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ERGONOMIC STANDARDS FOR PEDESTRIAN AREAS FOR DISABLED PEOPLE

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Abstract

This working paper is one of a series (WP252, 253, 254, 255, 274, 275), describing work undertaken under contract to TRRL investigating design guidance for pedestrian areas and footways to satisfy the needs of disabled and elderly people. This Working Paper reports on interviews conducted with disabled people in York and Beverley to investigate problems encountered when accessing and moving about within pedestrianised town centres, and their perceived importance. In addition, data was collected on travel characteristics, including reasons for non-visitation where appropriate.

Contents

1. Introduction

1.1 Study Objectives

1.1.1 In May 1986 the Institute for Transport Studies at the University of Leeds was awarded a contract by the Transport and Road Research Laboratory for the development of Ergonomic Standards for Pedestrian Areas for Disabled People. The project was timetabled to take 22 months from 1st July 1986 to 30th April 1988. It was later extended into a second stage to be completed in May 1989. A separate element of the study was to provide assistance to the Institution of Highways and Transportation in the revision of their Guidelines "Providing for People with a Mobility Handicap".

1.1.2 The objectives of the study laid down in the design brief by the Transport and Road Research Laboratory were:

(a) To produce a guide to good practice for the design and maintenance of footways and pedestrianised areas;
(b) To provide, where possible, recommended standards for design and maintenance

The good practice guide and the recommended standards were to be primarily aimed at disabled people and the elderly, but the requirements of the able-bodied were also to be considered, as were conflicts between the needs of different groups of users. The economic implications of implementation and maintenance were also to be detailed.

1.1.3 The study benefited throughout from the guidance given by an Advisory Committee, which included representatives of disabled people's organisations and local authorities, as well as of DTp and DoE.

1.2 Study Structure

1.2.1 Stage One of the study was divided into the following elements:-

(a) a review of the literature and discussions with organisations involved with disabled people to identify priority issues for study;
(b) a short initial interview survey aimed at a 10% sample of registered disabled people in Leeds and from which samples for more detailed interview and observation would be selected;
(c) more detailed interviews in Leeds with a sample of around 50 from each of five selected types of disability, in order to obtain information on physical and perceived access barriers to pedestrianised areas;

(d) observation surveys for similar samples, together with samples of elderly and able-bodied people in order to assess the effects of specific impediments in the city centre of Leeds;
(e) physical measurement of the impediments and conditions observed.

1.2.2 Stage Two involved the study of access-related problems in centres smaller than Leeds, and a more detailed study of impediments and of the design of seats; it comprised the following elements:-

(a) detailed interviews with a sample of around 50 from each of five types of disability in York;
(b) similar interviews, but with smaller samples, in Beverley;
(c) brief interviews for similar samples in Leeds;
(d) observation surveys of impediments and seats for the Leeds samples;
(e) physical measurement of the impediments and seats observed in Leeds.

This Working Paper covers items (a) and (b).

1.2.3 This Working Paper is one of a set of Working Papers 252, 253, 254, 255, 274 and 275 describing work investigating design guidance for pedestrian areas and footways to satisfy the needs of disabled and elderly people.

1.2.4 A slightly different approach was adopted in categorising ambulatory disabled groups in Stage 2 than was used in Stage 1. In Stage 2 respondents were simply categorised by whether an aid was used, and in York whether the aid was one stick or two sticks, this latter category including Zimmer frames and so on.

1.2.5 The questionnaire was developed from that used in the Stage 1 interviews to accommodate changed categories of disability, and other improvements that became apparent as a result of the conduct and analysis of Stage 1 interviews. The emphasis of the interviews was in access and mobility problems. Interviews were aimed at investigating frequency and mode of going out, assistance required, distances moved. Reference to local shopping centres was thought inappropriate in the smaller centres of York and Beverley and was dropped.

1.2.6 The comparative difficulty of problems associated with getting to or from, and moving about within the city centre was given greater emphasis and reasons for using assistance were investigated.

1.2.7 York and Beverley were selected, in consultation with the Advisory Committee, to investigate access related problems. Areas selected as appropriate for study were York: North York, South York, East York and Haxby, with a total population of 142,000[1]; and Beverley: Beverley Central and Beverley Rural, with a total population of 46,000[2].

1.2.8 Contact was made initially with Social Service Departments of North Yorkshire and Humberside who agreed to contact being made with people registered as blind, partially sighted or disabled. Interviewees were first contacted through a mailshot, and then through contact with day centres. Particular effort was made to find interviewees who were wheelchair users, who were visually handicapped, or who used two sticks, since the early returns indicated that there were insufficient numbers of these groups available for interview. The interview form used shown in appendix I.

1.2.9 The interview was piloted in October 1988 with 20 respondents. The main set of interviews were conducted in respondents homes or at Day Centres between November 1988 and January 1989.

[1] Departmental Statistics, based on 1986 mid year estimates, North Yorkshire County Council Social Services

[2] Departmental Statistics, Humberside County Council Social Services

2. Details of Sample

2.1 Sample Size

2.1.1 The samples obtained in York and Beverley by disability and sex are shown in Tables 2.1 and 2.2.

Table 2.1: York Disability Groups - Number in Each Sex

Group	Male	Female	Total
Wheelchair users	21 (42)	29 (58)	50
One stick users	38 (51)	36 (49)	74
Two stick users	16 (46)	19 (54)	35
All visually handicapped	27 (44)	34 (56)	61
No aids	37 (42)	51 (58)	88
Total	139	169	308

Percentages shown in brackets.

Table 2.2: Beverley Disability Groups - Number in Each Sex

Group	Male	Female	Total
Wheelchair users	17 (44)	22 (56)	39
Stick users	40 (53)	36 (47)	76
All visually handicapped	5 (28)	13 (72)	18
No aids	29 (48)	31 (52)	60
Total	91	102	193

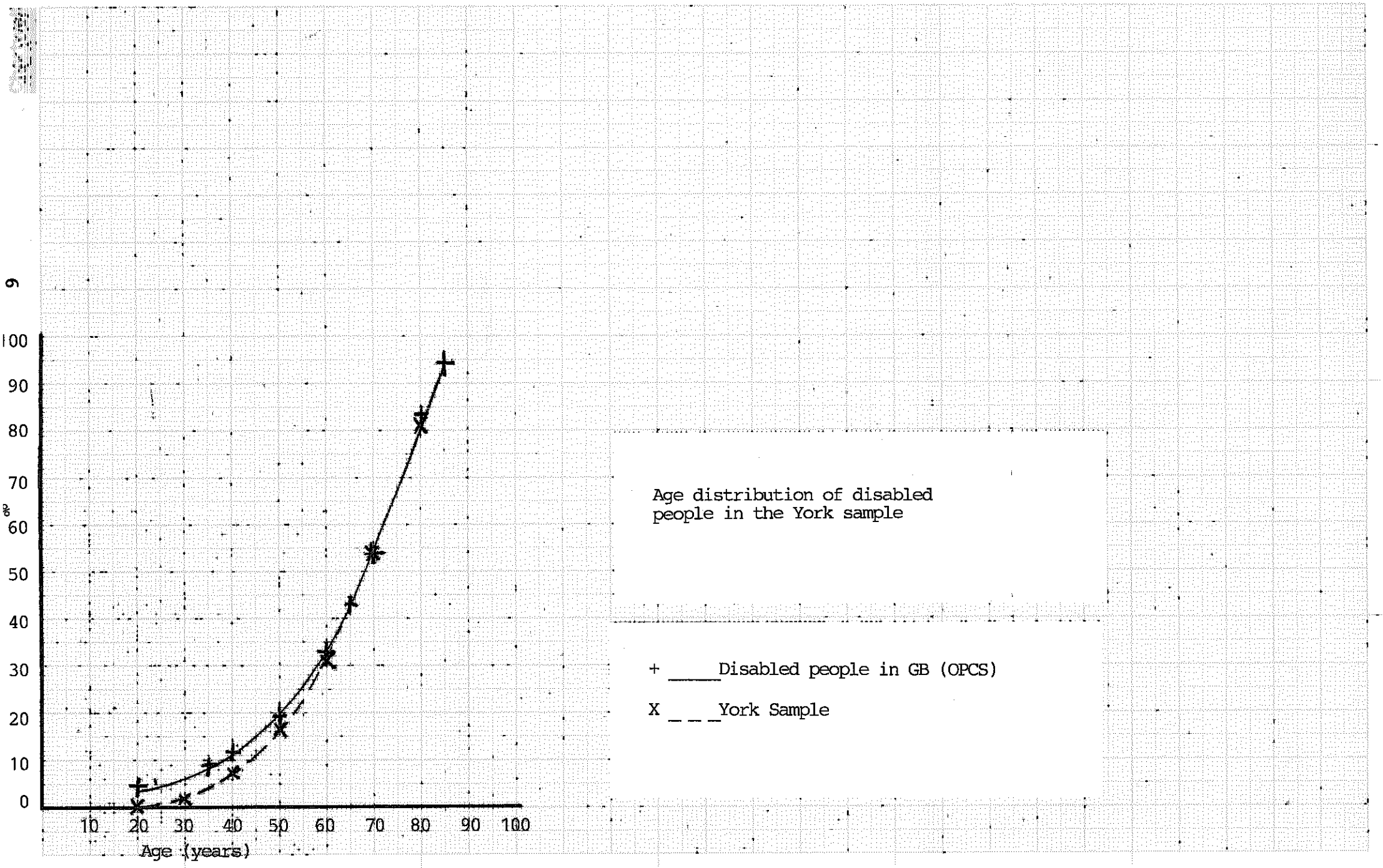
Percentages shown in brackets

2.1.2 Of wheelchair users in York; 42 (84%) used a manual wheelchair and 8 (16%) an electric wheelchair. In Beverley, 33 (85%) used a manual wheelchair, and 6 (15%) an electric wheelchair. Among the stick users in Beverley, 65 (86%) used one stick, and the remainder (11) used two walking sticks or a walking frame.

2.1.3 In York, of the 57 visually handicapped respondents for which information is known, 24 (42%) considered themselves partially sighted, and 33 (58%) blind. 26 (43%) used a white stick, 12 (20%) used a white cane, 7 (11%) used a guide dog and 16 (26%) used either no aid or some other type of aid.

2.1.4 In Beverley, of the 15 visually handicapped participants for which information was gathered, 7 were blind and 6 were partially sighted. 11 (61%) used a white stick, 3 (17%) used a white cane, 1 (6%) used a guide dog and 3 (17%) used no aid or some other type of aid.

2.1.5 88 respondents in York did not use an aid or used some other aids, and of this group 35% had arthritis or some skeletal complaint. (The visually handicapped participants who used no aid are not considered in this disability group).


100
90
80
70
%
60
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40
30
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0
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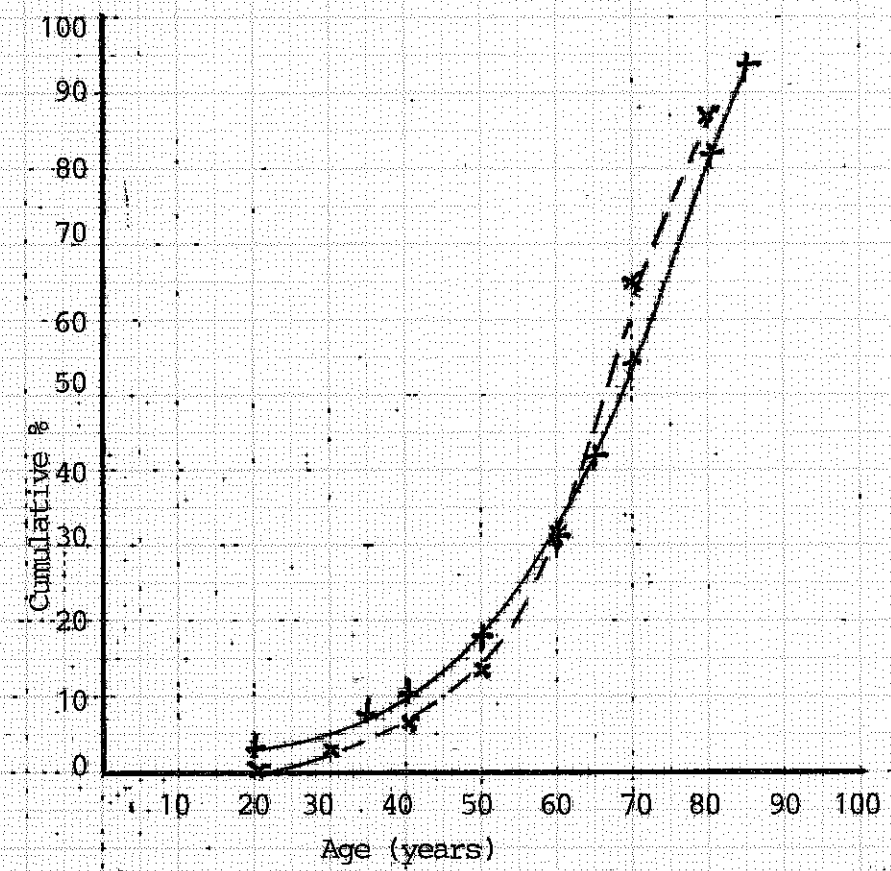
20
30
40
50
60
70
80
90
100
Age (years)
Age distribution of disabled people in the York sample
+ _____Disabled people in GB (OPCS)
X _ _ _York Sample

Fig 2.1



Age distribution of Disabled people in the Beverley sample

+ _____ Disabled adults in GB(OPCS)
X _ _ _ _ Beverley interviewees

Fig 2.2

2.2 Age of Sample

2.2.1 The ages of participants in York and Beverley were obtained and compared to OPCS figures of disabled adults in GB. Figure 2.1 shows that the York sample closely follows the recent OPCS estimate of disabled adults in Great Britain, but with slightly fewer younger respondents. Figure 2.2 shows that the Beverley interviewees also follow closely the recent OPCS estimate of disabled adults in GB, but with slightly fewer younger respondents, and slightly more elderly respondents.

3. Frequency of Going Out, Mode, Assistance Required

3.1 Frequency of Going Out

3.1.1 Participants were asked a number of questions relating to how often they went out, and how far they could move. The results in York, shown in Table 3.1, show that wheelchair users and respondents who used two sticks went out least, with nearly half going outside their homes only about once per week or less often. The other groups go out more often; with about three quarters of each of the groups going out every day or most days.

3.1.2 In Beverley, the results given in Table 3.2 show that the group that go out least are the wheelchair users; about one quarter of wheelchair users go outside their homes about once per week or less often.

3.1.3 In comparison to York, the proportion of diabled people in Beverley going out every day or on most days is greater.

Table 3.1: York - Frequency of Going Out

Group	Frequency 1	2	3	4	5	Total
Wheelchair users	6 (12)	23 (46)	13 (26)	5 (10)	3 (6)	50
One stick users	14 (19)	38 (52)	16 (22)	4 (5)	1 (1)	73
Two stick users	3 (9)	14 (40)	11 (31)	0 (0)	7 (20)	35
All visually handicapped	22 (37)	23 (38)	13 (22)	1 (2)	1 (2)	60
No aids	25 (29)	45 (52)	13 (15)	1 (1)	3 (3)	87

Percentages shown in brackets

Key:
1 Every Day
2 Most Days
3 About once a week
4 About once per month
5 Much less often

Table 3.2: Beverley - Frequency of Going Out

Group	Frequency 1	2	3	4	5	Total
Wheelchair users	10 (26)	20 (51)	7 (18)	1 (3)	1 (3)	39
One stick users	25 (38)	27 (42)	9 (14)	3 (5)	1 (2)	65
Two stick users	1 (9)	7 (64)	2 (18)	1 (9)	0 (0)	11
All visually handicapped	5 (28)	11 (61)	1 (6)	1 (6)	0 (0)	18
No aids	26 (43)	28 (47)	6 (10)	0 (0)	0 (0)	60

Percentage shown in brackets.

Key:
1 Every Day
2 Most Days
3 About once a week
4 About once per month
5 Much less often

3.2 Frequency of Visiting City Centre

3.2.1 Many respondents in York go to the city centre infrequently, as shown in Table 3.3. Between a quarter and a half of all groups went to the centre "much less often" than once a month.

3.2.2 Respondents in Beverley also go to the town centre relatively infrequently, as shown in Table 3.4. Between a tenth and a quarter of all the groups went to the centre "much less often" than once a month.

3.2.3 In comparison with the York results it is clear that, although there are substantial numbers who go to Beverley much less often than once per month, there are much higher percentages of respondents going to the Beverley centre every day or on most days. This is particularly true of wheelchair users.

Table 3.3: York - Frequency of Going to the City Centre

Group	Frequency 1	2	3	4	5	Total
Wheelchair users	1 (2)	2 (4)	11 (22)	13 (26)	23 (46)	50
One stick users	0 (0)	6 (8)	25 (34)	16 (22)	26 (35)	73
Two stick users	0 (0)	4 (11)	5 (14)	2 (6)	24 (69)	35
All visually handicapped	2 (3)	8 (13)	25 (42)	9 (15)	16 (27)	60
No aids	3 (3)	10 (11)	34 (39)	18 (20)	23 (26)	88

Percentage shown in brackets.

Key:
1 Everyday
2 Most days
3 About once per week
4 About once per month
5 Much less often

Table 3.4: Beverley - Frequency of Going to the Centre

Group	Frequency 1	2	3	4	5	Total
Wheelchair users	3 (8)	7 (18)	14 (36)	7 (18)	8 (21)	39
One stick users	6 (9)	22 (34)	15 (23)	7 (11)	15 (23)	65
Two stick users	0 (0)	1 (9)	4 (36)	2 (18)	4 (36)	11
All visually handicapped	0 (0)	4 (22)	10 (56)	2 (11)	2 (11)	18
No aids	7 (12)	21 (35)	15 (25)	6 (10)	11 (18)	60

Percentage shown in brackets.

Key:
1 Everyday
2 Most days
3 About once per week
4 About once per month
5 Much less often

3.3 Mode of Transport

3.3.1 The usual mode of transport to the centres of York and Beverley is shown in Table 3.5 and 3.6.

(i) Table 3.5 York - Mode of Transport

Group	Access Mode 1	2	3	4	5	6	7	8	9	10	Total
Wheelchair users	4 (8)	2 (4)	0 (0)	1 (2)	10 (20)	0 (0)	6 (12)	16 (33)	7 (14)	3 (6)	49
One Stick users	2 (3)	13 (18)	4 (5)	1 (1)	7 (9)	0 (0)	23 (31)	20 (27)	0 (0)	4 (5)	74
Two Stick users	0 (0)	3 (9)	0 (0)	0 (0)	5 (14)	1 (3)	7 (20)	8 (23)	2 (6)	9 (26)	35
Visually h/capped	6 (10)	30 (50)	1 (2)	0 (0)	6 (10)	0 (0)	1 (2)	11 (19)	1 (2)	3 (5)	59
No aids	7 (8)	24 (27)	0 (0)	0 (0)	6 (7)	0 (0)	29 (33)	15 (17)	4 (5)	3 (3)	88

Percentages shown in brackets

Key:
1 Walk
2 Bus
3 Access Bus
4 Train

5 Taxi
6 Taxi for Disabled Person
7 Driving a car or van
8 Passenger in car or van

9 Other
10 Never Travels to city centre

(ii) Table 3.6 Beverley - Mode of Transport

Group	Access Mode 1	2	3	4	5	6	7	8	9	10	Total
Wheelchair users	3 (8)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	8 (21)	18 (46)	8 (21)	1 (3)	39
One stick users	3 (5)	4 (6)	0 (0)	0 (0)	6 (9)	0 (0)	29 (45)	14 (22)	3 (5)	6 (9)	65
Two stick users	1 (9)	0 (0)	0 (0)	0 (0)	1 (9)	0 (0)	1 (9)	3 (27)	1 (9)	4 (36)	11
Visually h/capped	7 (39)	3 (17)	1 (6)	1 (6)	1 (6)	0 (0)	0 (0)	5 (28)	0 (0)	0 (0)	18
No aids	14 (23)	2 (3)	0 (0)	0 (0)	1 (2)	2 (3)	20 (33)	15 (25)	5 (8)	1 (2)	60

Percentages shown in brackets

Key:
1 Walk
2 Bus
3 Access Bus
4 Train

5 Taxi
6 Taxi for Disabled Person
7 Driving a car or van
8 Passenger in car or van

9 Other
10 Never travels to city centre

3.3.2 These Tables show that driving or being a passenger in a car or van is the most usual mode of transport to the centres for all the disability categories, except for visually handicapped respondents. Visually handicapped respondents in York most often used the bus, and in Beverley most often walked. Access buses and trains were rarely used. Taxis were used by between 7% and 20% of respondents in York, and by between 1% and 9% of respondents in Beverley; the principal taxi users in York were wheelchair users and in Beverley were respondents who used a stick. As there is a range of ability to walk among wheelchair users it may be expected that some wheelchair users will be able to transfer into taxis.

3.3.3 The 'other' mode of getting into York and Beverley comprised a small number of respondents who stated that their mode varied - a passenger or driver for example; a number of respondents who walked or used electric wheelchairs/scooters (including 2 respondents who were classified as using sticks or other aids to get about in the city centre) and ten respondents who said they bicycled or sometimes bicycled. A total of six respondents said they used a private ambulance, tail-lift vehicle or dial-a-bus scheme.

4. Assistance Required

4.1 Number Requiring Assistance

4.1.1 The level of assistance required when participants go outside their homes was investigated and is shown in Tables 4.1 and 4.2. In York, almost 90% of wheelchair users, and about one half of the 'two stick user' and visually handicapped groups stated that they must always have someone to assist them. The most independent group were those who used no aids, with about 60% stating that they needed no assistance.

The results for York and Beverley are similar.

Table 4.1: York - Level of Assistance Respondents Require When Going Outside

Group	Must have assistance	Assistance useful	No assistance	Total responding
Wheelchair users	42 (84)	4 (8)	4 (8)	50
One stick users	18 (24)	21 (28)	35 (47)	74
Two stick users	18 (51)	5 (14)	12 (34)	35
All visually handicapped	29 (48)	16 (27)	15 (22)	60
No aids	14 (16)	20 (23)	54 (61)	88

Percentages shown in brackets

Table 4.2: Beverley - Level of Assistance Required When Going Outside

Group	Must have assistance	Assistance useful	No assistance	Total responding
Wheelchair users	28 (72)	6 (15)	5 (13)	39
One stick users	13 (20)	15 (23)	37 (57)	65
Two stick users	6 (55)	3 (27)	2 (18)	11
All visually handicapped	8 (44)	3 (17)	7 (39)	18
No aids	9 (15)	7 (12)	44 (73)	60

Percentages shown in brackets

4.2 Reasons for Requiring Assistance

4.2.1 Respondents who need assistance were asked to indicate the main reasons for having assistance when going outside from a list of possible reasons. The results are shown in Tables 4.3 and 4.4. Respondents were able to select as many items as they wished from the list. They were also able to give other reasons and a variety of reasons were recorded, from specific reasons such as to help in guiding across the road, stated by five visually handicapped people in York, to a commonly stated general fear of falling, and a feeling of safety when accompanied. Respondents were able to select as many of the reasons as they wished, and so percentages do not add up to 100%.

Table 4.3 York - Reasons for Assistance

	Reason for Assistance								
Group	1	2	3	4	5	6	7	8	Total
Wheelchair users	36 (72)	26 (52)	19 (38)	15 (30)	22 (44)	18 (36)	16 (32)	1 (2)	50
One stick users	1 (1)	11 (15)	19 (26)	21 (28)	20 (27)	8 (11)	20 (27)	0 (0)	74
Two stick users	0 (0)	12 (33)	14 (39)	14 (39)	16 (44)	5 (14)	8 (22)	2 (6)	35
Visually handicapped	3 (5)	24 (39)	26 (42)	26 (42)	27 (44)	16 (26)	15 (24)	10 (16)	61
No aids	0 (0)	7 (8)	11 (12)	19 (22)	12 (14)	12 (14)	21 (24)	2 (2)	88

Percentages shown in brackets.

Key:
1 To push my wheelchair
2 To open doors for me
3 To help me up or down steps
4 To give me extra confidence
5 To help prevent accidents
6 To help prevent fatigue
7 To carry bags
8 Others

Note: respondents could indicate more than one reason

Table 4.4: Beverley - Reasons for Assistance

Group	Reason for Assistance 1	2	3	4	5	6	7	8	Total
Wheelchair users	32 (82)	18 (46)	13 (33)	7 (18)	7 (18)	7 (18)	11 (28)	6 (15)	39
All stick users	2 (3)	18 (24)	22 (29)	18 (24)	13 (17)	12 (16)	27 (36)	5 (7)	76
Visually handicapped	0 (0)	5 (28)	6 (33)	3 (17)	7 (39)	1 (6)	2 (11)	3 (17)	18
No aids	0 (0)	10 (17)	9 (15)	8 (13)	5 (8)	4 (7)	11 (18)	4 (7)	60

Percentages shown in brackets

Key:
1 To push my wheelchair
2 To open doors for me
3 To help me up or down steps
4 To give me extra confidence
5 To help prevent accidents
6 To help prevent fatigue
7 To carry bags
8 Others

Note: respondents could indicate more than one reason

4.2.2 It will be noticed that a number of respondents not in the wheelchair user category stated that they need assistance to push wheelchairs. This is because they use wheelchairs occasionally.

4.2.3 Wheelchair users most frequently gave reasons for needing assistance. Apart from needing assistance for pushing the wheelchair, wheelchair users most frequently stated reason was the need for someone to open doors. Among one stick users in York four reasons were equally stated: help with stairs, giving confidence, preventing accidents, and bag carrying. In Beverley the same reasons were stated, except that giving confidence and preventing accidents were less often referred to.

4.2.4 Among visually handicapped respondents the most frequently stated reason in both York and Beverley was for help in preventing accidents, although help with steps was also frequently referred to in both York and Beverley. Respondents using no aids less often gave reasons for needing assistance, but the most frequently stated reason by the groups in York and Beverley was help in carrying bags.

5. Difficulties Encountered in Getting to or Moving About Within the Centres

5.1 Relative Difficulty in Getting To or Moving About Within the Centres

5.1.1 A number of statements were read out to respondents in York and Beverley in order to investigate whether they would wish to go to the city centre more often, and whether the principal deterrent might be getting to and from, or moving about within the centres. The three principal statements, were: "I would go to the city centre more often if it was easier for me to get there or back home"; and "I would go to the city centre more often than I do if it was easier for me to walk about/move my wheelchair/in the city centre"; "I go to the city centre just about as often as I want to". Two more statements were also read out to cover other possibilities, and respondents were invited to choose the statement they considered to be most relevant. The results are shown in Table 5.1 and 5.2.

5.1.2 These results show that, for each disability group, a lower percentage of respondents go to York as often as they wish, compared to Beverley. In comparison with other groups, wheelchair users stated least often that they go to the city centre as often as they like. They are also the group with the greatest disparity between York and Beverley. In York, less than one fifth of wheelchair users go to the city centre as often as they want, compared to about one half in Beverley.

5.1.3 For each of the disability groups the main problem with going to the centres is moving about within the centres once they have arrived rather than getting to or from the centres. The problem of getting around the centre appear to be worse in York than in Beverley.

5.1.4 The basic question of whether problems relate more to getting to or from the city centre or moving about within the city centre was also tackled in a separate question. Respondents were asked to what extent they agreed with the statements:

A: "The most difficult thing about going to the city centre is getting there and back again. While I am there I am alright."

and

B: "The most difficult thing about going to the city centre is getting about in the city centre itself. Getting to the city centre and back home is less of a problem for me."

Respondents were able to answer each question on a scale of 1-6:

1 Agree strongly
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Disagree strongly
6 Don't know

5.1.5 If each of the answers is given the stated numeric value (excluding "don't know"s) and the results averaged for each question, the results shown in Table 5.3 are obtained.

Table 5.1: York - Conditions Necessary for Increasing Frequency of Travel to City Centre

Group	Condition 1	2	3	4	5	Total
Wheelchair users	2 (4)	26 (52)	11 (22)	8 (16)	3 (6)	50
One stick users	4 (5)	20 (27)	16 (22)	32 (44)	1 (1)	73
Two stick users	1 (3)	14 (42)	6 (18)	9 (27)	3 (9)	33
All visually handicapped	2 (3)	25 (42)	2 (3)	25 (42)	6 (10)	60
No aids	10 (12)	18 (21)	10 (12)	45 (52)	3 (3)	86

Percentages shown in brackets

Key: 1 Respondent would go to the city centre more often if it was easier to get there or back
2 Respondent would go to the city centre more often if it was easier to move about within the city centre
3 Respondent would go to the city centre more often but finds getting there and back, and moving about within the centre equally difficult
4 Respondent goes to the city centre as often as he or she wishes
5 Respondent wishes to go to the city centre less often

Table 5.2: Beverley - Conditions Necessary for Increasing Frequency of Travel to Town Centre

Group	Condition 1	2	3	4	5	Total
Wheelchair users	2 (5)	11 (28)	6 (15)	19 (49)	1 (3)	39
One stick users	5 (8)	14 (22)	9 (14)	34 (52)	3 (5)	65
Two stick users	3 (27)	3 (27)	2 (18)	2 (18)	1 (9)	11
All visually handicapped	2 (11)	6 (33)	0 (0)	9 (50)	1 (6)	18
No aids	3 (5)	9 (15)	2 (3)	43 (72)	3 (5)	60

Percentages shown in brackets

Key: 1 Respondent would go to the city centre more often if it was easier to get there or back
2 Respondent would go to the city centre more often if it was easier to move about within the city centre
3 Respondent would go to the city centre more often but finds getting there and back, and moving about within the centre equally difficult
4 Respondent goes to the city centre as often as he or she wishes
5 Respondent wishes to go to the city centre less often

Table 5.3: Relative Difficulty in Getting To or Moving Within York and Beverley Centres

Group	York		Beverley	
	A	B	A	B
Wheelchair users	3.9	2.0	3.9	2.3
One stick users	4.0	2.6	3.7	2.4
Two stick users	4.1	2.4	3.3	3.0
Visually handicapped	3.9	2.2	3.6	2.7
No aids	3.8	2.7	3.7	2.6

5.1.6 The lower the average value given, the greater is the general agreement with the statement. This indicates that in both York and Beverley, there is more agreement with statement B: "that there is difficulty in moving about the centre", than with statement A: "that the greatest difficulty is in getting to the centre.

5.1.7 In comparing York and Beverley the results are tend to suggest that there is more difficulty in Beverley in getting to/from the town centre than York.

5.2 Nature of Difficulties Encountered in Getting To or Moving About Within the Centre

5.2.1 Respondents were shown lists of potential problems in getting to and from York and Beverley and in moving about in the centres. They were then asked to assess the difficulty that each of the problems posed them. The answers were scored as:

1 not usually a problem
2 a slight problem
3 a severe or impossible problem

The mean score for each disability group in each centre, and for each potential problem, is shown in Figures 5.1 and 5.2. The results are also shown based on mode of travel in Figure 5.3.

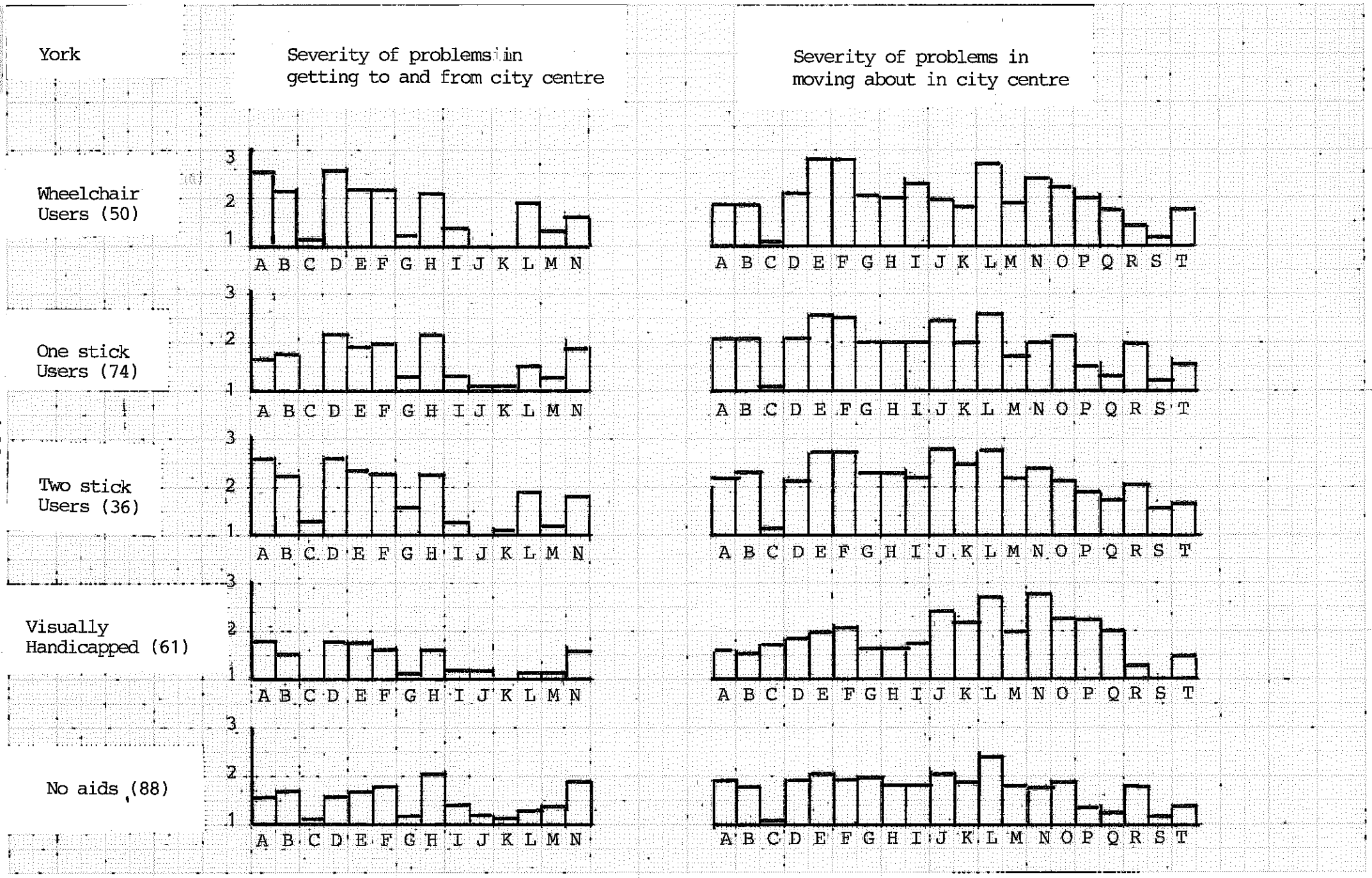


Fig 5.1

For key see following sheet

Beverley

Severity of problems in getting to and from centre

Severity of problems in moving about in centre

Wheelchair Users (39)

Stick Users (76)

Visually Handicapped (18)

No aids (69)

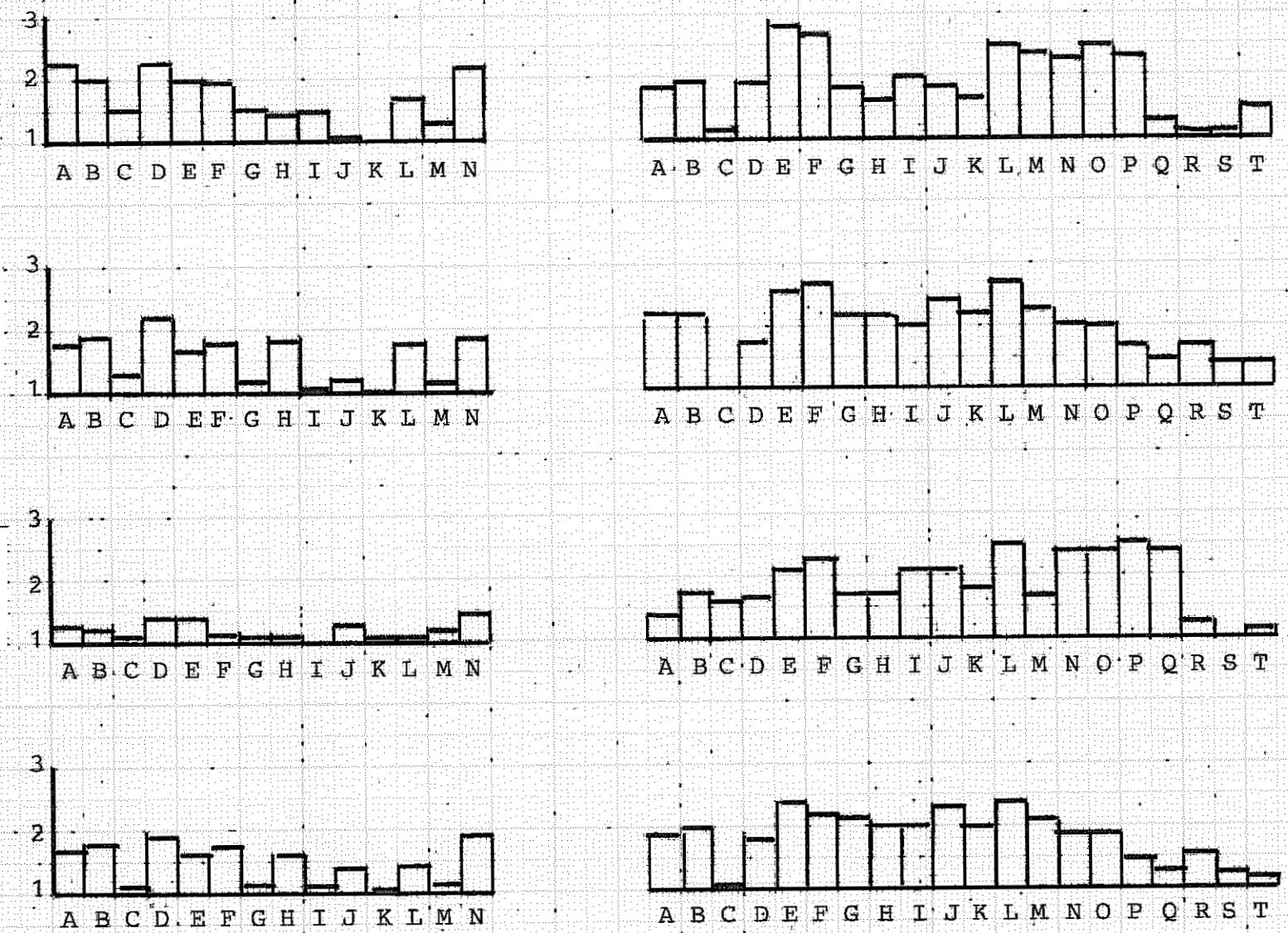
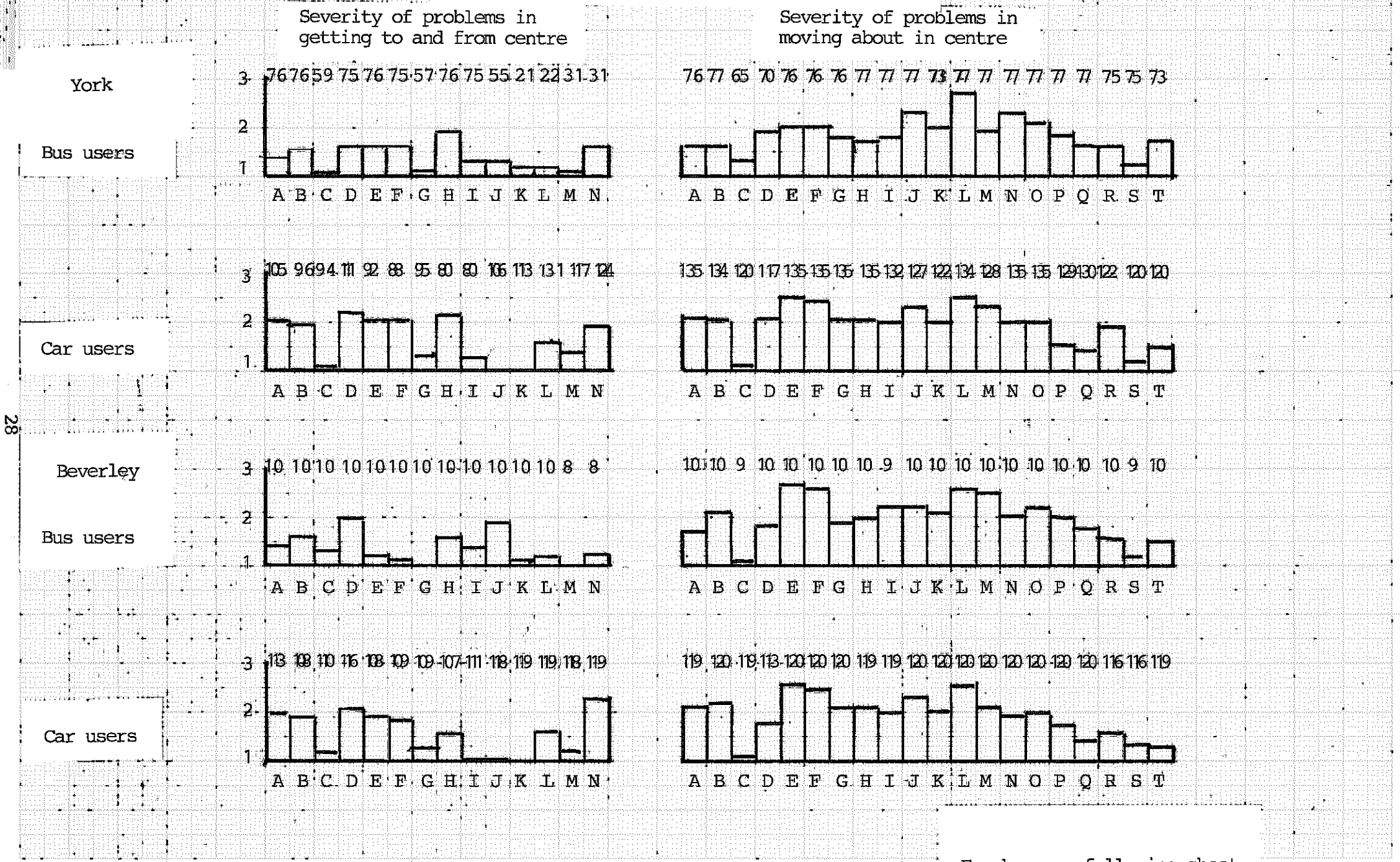


Fig 5.2

For key see following sheet

Severity of problems for respondents using different modes



For key see following sheet

Fig 5.3

KEY TO FIGS 5.1 TO 5.3:

3 A severe problem or impossible
2 A slight problem
1 Not usually a problem

Nature of Problems in Getting To or From City Centre

A Getting to a bus stop from my home
B Time spent waiting for a bus going to the city centre
C Time taken to obtain a taxi to take me to the city centre
D Getting on or off the bus
E Getting to a bus stop to return home
F Time spent waiting for a bus when returning to my home
G Time taken to obtain a taxi when returning to my home
H Facilities for resting at a bus stop
I Cost of travelling by bus
J Lack of availability of a car
K Cost of parking
L Getting in or out of cars or taxis
M Restrictions on permitted parking time
N Finding a suitable and convenient parking bay

Nature of Problem in Moving About City Centre

A The distance between the first place I want to visit and the place where I left the vehicle I arrived in
B The total distance between all the different places I want to visit
C Getting directional information from signs and maps
D Public toilet provision
E Going up steps
F Going down steps
G Going up slopes
H Going down slopes
I Cambers (the sideways slope of some pavements)
J Walking areas that become slippery when wet
K Walking areas that are slippery when dry
L Walking areas that are cracked or broken
M Gusts of wind
N Crossing roads
O Crowds
P Temporary obstructions such as scaffolding and signs put outside shops
Q Permanent obstructions such as litter bins and bollards
R Provision of enough seats in the places they are really wanted
S Types of seats provided in public places
T Sheltering from rain

5.2.2 The Figures show that, generally, problems in moving about the centre are more serious than problems in getting to or from the centre (this is true for both York and Beverley, and for each of the disability groups). This is consistent with the results already described.

5.2.3 In comparing York and Beverley, the problems of getting to or from the city centre of York were generally more serious than those of getting to or from the Beverley town centre, for all disability groups.

5.2.4 Once in the centres, a larger number of the problems were considered to be serious in York than in Beverley among wheelchair users and visually handicapped respondents. However for stick users and respondents who used no aids, the reverse was true.

5.2.5 One of the more serious problems in getting to or from the centre in York or Beverley was 'getting to a bus stop from my home', particularly for wheelchair users. The most frequently received comment when probing this problem was found to be that the nearest bus stop was too far away. The 'time spent waiting for a bus going to the city centre' was also regarded as one of the more serious problems, and gave rise to comments on the overall difficulty or impossibility of attempting to use buses. This was borne out by the difficulty expressed by wheelchair users and stick users, and relating to the problem of 'getting on or off buses'.

5.2.6 The 'facilities for resting at bus stops' was found to be one of the most difficult problems in getting to and from York, rather than in Beverley, and the most commonly received reply to prompting was that there were not enough seats. The 'cost of travelling by bus' was rarely considered a problem in York or Beverley among any of the disability groups.

5.2.7 The main problem associated with using a car in getting to or from the centres was in 'finding a suitable and convenient parking bay'. This was true for all disability groups in both York and Beverley. 'Lack of availability of car', the 'cost of parking' and 'restrictions on permitted parking times' were rarely stated to be problems.

5.2.8 Among wheelchair users and respondents who used sticks in York and Beverley, 'getting in and out of cars or taxis' was a significant problem. This was less of a problem for visually handicapped respondents or those who used no aid.

5.2.9 One of the most severe problems, both in York and Beverley, was 'walking areas that are cracked or broken'. This was reiterated in the comments that were gathered relating to pavers that were broken, and the commonly expressed fear of falling because of pavement conditions. Closely related to this was 'walking areas that become slippery when wet'. This latter was of particular concern to stick users, again because of the fear of falling.

5.2.10 'Going up steps' or 'Going down steps' was, as might be expected, the most serious problem for wheelchair users. It was also a severe problem amongst stick users and to a lesser extent among visually handicapped respondents and respondents who used no aid. 'Going up slopes' and 'Going down slopes' was seen as less of a problem than steps by all disability groups in both York and Beverley primarily because both centres are basically flat. Among the 'no aid' category, in both York and Beverley, going up steps or slopes was seen as a slightly greater problem than coming down steps or slopes. This pattern was not apparent among the other disability groups.

5.2.11 The 'types of seats provided in public places', 'sheltering from the rain' and 'getting directional information from signs and maps' were potential problems that were generally less often cited. 'Sheltering form rain' was more of a problem for wheelchair users than for the other disability categories.

5.2.12 'The distance between the first place I want to visit and the place where I left the vehicle I arrived in' and 'The total distance between all the different places I want to visit' were more serious problems for stick users than for the other disability categories in both York and Beverley. Little difference was found between York and Beverley responses to these questions, despite the difference in the sizes of the centres.

5.2.13 The provision of public toilets was less often referred to as a problem in Beverley than in York by each of the disability groups. However, the difference in severity was not great and could be due by random error.

5.2.14 'Temporary obstructions such as scaffolding and signs put outside shops' were considered to be a greater problem in Beverley than in York by all disability groups. Temporary obstructions were particularly a problem cited by wheelchair users; and for visually handicapped respondents in Beverley were the most serious problem when moving about the centre.

5.2.15 'Permanent obstructions such as litter bins and bollards' were considered to be a less serious problem than temporary obstructions.

5.2.16 Crossing the road was found to be a severe problem for visually handicapped people in both York and Beverley.

5.3 Other Problems

5.3.1 At the end of the interview, respondents were asked to indicate any other problems they had in getting to the centre or moving about within it which had not been mentioned in the interview, or which they considered needed more emphasis. 198 (64%) of respondents in York and 188 (93%) of respondents in Beverley did not mention any other problems.

5.3.2 In York the most frequent comment received at the end of the interviews was that pavements were in bad condition. This was followed, in frequency, by comments related to: parking restrictions, the extent of traffic within pedestrian areas, the need for lower kerbs, that more toilet facilities are required, the need for more lifts, that pedestrianised areas were good, that too much emphasis was given to tourists in York rather than residents, that access to shops was difficult, and that shops do not provide sufficient seats.

5.3.3 In Beverley most of the additional problems related to parking restrictions, and kerbs were referred to by three respondents each.

6. Movement Distances

6.1 Movement Distances Based on Last Visit to Centre

6.1.1 Respondents were asked to indicate, on a map, where they went by foot or wheelchair the last time they visited York or Beverley. The total distance of these journeys was determined for each participant and is shown in Figures 6.1 and 6.2 for York and Beverley respectively.

Table 6.1: York - Journey Type

Group	Journey Type 1	2	3	4	Total
Wheelchair users	43 (86)	4 (8)	3 (6)	0 (0)	50
One stick users	64 (89)	4 (6)	3 (4)	1 (1)	72
Two stick users	25 (71)	1 (3)	9 (26)	0 (0)	35
All visually handicapped	53 (90)	3 (5)	3 (5)	0 (0)	86
No aids	78 (90)	6 (7)	2 (2)	0 (0)	86

Percentages shown in brackets

Key: 1 Unbroken by journey in vehicles
2 Broken by journey in vehicle
3 Not recently made any journey
4 Did not leave car

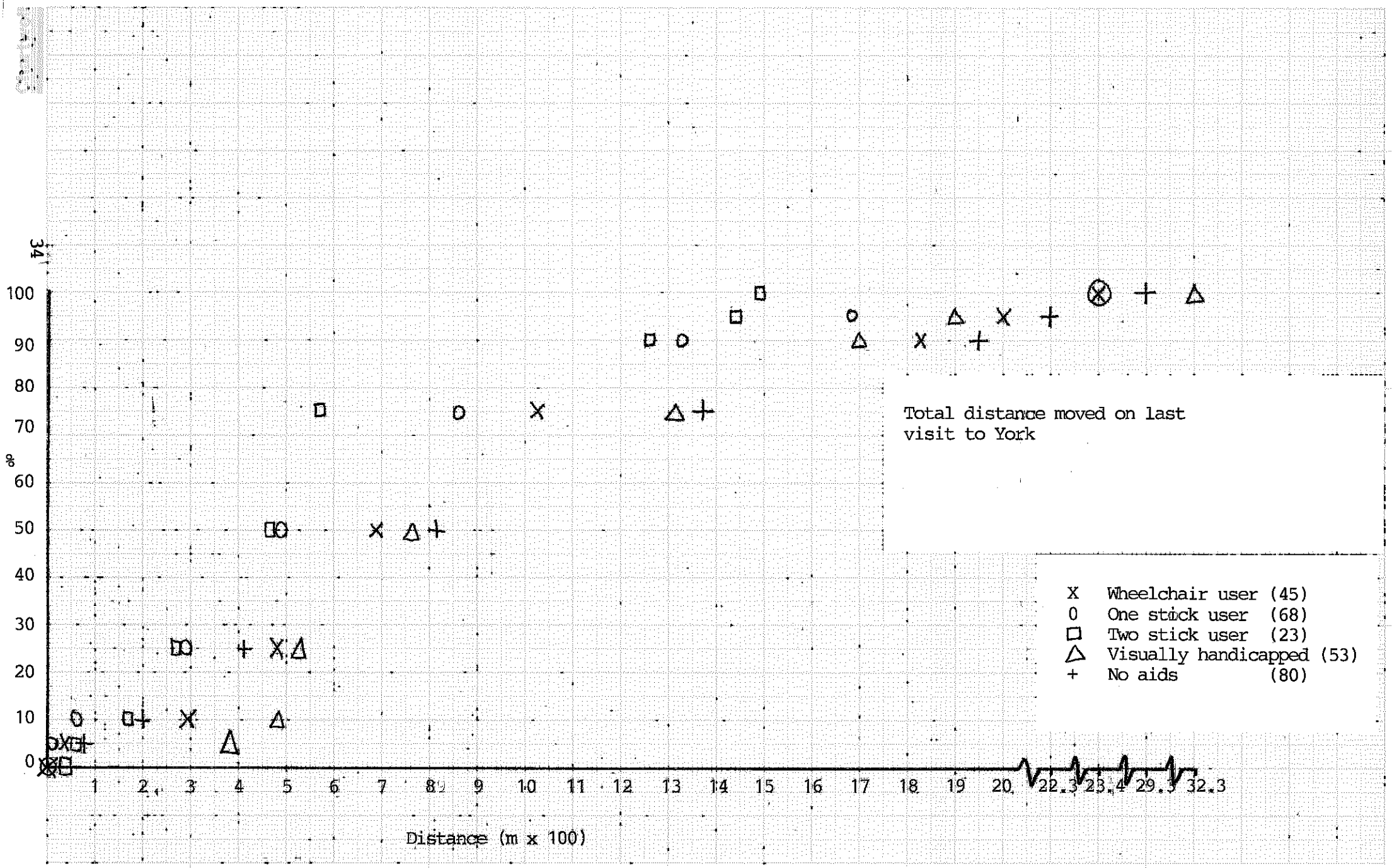

%
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
22.3
23.4
29.3
32.3
Distance (m x 100)
Total distance moved on last visit to York
X Wheelchair user (45)
0 One stick user (68)
□ Two stick user (23)
△ Visually handicapped (53)
+ No aids (80)

Fig 6.1

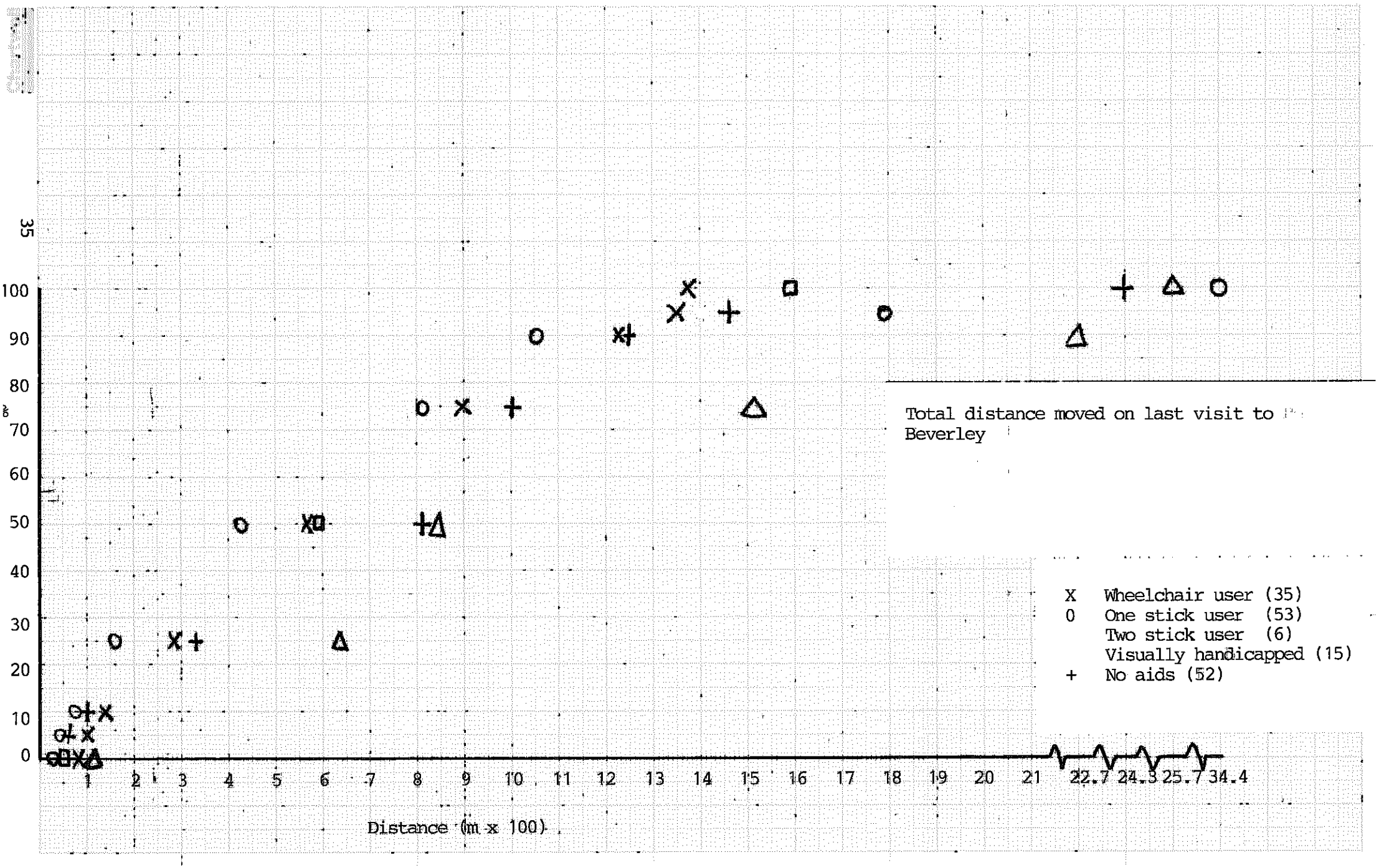

Total distance moved on last visit to Beverley
X Wheelchair user (35)
0 One stick user (53)
Two stick user (6)
Visually handicapped (15)
+ No aids (52)
Distance (m x 100)
%
0
10
20
30
40
50
60
70
80
90
100
35
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22.7
24.3
25.7
34.4

Fig 6.2

6.1.2 The type of journey, i.e., whether it was unbroken or broken by trips in vehicles, is shown in Tables 6.1 and 6.2. These indicate that few of the trips used in drawing up Figures 6.1 and 6.2 were broken by intermediate vehicle journeys. The number of rests or the length of time taken on these journeys is not recorded. The Tables also indicate that these are appreciable numbers of people who have not recently made any journey, or who made a journey in a car, but did not get out of the car on reaching the destination.

Table 6.2: Beverley - Journey Type

Group	Journey Type 1	2	3	4	Total
Wheelchair users	36 (92)	1 (3)	1 (3)	1 (3)	39
One stick users	51 (78)	6 (9)	4 (6)	4 (6)	65
Two stick users	7 (64)	0 (0)	3 (27)	1 (9)	11
All visually handicapped	18 (100)	0 (0)	0 (0)	0 (0)	18
No aids	51 (85)	3 (5)	1 (2)	5 (8)	60

Percentages shown in brackets

Key: 1 Unbroken by journey in vehicles
2 Broken by journey in vehicle
3 Not recently made any journey
4 Did not leave car

6.2 Stated Capability for Movement Distance

6.2.1 Respondents in York and Beverley were asked to estimate how far they could move between pauses for rest in two circumstances, namely if they had assistance and if they had none.

6.2.2 From the answers received Tables 6.3 - 6.6 have been drawn up. These show the cumulative numbers and percentages excluded from moving greater distances if provision for resting is not provided.

6.2.3 Table 6.3 demonstrates, for instance, that in Beverley 7 (18%) of wheelchair users must have assistance, and that 25 (64%) of all respondents in this category cannot travel further than 20 yds without assistance without taking a rest. This 64% includes the (18%) who said that they must have assistance. Table 6.3 also shows that 28 (51%) of respondents who used no aid would be unable to travel further than 150 yds. This figure includes respondents who could not go as far - the 20 (36%) who could travel a maximum of 75yds, the 8 (15%) who could travel a maximum of 20yds, and the 5 (9%) who said that they must have assistance.

6.2.4 The effect of showing the results in this way is to demonstrate the total number and percentages excluded from travelling distances greater than those shown without a rest.

6.2.5 The results in York and Beverley are similar and indicate the wide spread of ability within each disability category. The results also indicate that assistance extends the travel range of respondents, particularly for wheelchair users and visually handicapped people.

6.2.6 As might be expected, visually handicapped respondents are least restricted in the distance they can travel between rests. The most restricted group, in both York and Beverley, are the wheelchair users, without assistance, and with assistance one stick users (in York, two stick users).

Table 6.3: York - Cumulative Numbers of Respondents Stating That They Were Unable to Travel Distances Greater Than Those Shown, Without Assistance, Without Taking a Rest

Group	Must have assist-ance	Maximum of 20 yards (18.3m)	Maximum of 75 yards (68.6m)	Maximum of 150 yards (137m)	Can move further than 150 yds	Total responding
Wheelchair users	16 (34)	32 (68)	40 (85)	40 (85)	7 (15)	47
One stick users	2 (3)	10 (15)	23 (34)	43 (64)	24 (36)	67
Two stick users	0 (0)	11 (35)	19 (61)	26 (84)	5 (16)	31
All visually handicapped	15 (29)	20 (38)	21 (40)	25 (48)	27 (52)	52
No aids	3 (4)	8 (11)	26 (35)	37 (49)	39 (52)	75

Percentages shown in brackets

Table 6.4: York - Cumulative Number of Respondents Stating That They Were Unable to Travel Distances Greater Than Those Shown, Even With Assistance, Without Taking a Rest

Group	Maximum of 20 yds (18.3m)	Maximum of 75 yds (68.6m)	Maximum of 150 yds (137m)	can move further than 150 yds (137m)	Total Responding
Wheelchair users	16 (34)	22 (47)	25 (53)	22 (47)	47
One stick users	5 (7)	18 (26)	41 (60)	27 (40)	68
Two stick users	10 (32)	17 (55)	26 (84)	5 (16)	31
All visually handicapped	4 (8)	8 (16)	16 (31)	35 (67)	51
No aids	5 (7)	22 (29)	33 (43)	43 (57)	76

Percentages shown in brackets

Table 6.5: Beverley - Cumulative Numbers of Respondents Stating That They Were Unable to Travel Distances Greater Than Those Shown, Without Assistance, Without Taking a Rest

Group	Must have assist-ance	Maximum of 20 yards (18.3m)	Maximum of 75 yards (68.6m)	Maximum of 150 yards (137m)	Can move further than 150 yds	Total respon-ding
Wheelchair users	7 (18)	25 (64)	27 (69)	29 (74)	10 (26)	39
Stick users	1 (1)	16 (22)	33 (45)	49 (67)	24 (33)	73
All visually handicapped	5 (33)	7 (47)	8 (53)	8 (53)	7 (47)	15
No aids	5 (9)	8 (15)	20 (36)	28 (51)	27 (49)	55

Percentages shown in brackets

Table 6.6: Beverley - Cumulative Numbers of Respondents Stating That They Were Unable to Travel Distances Greater Than Those Shown, Even With Assistance, Without Taking a Rest

Group	Maximum of 20 yds (18.3m)	Maximum of 75 yds (68.6m)	Maximum of 150 yds (137m)	Can move further than 150 yds (137m)	Total Responding
Wheelchair users	14 (37)	17 (45)	22 (58)	16 (42)	38
Stick users	13 (18)	30 (41)	47 (64)	27 (36)	74
All visually handicapped	1 (7)	3 (20)	5 (33)	10 (67)	15
No aids	3 (5)	16 (29)	25 (45)	30 (55)	55

Percentages shown in brackets

7. Design and Policy Implication of the Results

7.1 Based on the results described earlier in this Working Paper, and the results of interviews in Leeds described in WP254, certain implications for designers and policy makers can be identified. The most important of these are summarised briefly here, but are referred to again in the Contractor's Report where the main conclusions and design recommendation emanating from the study are set out.

7.2 The frequency with which disabled people go outside the home drops significantly as dependence on other people for assistance increases. This dependence varies between disability groups, with visually handicapped people and the more severely handicapped ambulatory disabled, but particularly wheelchair users, being reliant on other people. Practical means of reducing this dependence (e.g. by providing more electrically-driven wheelchairs) should result in an increase in mobility for some disabled people and hence widen their opportunities for visiting town/city centres or local district centres.

7.3 Two important reasons for disabled people requiring assistance were to "open doors" and to "help with steps". These are infrastructure elements which design can eliminate and thus enable disabled people to be less dependent on other people. "Lack of confidence" was also cited, an aspect influenced in part by the surface condition (often poorly maintained) of the pedestrian area.

7.4 The private car is the main travel mode used by disabled people, irrespective of the size of the town/city, with the exception of the visually handicapped (all areas) and ambulatory disabled people using Leeds city centre, for whom the bus is also important. For the small town of Beverley, and local district centres in Leeds, walking (or direct movement by wheelchair) becomes increasingly important and needs to be provided for.

7.5 In Leeds the main perceived reason for not visiting the city centre was the "difficulty of getting there". Other reasons given were the long walking distances involved within the area and the lack of enough designated parking spaces. Even for the nearer district centres "difficulty of getting there" was still the most important reason for not going there. For the smaller towns of York and Beverley, however, problems of access appeared to be less important - with more emphasis being placed on the conditions <u>within</u> the pedestrianised area.

7.6 In all three areas the access problems quoted were similar, but with varying importance. For users of bus public transport the main problems related to getting on/off the bus and poor/no seating at the return bus stop. For car travellers, the lack of adequate/convenient parking spaces was dominant, particularly among wheelchair users. These conclusions point to the urgent need for providing more appropriate seating/rest areas at (or in the vicinity of) bus stops in town/city centres, and for appropriate studies to be carried out to determine not only how many designated parking spaces are needed, but also where/how they can be provided.

7.7 The most important impediments to movement within pedestrian areas related to the condition of the walking surface (including "cracked and uneven surfaces" and "steps/kerbs"), gradients, and physical obstacles - the latter being important for visually handicapped people and wheelchair users. The presence of these impediments often resulted in disabled people having to change their route to a longer one, or being unable to visit a desired street/building. Clearly, all the above impediments can normally be removed, or their impact reduced, by appropriate layout design and subsequent maintenance.

7.8 Finally, excessive walking distance was cited as a problem, even in the smaller town centre of Beverley. Two design implications arise from this, namely:- to reduce walking distances by more appropriate locations of bus stops and designated parking spaces, and to ameliorate the effects of long walking distances by providing adequate numbers and locations of seats/perches throughout the pedestrian area. This latter is clearly related to the walking distance capability of disabled people, and is one of the issues considered in depth in Working Papers 255 and 275.

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APPENDIX I

11/11/88

DRAFT 10 10 INTERVIEW FORM YORK ESDIPA 11/11/88

It is intended that you read out only those parts of the text that are set in from the left-hand side. Note that some of the sets of answers are intended to be read out, and others are not.

It is most important that you record an answer for all the questions that interviewees are supposed to be asked. If the interviewee fails to give an answer, either probe to get an answer, use the "don't know" option, or write a comment indicating why no answer has been provided.

Before starting the interview, make sure that all the following information is recorded:

Interviewee's identity number . . . . . _____ [ ][ ][ ]

Interviewee's Name and Address (please print)

Interviewee's Postcode (if known). . . . _____ [ ][ ][ ]
[ ][ ][ ]

Interviewee's Telephone number . . . . . _____

Interviewer's name . . . . . _____ [ ][ ][ ]

Today's Date . . . . . _____ [ ][ ]

When you are ready to start the interview, please read the following text:

Thank you for agreeing to take part in this study.

The information we are looking for from you will be useful to us in finding out about problems people might have in using pedestrian precincts, such as the paved areas in city centres, so that in the future these areas can be made as accessible as possible for everyone.

So, we would be grateful if you would answer the following questions. The questions have been carefully prepared to make them easy to answer. Even if you rarely go out, or if you can only partly answer some questions, the answers you give will still be useful to the project.

What you say will be confidential. No individual person will be identified, nor will any information about any individual be passed on to anyone.

There are no "right" or "wrong" answers to any of these questions. All that is important is what <u>you</u> think.

Q 1 When you go to the city centre (or outside your home if you never go to the city centre), what aids to getting about do you use most often?

(Please ring ONE statement only)

Wheelchair, manual . . . . . .(01)
Wheelchair, powered. . . . . .(02)
One walking stick . . . . . .(03)
Two walking sticks, or elbow crutches. . . . . .(04)
Arm crutches, or walking frame . . . . . .(05) [ ][ ]
White stick . . . . . .(06)
White cane . . . . . .(07)
Guide dog . . . . . .(08)
None **(Please state what disability)** . . . . . .(09)
Other **(Please state)** . . . . . .(10)

(Try to determine which type of aid is used on visits to the city centre, or, if the city centre is not used, then other occasions outside the house. If "none" please try to find out what the respondents disability is, eg angina. If a combination of aids is normally used, please circle "other" and note what the aids normally used are).

(Where "wheelchair" is specified, in following questions use "move your wheelchair" instead of "walk")
(for visually handicapped respondents please determine if respondent is blind or partially sighted [ ]

Q 2 If you have any difficulty in getting to or from the city centre, or in moving about in the city centre once you are there, please say what these difficulties are, and indicate which of them is the worst. [ ][ ]
[ ][ ]
[ ][ ]

(Please <u>do not</u> prompt with examples of possible difficulty, but probe to draw out respondent's own ideas of what causes them difficulty)

Q 3 If the weather is not too bad, how often do you normally go outside your home for any reason, such as shopping, visiting friends, or going to the doctor? Please choose the one of these that fits best:

Every day . . . . . .(1)
Most days . . . . . .(2)
About once per week . . . . . .(3) [ ]
About once per month. . . . . .(4)
Much less often . . . . . .(5)

(Please ring ONE statement only)

Q 4 Which one of these statements is most true about you when you go outside your home, for example, to go shopping, visiting friends, or going to the doctor.

When I go outside my home I must always have someone to assist me . . . . . .(1)
or,
When I go outside my home I find that having someone to assist me is very useful, although I can usually manage on my own . . . . . .(2) [ ]
or,
When I go outside my home I do not need any assistance (Go To Q7) . . . . . .(3)

(Please ring ONE statement only)

Q 5 **(Omit respondents who do not require assistance when going outside)**
Which of these would you say are the main reasons for having assistance when going outside your home?

To push my wheelchair . . . . . (01)
To open doors for me. . . . . (02)
To help me up or down steps . . . . . (03) [ ][ ]
To give me extra confidence **(Please probe)** . . . (04) [ ][ ]
To help prevent accidents . . . . . (05) [ ][ ]
To help prevent fatigue . . . . . (06)
To carry bags . . . . . (07)
Others **(Please state)** . . . . . (08)

(Ring as many statements as required)

Q 6 **(Omit respondents who do not require assistance when going outside)**
With the aids that you normally use when you go outside unassisted, how far can you normally walk /move your wheelchair/ on level ground between pauses for rest?

0 - 20 yards . . . . . (1)
21 - 75 yards. . . . . (2) [ ]
76 - 150 yards . . . . . (3)
more than 150 yards. . . . . (4)
never goes out unassisted . . . . . (5)

(Please ring ONE statement only. If the interviewee is having difficulty estimating how far these distances are, then try to indicate some typical distances)

Q 7 If you are accompanied, by someone who may assist you, how far can you normally walk /move your wheelchair/ on level ground, between pauses for rest?

0 - 20 yards . . . . . (1)
21 - 75 yards. . . . . (2) [ ]
76 - 150 yards . . . . . (3)
more than 150 yards. . . . . (4)

(Please ring ONE statement only. If the interviewee is having difficulty estimating how far these distances are, then try to indicate some typical distances)

Q 8 If the weather is not too bad, how often do you normally go to the city centre for any reason, such as shopping, visiting friends, or going to work? Please choose the one of these that fits best:

Every day . . . . . .(1)
Most days . . . . . .(2)
About once per week . . . . . .(3) [ ]
About once per month. . . . . .(4)
Much less often . . . . . .(5)

(Please ring ONE statement only)

Q 9 If you visit the city centre, what is your usual way of getting there?

Walk . . . . . .(01)
Bus . . . . . .(02)
Access Bus. . . . . .(03)
Train . . . . . .(04)
Taxi . . . . . .(05)
Taxi for disabled people. . . . . .(06)
Driving a car or van. . . . . .(07) [ ][ ]
Passenger in yours, a friends, or relations car or van (08)
I can't remember. . . . . .(09)
Other **(Please state)**. . . . . .(10)
I never travel to the city centre . . . . . .(11)

(Please ring ONE statement only. If "other" please write here which mode of transport is usually used. If more than one mode is used for a single journey, try to determine which mode is used to cover the greatest distance.)

Q 10 Which ONE of these statements that I am going to read out is most true about your visits to the city centre?

I would go to the city centre more often than I do if it was easier for me to get there or back home . . . . . .(1) [ ]

I would go to the city centre more often than I do, if it was easier for me to walk about /move my wheelchair/ in the city centre . . . . . (2)

I would go to the city centre more often than I do, but I find getting there and back, and moving about in the city centre equally difficult. . . . . (3)

I go to the city centre just about as often as I want to. . . . . (4)

I would prefer to go to the city centre less often. . . (5)

(Please ring ONE statement only)

Q 11 I am going to read out some statements with which you may agree or disagree. For each of the statements, please choose one of the options 1 to 6 on the card that best expresses how strongly you agree or disagree with the statements. If you aren't quite sure what to do, then please say so.

(Show card 1. Explain that respondents can choose their answers from the options on the card. Please ring ONE answer for each statement. Try to avoid "don`t know" responses by probing.)

A The most difficult thing about going to the city centre is getting there and back again. While I am there I'm alright.
(1) (2) (3) (4) (5) (6) [ ]

B The most difficult thing about going to the city centre is getting about in the city centre itself. Getting to the city centre and back home again is less of a problem for me.
(1) (2) (3) (4) (5) (6) [ ]

C There are plenty of public seats in all parts of the city centre that I would usually want to visit.
(1) (2) (3) (4) (5) (6) [ ]

D The only place that I can ever find to sit down and rest is in a cafe or somewhere like that.
(1) (2) (3) (4) (5) (6) [ ]

KEY	Agree strongly	Agree	Neither agree or disagree	Disagree	Disagree strongly	Don't know
	(1)	(2)	(3)	(4)	(5)	(6)

Q 12 In the list that follows there are a number of things that people have said make it difficult to get to or from city centres. Please choose one of the options on the card that best indicates how much of a problem you find with the item. If you are not quite sure what is wanted, please say so.

(Show cards 2 and 3. If the interviewee has trouble reading the cards, please help by reading them out. Interviewees should be exposed to all the items on the show card before starting to answer this question. This may take a little while. Please write ONE number alongside each item, when the interviewee is ready. Probe all items where "a severe problem" is found, and note briefly any details of the nature of the problem and up to two locations in the city centre where the problem exists).

(Even where respondents do not use buses, taxis etc ask the questions as though they were going to try to use them)

Key:
A severe problem or impossible . . . . . (1)
A slight problem . . . . . (2)
Not usually a problem. . . . . (3)
Don't know . . . . . (4)

A	Getting to a bus stop from my home.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
B	Time spent waiting for a bus going to the city centre.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
C	Time taken to obtain a taxi to take me to the city centre.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
D	Getting on or off the bus.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
E	Getting to a bus stop to return home.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
F	Time spent waiting for a bus when returning to my home.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
G	Time taken to obtain a taxi when returning to my home.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
H	Facilities for resting at a bus stop.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
I	Cost of travelling by bus.	( )	[ ] [ ][ ] [ ][ ][ ][ ]

J	Lack of availability of a car.	( ) (if the resp has own car then "no problem")	[ ] [ ][ ] [ ][ ][ ][ ]
K	Cost of parking	( )	[ ] [ ][ ] [ ][ ][ ][ ]
L	Getting in or out of cars or taxis.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
M	Restrictions on permitted parking time.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
N	Finding a suitable and convenient parking bay	( )	[ ] [ ][ ] [ ][ ][ ][ ]

Q 13 In the list that follows there are a number of things that people have said make it difficult to use city centres once they have got there. Please choose one of the options on the card that best indicates how much of a problem you find with the item. If you are not quite sure what is wanted, please say so.

(Show card 4. If the interviewee has trouble reading the cards, please help by reading them out. Interviewees should be exposed to all the items on the show card before starting to answer this question. This may take a little while. Please write ONE number alongside each item, when the interviewee is ready. Probe all items where "a severe problem" is found, and note briefly any details of the nature of problem, and up to two locations in the city centre where the problem exists).

Key:
A severe problem or impossible . . . . . (1)
A slight problem . . . . . (2)
Not usually a problem. . . . . (3)
Don't know . . . . . (4)

A	The distance between the first place I want to visit and the place where I left the vehicle I arrived in	( )	[ ] [ ][ ] [ ][ ][ ][ ]
B	The total distance between all the different places I want to visit.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
C	Getting directional information from signs and maps.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
D	Public toilet provision	( )	[ ] [ ][ ] [ ][ ][ ][ ]
E	Going up steps.	( )	[ ] [ ][ ] [ ][ ][ ][ ]
F	Going down steps.	( )	[ ] [ ][ ]

G	Going up slopes. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
H	Going down slopes. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
I	Cambers. (the sideways slope of some pavements) ( )	[ ][ ][ ][ ] [ ] [ ][ ]
J	Walking areas that become slippery when wet. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
K	Walking areas that are slippery when dry. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
L	Walking areas that are cracked or broken. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
M	Gusts of wind. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
N	Crossing roads. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
O	Crowds. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
P	Temporary obstructions such as scaffolding and signs put outside shops ( )	[ ][ ][ ][ ] [ ] [ ][ ]
Q	Permanent obstructions such as litter bins and bollards. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
R	Provision of enough seats in the places they are really wanted. ( )	[ ][ ][ ][ ] [ ] [ ][ ]
S	Types of seats provided ( ) in public places	[ ][ ][ ][ ] [ ] [ ][ ]
T	Sheltering from rain. ( )	[ ][ ][ ][ ] [ ] [ ][ ]

Q 14 It would be very helpful if you could tell us about any improvements in the city centre that would make it easier for you to use it. For example, what could be done so that you could go to the city centre more often, if you wanted to, or what could be done so that you didn't need to be accompanied, if you do at the moment.

[ ][ ]
[ ][ ]
[ ][ ]

(Please <u>do not</u> prompt with examples of possible improvements, but do probe to draw out respondent's own ideas. If none please write "none")

Q 15 On your last visit to the city centre, please indicate where you arrived, where you went, and where you left the city.

(Show respondent the map provided, find out where respondent left the vehicle he or she arrived in, and mark with an asterisk (*). Draw a solid line along the streets that the respondent walked along. Draw a small circle (O) where the respondent left the city centre. If the respondent used a vehicle to travel from one part of the city centre to another, draw a dotted line from the beginning to the end of the intermediate vehicle journey(s). Please use a red, or other coloured, pen so that the line can be clearly seen.)

Notes:

Q 16 Please tell us about any locations in the city centre which you would like to get to, but cannot, for any reason.

(If none please write "none")

Location _____ Reason _____ [ ][ ][ ][ ]

Location _____ Reason _____ [ ][ ][ ][ ]

Q 17

Please note date of birth.

[ ][ ]

Please note interviewees sex:

Male . . . . . (1)
Female . . . . . (2) [ ]

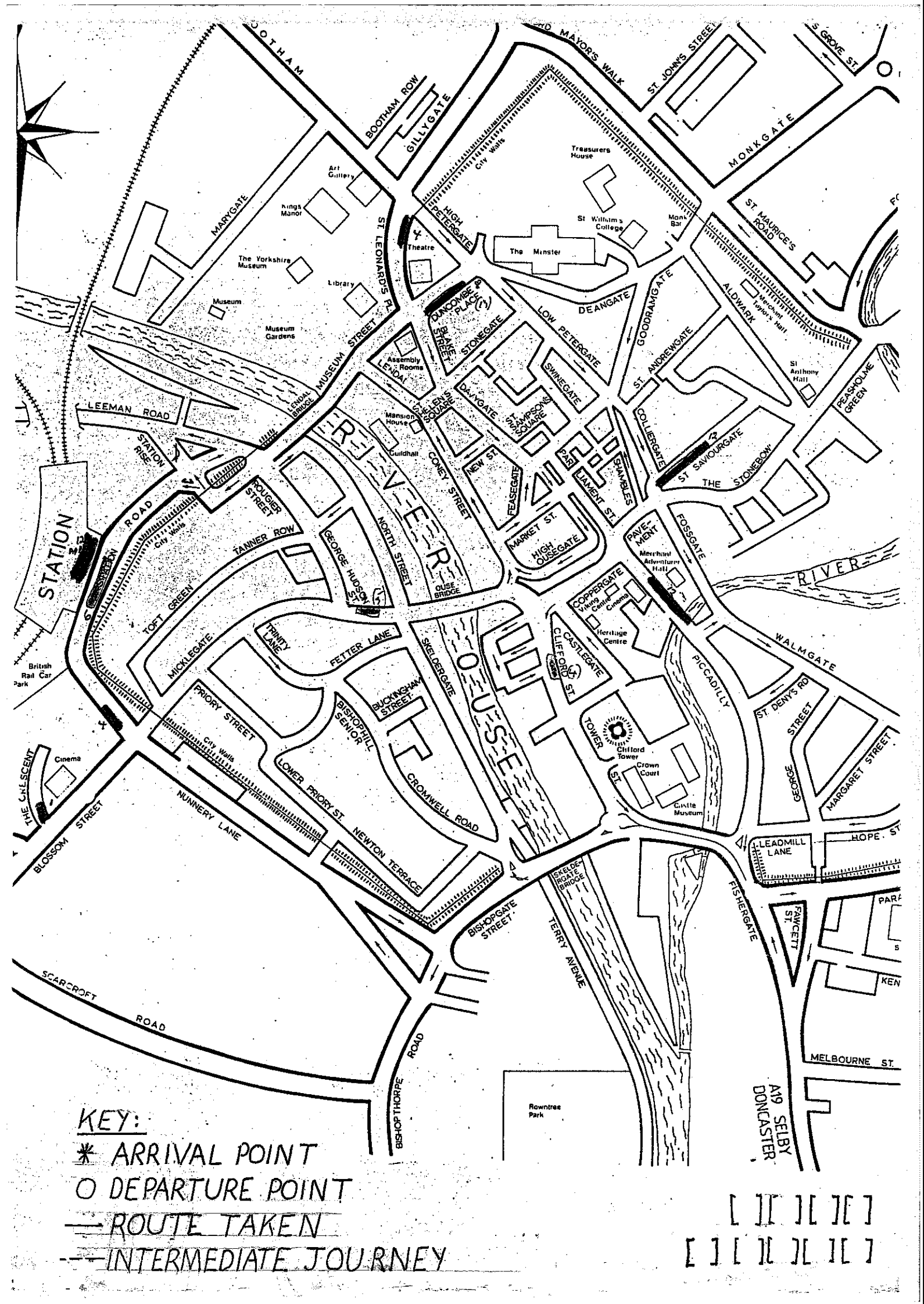
Thank you very much for giving up your time to be interviewed. The information you have given will be valuable to the research we are undertaking.

If there are any problems related to your getting to or from the city centre, or moving about in the city centre, that have not been mentioned yet, or which you think need more emphasis, please say what they are.

[ ][ ]
[ ][ ]

(If there are none, please write "none" here.)

Finish interview.


BOOTHAM
BOOTHAM ROW
GILLYGATE
MAYOR'S WALK
ST JOHN'S STREET
GROVE ST
MONKGATE
Treasurers House
City Walls
Art Gallery
Kings Manor
MARYGATE
ST LEONARD'S PL
HIGH PETERGATE
Theatre
St Williams College
Monk Bar
The Minster
ST MAURICE'S ROAD
The Yorkshire Museum
Library
Museum
Museum Gardens
MUSEUM STREET
DUNCOMBE PLACE
BAKER STREET
STONEGATE
DEANGATE
LOW PETERGATE
GOODRAMGATE
ALDWARK
Merchant Taylors Hall
Assembly Rooms
LENDAL
LENDAL BRIDGE
LEEMAN ROAD
ST HELEN'S SQUARE
DAVYGATE
SWINEGATE
ST ANDREWGATE
St Anthony Hall
PEASHOLME GREEN
Mansion House
Guildhall
CONEY STREET
ST SIMPSONS SQUARE
COLLIERGATE
ST SAVIOURGATE
THE STONEBOW
STATION RISE
NEW ST
FEASEGATE
PAVIOR LAIMENT ST
SHAMBLES
RIVER OUSE
STATION
STATION ROAD
POUGLER STREET
City Walls
TANNER ROW
NORTH STREET
GEORGE HUDSON ST
MARKET ST
HIGH OUSEGATE
PAVEMENT
Merchant Adventurers Hall
FOSSGATE
RIVER
TOFT GREEN
MICKLEGATE
TRINITY LANE
FETTER LANE
SKELDERGATE
COPPERGATE
Viking Centre
Cinema
Heritage Centre
CLIFFORD ST
CASTLEGATE
WALMGATE
British Rail Car Park
PRIORY STREET
BUCKINGHAM STREET
BISHOPHILL SENIOR
PICCADILLY
TOWER
Clifford Tower
Crown Court
Castle Museum
ST DENYS RD
STREET
GEORGE
MARGARET STREET
THE CRESCENT
Cinema
City Walls
LOWER PRIORY ST
NEWTON TERRACE
CROMWELL ROAD
NUNNERY LANE
BLOSSOM STREET
LEADMILL LANE
HOPE ST
SKELDERGATE BRIDGE
FISHERGATE
FAWCETT ST
BISHOPGATE STREET
TERRY AVENUE
SCARCROFT ROAD
MELBOURNE ST
BISHOPTHORPE ROAD
Rowntree Park
A19 SELBY DONCASTER
KEY:
* ARRIVAL POINT
O DEPARTURE POINT
ROUTE TAKEN
INTERMEDIATE JOURNEY