

Accessibility planning and the need for benchmarking

Juliet Solomon
London Metropolitan University

Introduction

This paper is based upon work carried out during the scoping phase of a major collaborative four-year project, funded by the EPSRC (Engineering and Physical Sciences Research Council). University College London, the University of Loughborough, Hertfordshire County Council and Camden Council (local authorities with access responsibilities) and one charity dealing with visually impaired people (RNIB) have been involved in this stage of the project, which is extremely broad in its scope, covering issues from detailed engineering technicalities to strategic policy.

I The whys and wherefores of accessibility planning

1 Accessibility planning – what is it?

Accessibility planning, in the UK, arose from the realisation that developments in transport, and particularly in private motorised transport, have had considerable impacts on accessibility – the ease with which people can reach their “needed” or desired, destinations. In 1994 the Departments of Transport and the Environment jointly published *“Planning Policy Guidance Note 13 – Transport (PPG 13)”*. This sought to encourage more integrated land-use and transport planning both at a policy and a practical level. Understanding accessibility therefore became central to planning decisions.

Accessibility planning is a process that aims to help people from disadvantaged groups or areas access jobs and what are referred to as “essential” services. In its current form it appears in ‘Making the Connections’, the 2003 Social Exclusion Unit report on transport and social exclusion. ‘Making the Connections’ emphasised that accessibility is not just about transport and can be influenced by decisions on the location, design and delivery of other services and by people’s perceptions of personal safety.

According to the Social Exclusion Unit¹, accessibility planning is needed to make sure the access needs of excluded groups, particularly people on low incomes, people without access to a car, the elderly, disabled, and young, are met. Accessibility planning will, among other things,

- Make it easier for people to get to work
- Help to reduce health inequalities
- Help to increase participation and attainment in education

This will be done by enabling local authorities and other agencies to assess more systematically whether people can get to places of work, healthcare facilities, education, food shops and other destinations that are important to local residents. Local transport authorities that produce Local Transport Plans will be asked to take

the lead at the local level, working in partnership with other others such as local planning authorities, Primary Care Trusts, Jobcentre Plus, local education authorities, local Learning and Skills Councils and Crime and Disorder Reduction Partnerships. Solutions might include changes to the location, design and delivery of non-transport services, measures against crime and the fear of crime in and around transport, changes to pupil, patient, social services and public transport and improvements to walking and cycling networks. As an example, accessibility, including both walking and the use of public transport, in the Tottenham NDC area, has been substantially enhanced by changes in both policing and street lighting.

2 Accessibility planning – how should it be done?

The SEU report sets the framework for accessibility planning, which includes:

An accessibility audit to identify barriers to accessibility, drawing as much as possible on information already held by local authorities and other bodies. The assessment could be through:

GIS-based mapping of socio-demographic information, data on deprivation, and car availability in relation to public transport routes and the location of services; complemented by

consultation with local communities and liaison with frontline professional and providers of services.

This is related to, but not the same, as an environmental audit. An environmental audit will make judgements about all kinds of environmental issues which are likely, if transport is part of the brief, to include issues such as road crossings and feelings of intimidation which are related to accessibility, but which is unlikely to focus on it in any detail.

A resources audit to identify the financial and other resources available for tackling these barriers and to assess whether they could be used more effectively. The resources that could be considered include spending by the local authority - for example on specialist transport, tendered bus services, concessionary fares above the statutory minimum, and funding for community transport - and spending on transport by other bodies. There is also area based central government funding that local authorities might be eligible for, such as Neighbourhood Renewal funding.

An action plan of agreed initiatives. This could include, for example, initiatives to improve physical accessibility and availability, travel advice and information, safer streets and stations, reducing the need to travel and making travel more affordable.

Monitoring . Progress in improving accessibility will be monitored through a set of local accessibility indicators. These are currently being developed. Currently they are essentially based round mapping areas and determining the extent of difficulties in accessing services within and from those areas. A software tool to model and map accessibility levels is being developed by MVA, using origin and destination based measures, and is in the process of being piloted.

3 Accessibility planning; what types of measuring technique are used?

Even now there is little guidance on what accessibility really means. Before the Draft Accessibility Planning Guidance of 2004, Government recommendations were related to Gomms (Guidance on Multi-Modal Studies) published by the DETR, which describes accessibility as having three aspects:

- Option values=the availability of travel facilities for making unexpected trips
- Severance=extent to which a scheme hinders pedestrian movement
- Access based on the proportion of the population that does not have access to a car or live within 250m. of a daytime public transport service.

The SEU, being people rather than transport-based, takes a wider approach. Definitions and measurement of accessibility depend on who is going to use them and why. For example, developers mostly want to measure user accessibility to one site, as do local authorities.ⁱⁱ The commonly used “PTALS”ⁱⁱⁱ use the level of service and walk/wait times to produce indices of accessibility to the public transport network – often shown as contours on a local map. This is clearly quite a limited approach. Handy and Clifton (2001) take a much broader approach, noting that there are enormous variations in perceptions and realities of accessibility. Neighbourhood accessibility includes a wide range of factors that describe both the quality and quantity of activities in and around the neighbourhood and linking transportation networks.^{iv}

A useful review of measuring techniques and their application was undertaken by the Scottish Executive in 2003.^v They categorised indicators within be included in three major, overlapping groups, as follows:

- *Simple indicators – With these, the representation of transport and/or opportunity within the accessibility equation is simplified by defining thresholds (e.g. number of relevant opportunities within a given travel cost, time, etc.; measures of the travel cost, time, etc. required to reach a given number of opportunities; shopping or employment opportunities with more than a defined floorspace or number of jobs etc.)*
- *Opportunity measures – These sum all the available opportunities and weight them by a measure of deterrence based upon how easily the opportunities can be reached.*
- *Value measures – These seek to define the attractiveness of the available opportunities to represent their value as a transport choice.*

*All accessibility measures relate to a specific location, origin or destination, and include representation of defined opportunities and a separation element between these opportunities and the location. The **opportunity** terms, **deterrence** functions and the sizes of the **zones** for considering accessibility need to be expressed at a level of detail appropriate for the needs of the particular situation.*^{vi}

Related measures

Merseytravel's Community Links Strategy (1998) is concerned with the impacts of transport on various different areas of the metropolis. It has a series of indicators which though not directly described as accessibility measures, do give a good idea of the overall level of accessibility within an area. They are as follows:

- *proportion of households within 400 m of a bus stop*
- *proportion of households within 800 m of a railway station*
- *proportion of major facilities (including hospitals, retail parks, multiplex cinemas, city parks, recreation areas, major centres of employment) within 400 metres of a bus stop or 800 metres of a rail station*
- *proportion of rail stations which are fully accessible to wheelchair users*
- *proportion of buses which are fully accessible to less able members of society*
- *proportion of concessionary passes issued to and used annually by those eligible*

4 Accessibility Planning – how is it being progressed in the UK?

Before 2003, while local authorities had to have accessibility as an objective, there was no central guidance available on how accessibility planning should be undertaken. This is currently being prepared (see below). In the meantime, a number of local authorities have started to develop and to use their own methods. A fairly typical example would be that of York. They have undertaken a number of initiatives, as follows:-

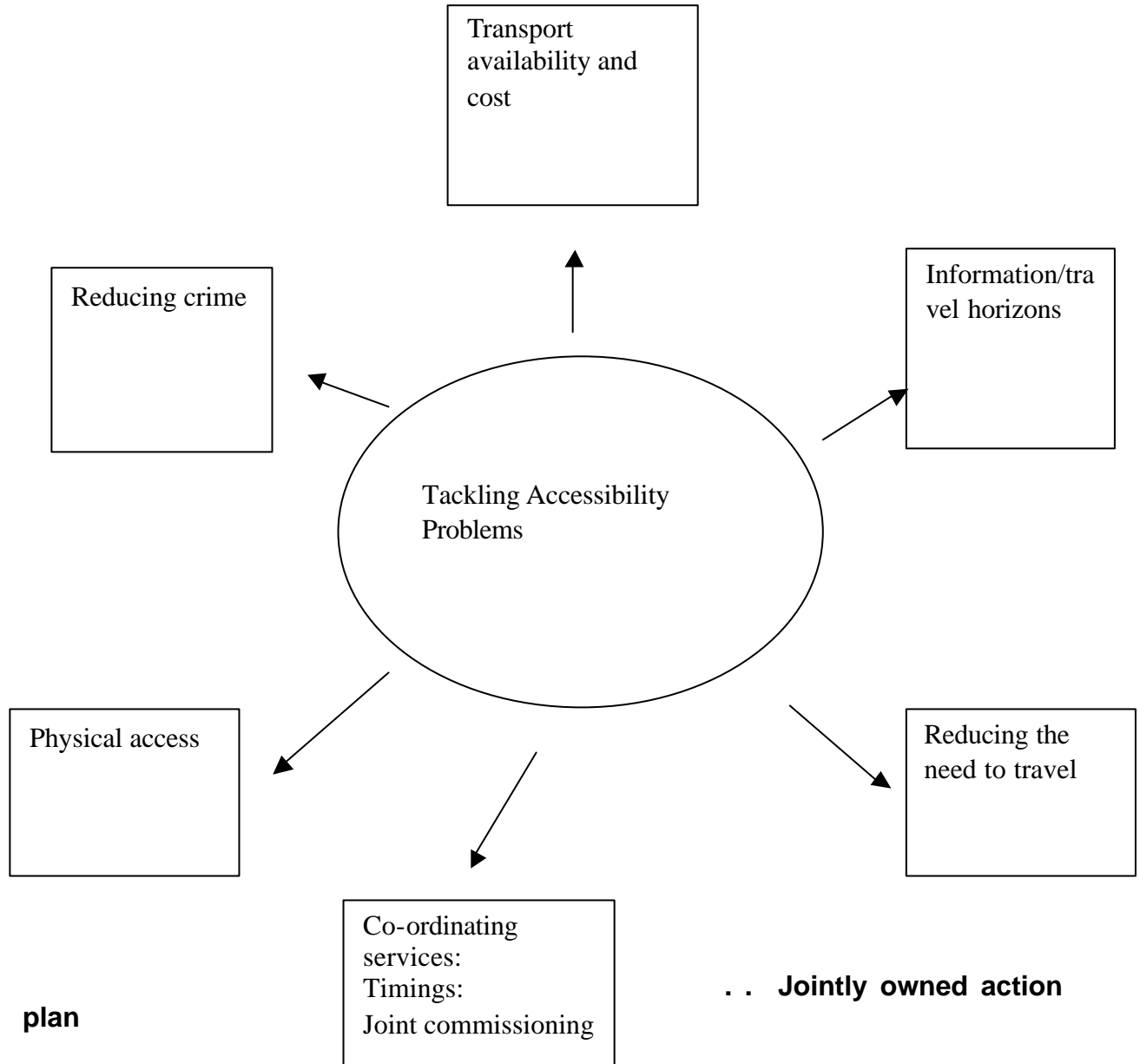
- the mapping of accessibility to the bus network in York. This highlighted areas within an acceptable minimum walking distance (recognised as 400m) of a bus stop and the level of service frequency provided. The results are being used to design a model
- Maps of the city's high frequency bus routes are being combined with maps of community facilities, services and walking routes. "It is intended that the development of accessibility criteria for York will help identify potential locations for future development".
- The model will be linked to census data to help quantify the people linked to public transport, and will identify access to "key sites".^{vii}

All of these will provide a picture of access possibilities within York. However, there is nothing to justify how they are going to decide what levels of access they are aiming to provide, and for whom. 400m from a bus stop is a standard measure; but in reality it does not tell us anything at all about ease of access from point A to point B.

In August 2004, the Department for Transport issued draft guidance on accessibility planning to authorities that produce Local Transport Plans. This includes guidance

on appropriate data sources and local indicators. Other relevant government departments will also be issuing guidance on how local organisations, including those delivering welfare to work, learning, transport, land-use planning and leisure services should be involved in accessibility planning.

The SEU has illustrated one of their views of an approach to solutions with the following diagram:



Although the methods and approaches mentioned here are likely to improve accessibility for a number of groups and individuals, the problem facing those who will be responsible for increases in accessibility is how far they should be going in this direction. It is for this reason that attempts are being made in this project to provide some outline benchmarks for guidance for those responsible for policy formulation and/or implementation.

5 Accessibility planning; what are its major limitations?

It should be clear even from the summary above that progress is being made with respect to devising measures of accessibility attempting to measure it. It is also clear from the literature and previous research that there are some individuals and some groups who appear to have to constrain their activities because of transport limitations. But there are also many people who despite having poor transport access which might make them appear isolated, feel able to accomplish all that they wish to do. The Scottish Executive, for example, found that people in the same places and with the same facilities and transport opportunities might take entirely opposite views, one saying “no there’s nothing” and another saying “You can get it all up here.”^{viii}

In extremis, everybody can probably just about access whatever they really need - it may take them two days to visit their husband in prison 600 miles from where they live, and it may cost a great deal of money, but the visit is theoretically possible. But policy-makers need to be able to judge what access standards people should “reasonably” expect.

The difficulties of arriving at any kind of consensus about what is or is not reasonable are probably obvious. Many people are quite happy to spend an hour or more making occasional journeys; and yet there are those who think a 45 minute journey to hospital is too long.¹ If we are to generalise, the notion “adequate” access in terms of time, money costs, convenience, safety etc., should not be mode-dependent. To the user of public transport, who may have to make two or three changes on a suburban orbital journey, the car user will appear to have extremely adequate transport; but if the takes longer/costs more/is more tortuous in other ways than the car user expects, he/she may well consider that the roads are less than adequate. If standards are to be established, there is no justifiable reason for establishing standards which are any different for non-car users than for car users.

The solution to this policy deficit that is being addressed in the initial stage of the AUNT-SUE study is exploratory, experimental work to see whether any meaningful form of benchmarking, which is becoming increasingly popular in a number of policy areas, can feasibly be developed.

II Benchmarking transport needs and wants.

¹ AUNT_SUE symposium, June 2003

1 What is Benchmarking?

The term “benchmarking” was originally used to describe a surveyor's mark made on a stationary object of previously determined position and elevation and used as a reference point in tidal observations and surveys. Modern definitions

There are many definitions of benchmarking, depending on the use which is being made of the technique.

In practice, benchmarking has some or all of the following functions:^{ix}

- regularly comparing aspects of performance (functions or processes) with best practice;
- identifying gaps in performance;
- seeking fresh approaches to bring about improvements in performance;
- following through with implementing improvements; and
- following up by monitoring progress and reviewing the benefits.
- Setting basic standards and targets

2 Why use Benchmarking?

Benchmarking, effectively used, can provide:

- A set of baseline standards against which a policy maker or implementer can work
- a transparent means of judging what needs or does not need to be changed
- A practical way of measuring one authority or area's performance against another
- A means of judging the extent to which success has been achieved.

In other words, it provides a frame of reference.

3 Benchmarking in the UK Public Sector

a) Example 1; Housing benchmarks

One of the first, best known uses of benchmarking standards was what came to be known as the "Parker Morris" housing standards.

The **Parker Morris Committee**, in 1961, published a report on public housing in the UK, called *Homes for today and tomorrow*^x It recommended a number of housing standards which it felt were a “reasonable minimum” for living space for a reasonable quality of life. These standards were at first voluntarily adopted but subsequently became mandatory. Sets of standards such as these could now be included in the category of “benchmarks”.

Examples of the standards were:

- In one, two and three bedroom dwellings, one WC is required, which may be in the bathroom.
- A semi-detached or end-of-terrace house for 4 people should have a net floor area of 72 square metres.

These benchmarks were used in practice by local authorities when designing housing provision and formed the basis later of Housing Corporation standards allowed for grant purposes for public and private new-build and rehabilitation schemes.^{xi}

b) Example 2: Education and Health benchmarks

Over recent years, public sector organisations across the world have gradually been turning to benchmarking their public services. In the UK public sector, benchmarking indicators are now common in the education and health sector.

Prior to the establishment of benchmarks is the requirement to establish a common understanding of “need” which is what the Parker-Morris committee, mentioned above, made its initial task. This raises a number of ethical questions. Any definition of needs does not exist in a vacuum but is set in the context of what we as a society value, and what goals or outcomes we desire to bring about, as well as what individual members see as their need. And even where a society might want to broaden the definition of need, it may find itself unable to begin to fill those needs for a number of external reasons such as the need to operate within financial or environmental constraints.

Need has been subdivided into the categories of

- “normative need” – what the expert or administrator defines as need, using a basic standard
- “felt need” – what people feel they need. This is often constrained by what the individual feels might be available, rather than what they would ideally like
- “expressed need”; this is judged by the actual demand.
- Comparative need – the difference between what different people or groups might require.^{xii}

In education in the UK, the establishment of certain benchmarks, such as Standard Attainment Tests (SATs) is entirely based on “normative need”; what experts, professionals and politicians deem to be necessary for adequate social participation. Education benchmarks, of which an example is given below, are mandatory and centrally defined.

Target Setting at Key Stage 2 *The new national targets for Key Stage 2 in English and mathematics for 2004 are for 85% of pupils to achieve level 4+ and 35% to achieve level 5+ in English and mathematics..^{xiii}*

SATS^{xiv} are probably the best-known example of benchmarking in the UK public sector, measuring the achievements of pupils against an agreed set of norms, and there are many others^{xv} in health and education.^{xvi}

c) Example 3: Planning benchmarks.

Local authorities are enjoined, in Planning Policy Guidance Note 17, to establish open space standards against which they can benchmark their provision. The guidance note lays down the objectives of open space provision, and describes how it should be audited and assessed. This is to be done against benchmarking standards devised *locally*.

A considerable amount of this has been reproduced below because it demonstrates the extent to which planning has taken benchmarking, in contrast to transport.

Open spaces, sport and recreation all underpin people's quality of life. Well designed and implemented planning policies for open space, sport and recreation are therefore fundamental to delivering broader Government objectives. These include:

- ***supporting an urban renaissance***
- ***supporting a rural renewal***
- ***promotion of social inclusion and community cohesion.***
- ***health and well being***

In order to be able to achieve these rather lofty aims local authorities have to decide both what constitutes “need” – which in itself defines benchmarks; and then deciding what basic minima are required – more benchmarks.

- 1. Local authorities should undertake robust assessments of the existing and future needs of their communities for open space, sports and recreational facilities.*
- 2. As a minimum, assessments of need should cover the differing and distinctive needs of the population for open space and built sports and recreational facilities). The needs of those working in and visiting areas, as well as residents should also be included.*
- 3. Local authorities should also undertake audits of existing open space, sports and recreational facilities, the use made of existing facilities, access in terms of location and costs (such as charges) and opportunities for new open space and facilities. Audits should consider both the quantitative and the qualitative elements of open space, sports and recreational facilities .*

Setting Local Standards

- 6. The Government believes that open space standards are best set locally. National standards cannot cater for local circumstances, such as differing demographic profiles and the extent of existing built development in an area.*
- 7. Local authorities should use the information gained from their assessments of needs and opportunities to set locally derived standards for the provision of open space, sports and recreational facilities in their areas. Local standards should include:*

- i. quantitative elements (how much new provision may be needed);*
- ii. a qualitative component (against which to measure the need for enhancement of existing facilities); and*
- iii. accessibility (including distance thresholds and consideration of the cost of using a facility).*

Further guidance is provided to implement PPG17.^{xvii} It is not very specific, making suggestions such as

"6.5 Appropriate quantity standards should be determined from analysis of existing quantity provision (Step 2), in the light of local community views as to its adequacy and details of levels and types of use (Step 1). This should be undertaken against a background of objective assessment and benchmarking."^{xviii}

We argue that there is no *a priori* reason why accessibility need and provision of access should not be approached in a similar way.

d) The Public Sector Benchmarking Service^{xix}

The Public Sector Benchmarking Service, which is a government-funded organisation, provides information on many aspects of public sector benchmarking.

It believes that benchmarking is one way of providing the stimulus needed for change in the delivery of both core and non-core activities and for raising the standard of public services by spreading good practices, and that encouraging the widespread and systematic use of benchmarking across the public sector can help with improving performance and can assist individual and organisational learning. This is also happening across the rest of Europe.

4 Benefits from Benchmarking

Successful benchmarking, in which gaps in performance are bridged by improvements, results in significant tangible benefits that are needed in the public sector, such as:

- step changes in performance and innovation;
- improving quality and productivity; and
- improving performance measurement.

Benchmarking can also have a beneficial effect on aspects needed to support continuous improvement, such as:

- raised awareness about performance and greater openness about relative strengths and weaknesses;
- learning from others and greater confidence in developing and applying new approaches;
- greater involvement and motivation of staff in change programmes;

- increase in willingness to share solutions to common problems and build consensus about what is needed to accommodate changes;
- better understanding of the ‘big picture’ and gaining a broader perspective of the interplay of the factors (or enablers) that facilitate the implementation of good practice; and
- Increasing collaboration and understanding of the interactions within and between organisations

5 Current local transport “accessibility benchmarks”

Although the Government’s requirement for accessibility as an objective in local transport planning has existed since the introduction of Local Transport Plans, and although social inclusion has been added as a consideration, as was earlier made clear, there exist only limited techniques for measuring changes and until August 2004, no national set of benchmarks against which to monitor changes. Below are outlined some examples of the type of “benchmark” which have been used.

- 1) Merseyside’s APR for July 2003 lists both national and local targets against which it is assessing progress. The national ones are
 - Improve Accessibility, punctuality and reliability of local public transport (bus and light rail) with an increase in use of more than 12% from 2000 levels by 2010
 - To achieve a one-third increase in the proportion of household in rural areas within about 10 minutes walk of an hourly or better bus service

Some of the local ones are²

- Transport links to support the creation of new job opportunities
- Regeneration of district and local centres
- Core network of Walking Routes
- Access Audits and Improvement Measures (largely for people with disabilities)

Merseytravel, for the Merseyside area, much of which is severely deprived and in need of regeneration, is developing GIS based accessibility mapping models to

- Map the accessibility of public transport
- Help identify which areas of Merseyside do not have good access to basic goods and services
- Assess where specific destinations (e.g. hospitals) are accessible from.

The Access Plan contains a number of sensible and logical propositions about ways of forming partnerships and, through the community links team in Merseytravel, working with the community to ensure that appropriate issues and problems are addressed. Examples of these are to ensure

² Merseyside Local Transport Plan APR 2001-3

Improved access to education and training
Improving joblinks- public transport from residential areas to areas of employment
Better integrating transport and land use
Increasing the amount of public transport available.

The relationship between access and quality of life is also spelled out clearly, and local targets set to achieve an increase in the quality of life include the following:-

Fare concessions
Road safety schemes implemented
Road traffic casualty reductions
Accessible road crossings
Repairs to damaged pavements

Of these, many are targeted at “at risk” groups such as the young, the old, and people with mobility difficulties.

6 Evaluating accessibility improvements

There is much discussion of the direction which the policy will take and the improvements that will result. The type of description that is given to the goals is as follows:-

Improving Access to Opportunities for All (Merseytravel APR p. 45)

- Expansion of the “job link” initiative to include Wirral (cross boundary services to Deeside), St. Helens and Speke Halewood SIA:
- Further improvements to public transport information and ticketing availability in Pathways areas
- Further support for community/voluntary transport providers through the launch of the LTP Community Transport/Access Grant initiative

But to accompany the targets, there appear to be no objective criteria to decide at what point access will be deemed to be adequate.

7 The rationale behind basic benchmarks

A number of local authorities have drawn up a series of criteria which they use to judge the extent to which access possibilities are improving. Surrey, for example^{xx} regard “good access” to town centres, schools and secondary education as involving a journey within 20 minutes. About one-third of the population has this possibility by public transport and Surrey is hoping to improve it so that by 2016 to 50%. However this figure appears to be entirely arbitrary – there is no indication at all of how it was arrived at.

Central Leicestershire^{xxi}, who claim that 54% of the population of Central Leicestershire are within 30 minutes bus travel time of Leicester city centre in the AM peak period, are aiming to have the city centre reachable in 30 minutes by public

transport by 55% of LTP area population by 2006. Again, while this on the face of it looks a sensible target (benchmark), there is no apparent justification for it.

Until now, many of the documents discussing access and access difficulties have been somewhat arbitrary both in their definitions of what constitutes good access and what destinations really matter. The 2001 survey "Difficulty in Accessing Key Services"^{xxii} defined "key services" as GP, Post Office, Main food shopping, Local Hospital, Chemist. They found that other than to hospitals, where 20% of adults experience some kind of access difficulty, not more than 6% experience difficulty in accessing any of the other services examined. Only 12% of the sample spent over 20 minutes travelling to their main food shopping, and many of these were travelling by car.

This tells us therefore very little in terms of the excluding effects of access. No justification is given to the choice of destination, which is a little surprising as somebody has to decide what is "key" and it is arguable that these should be the most visited destinations.

Some evidence on frequency can be found in the Scottish Office "The Role of Transport in Social Exclusion in Urban Scotland"^{xxiii} although without cross-tabulating these figures with figures on ease or difficulty of access, it is difficult to explain the number of visits.

Table 1 Trip frequencies, Scotland³

	% of respondents undertaking an activity			
	None	Once	2 to 3 times	4 + times
Grocery shopping trips	9.3	29.9	35.4	25.4
Town Centre shopping	44.3	33.2	18.2	4.4
Retail Park shopping trips	78.1	17.6	3.8	0.5
Collecting prescriptions	64.5	30.3	4.4	0.7
Visiting friends/relatives	35.8	24.4	25.1	14.7
Evenings out for leisure purposes	54.2	23.7	17.8	4.2
Taking children to and from school	80.8	2.3	3.4	13.6
Taking children to other activities	81.7	7.5	7.0	3.8
Days out for leisure purposes	67.3	20.4	10.8	1.5
Voluntary work/duties	89.8	5.6	3.9	0.7
Attended adult education	88.7	5.6	2.0	3.7

³ Social Exclusion in Rural Scotland, op.cit.

Hospitals and even GPs, it would appear, were not often visited, and even a chemist, which often appears as a “key” destination but is really only of significance when prescriptions are required, was very little visited.

As above, the explanation for the number of visits is not clear. However, analysis of this kind begins to get us some way towards how we might decide what journeys are important, which unmade journeys will cause people to feel excluded, and how “reasonable access” (time, frequency, cost, physical accessibility etc.) might be benchmarked. But it should be clear from the short paper above that this is a complex task.

8 Draft Accessibility Guidance; The UK Department for Transport

The UK Department for Transport, in its recently published Draft Accessibility Planning Guidance^{xxiv}, is using the following as its core accessibility indicators:-

Percentage of

- a) pupils of compulsory school age; b) pupils of compulsory school age in receipt of free school meals, within 15 and 30 minutes of a primary school, and 20 and 40 minutes of a further education establishment by public transport
- b) Percentage of 16-19 years olds within 30 and 60 minutes of a further education establishment by public transport
- c) Percentage of a) people of working age ; b) people in receipt of jobseekers allowance, within 20 and 40 minutes of work by public transport
- d) Percentage of a) households: b) households without access to a car, within 30 and 60 minutes of a hospital by public transport
- e) Percentage of a) households: b) households without access to a car, within 15 and 30 minutes of a GP by public transport
- f) Percentage of a) households; b) households without access to a car, within 15 and 30 minutes of a major centre by public transport.

9 Developing accessibility indicators and standards.

The indicators above have been identified by the Social Exclusion Unit as having the most effect on the life chances, with the exception of food shopping, for which no appropriate national data set could be defined. The definition of any indicators at all is a great leap forward in the policy arena. However the reasoning behind these choices is unclear; no cost indicators have been defined; and no research appears to have yet been carried out to test potential user reaction to these indicators. Furthermore, the indicators are framed in terms of aggregate numbers of people within an area, rather than relating to (what is more common) much more household-based problems. We believe therefore that, judging from the results of our initial pilot and the possibilities inherent in our approach, we shall be able to made useful

and practical additions to these indicators. The rest of this paper explains the progress so far made towards this development.

III Developing accessibility standards; involving the public

1 Aims from the AUNT-SUE study

The first task in the overall study has as its aims

"To establish standards of 'reasonable' access, and to develop techniques to help planners incorporate social inclusion into policies to ensure these standards are met in a sustainable environment."

2 Background to study outlook

Our outlook is based around the whole of the literature on transport and social exclusion, but specifically on two key documents of wide general application. These are the DETR/TRaC (2000) report on Social Exclusion and the Provision and Availability of Public Transport; and the Social Exclusion Unit (SEU) (2003) report – Making the Connections: Transport and Social Exclusion.

DETR/TRaC (2000) refers to four ways in which people's accessibility to desired activities can be limited:

Spatially – they cannot get there at all;

Temporally – they cannot get there at the appropriate time;

Financially – they cannot afford to get there;

Personally – they lack the mental or physical capabilities to use the available means of mobility

DETR/TRaC (2000) also identify four attributes of what they refer to as adequate transport. These are affordability, availability, accessibility and acceptability. These mirror (to some extent) the four ways in which people can be socially excluded by transport. What constitutes "adequate" transport provision has not been defined, and is one of the major purposes of the current study.

The SEU (2003) report concentrates on the accessibility of services and activities. It classifies a service or activity as accessible if it can be reached "*at reasonable cost, in reasonable time and with reasonable ease*" The concept of "reasonable" is not substantially defined. Whilst this report is not explicitly about the role of public transport in reducing social exclusion, problems and solutions relating to public transport, and in particular buses – both conventional fixed route and DRT – dominate it. Overall the report emphasises difficult journeys as a result of the isolated or remote nature of communities, high transport costs, dispersed activities, and infrequent and/or unreliable bus services. Walk trips are mentioned in relation to crime around transport hubs and child pedestrian casualties.

The report outlines a strategy for dealing with the problem. It has two main thrusts: a framework for accessibility planning (now DfT 2004) and a mixture of national policy

changes aimed at improving accessibility and reducing the impacts of traffic on poorer neighbourhoods.

Its recommendations about accessibility planning are key to the Government's strategy. The new framework of "accessibility" planning will be built into the next round of Local Transport Plans. This will be led by the local transport authorities, enabling them (and other agencies) to systematically assess and tackle access difficulties. Difficulties will be identified by means of a local authority audit of access possibilities of disadvantaged groups and areas with poor access to "key" services.

Before the new, rather limited, draft guidance, there was very little guidance on what accessibility really means. Previous Government recommendations had included Gomms (Guidance on Multi-Modal Studies) published by the DETR, which describes accessibility as having three aspects:

- Option values=the availability of travel facilities for making unexpected trips
- Severance=extent to which a scheme hinders pedestrian movement
- Access based on the proportion of the population that does not have access to a car or live within 250m. of a daytime public transport service.

The SEU report takes a wider approach, proposing that an accessibility audit might include, for example, access to employment, healthcare, educational facilities and shops. Other destinations such as sports facilities and pharmacies may also be included. Consideration would be given to journey times, cost, safety and reliability and would consider all modes.

The extent to which accessibility modelling will be mandatory is not yet clear but the report highlights the mapping of accessibility using GIS by Surrey County Council as good practice; consultation with affected groups is also to be included.

3 Questions outstanding

There are, as by now is probably obvious, a number of questions which have not been answered by any of the projects to date on the subject of transport and social exclusion. The first of these is the question of the levels of accessibility which are being striven for; what should they reasonably be – what should policy be aiming at?

4 Establishing mobility/accessibility norms

In order to arrive at "reasonable" mobility/accessibility norms and/or standards, a first step is to

- establish mobility and accessibility norms appropriate to different individuals/groups in society, different locations, and different journey purposes, and to compare these norms with people's expectations

The first stage in the establishing of those standards (which might, incidentally, prove unsustainable) is to develop a methodology which will be fairly generally applicable, or which could be slightly modified where necessary to suit different user groups, although not so much that consistency would be compromised. In order to be able

to involve a fairly wide sample of people, a substantial part of the survey methodology will consist of the administration of questionnaires. The Scoping Study has been developing a questionnaire which, to gain the maximum possible number and type of respondents, should be susceptible to use in different situations, viz.

- i) interviewer-administered to individuals and completed, either face-to-face or on the telephone, on computer or on paper
- ii) administered in supervised groups, e.g. in day centres, school classes, etc.
- iii) by individuals on their own
- iv) on paper
- v) on computer/the Internet

. The basis for development was as follows:

a) general

- i) An extensive survey of the literature on transport and social exclusion was carried out
- ii) A provisional questionnaire was designed to accommodate issues which in the existing literature have been cited as reasons for exclusion
- iii) A Symposium was held to establish the issues that were relevant to various different stakeholder groups, including local authorities, disability groups, access planning consultancies, and others.
- iv) The views of two specific groups believed to be suffering from transport social exclusion are being considered in the scoping study; these were visually impaired and young people, who were the subject of a focus groups and the pilot questionnaire.
- vi) The views of the visually impaired were sought at a one-day "round table" event. This exposed the problems associated with the discussion of travel horizons with those whose mobility is very severely constrained.
- vii) The views of young people other than students were sought through liaising with the Mobility Unit at the Department of Transport on a research project they undertook during 2003-4, (not yet published; a summary is shortly to be disseminated on the Mobility Unit's website), on Transport and Young People

5 Piloting the questionnaire

As a result of these investigations a draft questionnaire was widely circulated for comment and a first version piloted with a group of 20 students from London Metropolitan University in March 2004. Many of these had English as a second language; this means they were likely to take rather longer to read questionnaires than English first language speakers. This helped in establishing how easily comprehensible the questions were and how long the questionnaire was likely to take.

. The objects of this initial pilot were:-

- a) To test how long the questionnaire would take to complete and whether there were likely to be comprehension problems
- b) to test the robustness of the database
- c) to obtain feedback and reactions to the questionnaire, both in terms of content and layout.

After the data from the questionnaire had been entered and preliminary analysis done, there was a discussion group with a small number of students to ascertain whether the questionnaire was providing sensible results. As a result of this discussion group the questionnaire was altered and administered with further groups, of altogether 69 students, with an additional object to the three of the pilot:-

- d) to look at initial results which themselves might give clues to the applicability of the methodology.

We are working to the hypothesis that there may be people in a number of sub-groups within the general population who believe that they suffer from transport-related social exclusion, and that in each group there will be some who believe that they do not suffer from this. Some of these may have very similar access conditions to each other; thus we are looking both for objective generalized conditions of access and subjective views related to these conditions.

We are also comparing our data with data from the National Transport Survey to see what the statistical norms are. There are, however, data problems, as the numbers available from the National Travel Survey in each sub-set of the population are often too small to give statistically significant results. This has necessarily limited the number of conclusions we can begin to draw from this data. Additionally, our own surveys cannot produce directly comparable results.

6 The questionnaire

The first page of the questionnaire is the “background” page. This serves two purposes:

Firstly, it provides the description of the person type; age, gender, residential postcode, working status, car access and use, and disabilities affecting travel.

Secondly, it provides a list of the types of journeys that the person might make. This list is derived from the National Travel Survey, but is not identical. It contains 24 categories of journey purpose:

Table 2: AUNT-SUE Questionnaire Journey Purposes

1 Work – getting there and back	13 Clubs, pubs, bars, restaurants
2 Playgroups/crèches/childminder	14 Community centre, Village Hall, Youth Club
3 Schools, primary/secondary	15 Visit friends and relatives
4 Post 16 educational institutions and training facilities	16 Active sports, fitness/leisure centre, gym etc

5 Day Centre	17 Cinema, theatre, concert, etc. (spectator leisure)
6 Shops and mobile shops to buy food	18 Places of Worship
7 A Chemist	19 Library/Information Centre/One-stop Shop
8 A Post Office	20 Just go out somewhere using mechanical transport
9 Shops other than 6,7,8	21 Go for a local walk
10 A doctor or medical centre	22 Travel to accompany somebody else for their purpose (escort)
11 A hospital	23 Travel to jobcentre, jobclub or job interviews
12 Parks or playgrounds	24 Other (to be specified)

Each numbered purpose corresponds to the same numbered page of the questionnaire. The first task for the respondent, or the interviewer where the questionnaire is interviewer-administered, is to tick which of those 24 purposes he would normally undertake as part of his life pattern. Having decided which those are, which is unlikely to be more than about half of them, the respondent then answers a series of questions on the appropriate page. The interviewer or person administering the questionnaire will have explained what is wanted. The questions take the following form (or similar)

- 1 How long does the journey take (tick one of a selection of time periods)
- 2 Does this seem a reasonable time?
- 3 If not, how long would you think reasonable?

The other subjects treated in this way are those which are known to contribute to accessibility difficulties:-

- Money cost
- Number of times the journey made in a week
- Need to travel with a companion
- Need to carry luggage, shopping, take wheelchair, buggy, etc
- Safety of the journey in terms of personal security
- Any advance planning needed

7 Results of the pilot survey .

A total of 69 students from London Metropolitan University, which is a very accessible destination in terms of transport as it is immediately adjacent to Holloway Road Tube Station and is served by several bus routes, answered the second pilot questionnaire. (Appendix 1 provides the Frequency Tables) After the results had been processed a further, informal discussion was held with a small group of students (4) to discuss whether these results seemed to be what they might have expected.

- 1) Overall frequencies - page one

The survey did not attempt to measure the total number of journeys made by the students. Its purpose was to ascertain which journeys were made most regularly, but not necessarily how often. Thus in reading the table, “86%” next to Post 16 Educational Institutions and Training Facilities does not imply that 86% of the journeys made by the students were to educational facilities, but that that proportion of the group undertook that journey regularly (defined, in this case, as being once a week or more).

As the respondents were in classes at the University, obviously all of them were in Higher Education. Some of them, as well as being in education, also had paid jobs and some did not. 20% were aged between 15 and 20, 53% between 21 and 25, and 17% between 26 and 30. Only 10 of them had daily use of a car, and 29 never used a car at all. Unsurprisingly, the journey which was most regularly made (86%) was the education journey.⁴

The table below shows the percentage of students regularly undertaking different types of journey

Table 3; AUNT-SUE pilot: Regularity of types of journey made

% undertaking purpose	Purpose
86	Post 16 educational institutions and training facilities
77	Visit friends and relatives
68	Shops and mobile shops to buy food
68	Clubs, pubs, bars, restaurants
58	Cinema, theatre, concert, etc. (spectator leisure)
57	Work – getting there and back
42	Shops other than 6,7,8
34	Library/Information Centre/One-stop Shop
30	Places of Worship
26	A Post Office
26	Active sports, fitness/leisure centre, gym etc
25	Go for a local walk
20	A doctor or medical centre
20	Just go out somewhere using mechanical transport
16	A Chemist
12	A hospital
10	Parks or playgrounds
10	Travel to accompany somebody else for their purpose (escort)
6	Playgroups/crèches/childminder

⁴ It might have been expected that 100% of the students would have undertaken the education journey regularly. However in discussion it emerged that a number of those with certain types of jobs or family responsibilities can only realistically attend on an “irregular” basis. No correlation has yet been made between the length of time taken to travel to college and the regularity of the journey.

We suspect that some students, in fact, might have misunderstood what “regular” means; we will need to consider explaining this concept in more detail when more questionnaires are administered

6	Schools, primary/secondary
6	Day Centre
6	Travel to jobcentre, jobclub or job interviews
0	Community centre, Village Hall, Youth Club
0	Other (to be specified)

On the grounds that difficulty of making regular journeys is likely to be more “socially excluding” in that it will constrain “participation in activities considered to be normal), three types of journey from those most regularly made were then analysed in more detail. These were journeys to education, journeys to visit friends and relations, and journeys to places of worship.

Places of Worship was chosen, although not the third most regularly undertaken journey, because it is more commonly made in London among ethnic minority groups, some of whom are known to have particular access difficulties (journeys which particularly affected ethnic minorities in urban areas).^{xxv}

8 “Reasonable” journey times and costs.

a) Education journeys

59 of the 69 students answered the question about regular journeys to higher education; of those, 85% reckoned to make the journey to higher education regularly. In discussion of the rather surprisingly high number who did not make the journey “regularly”, it transpired that there were quite a number of students who came very irregularly whether for reasons of work, family etc. However most of them (62%) made the return journey four or five times a week.

The percentages below refer to the percentages of those who made the journey regularly. They were asked whether they thought the time taken to travel to higher education was “reasonable”. As can be seen from the table below, 49% of them thought it was.⁵

Actual Time taken	<10'	11-20'	21-30'	31-45'	46-60'		Reasonable time - yes	Reasonable time - no
Number (%)	10	14	10	12	29		49	44

Those who thought the time unreasonable were then asked what they thought would be a reasonable time. Since this question only applied to 19 students, the number of those answering is given as an absolute number rather than as a percentage. With such low numbers, even in a pilot, we make no inferences.

⁵ The complete tables are not here reproduced, which is why percentages do not sum to 100. Non-responses are omitted.

Reasonable time	<10'	11-20'	21-30'	31-45'	46-60'
Number of those answering	1	3	5	6	4

The procedure was repeated for cost.

Actual cost	>£5	£1-2	£2-5	51p-£1	Nothing	No answer	Reasonable cost - yes	Reasonable cost - no
Number (%)	5	13	23	2	6	10	19	34

Those who thought the cost unreasonable were then asked what they thought would be a reasonable cost. Less than half the students responded to this question; the subsequent discussion group suggested that although it seemed expensive to many of them, it was very difficult to imagine what they thought they should be paying. The question will need to be redefined for future work.

b) Journeys to visit friends

53 of the 69 students answered the question about regular journeys to visit friends of those, 77% reckoned to make the regularly; 49% of them made such a journey two or three times a week. They did not include journeys to college which included seeing their friends.

The percentages below refer to the percentages of those who made the journey regularly. They were asked whether they thought the time taken to travel to friends was "reasonable". As can be seen from the table below, 49% of them thought it was.⁶ We have not yet performed a cross-tabulation to identify the characteristics of those responding "reasonable" or "unreasonable" but will of course do so when we have a bigger sample.

Actual Time taken	<10'	11-20'	21-30'	31-45'	46-60'	>60'	Reasonable time - yes	Reasonable time - no
Number (%)	17	23	21	9	23	7	60	40

Those who thought the time unreasonable were then asked what they thought would be a reasonable time. There seemed to be a consensus that up to an hour was acceptable. Again, with such low numbers, even in a pilot, we make no inferences but consider that there may be room for more detailed discussion of this trip purpose; there is clearly a difference between dropping in to an aged relation who needs help, and going round to play computer games with a friend, both of which purposes were identified in discussion.

⁶ The complete tables are not here reproduced, which is why percentages do not sum to 100. Non-responses are omitted.

The procedure was repeated for cost.

Actual cost	£1-2	£2-5	51p-£1	Nothing	No answer	Reasonable cost - yes	Reasonable cost - no
Number (%)	40	14	13	15	6	62	28

Of those who thought the cost unreasonable, the greatest number felt that £1-£2 would be reasonable. Again in discussion it emerged that they were not all familiar with the cheap Saver Tickets which are available for bus use in London, which did seem to strike them as good value, suggesting that they had somehow managed not to understand the information displayed about these tickets.

c) Journeys to places of worship

17 students (30%) regularly made a journey to places of worship, once a week. Seven of them would have liked to have gone more often. Three of them did not answer the question about time taken, but the remainder all took less than 30 minutes getting there, and as a result all but four considered the time taken reasonable. The maximum cost paid was £1 (this appeared to be because many of them went on foot, and others went in a car with friends and family). Only two of them found it too expensive.

9 Achieving the objectives of the pilot questionnaire

- a) To test how long the questionnaire would take to complete and whether there are likely to be comprehension problems

So far, with the questionnaire administered to groups, and with many students whose first language is not English, the questionnaire appears to take between 10 and 20 minutes to complete. As we have previously said, we think that despite the insistence of the students that it was easy to understand, some of them may in fact have had comprehension problems.

- b) to test the robustness of the database

The database appears able to be used for the analysis which is required.

- c) to obtain feedback and reactions to the questionnaire, both in terms of content and layout.

Some detail in the questionnaire layout and wording was altered as a result of the initial pilot. The second pilot, reported on here, has demonstrated the need to make further changes.

For example

- what is meant by “reasonable” and “regular” need to be spelt out very precisely so that those administering the

questionnaire are able to explain with ease what is meant. We have considered the possibility of having a Likert-type of scale but feel that this could lead to unnecessarily and possibly irrelevant complications

- “go for a local walk” needs refinement in terms of purpose and possibly length
- “using mechanical transport” needs further explanation.

In the next (main) stage of the project, there are likely to be further refinements, mostly in terms of the instructions to those administering the questionnaire. It is clear that, as predicted, the results of the questionnaire will need to be supplemented by discussions with the groups concerned in order to understand the full implications of the results.

- d) To look at initial results which themselves might give clues to the applicability of the methodology.

10 Interim conclusion

One of the major justifications for the funding of this new research is our contention that although there are clear relationships between accessibility possibilities and life chances, it is almost impossible to make meaningful statements about what types of access deprivation lead to social exclusion, since that access constraints which might adversely affect one group may have no impact at all on others. We believe there is a need for a new and more people-focussed approach to accessibility policy and planning from what is currently used if we are to make meaningful statements about the impact of accessibility on people’s life chances, hopes and aspirations. From the work we have so far accomplished, we believe this to be possible, although an extremely complex task.

SELECTIVE BIBLIOGRAPHY

Audit Commission (1999) Research project carried out by Robertson Bell, *"Provision of advice, Information and Support from Jobseekers."*

Audit Commission (2001) *"Going Places; taking people to and from education, social services and healthcare"*

Centre for Independent Transport Research in London. (1998)
Accessible Transport in East London

Department for Transport (2004) *Transport plans: Second edition - Full Guidance*

Department for Transport (2004) Accessibility Planning - draft guidance for consultation

Department of Transport, Environment and the Regions (2000) *Social Exclusion and the Provision and Availability of Public Transport*, Report by TRaC at the University of North London (now London Metropolitan University)

Department of Transport, Environment and the Regions (2000a) *Guidance on the Methodology for Multi-Modal Studies*.

Department of Transport, Environment and the Regions (2001) *Planning Policy Guidance Note 13: Transport*. The Stationery Office, London.

Department of Transport, Environment and the Regions (2001) *Older People: Their Transport Needs and Requirements*

Department of Transport, Environment and the Regions (2001) *Women and Public Transport: The Checklist*

DHC (2000) *Accessibility: Review of Measuring Techniques and their Application*. Report to the Scottish Executive Central Research Unit prepared by Derek Halden Consultancy.

Halden D (2002) *Using accessibility measures to integrate land use and transport policy in Edinburgh and Lothians*, *Transport Policy*, 9, 313-324.

Hansen W G (1959) *How accessibility shapes land use*, *Journal of the American Institute of Planners*, 25, 73-76.

Helm A (1999) *SONATA Briefing Note*. Steer Davies Gleave, Leeds.

Hillman R and Pool G (1997) *GIS-based innovations for modelling public transport accessibility*, *Traffic Engineering and Control* (October) 554-559.

London Transport (1999) *Calculator for Public Transport Accessibility in London (CAPITAL)*, Technical Note, July.

National Assembly for Wales (2001) *The Application of Accessibility Methodologies to Land Use Planning*, final report. Prepared by Steer Davies Gleave and Derek Halden Consultancy for the National Assembly for Wales.

ODPM (Office of the Deputy Prime Minister) (2004) *Indices of deprivation 2004*

Oppenheim C (1998) *Poverty and social exclusion: an overview*, in Oppenheim C (ed) *An Inclusive Society: Strategies for Tackling Poverty* (IPPR, London).

Robbins N (1999) *Multi-modal transport accessibility – the TRANSAM approach*. *Highways and Transportation* (April) 16-18.

Social Exclusion Unit (2003) *Making the Connections: Final Report on Transport and Social Exclusion*, Office of the Deputy Prime Minister.

Titheridge H and Mackett R (2003) *Design of Policy Instruments for Social Exclusion and Transport Policy*. AUNT Scoping Study Work Package 2: Interim Report, September.

Wixey S, Titheridge H and Jones P (2004) *Accessibility Modelling and Planning: A review*, SAMP Working Paper 3, Transport Studies Group, University of Westminster.

Wycombe District Council (2002) *Supplementary Planning Guidance 'Accessibility Zones, Parking Standards and Developer Contributions to Transportation' - June 2000 including agenda June 2002 and March 2003*.

ⁱ Paper given by the SEU at a meeting of the Transport and Social Inclusion Contact Group, Transport 2000, on 21st October 2003

ⁱⁱ Steer Davies Gleave for Yorkshire and Humber Assembly (2003) *Developing Public Transport Accessibility Standards for Yorkshire and Humber*

ⁱⁱⁱ Public Transport Accessibility Levels

^{iv} Handy S and Clifton K (2001) "Evaluating Neighbourhood Accessibility: Possibilities and Practicalities"; *Journal of Transportation and Statistics, Vol. 4 Nos 2/3*

^v see iii below

^{vi} www.scotland.gov.uk/cru/kd01/blue/accessibility-08.asp

^{vii} City of York, Local Transport Plan Annual Progress Report 2002/2003

^{viii} http://www.scotland.gov.uk/cru/kd01/blue/rtseuc_16.htm

^{ix} http://www.benchmarking.gov.uk/about_bench/whatisit.asp

^x State and Official Bodies. Central Housing Advisory Committee (1961). *Homes for today & tomorrow*. (London)

^{xi} See for example Unitary Development Plan, (1996) London Borough of **Waltham Forest "Residential Development Design Standards" Section 4.1**

^{xii} Robinson, J and Elkan R (1996) *Health Need Assessment: Theory and Practice*

^{xiii} <http://www.standards.dfes.gov.uk/ts/>

^{xiv} Statutory Instrument 1993 No. 1983, HMSO

The Education (National Curriculum) (Assessment Arrangements for the Core Subjects) (Key Stage 1) Order 1993

^{xv} See for example "South East Region; Mental Health Benchmarking Results"; prepared by Mental Health Strategies and the Sainsbury Centre of Mental Health, 12 April 2002. The state of provision is assessed by reference to indicators such as "Numbers requiring and receiving assertive outreach services" in different localities benchmarked against the average for the region.

^{xvi} See for example Commonwealth Higher Education Management Service "*Benchmarking in Higher Education: an International Review*" <http://www.acu.ac.uk/chems/onlinepublications/961780238.pdf>

^{xvii} ODPM 2003

^{xviii} Extracts from Planning Policy Guidance 17 and companion guide to establishing standards

^{xix} http://www.benchmarking.gov.uk/about_bench/whatisit.asp

^{xx} Surrey Local Transport Plan 2001/02 to 2005/6

^{xxi} Central Leicestershire APR 2003/3

^{xxii} Office for National Statistics, Social Analysis and Report Division, 2001

^{xxiii} Op.cit.

^{xxiv} Department for Transport (2004) *Accessibility Planning: Draft Guidance for Consultation*

^{xxv} DfT (2003) *Public Transport Needs of Minority, Ethnic and Faith Communities Guidance Pack* Social Research Associates, for the Mobility and Inclusion Unit