SETTING ACCESSIBILITY STANDARDS FOR SOCIAL INCLUSION: SOME OBSTACLES

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Abstract

One of the principal rationales for accessibility planning in the UK is the potential reduction of social exclusion. Although there are multiple causes of social exclusion, transport and accessibility limitations contribute to a greater or lesser extent. It is in the light of this understanding the transport authorities are asked to devise policies which will promote inclusion. However, although the literature on social exclusion/inclusion is now quite substantial, and there are a number of Government documents available explaining the connections and their consequences, transport authorities are given little, if any, guidance by Central Government about the levels of accessibility to which they should and could reasonably be expected to aspire. This paper is based around research initially undertaken as part of an EPSRC-funded project – AUNT-SUE (Accessibility and User Needs in Transport for Sustainable Urban Environments) which aims "to develop and test sustainable policies and practice that will deliver effective socially inclusive design and operation in transport and the associated public realm from macro down to micro level." As part of this project, accessibility benchmarks and standards appropriate to various socially-excluded groups have been, and are being, developed and tested using both existing data and field research. The paper discusses the progress of this work and the difficulties of arriving at solutions which can both adequately reflect the needs of the affected groups, as groups rather than individuals, and which can also be successfully modelled.

1. Introduction

This paper is based around research initially undertaken as part of an EPSRC funded project – AUNT-SUE (Accessibility and User Needs in Transport for Sustainable Urban Environments) which aims "to develop and test sustainable policies and practice that will deliver effective socially inclusive design and operation in transport and the associated public realm from macro down to micro level." As part of this project, accessibility benchmarks appropriate to various socially excluded groups (Byrne 2005, pp 1-3) are being developed and tested using both existing data and new field research. The paper discusses the progress of this work and the difficulties of arriving at solutions which can adequately reflect the needs of the affected groups, as groups rather than individuals, and which can also, despite known difficulties (DfT 2006 p.23), be successfully modelled.

One of the original principal rationales for accessibility planning in the UK was a concern with the improvement of accessibility as a contributor to the reduction of social exclusion. Transport and accessibility possibilities are one of the multiple causes which can contribute to the social exclusion of individuals, groups, or geographical areas (SEU 2003, Lucas 2004). In the light of these considerations, transport authorities are therefore asked to draw up policies which will help to reduce levels of exclusion (DfT 2005). However, although the literature on social exclusion and transport/accessibility is now quite substantial, and there are a number of DfT documents covering the issue (DETR 2000, DfT 2004, DfT 2005), local authorities are given little guidance by central government as to the levels of accessibility which they should and could realistically aim to meet.

2. Accessibility and social exclusion

The critical Government document, a report by the SEU (2003) report, "Making the Connections", focuses 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 defined; this is part of the purpose of this project). Whilst the 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 resulting from isolated or remote communities; high transport costs; dispersed activities; and infrequent and/or unreliable bus services. Walk trips, the commonest type of trip in Europe, are mentioned in relation to crime around transport hubs and child pedestrian casualties.

According to the Social Exclusion Unit (SEU, 2003a), 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. It is believed that accessibility planning could, 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

and that these changes would tend to lead to decreased exclusion of the affected people (SEU 2003b).

These improvements will be effected by enabling local authorities and other agencies to assess more systematically whether people can get to places of work, healthcare facilities, education, food shops, social activities and other destinations that are important to local residents. It will also provide the framework for transport authorities and other relevant agencies to work together to develop and deliver solutions to accessibility problems depending on the particular needs and priorities of local areas.

The conclusions arrived at in this report fed into the next round of Local Transport Plan guidelines, (DfT, 2006) as local authorities were required to consider the social impacts of their policies. However, neither the SEU report, nor the LTP guidelines, suggested any absolute, or even relative, minimum standards for the mobility/accessibility of users; the only indication about the duties of the local authorities to meet transport needs was in fact a set of accessibility indicators concerned with the numbers of people within a particular time/distance of specific activities.

The framework set for accessibility planning includes:

- An **accessibility audit** to identify barriers to accessibility, drawing as much as possible on information already held by local authorities and other bodies.

- 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.

- An **action plan** of agreed initiatives.

- **Monitoring**. Progress in improving accessibility will be monitored through a set of local accessibility indicators. (DfT 2005a) These are currently being developed and at present are essentially based round mapping areas and determining the extent of difficulties in accessing services within and from those areas.

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.

3. Benchmarking Accessibility

The term benchmark 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. There are now many definitions of benchmarking, depending on the use which is being made of the technique. Benchmarks can be, for example:

1. targets

2. minimum standards

3. indicators

4. guidance levels

In this project, by benchmarks, at least at this stage of the research, we mean minimum standards or guidance levels for different amounts of accessibility. These are not intended to be targets: indeed, we would hope that any targets aimed at would provide for greater levels of accessibility than those specified by the benchmarks. Thus if a "benchmark" (minimum level) for the frequency (or number of days) which a journey to the food shops could achieved was set at 3 visits a week, we would hope that the "target" (aspiration) might, for example, be 6 such visits. This follows from the notion that everybody is entitled to a "reasonable" level of various social goods, including, in this case, accessibility (Sen, 1997, Rawls 1999). Since this concept means different things to all people, the initial work involves arriving at a consensus of a "reasonable" basic accessibility level which can be used as a benchmark, i.e. a measure with which accessibility improvements can be compared for particular people/households. It should also be noted that the concept of accessibility, and how accessibility can be meaningfully measured, also varies between groups and individuals.

The reasons for using benchmarking should be clear from its various uses as described above. In this case benchmarking should provide:

• A basic background against which a policy maker or implementer can work

• A transparent means of judging what needs or does not need to be changed

• A means of judging the extent to which success has been achieved, i.e. a way of assessing the inclusivity improvements resulting from changes in accessibility

Currently the success of accessibility policies is being judged, at least nationally, by broad aggregate indicators related to public transport journey times (DfT 2005, see below). These take little account of individual household-based constraints and barriers to travel, although this is where many accessibility problems of the socially excluded reside (DETR 2000, SEU 2003). Many local transport authorities have supplemented the national indicators with local indicators and targets. A review of these found that they tended to be based on outputs (i.e. number of crossings improved to meet accessibility standards, £s invested in improvements) rather than on outcomes as experienced by the socially excluded.

Table 1: DfT National Accessibility Indicators (DfT, 2005)

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 secondary school by public transport;
people of working age (16-74); b) people in receipt of Jobseekers' allowance within 20 and 40 minutes of work by public transport;
a) households b) households without access to a car within 30 and 60 minutes of a hospital by public transport;
a) households b) households without access to a car within 15 and 30 minutes of a GP by public transport;
a) households; b) households without access to a car within 15 and 30 minutes of a supermarket by public transport.

There is a danger, because of the way the DfT national accessibility indicators are presented, that they could be interpreted as standards, and used to demonstrate progress in the reduction of access-related exclusion. However, we believe that a more effective (and truthful) indicator of actual progress in the reduction of exclusion might be the extent to which all members of the excluded populations are able to attain a set of basic mobility standards desired by them and appropriate to their purposes, i.e. the extent to which latent demands can be satisfied.

3. Developing Benchmarks for Aunt-Sue

The approach we are taking, of benchmarks as standards, mirrors to some extent the approach taken by the Joseph Rowntree Foundation (JRF) in their work on acceptable minimum income standards for Britain. This aimed to "find out what level of income people think is needed to afford a socially acceptable standard of living in Britain today, and to participate in society." (JRF 2008) As the report points out, determining the line between an acceptable and an unacceptable standard is a considerable challenge. Current policy statements (see Cabinet Office, 1997-2008) do not suggest that equal provision for all can or should be provided, but that provision should be equitable (fair or just) in meeting needs and desires. This would, following a principle elucidated by Rawls (1999 p.86), "attempt to provide some redress for undeserved inequality" (i.e. positive discrimination) (Sen 1997, Rawls 1999).

Clearly, the methodology for the devising benchmarks against which provision can be evaluated extends well beyond the remit of the transport disciplines. This is because the fundamental question, the relationship between accessibility and social exclusion, is not just about transport or even movement, but about access and mobility as related to social, cultural, economic, and possibly psychological needs. Devising a methodology will therefore involve not only people from different disciplines and policy-making departments, and users from different groups of people and different locations, but will require policy-makers to make a number of value-judgements in the light of both what may be considered desirable and what is actually possible. Clearly, given the number of variables involved, any attempt to offer a single answer could be misleading, even as far as transport costs are concerned. "The JRF MIS project found it very hard to estimate average transport costs to include in minimum budgets because they are so highly variable and contextually identified and defined" (Wilson, 2008).

There are a number of other important considerations to take into account when carrying out this work if it is to have any validity both with transport professionals, the "socially excluded" people the benchmarks are designed to help, and the politicians and planners who might be involved in implementing any recommendations.

The first problem, one common to much social science research (Denscombe 2003) is the problem of maintaining true objectivity. For example, transport changes have for many years been evaluated in terms of the time, as well as the financial costs, they could save (COBA 2001/2006). However, if time is not important to people a scheme or policy is aiming to help, there is little point in evaluating their transport in these terms. The transport professional (or, indeed, many professionals) might find it difficult to accept that, except in very extreme cases, journey time is really not a measure of convenience to some people – those to whom time is not necessarily money or particularly constrained. In fact, there exists evidence that for some people, a longer journey might be preferable to a shorter one (Jain and Lyons 2008; Metz 2008). There is also evidence that factors such as even pavements, making public transport and walking more accessible, fear of crime etc., could be as important as, or more important than, time and that time cannot be used as a proxy for many of these factors (SAMP 2003). Some older people fall into this category, as do those who walk, rather than bus, for exercise (Metz 2000).

Secondly, within the groups, the huge differences in expectations from one individual to the next, and preparedness to make what might be regarded as difficult journeys, make it hard to assess what is really excluding. For example, from our fieldwork we found that some lone parents appear to be prepared to walk over a mile as part of their daily journeys, and others do not; some older people would happily use a mobility scooter, others wouldn't.

Related to this, there is also a link between people's aspirations in terms of travel (their travel horizons) and their ability to undertake journeys. There is some evidence (SAMP 2003) that those with mobility problems often lower their expectations and aspirations to meet what they perceive as possible.

Thirdly, "Individuals uniquely perceive accessibility based on their individual priorities in life. For example, for a professor the increase in accessibility to jobs within a region might not be as important as the increase in the levels of accessibility to open space, since he is less likely to change his job within the same region, yet he is likely to search for new places for outdoor activities. On the other hand for a computer programmer who changes her employer frequently, the increase in the accessibility to high-tech jobs might be more important than outdoor activities." (Doherty 2006)

Within the Aunt-Sue project, we are not looking at what we as professionals think is a minimum acceptable level but what the affected populations think. We are attempting, as far as possible, to work from their activities and expectations, which is the purpose of the (or any) consultation. This raises an ethical question; the expectations of the deprived might seem very low to the professional; this can make it very difficult to contrive adequate and accurate leading questions which can counter the effects of reduced aspirations based on what is currently possible, whilst not unrealistically inflating expectations when undertaking the research.

A final problem within the context of the Aunt-Sue project, is that alongside developing these benchmarks, the consortium is also developing a tool, AMELIA (A Methodology for Enhancing Life by Increasing Accessibility) which could be used by Local Authorities and others to assess the likely impact of different policies and actions on the accessibility of different groups of people in terms of these benchmarks, by modelling how many more people reach or exceed the benchmark following the implementation of the policy action (Mackett et al, 2008). This need to be able to model the benchmarks creates a myriad of additional problems and questions, such as how to take into account the high level of variation in individual circumstances, and the micro-level details that can affect accessibility (see Titheridge et al, forthcoming).

So far, accessibility benchmarks have been developed and tested for older people (aged 60 and over) and another set is about to go out to consultation for lone parents. The methodology used in each case is similar – starting with an analysis of current travel behaviour, followed by a series of focus groups to develop some preliminary benchmarks, followed by a second series of focus groups to test and refine the benchmarks devised.

4. Benchmarks for Older People

Current journey patterns of older people (defined as people aged 60 and over) were analysed using data from the Great Britain (GB) National Travel Survey (NTS) using an aggregate of data for the years 1998 to 2001 (DETR 2003a, 2003b). Prior to 2002 approximately 5000 individuals were sampled annually, thus the 1998-2002 data contains data on the travel of approximately 20,000 people, of which 4529 were aged 60 and over.

This data was then used to establish a 'normal' range of journey attributes - frequency, purpose, time, mode etc. The analysis showed that older people have very different travel patterns to the average person in Great Britain. Typically, they make very few trips for work or educational purposes and make far more food shopping trips than average and twice the number of medical trips. Although, medical trips still account for a very small percentage of total trips (see Solomon and Titheridge, 2006 for more details). The NTS data for older people was then compared with the Department for Transport indicators to see how far those currently proposed could be used in the assessment of accessibility improvements for older people. It was clear from this analysis that the DfT indicators are not suitable for older people as they do not reflect the types of journeys elderly people do make. This view was supported by the focus group participants.

Having established the strengths and weaknesses of the Department for Transport indicators, as applied to older people, the next task of the AUNT-SUE research project was to develop a set of benchmarks appropriate for older people. A pilot focus group of users of door-to-door transport was held (in Rotherham, West Yorkshire) to begin to establish expectations of a 'normal range' of 'inclusive' journeys for this group. One of the points they emphasised was that the framing of the DfT indicators in terms, essentially, of "minutes per journey" was not really appropriate to them; speed was less of a problem than physical accessibility, regularity of services, location of bus stops etc. Based on the results of various focus groups and the NTS statistics, some preliminary benchmarks were developed framed in terms of the minimum acceptable number of different types of journeys. NOTE: the cost of travel is not included in these benchmarks as it was not mentioned as an issue by the focus groups; probably because many of the older people, if using public transport, would be travelling free.

These benchmarks were then tested, through another series of focus groups held in London and Hertfordshire. As a result of all the group work, the basic minimum standards, expressed in numbers of journeys per required per time period emerged as follows in Table 2.

Table 2: Accessibility Benchmarks for Older People

Activity	No. journeys required
Food shopping	twice a week
Comparison shopping	twice a month
Social or recreational activity	twice a week
Post Office	Once a week
Medical trip (all, e.g. feet, teeth, doctor, hospital, chemist etc.) and visits to friends and relatives.	Once a week
Holiday	twice a year
Structured day time activity appropriate to need[1]	2-10 times a week

5. Benchmarks for Lone Parents

i) Trips and purposes

Lone parents, unsurprisingly, have a totally different set of priorities from older people, and one that also seems to be to some extent at odds with the Government's stated priorities for lone parents, which are that as many of them as possible should seek paid work. From the point of view of lone parents, the ability to socialise seems to be at least as important as work, may occupy some of the same time-space, and fulfils many of the same functions (DWP 2005). This finding mirrors the findings in the JRF (2008) study, "A Minimum Income Standard", which was trying to establish a level of income below which "it is socially unacceptable for any individual to live" (p52). It was striking that the participants' need for income was not just for food and shelter, which mirrored many of the results of the SUE study. "Participants argued for the means for social participation – the ability to engage in activities and social networks outside the home. Social participation was seen as being key to emotional well-being and mental health, and included, for example social and cultural participation activities, informal support networks and employment for those who could work" (JRF 2008 p13). For many lone parents visiting friends and family may be seen as a non-discretionary trip.

Although the Government's intentions of getting lone parents into work (DWP 2005) has led to a concentration on the work journey, many of the lone parents seem to have other priorities. Based on current travel patterns, and according to the comments of lone mothers interviewed, access to friends and family, both formal and informal, is at least as important as work for this group, and one of their major deficits for travel is for social/leisure activities (TSG 2003, Aunt-Sue focus groups, JRF 2008), although any "going out" without the child(ren) is often extremely difficult for childcare reasons. Access to nurseries, crèches, mother and toddler groups, parks (particularly at the weekend), and children's playgrounds are clearly central issues (Aunt Sue focus groups, DWP 2005).

It is clear from our analysis of the NTS data, that children of lone parents undertake less organised social and leisure activities than their counterparts in two parent families (266 trips per year as opposed to 291), although the reasons for this may not be solely a travel issue but one of total cost of the activity (see Table 3). The lone parent makes more social trips than the individual adult in a two-adult family (326 as opposed to 276). This is hardly surprising since the two-adult household

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1 This might be, for example, a visit to a day centre or attendance at religious services and is dependent on individual needs.

has "built-in" social contact at home and does not need to travel to find it. (They also make less work trips, 165 as opposed to 342, possibly because part-time work is more common than full-time among single parents (Millar and Rowlingson 2001, DWP 2005.)

Table 3: Trips per adult per year by purpose by household structure.

	1 adult, youngest child 0-12	2 adults, youngest child 0-12	All other households	UK Average
Work & Education	165	342	261	277
Shopping & Personal Business	356	314	348	340
Leisure & Social	326	276	315	306
Escort	358	287	63	123
Other	8	11	14	13
Total	1,213	1,231	1,001	1,059

Source: NTS 1998-2001

Escort journeys are the largest single category of trips undertaken by lone parents. Lone parents make significantly more escort trips per person than adults in two parent families, although notably less than double the number, this may be in part due to the fact that lone parent families in the NTS sample on average contain slightly fewer children than two parent families, but may also suggest that children in lone parent families make fewer accompanied trips. Most of the escort trips were for escort education. Note: it was not possible to identify trips to take a child to nursery or childcare from the NTS data. A significant number of trips were for escort personal business and escort home (not own) purposes (Table 4).

Table 4: Number of Escort Journeys made by adults in lone parent households per year

19 Escort commuting	3
20 Escort business & other work	5
21 Escort education	233
22 Escort shopping, pers business	66
23 Escort home - not own & other escort	52

Source: NTS 1998-2001

As a benchmarking starting point, we suggest that those in lone parent families should be able to travel to meet friends and family, formally or informally, on most days. For this journey purpose the benchmark could take the form "..can participate in a social activity at least daily". The definition of participate needs to take account of time constraints and affordability (including travel and activity costs). However, for escort trips the benchmarks may need to be expressed in a slightly different form, "...ability to get the child/ren to their activity (e.g. school, nursery, social activities) at least x times per week". Using this form allows for the possibility of using school buses, walking buses, etc. as a substitute for the parent's escort duties. When determining the number of escort trips that should form the minimum standard, clearly consideration needs to be given to the numbers and ages of the children in the family.

ii) Travel times

Having determined some minimum acceptable weekly numbers of trips for different purposes, the next step is to try to establish some minimum travel times for the journeys. The UK Time Use Survey, quoted in Gray (2006), gives weekly travel times for escorting children as 57 minutes for

fathers, and 97 minutes for mothers. This is an average across the whole week, including weekends, (a week = 5x a normal weekday, and a weekend = 2x a weekend day) and it includes both car and non-car journeys, and so is likely to substantially understate the time required by lone parents, particularly those without car access. Another difficulty in estimating maximum "reasonable" daily times for travel is that journeys within a day's journey chain will all have different origins, so the time estimates are necessarily rather more approximate than might be desirable. Finally, we should point out that one of the barriers to many lone parents' journeys is the difficulty of the journey; on the whole, the more difficult the journey, the longer it tends to take (getting children organised (Aunt-Sue focus groups), so we are treating time not just for the length of the journey but also include the time it takes to get ready.

In devising standards, consideration needs to be given to the home-nursery-work (and/or shopping, or socialising) journey chains, and both the time and cost constraints of these complex trip chains. In the light of these considerations, the national indicator thresholds for the journey to work and for access to shopping (i.e. time access to a major centre) and other facilities are likely to be too long for this group (see below, and Titheridge and Solomon 2008). There is thus a major question about the extent to which the existing DfT accessibility indicators apply to lone-parent families. Indeed, given the complexity of the family journeys, it would seem that an entirely different approach might be needed if there is to be any chance of transport helping to equalise the life chances of lone parents. Nevertheless, we are attempting to devise approximate and variable minimum "reasonable" standards as a benchmark for the journeys of lone parents and their children.

Table 5: Overall trip times (median) by purpose and household type

Journey purpose	1 adult, youngest child 0-12	2 adults, youngest child 0-12	All other households	GB average
Work & Education	15	20	20	20
Shopping & Personal Business	14	10	13	12
Social & Leisure	15	15	15	15
Other non-escort	10	10	10	10
Escort	30	25	30	30
Table Total	15	15	15	15

Source: NTS 1998-2001

Allowing for an average of approximately one trip a day from each of the main categories on weekdays, and all but the work and education trips on weekends, (for numbers see Table 6) then the maximum mean weekly travel time, however it is distributed through the day or week, to be "reasonable" should probably not exceed 9 hours.

Table 6: Suggested Benchmarks for Lone Parents

Journey purpose	Suggested weekly minimum standard	"Reasonable" weekly maximum travel time (urban, non-car users)
Work & Education	6 (part time work, 3 return trips)	2 hours
Shopping & Personal Business	6	1 hour
Leisure & Social	6	1.5 hours
Escort education	10 (daily, am & pm)	4.5 hours
Other escort	3	
Total	-	9 hours

iii) Travel expenditure

While money cost was not an issue for the older people, many of whom had cheap or free travel, it was for the lone parents and their children. However, data on the cost of travel is limited within the National Travel Survey. The data on travel expenditure presented below was drawn from the Family Expenditure Survey (ONS, 2006).

"Lone parent families, on average, spend £30.80 per week on transport (including children's travel). This is under 10% of their total weekly expenditure. Lone parent households in the lowest gross equivalised[2] income quintile spend £17.80 per week on transport (8% of their total weekly expenditure). Two adult households with children spend £85.60 on transport per week, 14% of total expenditure and those in the lowest income quintile £37.40 (11% of total weekly expenditure). The non-equivalised expenditure on transport is £27.50 and £83.20 for one and two adult households with children respectively" The Rowntree study on minimum income standards (JRF 2008) specified £17.16 as the "minimum transport costs" for a family of one parent and one child, (as against £35.02 for a couple with two children).

For want of better information, we shall use this JRF figure as the starting point for our benchmarks. It does not seem sensible, given the variation and complexity of journeys made by lone parents, to devise specific costs per journey.

5. Conclusions

Given the complexity of journey chains, the enormous variety of origins and destinations and differences in the order in which journeys are undertaken, we have found from the interviews and focus groups we conducted, and from our analysis of NTS data, we have drawn out a set of activities for the adult member of lone parent families, which we believe it ought to be possible for the adult to accomplish if they are to be considered "included". We have also suggested "reasonable" weekly travel time and cost for their achievement.

We have tried to work within broad and widely used activity categories, although there may well be a case for redefining these categories (Doherty 2006). We have not considered the ordering of activities through the day or the extent to which trip chaining occurs in the specification of the benchmarks. These vary from individual to individual and to some extent may be a result of the travel constraints they experience, and thus could be considered irrelevant to our "minimum standards" purposes. We are simply trying to posit an equitable baseline of accessibility, working from what is known, what seems to be wanted, and what is likely to be possible.

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[2] Equivalisation takes into account household size and composition. Equivalisation tends to increase relatively the incomes of small households (i.e. single person households) and reduce incomes of larger households (i.e. households with 3 or more persons). For more details see Family Spending 2006 edition.

Finally, we would like to mention that the benchmarks for lone parents should have gone out for consultation by now, but one of the problems of this part of the research is the difficulty of locating participants. It would seem that initiatives such as "Sure Start" would be a good source, but they (and other "inclusive" agencies) deliberately do not distinguish between one and two-parent households. Some agencies are worried about the data protection aspects of the work. However, these problems are gradually being overcome and the consultation should be complete in the very early part of 2009.

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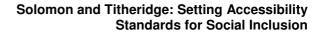
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