

FIRST DRAFT Land Use, Transport and Journey Length

Land use, transport and travel choice

The market for land, and decisions about how it is used, depend crucially on transport. This is a two way relationship – transport demand arises from land use and land use patterns are made possible by the availability and cost of transport networks. The third side to this triangle is behavioural choice – how people react to the many different combinations of location and methods of travel which are available to them.

Transport here is used as shorthand and must include communications. The latter was once simply a form of transporting information physically, but from the days of the telegraph the electronic means of doing so have had a special interrelationship with transport. This is now an area of rapid growth and development, where, for example, the internet can be used for shopping or for videoconferencing. Thus the functions of a physical journey can be substituted by electronic means and the need for mechanised travel removed. Some visions of future communities suggest that people may spend more time walking about in their locality, and at other times communicating frequently over the internet with friends, colleagues and clients across the world.

The idea of enhancing local communities, increasing density and encouraging walking has underpinned the “smart growth” movement, particularly in the United Statesⁱ. This approach has now reached the UKⁱⁱ and in many ways runs counter to the low density “garden suburb” approach favoured by some UK planners. This in turn was perhaps an over-reaction to the worst excesses of the slums created in Britain’s industrial revolution and relied on getting employees back to city centres through mass public transport systems.

The great dispersal

The first use of low cost mass public transport was to move people out of cities to more pleasant places where land was cheap. The creation of “Metroland”, to support London’s industry and commerce using the Underground is a well documented exampleⁱⁱⁱ. Since mass car ownership has emerged, the picture has changed. The flexibility created by car travel has not simply helped to disperse homes, the places people travel to, such as employment, education and health, have also been relocated. It has also of itself reduced the density of development and made it harder to serve by any other means.

One of the drivers behind this relocation process is that consolidation onto one out of centre site for public organisations usually means a profitable sale of land elsewhere. The users have to meet any increase in transport cost themselves. In recent years the land has often been sold for housing. For retailers, land away from town centres has been cheap and people have been willing to drive to them and use their cars as goods vehicles for the return home.

Thus it has been possible to transfer some of the costs of choosing where to locate from businesses or organisations to private individuals. Examples of this are centralising retail, leisure, health and education facilities onto sites which are

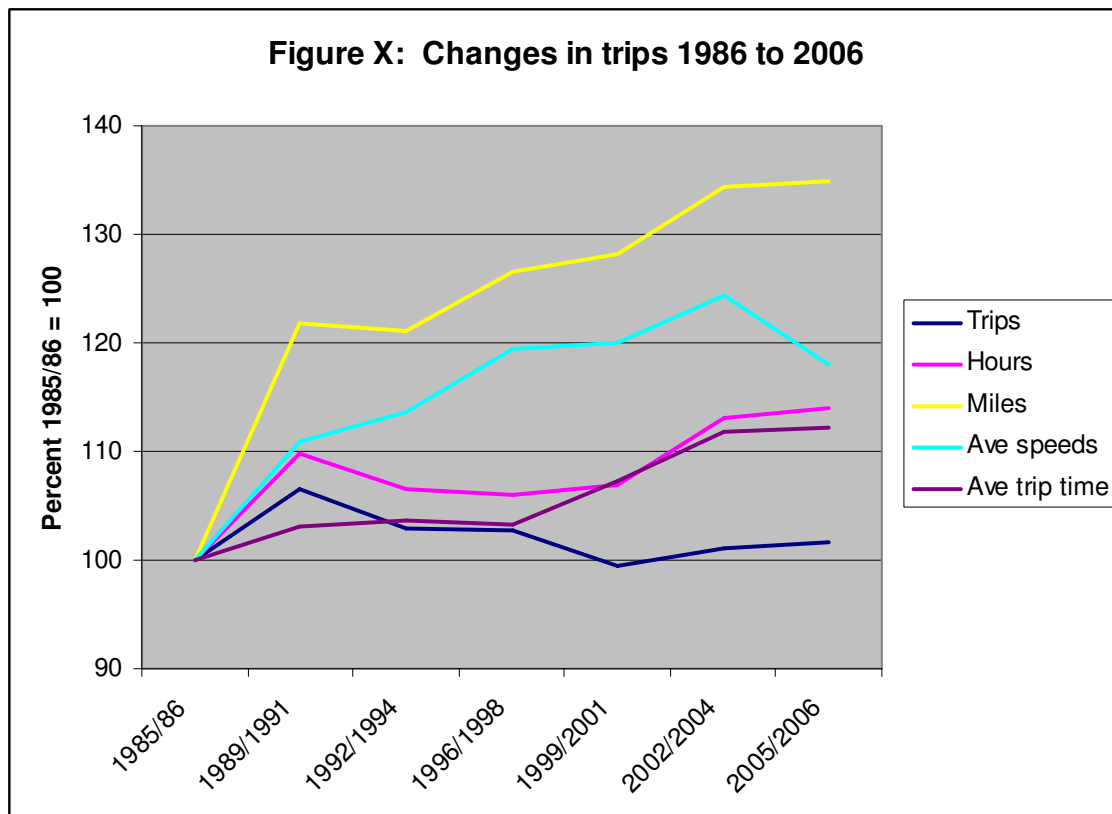
further away from the people who need to use them, and which have access mainly by car.

The relatively low cost of transport and the ability to achieve savings by transferring costs to private transport has been a major feature of UK economic development. The low cost of transport has also been a major factor in the UK and internationally in encouraging distant production to replace local production. This has provoked comment on retailing subjects such as outsourcing of clothing production to unregulated sources and the phenomenon of “food miles”.

The impact of dispersal on patterns of traffic

While journey lengths have grown hugely, the number of journeys has been relatively static, as has the total amount of time spent travelling. The key source of data on travel by UK residents is the National Travel Survey (NTS). This is used for a wide range of analyses, including the National Traffic Model (NTM) and the recent DfT carbon pathways work^{iv}.

From NTS it can be seen that in 1985/86 the average number of trips was 1,024, in 2006 it was 1,037, although changes to the survey method mean that 1985/86 figure is slightly too low. Other aspects of people’s travel have changed more significantly, and these effects are summarised in Figure X below.



Source: NTS 1991/2001 and NTS 2006, MTRU calculations

What has happened is that for several decades car travel has become faster and cheaper^v and of course more available as car ownership has risen. In 2006, for the first time since the recession of the early 1990s, this pattern has

changed, with speeds falling, distance stabilising and total amount of time spent travelling rising slightly. The growth in trip length is explored further in Figure Y and Table Y, which show growth in trip length by trip purpose.

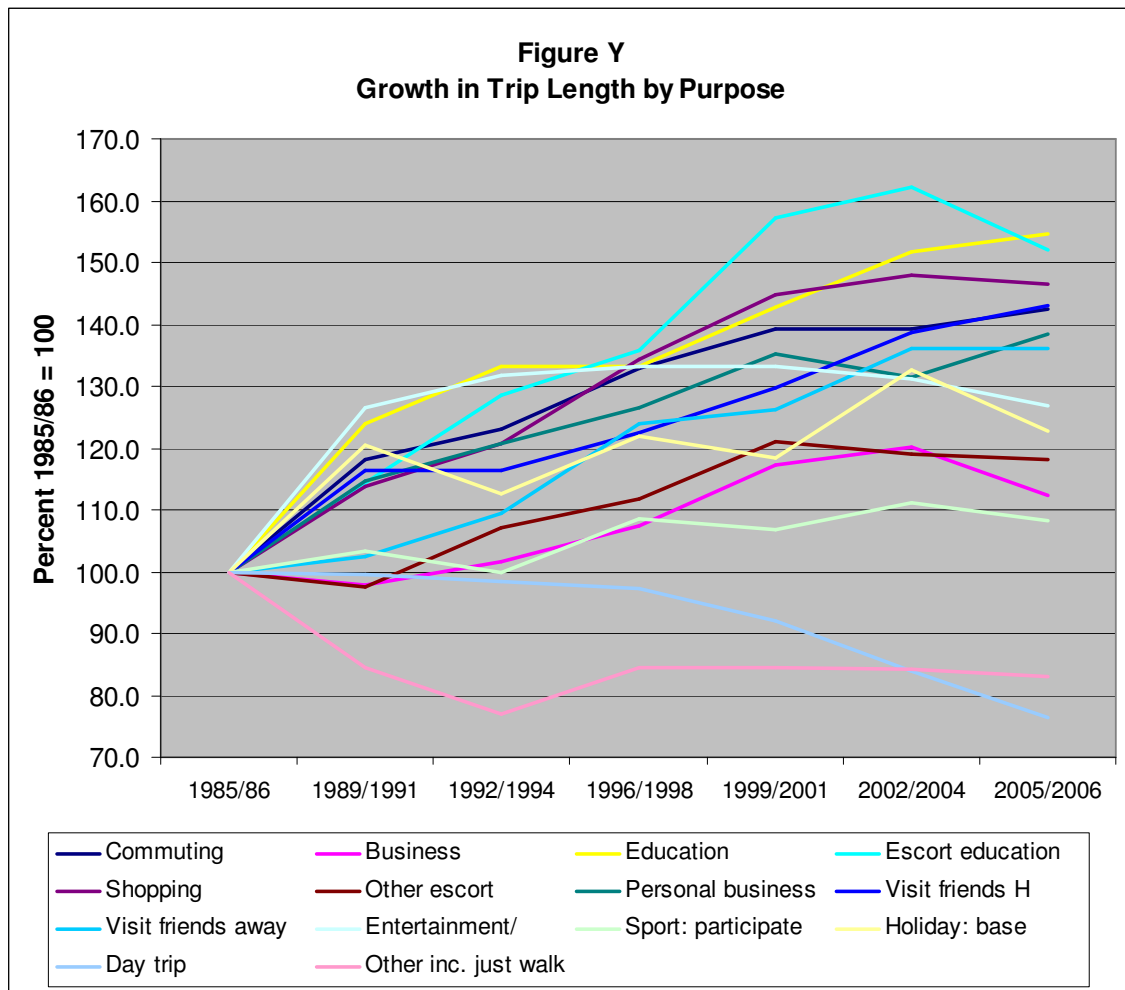


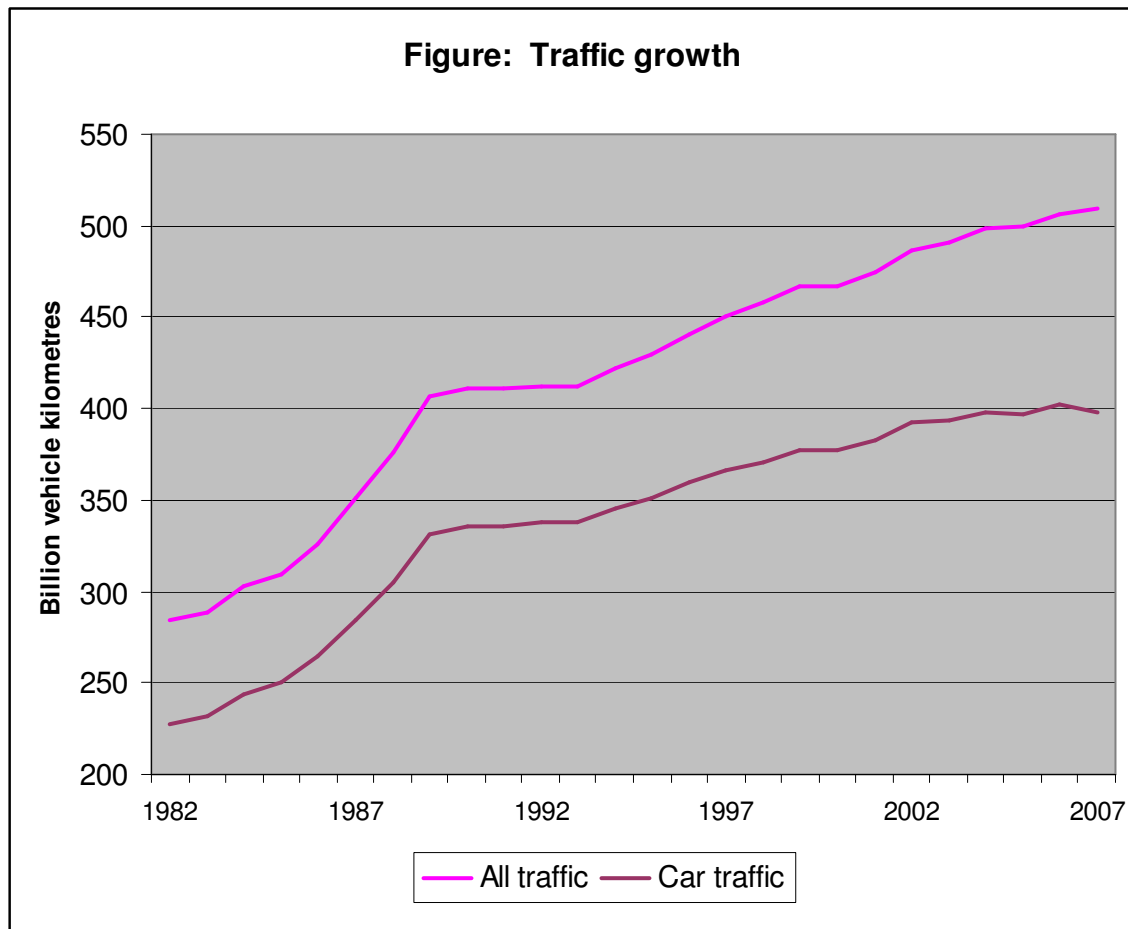
Table Y
Growth in trip length by purpose 1985/6 to 2005/6

	1985/86	1989/91	1992/94	1996/98	1999/01	2002/04	2005/6
Commuting	6.1	7.2	7.5	8.1	8.5	8.5	8.7
Business	17.3	16.9	17.6	18.6	20.3	20.8	19.4
Education	2.1	2.6	2.8	2.8	3.0	3.2	3.2
Escort education	1.4	1.6	1.8	1.9	2.2	2.3	2.1
Shopping	2.9	3.3	3.5	3.9	4.2	4.3	4.2
Other escort	4.3	4.2	4.6	4.8	5.2	5.1	5.1
Personal business	3.4	3.9	4.1	4.3	4.6	4.5	4.7
Visiting friends at private home	6.7	7.8	7.8	8.2	8.7	9.3	9.6
Visiting friends elsewhere	4.2	4.3	4.6	5.2	5.3	5.7	5.7
Entertainment/ public activity	6.0	7.6	7.9	8.0	8.0	7.9	7.6
Sport: participate	5.8	6.0	5.8	6.3	6.2	6.5	6.3
Holiday: base	37.8	45.5	42.6	46.1	44.8	50.1	46.4
Day trip	18.6	18.5	18.3	18.1	17.1	15.6	14.2
Other inc. just walk	1.3	1.1	1.0	1.1	1.1	1.1	1.1
All purposes	5.2	5.9	6.1	6.4	6.7	6.9	6.9

Source: NTS 1991/2001 Update; NTS 2006, MTRU calculations

At the same time as destinations have become more dispersed, high housing costs and uneven availability have diminished the importance of travel cost in the decision over where to live in relation to work or other facilities. This has also extended the distance that people have to travel to keep in touch with each other – very noticeable in the “visit friends” category above. This has also added to the demand for travel. On the other hand, people without cars have seen their opportunities decline, and this has fed the desire to own one.

Thus, excluding travel abroad, people travelled 4,700 miles a year in 1975, by 1985 it had risen to 5,300 miles but by 1995 it was 6,700^{vi}. Goods travelled further too, and this combination produced a 39% rise in traffic between 1985 and 1995^{vii}. An overview of traffic growth, drawn from DfT counts up to 2007, is shown in Figure A below, together with car traffic. The impact of the recession of 1989-93 is clear and there are some one off effects such as the fuel protest in September 2000. The oil price rise beginning in 2007 may explain why car traffic has actually fallen slightly, although other traffic carried on growing.



Source: TSGB 1986, 1996 and 2007

Thus recent trends appear to have changed slightly and there are many reasons why this should be the case. For example, it may be that as car journeys became longer, traffic has grown to the point at which peak demands on the road system create sufficient congestion to increase travel time to a noticeable extent. At this point the transport cost both to client and supplier begins to rise,

although the car driving client has limited opportunity to choose different locations to shop or get healthcare. In the short term this may explain why people are having to spend more time travelling overall.

This is a simplification of a series of complex interactions which have been extensively discussed elsewhere, but underlying them all has been the growth of cheap road transport. This has been closely associated with the discounting of the cost of accessing sites which are distant from where people live. This has created both environmental costs in terms of local pollution as well climate change, and social costs in terms of undermining local communities.

Much of Government planning policy guidance (PPG) from the mid 1990s^{viii}, such as PPG 13 and PPG6, has been directed towards slowing down or reversing the profound changes caused by this transport and land use process of dispersal. In the last few years the evidence from NTS is that this process has indeed slowed down. The potential benefits from a UK version of smart growth have recently been illustrated in “The Proximity Principle”^{ix} which advocates higher density, self sustaining, walkable communities. The current plans for significant numbers of new dwellings offer an opportunity to implement this approach, rather than pursuing traditional low density planning which caters for the car.

Finally, the recent rise in oil price, if sustained, will result in a major shift in the cost of travel, in particular by car. As well as how we create local communities, this in turn will mean a radical reappraisal of the size and location of many facilities and activities which have become so much bigger, and so much fewer.

The next section sets out proposals which would support existing policies on community development, climate change and transport. These will create new patterns of demand for travel and communications and should be viewed as part of a whole package which includes the policies which support changes in travel behaviour (see the next chapter of this report). The outcome of a successful travel plan, for example, is that it will reduce the need for parking. If this is not reflected in the amount of parking granted as part of planning permission, this is simply building in an assumption of failure. It should be noted that choice and flexibility are maintained – each plan can still be different it just has to be effective. A good example of how this can work is a major headquarters development in West London, where the requirement for a travel plan was integrated with fewer parking spaces^x.

Draft proposals

PPG13 current maximum permitted number of parking spaces in new development made mandatory

PPG13 current maxima redefined as applying to gross site area, not gross floor area

Current PPG13 maxima reduced by 1% of current level each year from 2010 to 2050

In existing developments, car parking over the limit will be charged at £50 per space from 2010 onwards, rising by £10 per year to 2050

PPG6 strengthened and clarified (*see later section on retailing: to follow*)

Minimum public transport accessibility standards set for all inhabited areas according to size of settlement and density

Development size linked to the same settlement size/density bands as for PT accessibility

Minimum development intensity, defined as ratio of floor area to site area, graded according to size – in other words large developments have to achieve high density

Clear support in planning guidance for “Smart Growth” policies for new and existing settlements, especially the “eco-towns” initiative (if it proceeds)

New residential planning guidelines for local facilities with 3rd sector endowments rather than one off capital charges

All local plans to identify key walking routes between developments and residential zones and undertake a quality audit by 2020

Location and centralisation decisions for facilities including health, education and leisure to take full account of increased transport costs and emissions.

References

- i The Smart Growth Network was established in 1996 in the US, see <http://www.smartgrowth.org> and <http://www.smartgrowthamerica.org/>
- ii See the Smart Growth UK vision statement, June 2008
- iii The term was coined in 1915 by the Metropolitan Railway, see <http://www.metroland.org.uk/>
- iv *Carbon Pathways Analysis*, DfT, June 2008
- v Over the last 30 years the cost of using a car has fallen 10% while bus and rail fares have increased by 50% - See the *King Report Part 2*, DfT, para 4.57
- vi NTS 2001 update: unweighted
- vii *Transport Statistics Great Britain*, DfT, 1996 edition
- viii See PPG 13 in 1994, PPG6 in 1996
- ix *The Proximity Principle*, Rebecca Willis, CPRE, May 2008
- x Glaxo Smith Kline 2001 on, see the TfL website <http://www.tfl.gov.uk/corporate/projectsandschemes/workplacetravelplanning/7604.aspx>