

Transport and the Accessibility of Public Services

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Executive summary

- There is some confusion over the use of the term ‘accessibility’; it can refer to disability access to vehicles (micro), the physical and psychological ease of moving around the local street network (meso) and access to employment, healthcare, etc. at a more strategic level (macro).
- Some people – generally the less articulate groups – suffer quite severe forms of accessibility problems, often linked to poor public transport provision, which can lead to transport and non-transport hardship (lack of employment, loss of benefits).
- Gaining access to a service usually involves interacting with multiple agencies, which generally do not co-ordinate their actions to provide seamless services – people get ‘caught in the cracks’.
- We need a more comprehensive understanding of these problems and ways of incentivising and facilitating inter-agency co-ordination.

Personal experience

My current position is Professor of Transport and Sustainable Development at University College London; I was previously Director of the Transport Studies Group at the University of Westminster. I have carried out several research studies into people’s accessibility to goods and public services, particularly by public transport and on foot, and issues of hardship, funded by research councils (EPSRC), the EU and the Department for Transport. This has involved working with local councils, public transport operators, various public and private sector service providers, and members of the public. I was involved in the research programme that led to the DfT requiring local authorities to carry out Accessibility Planning exercises.

Evidence

The meanings of the term ‘accessibility’

1. In general terms, accessibility refers to the degree to which people can reach the goods and services that they and society considers are necessary for them to live their daily lives, mainly by travelling to particular locations (e.g. hospitals), but increasingly using the internet or by telephone.
2. However, groups of professionals use the term ‘accessibility’ in different ways, to mean different things, and this can be a source of confusion. These definitions can be broadly grouped into three scales of accessibility: micro (e.g. access onto and within vehicles), meso (e.g. neighbourhood street network connectivity and

problems of severance), and the strategic level 'Accessibility Planning' (e.g. access to employment in a sub-region).

3. In practice, in order for most people to experience high levels of accessibility, there needs to be a good level of performance at all three scales. The study of disadvantaged population groups in South Yorkshire referred to below, found that accessibility could be sharply restricted by a single failure on any scale, ranging from poor physical access to a bus when travelling with a children's buggy, to safety concerns about walking to the bus stop, through to the non-availability or unaffordability of public transport services: the weakest link breaks the whole chain of events.
4. At a micro level, there is a large body of literature (and in many countries, associated national legislation) concerned with ensuring that groups with a range of physical disabilities are able to use transport facilities. This starts with vehicle design (e.g. specially adapted vehicles, or the ability to board a bus, taxi or train in a wheelchair), but also includes movement in the immediate vicinity of the vehicle (e.g. lifts to railway platforms, raised kerbs at bus stops, larger parking bays for disabled drivers), and links up with meso scale access issues.
5. The meso level focuses on the potential for movement at the neighbourhood level. This encompasses a range of issues, in particular the connectivity and permeability of the local street network using different modes of transport. It includes ease of access for various disability groups, through such things as the provision of dropped kerbs at junctions (for people in wheelchairs) and the use of changes in surface texture to assist the navigation of blind and partially sighted people. Several studies have looked at how people's lives can be blighted through their inability to travel far from home due to such physical access restrictions.
6. Access problems experienced at this level include severance, which might result from the construction of a railway line or high performance road, which forces people to make a long detour and so substantially increase their journey distance and time. However, the barrier that causes severance may be more fluid (e.g. a road with high volumes of fast moving traffic at certain times of day that people feel is too unsafe to cross), or more psychological in nature (e.g. avoiding routes through areas populated by a different religious or ethnic group or by street gangs). Equally, some of the conventional solutions to addressing the problem may themselves be a cause of severance, such as pedestrian underpasses that can be sites for personal attack, or are difficult to access in a wheelchair.
7. Strategic accessibility is concerned with the degree to which a given land use pattern and associated modal transport networks in an area (ranging in size from a town to a region) facilitate travel from one local area to another, in order to participate in a particular kind of desired activity (e.g. health care, education, employment). It is the best documented and addressed of the three scales of accessibility, both in the policy literature (e.g. Social Exclusion Unit, 2003) and by the academic community.
8. The literature recognises a number of dimensions of strategic accessibility, the main ones including spatial, temporal and financial.
9. Accessibility measurements range from simple performance type measures, such as the percentage of a population group (e.g. pensioners) which can reach a

given destination (e.g. the nearest hospital) by public transport with a given time period (e.g. 60 minutes), to 'Hanson' measures which calculate the accessibility of a zone or area by adding together the opportunities available in each other zone, weighted by a function of the difficulty of reaching that zone.

Problems caused by limited accessibility

10. This section summarises key findings from a detailed programme of research that was carried out in three villages in the Barnsley Dearne area of South Yorkshire, in an ex-coalmining area with high levels of social deprivation, in order to identify the accessibility problems and requirements of residents (particularly those without access to a car). It involved work both with local communities and with public and private sector service providers.
11. Eleven extended focus group sessions were held with residents drawn from the three villages. Respondents included younger adults, particularly those with children (including single parents), and older people. Recruitment also took into account the length of residence in the area, to ensure that newcomers were represented. There was a mix of male and female respondents, and a range of occupational types, but with a particular focus on people with no or limited car access.
12. These focus groups were followed by two sessions where some of the participants were brought together to review and validate the report's draft findings and to give further consideration to possible solutions.
13. Two workshops were then held with senior representatives from agencies which provided services to local residents, ranging from bus operators to the police and health and education authorities. The first involved a general briefing about Accessibility Planning, and a consideration of the full range of problems raised by residents, but illustrated in a hypothetical context. The second workshop looked specifically at service provision in the Dearne, and included a session with two of the members from the resident focus groups, where their views were presented and debated with the professionals.
14. The focus groups identified a wide variety of problems, in particular:
 - Reductions over time in local services available within the village/town:
'It's gone from here; we've lost the cinema, 3 or 4 butchers, 3 co-operatives for groceries, a running track...'
 - Physical restrictions affecting respondents (e.g. walking and accessing public transport with buggies, or for older people with restricted mobility):
'I've been on the bus, when he's let me on with a double pushchair, and then actually been asked to get off at Tesco because a lady was getting on with a single pushchair.'
 - Psychological restrictions (particularly relating to fear of traffic accidents and personal injury from groups of young people). One young mother reported turning back from a rail station and abandoning a trip, during the day:

'I went there once with the pram and I got about half way up the ramp, and turned round and came back...there were about ten 18-year ...and there was no way I was standing there.'

- Lack of information about public transport and public agency services: timetables, fares, support on offer.
- Restricted availability of public transport (at certain times and places):

'I went for an interview at XXXX in Doncaster, but they won't accept me for the simple fact is my first bus is at 6.20 in the morning and they start at 7 o'clock. And I can't do it. I'm finding it hard to get a job, because with my line of work it's earlies, lates and nights.'

'It's a pain because, the 226 it's every hour. So my shift weren't starting till say, four in the afternoon, I was getting there at ten past three. And I couldn't get the next hour bus or I'd have been late. So I was getting there 45 minutes, 50 minutes before the start of my shift, just sitting there waiting.'

- Unreliability of buses:

'Sometimes you want to get to the doctors, and they just don't turn up.'

- Scheduling problems arising from a general lack of coordination between agencies in the delivery of services, coupled with personal and childcare constraints:

'I got on a chair to stand on top of the fridge and I was cleaning the freezer and it [heavy saucepan] whacked me on top of the head. Of course, I've got two kids and I couldn't get to the hospital and I was feeling sick and that. I walked down to the doctors and they wouldn't see me. They said you've got to go to the hospital...And I think, how can I go to the hospital with two kids?'

- In some cases, the cost of bus and taxi fares was also a problem:

'Last year I got a job in Mexborough...I got a bus pass for a week - which, I don't know, was £14, whatever. And anyway, after 7pm it changed. The buses changed. They wouldn't accept that card, your ticket. So it was a case of having to pay twice in one day.'

15. These discussions revealed a surprising lack of knowledge among respondents of some of the services that were available. For example, in one group of eleven retired people, most of whom were highly articulate and involved in some way with local community activities, only two were aware of the NHS Direct telephone service.
16. It was reported that some employers would not employ staff without access to a car, because of the unreliability of public transport. More generally, people reported being seriously limited in their choices of employment site and further education colleges, as well as services such as maternity care, due to the restricted coverage of public transport services from the Dearne. People also reported difficulties accessing health care (e.g. specialist after care services).
17. A general lack of co-ordination and gaps in coverage between service delivery agencies was a recurring problem, particularly when things did not go according to plan, and usually involved problematic links between a transport and non-

transport service provider. For example, if a patient had to wait several hours in the hospital beyond their appointment time, because of staff shortages, then the hospital car they had booked may not be able to take them home at that time. On some occasions, vandalism or flooding had caused the bus company to cut or divert services at short notice, without any arrangements in place to ensure that passengers were able to complete their journeys home safely.

18. One example of the latter involved a couple with two young children returning home from a holiday on a late flight into Doncaster and catching the last evening bus service to their village. On the way they were informed that the bus would not be serving their village that evening, due to vandalism, and the family – with suitcases – were dropped on a poorly lit road over a mile away.
19. Unreliable public transport services were reported to have put people's employment and benefits at risk – leading in some cases to dismissal after arriving late at work on several occasions. Three parents reported that their children had lost their Educational Maintenance Allowance payments when arriving late at a Further Education College in Sheffield, due to delayed or cancelled bus services. This type of consequence was seen as being very unfair, as it was beyond the control of the individual, but they were being penalised for failures in 'the system'.
20. A wide range of solutions were proposed by respondents, including: the relocation and retiming of patterns of service delivery; measures to make neighbourhoods safer (both in terms of traffic accidents and personal security); improved childcare facilities at key activity sites; improved information provision; better waiting facilities; improvements to bus/rail services; and, driver training concerning customer care when things go wrong.
21. The table below shows one of the scenarios that were presented to the professional group, and the kinds of solutions that they developed.

Problem: A college student from Village 2 relies on the bus service to get to an FE College in the metropolitan area; there is an hourly direct service, which should deliver the student just in time for his first class. However, the bus is often delayed by congestion and sometimes cancelled, as a result of which he can arrive up to an hour late. He then loses his weekly EMA allowance, since tutors will not sign in students that arrive late. The previous bus gets him to college 50 minutes early, but it is not open at this time, and it means hanging around on the street.

Possible solutions:

- ⇒ Give student permission to arrive late or make provision for early arrival
- ⇒ Check the regularity of the problem; discuss retiming scheduled service with bus company
- ⇒ College provides a shuttle service to the local villages
- ⇒ Car sharing scheme promoted
- ⇒ 'Wheels to college' scheme to enable students to purchase motor scooters
- ⇒ Bus drivers issue a 'late ticket' – giving proof that vehicle was delayed or cancelled
- ⇒ Relocate tertiary education facilities to more local secondary schools
- ⇒ Offer distance learning, through a local advanced learning centre

Table: Example scenario used in the first professional workshop

22. Probably the most fundamental problem identified during the resident focus groups and the professional agency workshops was the lack of co-ordinated working between agencies. As illustrated above, this could result in serious problems for some groups of the population, either through agencies making incompatible demands on users (e.g. through the timing constraints of appointments and public transport timetables), or where problems ‘fell through the cracks’ between the responsibilities accepted by different agencies (e.g. late arrival at work or education).
23. There was also considerable scope for service delivery decisions taken by one agency to have negative impacts on the activities of other agencies. In particular, public transport operators were often only consulted about providing services to a new development (e.g. a new hospital site) once both the major locational and site layout decisions had been taken – often making it very difficult at that late stage to provide attractive and commercially viable access for potential passengers.
24. It was recognised by the professional group that a major opportunity to address these problems arose at times when an agency was planning to revise its patterns of service delivery. Were all relevant agencies to be involved at the earliest stages of project planning, then it was felt that there might be opportunities to modify proposals, at minimum cost - at worst to minimise external costs and, at best, to identify synergies that could result in ‘win-win’ outcomes for most or all of the affected agencies. It was felt that a simple tool would help those involved to think through potential impacts and possible amelioration measures. In response to this requirement a simple spreadsheet tool was developed, with one application illustrated below.

School Closure/Consolidation

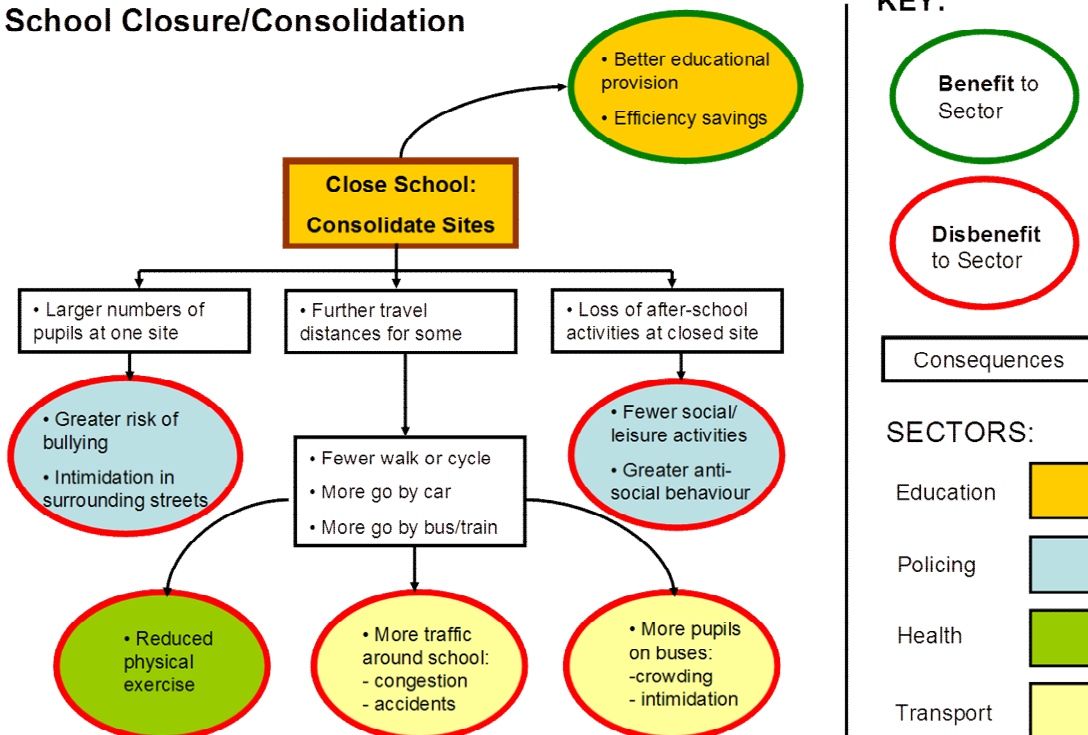


Figure: Tool for exploring the wider consequences of a service change

25. At the professional workshop, views were expressed that this was a logical and beneficial way to proceed, BUT as it did not accord with priorities in current incentive structures within sectors (e.g. educational targets), then it would not happen.

Transport hardship

26. One attempt to measure transport financial hardship is described in Cain and Jones (2008), which reports on a study looking at the implications for poorer households of introducing a congestion charging scheme in Edinburgh.
27. The study concluded that hardship would be caused if the only practical option for accessing a service required the use of a car, and the cost of using the car including the congestion charge exceeded an affordability threshold. Drawing on experience from other sectors, the affordability threshold was set at 32.5% of disposable income (i.e. the proportion of disposable income currently spent on motoring costs by car owning households in the lowest three income deciles).
28. In principle, the same method could be used to identify transport financial hardship among poorer households needing to use public transport to access basic services; this would need to be linked to wider analysis of loss of income or higher purchase costs arising from limited accessibility.

Conclusions and policy recommendations

29. Accessibility is about linking people with goods and services, in ways that can be scheduled within their complex patterns of daily life, and this requires people to interact with several agencies in the course of a day.
30. Many of the accessibility problems that people experience are due to conflicting requirements of different agencies and lack of inter-agency dialogue and co-operation; these problems are not well understood or documented.
31. There need to be requirements or incentives (both within and between sectors) to encourage agencies to co-operate when developing their patterns of service provision.
32. The approaches to assessing hardship, as used in the energy industries, should be adapted for use in assessing accessibility to basic goods and services.
33. National government is effective at setting up cross-departmental initiatives to investigate problems (e.g. the Social Exclusion Unit's investigation of transport problems), but much less good at ensuring cross sector delivery – as primary responsibility is often assigned to one department of government.

References

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