-ordinated County Council response to the relevant Scarman Inquiry recommendations. The problem is not merely one of resources with Lord Scarman noting that large sums of money had been spent to little effect partly because of the lack of an effective and co-ordinated approach to the

problem of inner city communities.

4.84 County Council policies for increasing employment opportunities and for improving housing conditions and the environment will help those people who are most vulnerable to the effects of the current recession. The existing programme of renewing old factories and providing small industrial workshops in the Priority Areas is already producing opportunities for more jobs. The County Council's Task Force is also being increased in size and is beginning to take on board a wider range of community-based projects in the inner city.

4.85 This work will continue but unemployment is likely to continue to be serious and we cannot allow human resources to be wasted. Therefore more needs to be done, particularly to involve local communities in proposals for their areas.

4.86 THE COUNTY COUNCIL WILL ANALYSE THE RESULTS OF THE 1981 CENSUS AND OTHER INDICATORS TO IDENTIFY THOSE SOCIAL GROUPS AND AREAS IN MOST NEED OF ATTENTION.

4.87 This will include a review of the boundaries of the Priority Areas and other policy mechanisms for concentrating action on, for example, the unskilled, the low paid and ethnic minorities. The existing Priority Areas are based on the analysis of outdated 1971 Census and 1976 Household Survey information on economic, social and physical indicators of deprivation. The current pattern of multiple deprivation, which is probably still concentrated in the inner city but also possibly on some peripheral housing estates, is likely to have changed as a result of the dramatic changes in the fortunes of the West Midlands over the last three years. Changes could therefore be required in the boundary of the Priority Areas shown on the Key Diagram of the Structure Plan.

4.88 If this analysis indicates that multiple problems are concentrated in particular locations in the County the County Council will consider Action Schemes as referred to in Policy Env. 1 whereby a comprehensive package of economic, social and environmental initiatives might be concentrated on specific areas to help the local communities to "turn the corner". There may be a complementary need for additional programmes to tackle the County-wide problems of particularly vulnerable social groups.

4.89 WITHIN THIS CONTEXT THE COUNCIL WILL CONSIDER, WITH THE DISTRICTS AND COMMUNITY ORGANISATIONS, A 'COMMUNITY ACTION PROGRAMME' IN WHICH LOCAL AUTHORITY SUPPORT AND FINANCIAL AID WOULD BE GIVEN FOR SMALL SCALE ECONOMIC, ENVIRONMENTAL AND OTHER SELF-HELP PROJECTS TO BE UNDERTAKEN BY COMMUNITIES IN THEIR OWN AREAS.

4.90 This type of initiative would provide opportunities not only for unemployed skills and talents to be used to improve conditions in the inner city but would enable local communities to undertake local projects themselves with main financial programme (e.g. Inner City, T.P.P.), special funds and other support, such as the County Council's Task Force, from the local authorities. It would thereby also help to minimise the effects of cut backs in public

resources and to increase community pride in the local environment. Proposals would be generated from local communities in response to their own perception of needs rather than schemes being imposed from above, a strategy consistent with the Scarman Report recommendations.

4.91 CONSIDERATION WILL ALSO BE GIVEN TO NEW MECHANISMS FOR INCREASING COMMUNITY INVOLVEMENT IN LOCAL AUTHORITY POLICIES.

4.92 To this end discussions will be held with the Districts and community and residents groups, with the County Council's Priority Areas Sub-Committees having a potentially important role in this work.

Conclusions

4.93 The County Council believes that this package of programmes, policies and initiatives will make a significant contribution to the overall regeneration of the West Midlands. These County Council commitments will be developed over the next few months and a full review of the means of achieving regeneration and providing for a better way of life will be carried out in the Structure Plan Review by Autumn 1982.

4.94 Action is already being taken and results are being achieved. But progress to date has been too slow and the momentum needs to be increased.

4.95 Even when national resources are limited the County Council does not regard as inevitable the cuts in local authority investment that are in marked contrast to increases in Central Government spending. The local authorities are responsible for essential services and the need for these, particularly in the Metropolitan areas of the U.K., has been increased by the effects of economic recession.

4.96 THE COUNTY COUNCIL WILL ADVOCATE, WITH THE DISTRICTS AND THE OTHER METROPOLITAN COUNTIES, THE NEED FOR CENTRAL GOVERNMENT TO INCREASE PROVISION FOR LOCAL AUTHORITY SPENDING AND FOR A CHANGE IN REGIONAL POLICY TO REDIRECT A GREATER PROPORTION OF RESOURCES TO THE MAJOR URBAN AREAS.

4.97 The need for an increased recognition of the needs of the West Midlands and the prognosis which the County Council advanced in publishing "A Time For Action" in 1974 has proved only too valid, as witnessed by this Annual Statement.

4.98 Whilst in the short term other sources of investment can be tapped this provides no long term solution as private finance cannot always be directed towards those areas or groups in most need of attention. The need for an effective and adequately funded public sector remains, with resources concentrated on tackling the major problems facing the Metropolitan areas. The County Council is currently advocating Programme Area status for Coventry, Sandwell and Walsall to build on the successes of initiatives in the Priority Areas of Birmingham and Wolverhampton. Whilst enhanced Urban Programme status for these areas will be helpful the case for the West Midlands as a whole is overwhelming.

ANNEX IV

PHOTOGRAPHS

PLATE 1: SIGN-POST INDICATING THE BOUNDARY OF ONE DISTRICT OF BIRMINGHAM



PLATE 2: EXAMPLE OF ANOTHER FEATURE WHICH HELPS AN INDIVIDUAL IDENTIFY A DISTRICT OF THE CITY



PLATE 3: BUS DESTINATION BLIND SHOWING A DISTRICT OF THE CITY AND A MAIN ROAD TO THAT DISTRICT



PLATE 4: ADVERTISING SPACE ON THE SIDE OF A WEST MIDLANDS PASSENGER TRANSPORT EXECUTIVE BUS. AN ALTERNATIVE USE OF THIS SPACE COULD BE A SCHEMATIC ILLUSTRATION OF LANDMARKS AND DISTRICTS ACCESSIBLE BY BUS ROUTES OPERATED BY THE W.M.P.T.E.



PLATE 5: THE ASTON CAREERS OFFICE

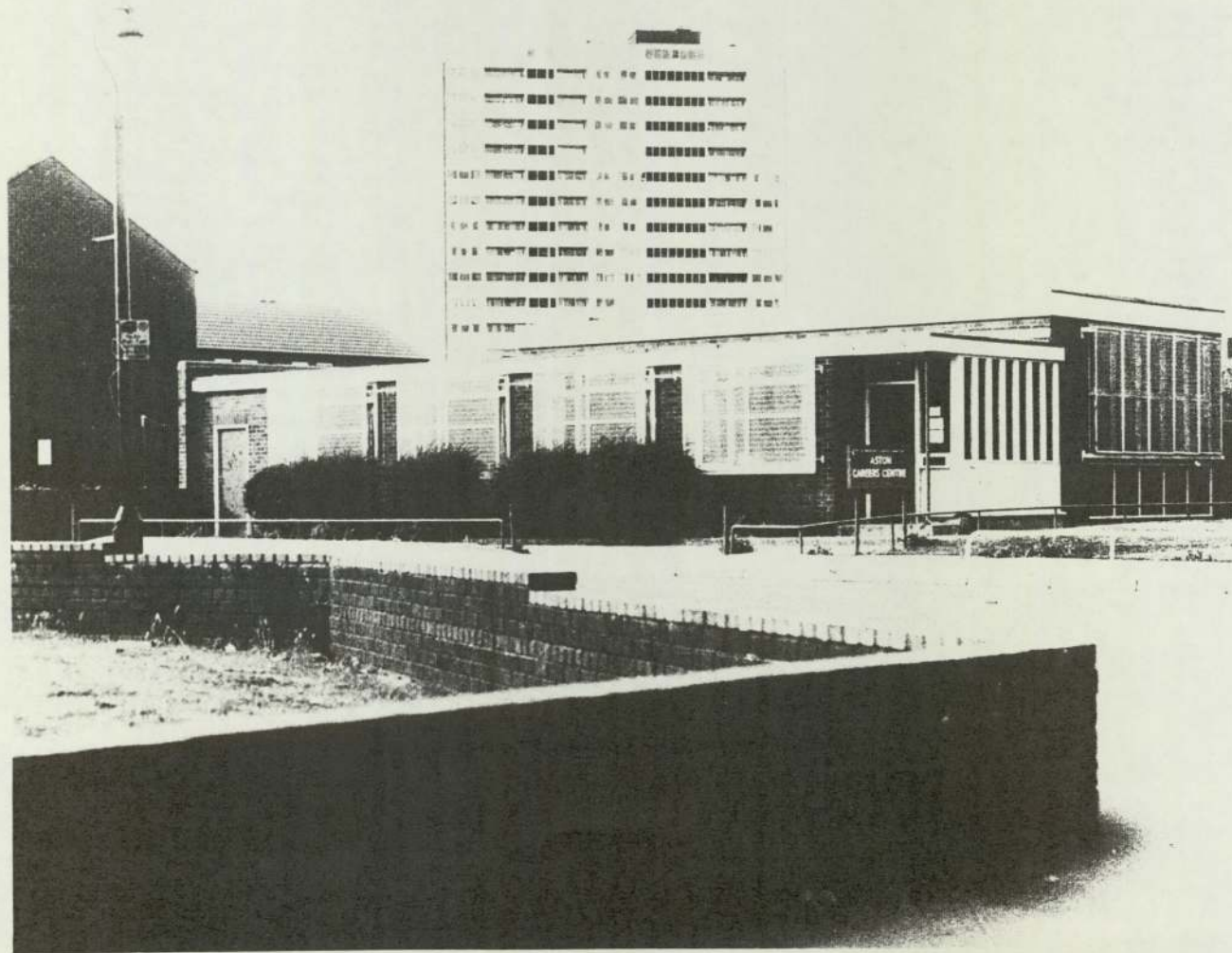


PLATE 6: THE HANDSWORTH CAREERS OFFICE



PLATE 7: THE SUTTON COLDFIELD CAREERS OFFICE

