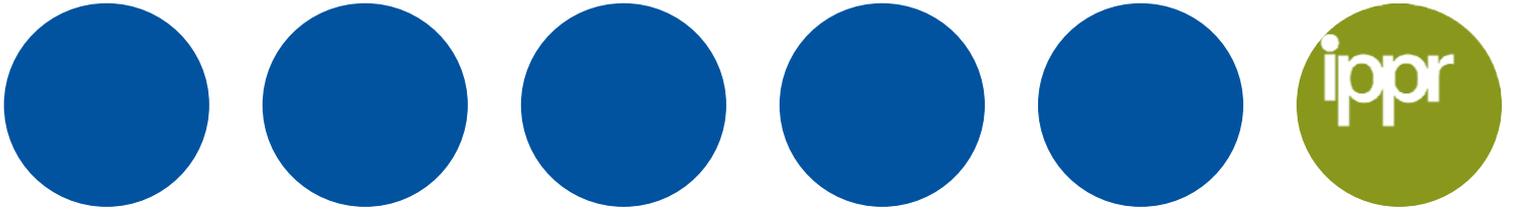


Commission  
on Sustainable  
Development  
in the South East



# Keeping the South East Moving

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WORKING PAPER **THREE**

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## The Commission on Sustainable Development in the South East

The Commission's goal is for the South East to maintain its economic success and its position as one of Europe's most prosperous regions, while at the same time enhancing its environment and improving the well-being and quality of life of all its citizens. The Commission shall take into account the position of the South East with regards to London as a world city and as the frontier to mainland Europe, as well as considering the UK's inter-regional disparities.

The Commission will have six research and policy challenges:

- The South East is a leading growth region. Should there be limits to growth and if so where do those limits lie?
- Do we give GDP too much priority when measuring success? Should we reconceptualise what we mean by human development and quality of life so that they are not solely reliant on narrow economic indicators of success?
- Can and should the South East absorb all the new homes the Government says are needed?
- Is the South East grinding to a halt? How should additional transport infrastructure and services be paid for and should policy makers be taking radical action to tackle congestion and pollution?
- How can the South East encourage more efficient and sustainable use of resources as well as mitigate the predicted effects of climate change?
- Should we see the Greater South East as one of the world's 'mega-city' regions? Does the South East's inter-relationship with London and the other counties that make up the Greater South East require new ways of working and in what policy areas?

The Commission members include:

- Cllr Sir Sandy Bruce-Lockhart OBE, Leader of Kent County Council and Chairman of the Local Government Association (Commission Chairman)
- Cllr Nick Skellett, Leader of Surrey County Council and Chair of South East England Regional Assembly
- Richard Shaw, Chief Executive of Surrey County Council
- Nick Pearce, Director of ippr
- Baroness Barbara Young, Chief Executive of Environment Agency
- Alistair Rose, Regional Chairman for the South East, PricewaterhouseCoopers LLP
- Robert Douglas, Deputy Chair of the South East England Development Agency
- Cllr Dame Jane Roberts, Leader of Camden
- Nicholas Boles, Director of Policy Exchange
- Dr Valerie Ellis, Member of the Sustainable Development Commission
- Sue Regan, Director of Policy, Shelter
- Chris Huhne, MEP for the South East region
- Bob Davies, Chief Executive of Arriva
- Nick Townsend, Group Legal Director of Wilson Bowden

The Commission will produce a final report of its findings in the summer of 2005. For more information on the Commission's work visit: [www.ippr.org/research/index.php?current=44](http://www.ippr.org/research/index.php?current=44)

**This working paper does not necessarily represent the views of the Commissioners.**

## Keeping the South East Moving: Summary

This working paper focuses on surface modes of transport – road transport and rail. It discusses options for funding public transport improvements in the South East. It examines three ways in which policy makers in the South East can encourage sustainable mobility: road user charging; softer measures for encouraging public transport use, cycling and walking; and sustainable community design. The paper finally recommends options for better co-ordinating transport policy and delivery within the South East region and across the Greater South East.

### Funding additional transport improvements

There has been a legacy of under-spending on transport in the UK compared to other European Union (EU) countries. Over the next parliamentary term, public spending on transport is expected to level off at 1.4 per cent of gross domestic product (GDP) by 2007-08 which is well below the levels of the early 1990s. The South East will find it increasingly difficult to find the resources necessary to fund additional transport improvements. This could pose a challenge to the delivery of the Government's Sustainable Communities plan which gives little thought as to whether additional transport infrastructure will be able to keep pace with the rate of planned new housing growth. The 2004 Spending Review announced a £200 million Community Infrastructure Fund to support transport investment to enable faster housing development in the growth areas including those in the South East. But there will be many competing demands on this pot of money and it is unlikely to be sufficient. There is a lack of official information about the additional transport infrastructure costs associated with new housing developments in the South East.

The principal purpose of introducing a national congestion charging scheme would be to cut congestion and reduce journey times. However, congestion charging could also raise extra revenue for much needed transport improvements.

- A national scheme could potentially raise in the region of £16 billion per year (in 2010 prices) of which £2.5 billion per year (in 2010 prices) would be from the South East.
- But a national congestion charging scheme is unlikely to be something any government could implement any time soon. It could take 10 to 15 years before it is technically feasible.
- If politicians are to win public support for national congestion charging, in the years preceding the introduction of the scheme there will need to be increased public spending on transport to offer accessible, reliable and cost-effective transport options.
- Increased transport investment could be financed through higher public borrowing. The future burden of interest payments could be met from the revenue raised from a national congestion charging scheme.

### Paying for road use more efficiently - road user charging

Residents in the South East cite increases in traffic congestion as one of their top quality of life concerns. Assuming 'business as usual' conditions, traffic is likely to rise steeply in the South East by 25 per cent by 2010 from 2000. A national congestion charging scheme, introduced on a revenue raising basis (on top of existing motoring taxes), could help to reduce the rate of traffic growth in the South East by 9 per cent by 2010.

*Over the longer term:*

- Authorities and agencies in the South East should encourage the Government to press ahead with plans to introduce a national congestion charging scheme within the next 10-15 years.
- The Government should pledge that the revenue raised from charging motorists within a region is redistributed back to benefit that region. Any money raised from

motorists travelling in the South East should therefore be earmarked for transport improvements that benefit the people of the South East.

*Over the short to medium term:*

- Local Transport Authorities should use their powers, under the Transport Act 2000, to explore options for introducing congestion charging schemes in some of the South East's busiest urban centres.
- Authorities and agencies across the Greater South East should work in partnership to explore options for introducing motorway tolling on congested commuter routes as well as tolling on major motorway sections that are due to be widened. Motorway tolling schemes could be introduced as public-private partnerships whereby the financial risks, administration and revenue are shared between the Government and the private sector.
- Alongside road user charging schemes there could be exemptions or reduced charges for High Occupancy Vehicles carrying two or more people and low carbon vehicles that produce lower greenhouse gas emissions.

### **Smarter choices: softer measures for encouraging public transport use, cycling and walking**

The South East should be scaling up a range of softer measures for changing travel behaviour and reducing car trips. Local and regional policy makers should:

- Ensure that every school in the South East has a travel plan by 2010 for helping to reduce car trips especially during the morning school run.
- Aim for 50 per cent of the working population in urban areas of the South East to be covered by work travel plans by 2010 for helping to reduce car trips during the peak commuter times.
- Use personalised travel planning for providing information to individuals or households aimed at encouraging them to change their travel behaviour. It is particularly effective at reducing short car trips of less than two miles which could feasibly be made by foot, bike or bus.
- Work in partnership with bus operators to combine public transport marketing with improvements in local bus services to help increase bus patronage particularly in urban areas.
- Encourage car clubs in urban centres especially in areas where restrictions on car parking, parking charges and park and ride measures are likely to make them more attractive to people who want access to a car but do not necessarily need to own one.

### **Designing sustainable communities: prioritising the interests of pedestrians and cyclists**

Traffic growth is eroding quality of life in the South East by causing pedestrian casualties, constraining community interaction and limiting the freedom of children to play in their local neighbourhoods or travel to school safely without being accompanied by an adult. Local and regional planners should:

- Encourage higher housing densities and the proximity of new developments to major regional centres for helping to reduce the need to travel and supporting good local public transport.
- Provide adequate public funding and network regulation, such as Bus Quality Contracts, for improving the reliability and accessibility of local bus services.
- Promote 20 mph zones for reducing road casualties in residential areas, particularly child pedestrian casualties.
- Over the longer term encourage a new approach to traffic management, as exemplified by 'home zones' where residential streets are redesigned in favour of pedestrians and cyclists and where traffic speed is limited to 20 mph or less.

## Co-ordinating transport policy and delivery

To better co-ordinate transport policy and delivery both within the South East and across the Greater South East policy makers should:

- Create a single 'Housing, Planning and Transport Regional Board' for advising ministers on spending priorities across policy areas as well as the possibility of switching funding between them. The Government has already proposed to integrate the existing Regional Housing Boards and Regional Planning Bodies and the South East has been piloting an 'Experimental Regional Transport Board.' Merging housing, planning and transport into a single regional board would join up strategic policy making at the regional level. The Board should also:
  - Support democratic accountability by being made up of elected representatives from the Regional Assembly alongside senior representatives from business, the environmental and voluntary sectors and relevant agencies;
  - Promote subsidiarity by not eroding the powers of local authorities. The Board should account for the findings of Local Transport Plans when advising Ministers on spending priorities on behalf of the region.
- Single Housing, Planning and Transport Regional Boards for the South East, East of England and London would help to streamline governance arrangements and make it easier to co-ordinate development and planning across the Greater South East.
- Create a new Greater South East Rail Authority with responsibility for the franchising of rail passenger services across the Greater South East (excluding inter-city rail journeys). It should work alongside Network Rail in setting service standards and regulating peak fares. To ensure democratic accountability, the new rail authority should be governed by a board of democratically elected representatives supported and advised by officials. Politicians from all three regions - London, the South East and East of England - could be nominated onto the board.

## Scope of the transport research

The second working paper from the Commission – ‘The Problems of Success: Reconciling Economic Growth and Quality of Life in the South East’ – highlighted that the growth in congestion and demand for more space for traffic and housing are viewed by many people in the South East as a threat to their quality of life. The second working paper suggested that it will become increasingly difficult for the South East to offer its citizens a high quality of life without offsetting policy measures for changing the behaviour of individuals and firms (Foley, 2004). Encouraging and enabling individuals and firms in the South East to adopt more sustainable patterns of mobility will therefore play an important role in improving quality of life over the longer term.

This third working paper focuses on surface modes of transport – road transport and rail. It does not consider aviation. The paper begins with an analysis of mobility trends in the South East. It discusses the legacy of under-investment in transport and some of the options for raising revenue for paying for transport improvements. The paper then analyses three areas in which policy makers, at all levels of governance, can help to develop incentives for travel behaviour that is less car dependent. The three areas examined include:

1. Paying for road use more efficiently - road user charging;
2. Smarter choices – softer measures for encouraging public transport use, cycling and walking;
3. Designing sustainable communities – prioritising the interests of pedestrians and cyclists.

The paper finally outlines options for better co-ordinating transport policy and delivery within the South East region across the Greater South East.

## Mobility patterns in the South East

This section examines mobility patterns in the South East largely using National Travel Survey (NTS) information. The figures and tables illustrating the mobility patterns discussed below are shown in appendix 1.

### Journey trips and distances

*People in the South East make slightly more trips and travel slightly longer distances compared to the other English regions.*

- The average number of trips per person per year has been falling slightly for Great Britain since 1985.
- The average number of trips per person per year was 1098 in 1992-94 and 1049 in 2003 in the South East. The average number of trips per person per year was 1053 in 1992-94 and 990 in 2003 for Great Britain.
- Between 1992-94 and 2003, trip distances in the South East have been higher than the average for Great Britain. In 2003, the average trip distance in the South East was 7.5 miles compared to the average for Great Britain of 6.9 miles (about 9 per cent higher).

Sources: see appendix 1; figure A (NTS, 1985/86-2003) and figure B (NTS, 1985/86-2003).

### Mode of travel

*Bus and rail travel are the least used travel modes across the English regions and there is a high reliance on the car. Motorists in the South East travel longer distances by car compared to the other English regions with the exception of the East Midlands. The South East has high levels of car ownership compared to the other English regions.*

- People in the South East are less inclined to travel by bus compared to most other English regions but, along with London, they are more inclined to travel by rail.
- In 2003, the average distance per person per car was 4,260 miles in the South East compared to the average for Great Britain of 3,457 (about 23 per cent higher).
- Between 1996 and 2002, the South East had the highest proportion of households with two cars and the lowest proportion of households with no car compared to the other English regions.

Sources: see appendix 1; figure C (NTS, 2003); table A (NTS, 2003) and table B (NTS, 1996 and 2002).

### Travel purposes

*The majority of all trips are for leisure purposes in the South East and across Great Britain.*

- In 2003, 42 per cent and 41 per cent of trips were for leisure purposes in the South East and for the Great Britain average respectively.
- In 2003, 18 per cent of journeys in the South East were for commuting and business, 20 per cent for shopping and 20 per cent for school and education escort trips.
- Travel purposes in the South East are broadly similar to the average for Great Britain.
- Travel purposes in the South East and across Great Britain have remained fairly similar since 1985/86.

Source: see appendix 1; table C (NTS, 1985/86-2003).

## Travel to work journeys

*The majority of people travel to work by car in the South East and across Great Britain. Travel to work times in the South East are broadly similar to the average for Great Britain which is broadly similar to the travel to work times in other European countries.*

- In 2003, 74 per cent of residents in the South East travelled to work by car compared to 69 per cent for the average for Great Britain.
- In 2003, the average time it took for residents in the South East to travel to work was 27 minutes and the average for Great Britain was 26 minutes.
- The UK has a similar proportion of commuting trips under 20 minutes and 30 minutes compared to the EU average (for the 15 member states).

Sources: see appendix 1; figure D (NTS, 2003); figure E (NTS, 2003); and figure F (NTS, 1985/86-2003) and figure G (European Foundation, 2000).

## Workforce trends across the Greater South East

*The majority of London's workforce lives within Greater London. Virtually all of London's remaining workforce are commuters from the South East and East of England. The proportion of the workforce in London travelling from the South East has been declining slightly.*

- In 2003, 81.9 per cent of London's workforce were living within Greater London.
- In 2003, 9.6 per cent and 7.3 per cent of those working in London were from the South East and East of England respectively. Only 1.3 per cent of those working in London were from regions outside of the Greater South East.
- The percentage of London's workforce commuting from the South East fell slightly from 10.3 per cent in 1998 to 9.6 per cent in 2003.

Source: see appendix 1; table D (ONS, 2004a).

## Greenhouse gas emissions from private vehicles

*The South East has one of the highest levels of greenhouse gas emissions from private vehicles compared to the other English regions.*

- In 2004, greenhouse gas emissions from private vehicles per household in the South East was 3.2 tonnes of carbon dioxide equivalent compared to the UK average of 2.6 tonnes of carbon dioxide equivalent.

Source: see appendix 1; figure H (ONS, 2004b).

## Freight traffic

*The South East has more freight traffic in absolute terms compared to the other English regions. But freight traffic represents a smaller proportion of total traffic in the South East.*

- In 2003, 4.2 billion vehicle kilometres of traffic was freight in the South East compared to 3.5 billion vehicle kilometres in the North West and 1.1 in London.
- In 2003, freight traffic represented 4.9 per cent all traffic in the South East, which is a relatively low proportion compared to the average for England of 5.9 per cent.
- In 2003, the highest proportion of all traffic in the South East came from private cars – 80 per cent.
- Freight traffic on major motorways in the Greater South East, such as the M25, create less congestion than on major motorways in other regions such as the M6 in the West Midlands, M1 in the East Midlands and the M60 in the North West.

Sources: see appendix 1; figure I (DfT, 2003a); figure J (DfT, 2003a) and table E

## Rail patronage

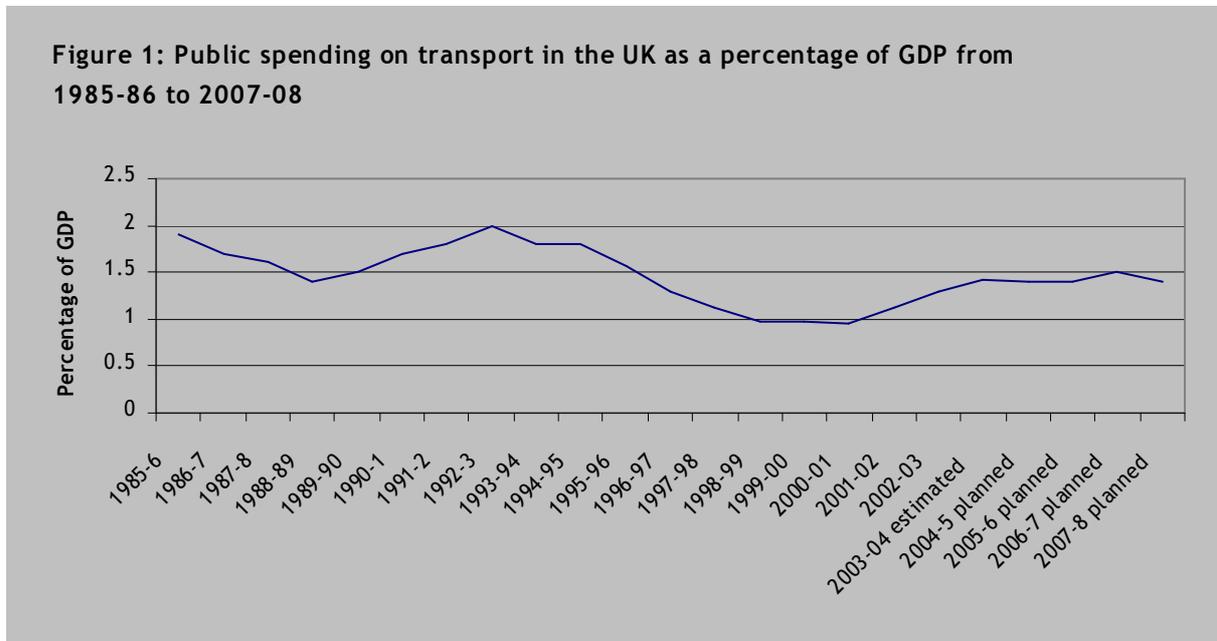
*The average distance of South East rail journeys is lower than most of the other English regions. Most South East rail journeys are either into London or other parts of the South East region.*

- In 2003, the average distance per rail journey was 32 miles in the South East compared to 82.6 miles for the South West and 55 miles for the East Midlands. In 2003, the average distance per rail journey in the South East was broadly similar to the average for Great Britain.
- In 2003-04, 49 per cent of South East rail journeys were into London whilst 46 per cent of rail journeys were within the South East region.
- Rail journeys made by residents in the South East are almost entirely concentrated within the government office areas of the Greater South East.

Sources: See appendix 1; figure K (NTS, 2003) and table F (SRA, 2003-04 cited in DfT, 2004a).

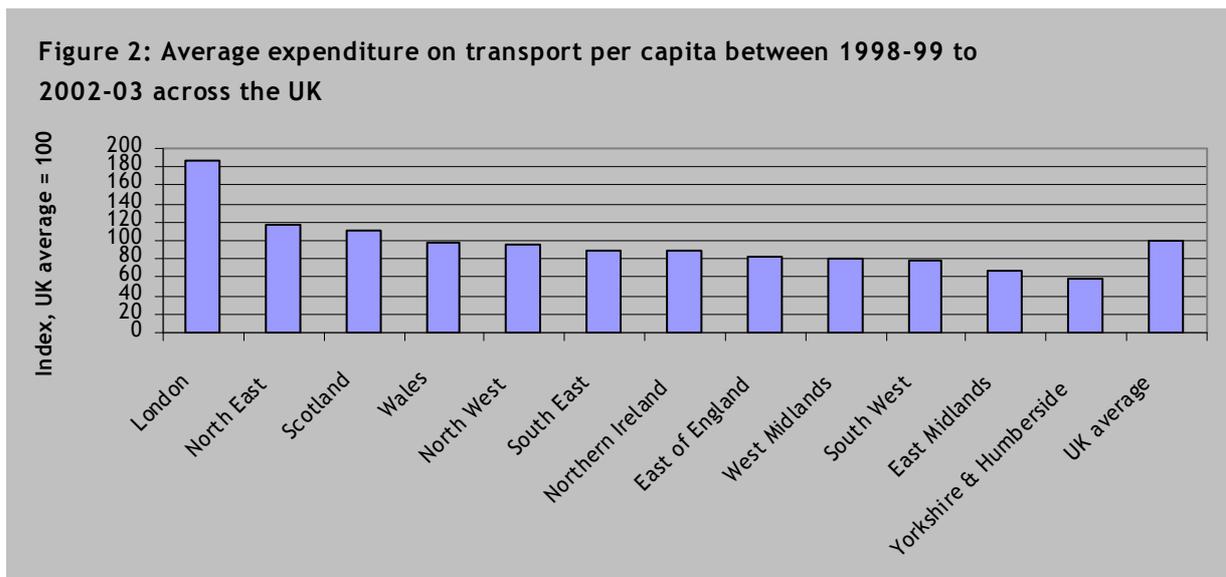
## A legacy of under-spending on transport

The UK's transport system has suffered from years of under-spending from successive governments. Figure 1 shows that from 1993-94 to 1999-00 public spending on transport was squeezed and the increase in spending from 1999-00 served only to bring spending, as a percentage of GDP, in 2004-05 back up to the levels they were in 1996-97.



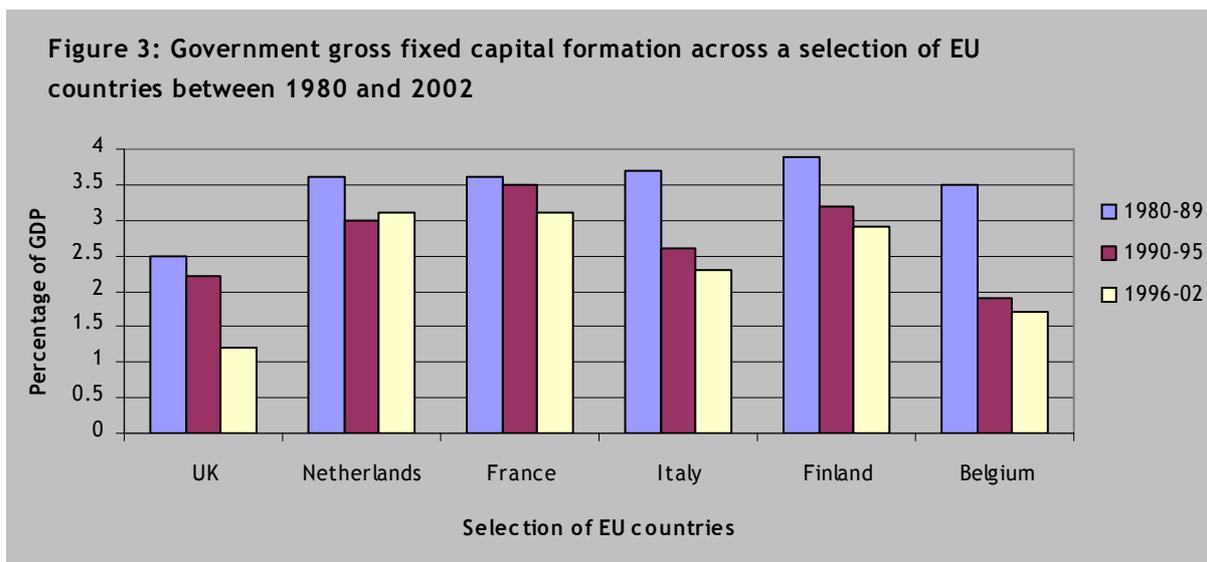
Source: HM Treasury, 2004a and 2004b

Figure 2 shows the South East's share of public spending on transport. Between 1998-99 and 2002-03 the South East has received transport funding comparable to the other English regions and UK nations. London stands out as having received a significantly higher level of transport expenditure per capita.



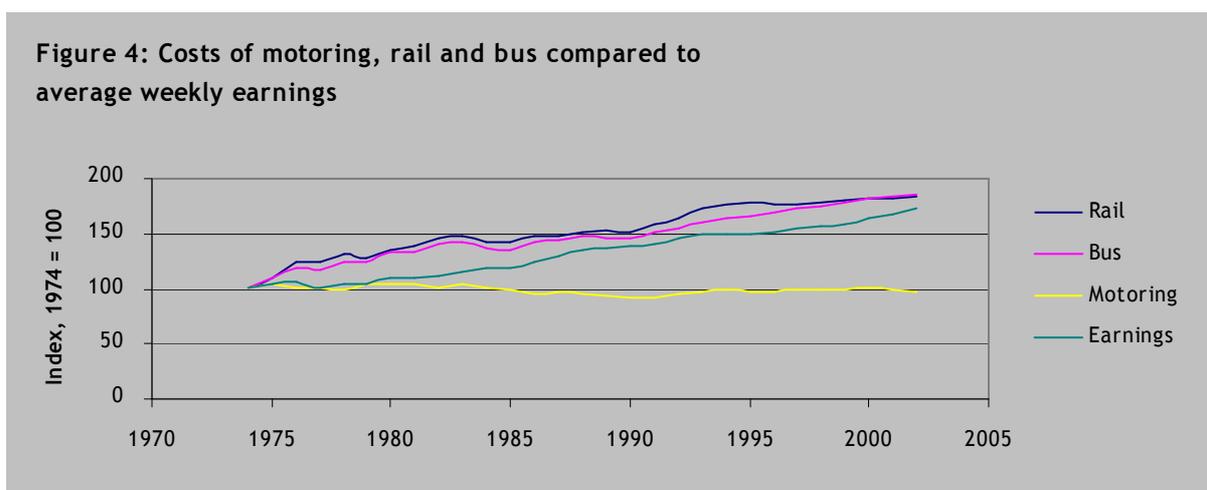
Source: Public Expenditure Statistical Analyses, HM Treasury, 2004b

Information comparing public investment in transport infrastructure across EU countries is either patchy or out of date. The Organisation for Economic Co-operation and Development (OECD) is expected to publish some up-to-date figures on transport infrastructure investment shortly but this was not available at the time of writing. Figure 3 shows the latest comparative data for government investment in all public infrastructure across a selected range of EU countries. This includes transport infrastructure spending. Since the 1980s, the UK has had one of the lowest levels of government investment in infrastructure compared to most other EU countries. In 2002, infrastructure spending in the UK was lower than the EU average at 1.3 per cent of GDP compared to 2.2 per cent of GDP for the EU average of 15 member states (EC, 2004).



Source: EC, 2004

According to the OECD: “Probably the single area where decades of low government investment may be adversely impacting on the productivity performance of the whole economy is through an inadequate transport infrastructure” (OECD, 2004). The Government has forecast that traffic levels in the UK could rise by between 20-25 per cent by 2010. Figure 4 shows that underlying this growth in road traffic is the fact that the costs of motoring have been falling while the costs of public transport have been rising. As a consequence, the likelihood is that congestion will worsen rather than improve in the coming years.



Sources: DfT Bus Operators Survey, 2002; ONS New Earnings Survey, 2002a; ONS Cost of Motoring Index, 2002b; and ONS/SRA Rail Fare Index, 2002.

Table 1 shows there has been a clear legacy of relatively low railway infrastructure investment in the UK in comparison with other EU countries. Over the 1987-95 period, average railway infrastructure investment, as a percentage of GDP, was just below 0.3 per cent and well below the levels found in Austria, France, Germany and Sweden.

**Table 1: Average rail infrastructure investment in EU countries, as a per cent of GDP, between 1987 to 1995**

	Average 1987-1995 Percentage of GDP
Austria	0.505
France	0.397
Germany	0.381
Sweden	0.378
Portugal	0.332
Luxembourg	0.329
Spain	0.319
Denmark	0.309
UK	0.298
Belgium	0.297
Italy	0.266
Greece	0.236
Finland	0.204
Netherlands	0.197
Ireland	0.060

Source: OECD, 2004

At the time of writing, more up-to-date figures for railway infrastructure investment across EU countries were not available. Since 1995, UK public spending on the railways has significantly increased. Nonetheless, over the next parliamentary term, central government spending on transport is likely to be limited as health, education and international development have been prioritised as the top spending areas. Transport spending, as a per cent of GDP, was broadly stabilised in the 2004 Spending Review. The Government expects public spending on transport to level off at 1.4 per cent of GDP by 2007-08 (HMT, 2004a). This is below the levels of the 1980s and well below the last years of John Major's government. A recent Government consultation on regional funding allocations acknowledged that "due to current cost pressures on rail, the Government is not planning a major capital programme of rail enhancements – of a kind comparable to local authority and Highways Agency major scheme expenditure – in the near future" (HMT/DfT/ODPM/DTI, 2004).

### **Key finding:**

- *There has been a legacy of under-spending on transport in the UK.*

## Additional transport infrastructure costs of the South East growth areas

The South East, as with every other region, will find it increasingly difficult to find the resources necessary to fund additional transport improvements. This could pose a challenge to the delivery of the Government's Sustainable Communities plan (ODPM, 2003). The plan focuses on the provision of housing but appears to give little thought as to whether additional transport infrastructure would be able to keep pace with the rate of new housing and who would pay for this infrastructure. The 2004 Spending Review announced a £200 million Community Infrastructure Fund to support transport investment to enable faster housing development in the growth areas including those in the South East (HMT, 2004a). There will, however, be many competing demands on this pot of money across the Greater South East growth areas.

At the time of writing, the Government had not published any official figures on the infrastructure costs associated with the growth areas proposed in the Sustainable Communities plan (ODPM, 2003). One study, commissioned by the South East Counties, suggests that about 56 per cent of total infrastructure costs per 1,000 dwellings could be attributed to meeting additional transport infrastructure needs (Roger Tym and Partners, 2004). This includes the provision of motorways, trunk roads, county roads, rail, and local public transport such as local roads and bus routes.

**Table 2: Estimated total infrastructure costs per 1,000 dwellings.**

Infrastructure	£m per 1,000 dwellings
Transport	21.4
Affordable housing	5.9
Other (e.g. schools, community facilities and sewage)	11
<b>Total</b>	<b>38.3</b>

Source: Roger Tym and Partners, 2004

Table 3 shows estimates for the total transport infrastructure costs of different housing growth rates in the South East. The Consultation Draft of the South East Plan proposes three possible annual house growth rates of 25,500, 28,000 and 32,000 (SEERA, 2004). The South East Regional Planning Committee proposed a higher housing growth rate of 36,000 but this was not accepted by the Assembly. The study suggests that the transport infrastructure costs for the South East could range from about £598 million to £855 million per annum or £12 billion to £17 billion over twenty years - for a range of housing growth rates (Roger Tym and Partners, 2004). On the basis of the scale of these transport infrastructure costs, the Community Infrastructure Fund will not be sufficient.

**Table 3: Estimated transport infrastructure costs of different housing growth rates in the South East**

Housing growth rate	Transport (£m)	
	Per annum	20 years
28,000	598	11,967
32,000	684	13,677
36,000	769	15,386
40,000	855	17,096
<b>Cost per 1,000 dwelling</b>	<b>21.4</b>	

Source: Roger Tym and Partners, 2004

*The lack of information about the additional transport infrastructure costs associated with new housing developments means it is difficult to assess the robustness of this work.* In a concentrated, large scale growth area such as the Thames Gateway, which currently has a low population density, the additional transport infrastructure needs will be significant. But the growth areas planned for the South East are different. They are more dispersed throughout the region and the two largest growth areas are in the already established urban centres of Milton Keynes and Ashford. The issue for the growth areas in Milton Keynes and Ashford is the additional costs of extending the capacity of existing transport infrastructure. It is unclear whether the Roger Tym and Partners study accounted for this as it could have ramifications for the anticipated transport infrastructure costs.

### **Key findings:**

- *There is a lack of official information about the additional transport infrastructure costs associated with new housing developments in the South East.*
- *There will be many competing demands on the £200 million Community Infrastructure Fund. It is unlikely to be sufficient to meet the additional transport infrastructure costs associated with the growth areas.*

## Funding public transport improvements in the South East

There are only two options for raising additional revenue for paying for much needed public transport improvements in the South East. The first is from increased spending from government through taxation. The second is from user charges. Other parts of the Commission's work will examine alternative mechanisms for raising revenue such as land value taxation or Section 106 agreements. This working paper will particularly focus on the role for road user charging.

The case for road user charging appears to be gaining momentum at the local, regional and national level as well as across political parties. The success of the Central London congestion charge has undoubtedly helped to build political momentum for the use of price signals in reducing demand for road transport. Alongside 'The Future of Transport' White Paper, which sets out policy options looking out to 2015, the Department for Transport (DfT) published a feasibility study on options for introducing a national road pricing scheme. The White Paper states that "the Government view is that the costs of inaction and unrestricted road building are too high for society. The time has come to seriously consider the role that could be played by some form of road pricing policy" (DfT, 2004b).

The next section discusses options for introducing a national congestion charging scheme on all roads in England. The principal purpose of congestion charging is to reduce journey times and traffic jams in some of the busiest hot spots. However, congestion charging could also potentially raise extra resources to pay for much needed transport improvements. A national congestion charging scheme could potentially raise in the region of £16 billion per year (in 2010 prices) of which £2.5 billion per year (in 2010 prices) would be from the South East (excluding any operating costs). But it is important to acknowledge that a comprehensive, national congestion charging scheme is unlikely to be something any government could implement any time soon. It could take 10 to 15 years before it is technically feasible. Whilst a national congestion charging scheme could potentially raise additional revenue to pay for transport infrastructure improvements it will not do so for at least another decade.

It will be difficult to win public support for an eventual national congestion charging scheme unless there is increased spending on transport to offer accessible, reliable and cost-effective transport options. In the South East, the priority will be rail investment. If the Government is to move towards a national congestion charging scheme over the longer term, it will need to commit to significantly increasing public spending on transport in the intervening years.

Additional transport investment could be financed by extra Government borrowing without consequences for the Chancellor of the Exchequer's 'golden rule' which allows for borrowing to finance investment. It would, however, increase the debt GDP ratio and therefore the future burden of interest payments to be borne by the taxpayer. These interest payments could be met by the future revenues raised from a national congestion charging scheme.

### Key findings and recommendations:

- *A national congestion charging scheme could potentially raise extra revenue for transport improvements but not for another 10-15 years.*
- *If politicians are to win public support for national congestion charging, in the years preceding the introduction of the scheme there will need to be increased public spending on transport to offer accessible, reliable and cost-effective transport options.*
- *Increased transport investment could be financed through higher borrowing. The future burden of interest payments could be met from the revenue raised from a national congestion charging scheme.*

## Paying for road use more efficiently - road user charging

Our current system of motoring taxation means that motorists do not pay for the external costs their journey imposes on others such as congestion and pollution. Fuel taxes and Vehicle Excise Duty tend to disadvantage low income households in rural areas where there is less congestion and pollution. Congestion charging would be a fairer way of paying for our roads as motorists who drive on the most congested roads at peak times would pay more than motorists who use roads that are less busy at off peak times.

Nationally there is a perception that motorists already pay a high rate of tax in the UK, in the case of fuel tax much higher than in other European countries. In fact this perception does not take account of other taxes such as road tolls and vehicle purchase taxes. When these are taken into account, UK drivers are not the most heavily taxed in Europe – that accolade belongs to motorists in the Netherlands – and they pay similar levels of tax overall to drivers in France, Italy, Ireland, Finland and Denmark (CfIT, 2001).

There are broadly three types of road user charging schemes. Firstly, payment for entering a specific area such as the Central London congestion charge (see box below). Secondly, payment for using a new road such as the M6 Toll in Birmingham which opened in December 2003. Thirdly, payment for using existing road capacity as with the German lorry road user charge that was introduced this year. The Government plans to introduce a similar scheme for heavy goods vehicles (HGVs) in the UK by 2008 with pilots in 2006 (HMT, 2003). The Orbital Multi-Modal Study concluded that “some form of area-wide charging is likely to be the most effective way of reducing traffic levels generally and on the M25 in particular” (GOSE, 2002a).

### **Central London Congestion Charge**

The Central London congestion charge, an area based scheme, was introduced in February 2003. A £5 daily charge is levied for driving or parking a vehicle on public roads within the zone between 7am and 6.30pm Monday to Friday, excluding public holidays. Traffic levels have been cut by 15 per cent and congestion by 30 per cent in the charging zone (TfL, 2004a). The scheme was criticised in some of the tabloid press for pricing the poor off the roads. In fact, it is broadly progressive as the charge mainly falls on businesses and people on higher incomes who drive more frequently in the zone and who benefit from less congestion. Most Londoners on low incomes do not own a car but get about by foot and public transport. There has also been criticism from retailers, such as John Lewis, that the congestion charge has reduced retail sales in central London. Transport for London have estimated that only 4,000 fewer trips are made to central London each week day as a result of the congestion charge, dwarfed by a total reduction of 70,000 in the number of people travelling to central London in the first half of 2003 compared with the equivalent period of 2002 (TfL, 2004a). More likely causes for reduced retail sales over this period were the slowdown in the economy, the temporary closure of the Central Line (when the scheme was first introduced) and a reduction in tourism due to the threat of terrorism (GLA Economics, 2003).

Residents in the South East cite increases in traffic congestion and pollution as two of their top local priorities (Foley, 2004). But there are no signs of these quality of life pressures abating. Motorists in the South East drive more miles by car compared to most other English regions (See appendix 1; table A). Emissions from increases in road traffic have been contributing significantly to air pollution in the South East (Environment Agency, 2004). Households in the South East also have one of the highest levels of greenhouse gas emissions from private vehicles compared to other English regions (See appendix 1; figure H).

Introducing road user charging in the South East would not be ‘anti-motorist’ but a means of paying for road use more efficiently, keeping traffic flowing and reducing pollution. Where appropriate, it would help to encourage people to use their cars less, in part by having more effective public

transport options paid for by the revenue gained from charges. In a recent interview, the Rt. Hon. Alistair Darling MP, Secretary of State for Transport, was quoted as saying:

*The South East is a densely packed corner of the country. In the longer term we do need to look at whether we don't move away from the present system of charging for road use to what's called road pricing...Anyone living in the South East will know you cannot build your way out of the problems. Evening Standard, 26<sup>th</sup> November 2004).*

### Longer term option: a national congestion charging scheme

The Government is currently considering options for moving towards a national congestion charging scheme over the longer term. As discussed above, before a national congestion charging scheme could be introduced, there needs to be increased public spending on transport to offer accessible, reliable and cost-effective transport options. This section examines the impacts a national scheme could have on traffic levels and motoring costs. ippr commissioned Professor Stephen Glaister and Dr Dan Graham of Imperial College to explore the potential effects national congestion charging could have if it were introduced on all roads throughout England in 2010. The scheme would affect all vehicles. The assumptions used in this modelling are shown in appendix 2. Two charging scenarios for congestion charging in 2010 were tested:

1. revenue raising – where congestion charges are added to existing motoring costs;
2. revenue neutral – where congestion charges are offset by cuts in fuel tax so that no net extra revenue is raised.

**Table 4: Traffic change between 2000 and 2010 for various charging scenarios (compared to a 'business as usual' scenario in 2000)**

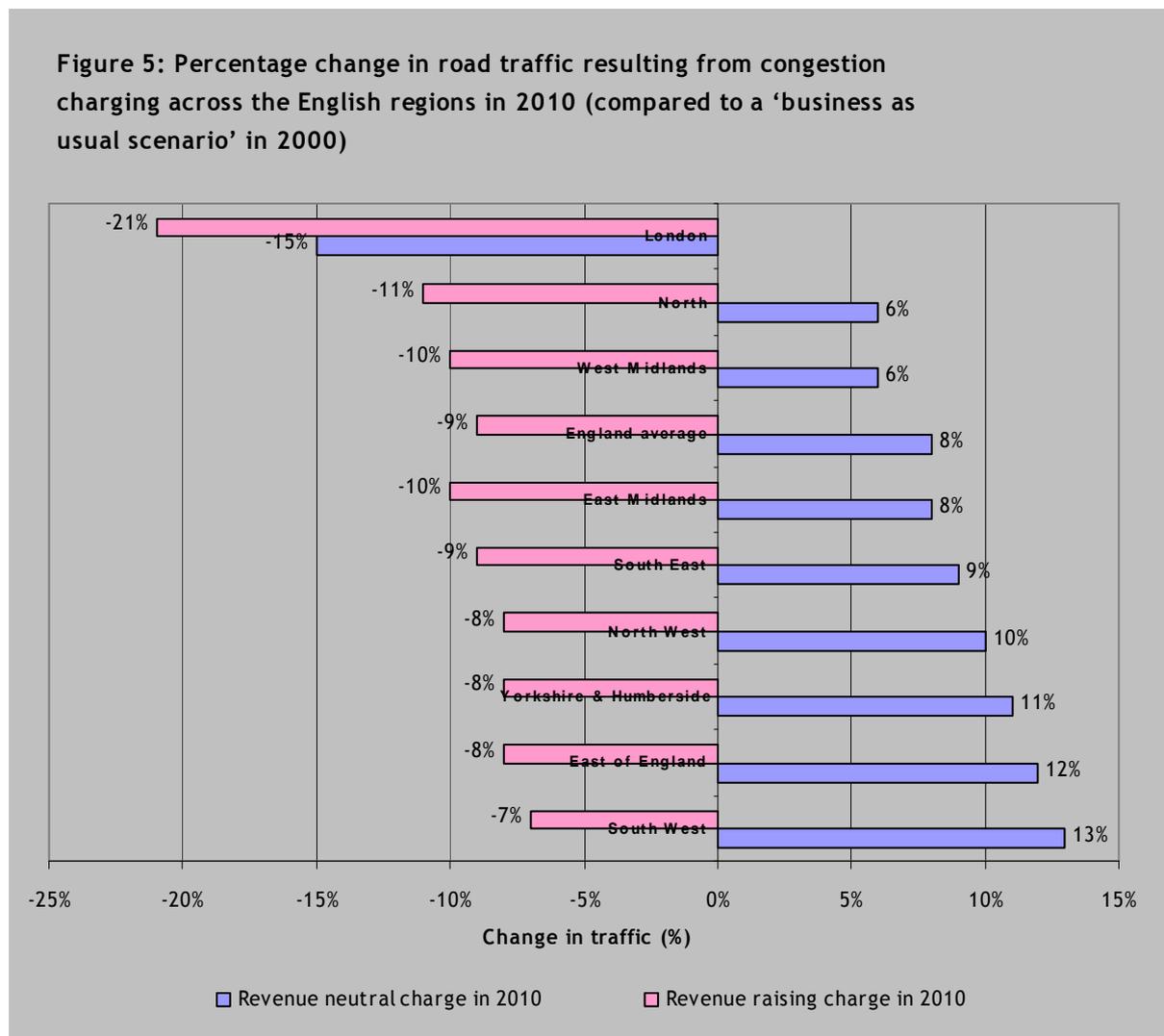
	South East	England average
'Business as usual'	+25%	+27%
Revenue neutral charging scheme	+34%	+35%
Revenue raising charging scheme	+16%	+18%

Source: Modelling by Imperial College commissioned by ippr.

Table 4 shows that, assuming 'business as usual' conditions, traffic is likely to rise steeply in the South East by 25 per cent by 2010 from a base year of 2000. Under the revenue neutral charging scheme, traffic could rise at an even higher rate of 34 per cent in the South East and 35 per cent across England. Revenue neutral congestion charging would see a growth in overall traffic levels particularly in rural areas which would be undesirable for quality of life particularly in the countryside. In addition, the cost of motoring is expected to fall by 30 per cent over the period to 2010 due to a combination of reductions in the real fuel price and fuel efficiency improvements (DfT, 2003b). The increase in rural traffic compounded by falling motoring costs explains why a revenue neutral charge leads to the perverse result of an overall increase in the rate of traffic growth. The modelling results suggest it does not appear to make sense to introduce congestion charging on a revenue neutral basis with offsetting fuel duty reductions. Other studies on congestion charging options have come to the same conclusion (e.g. Ekins and Dresner, 2004).

Introducing congestion charging on a revenue raising basis, whereby charges are added on top of fuel duty costs, would not reverse the upward trend in traffic levels. But it would help to reduce the *rate* at which traffic is set to grow. Under a revenue raising scheme, traffic would increase at a lower rate of 16 per cent in the South East. Even under a revenue raising charging scheme, policy makers would need to also employ other measures for reducing traffic levels (These other measures are discussed in the next section on 'smarter choices').

Figure 5 shows that the South East would benefit from average traffic reductions under a national congestion charging scheme that was revenue raising in 2010. London would benefit from the largest reductions in traffic under either scheme.



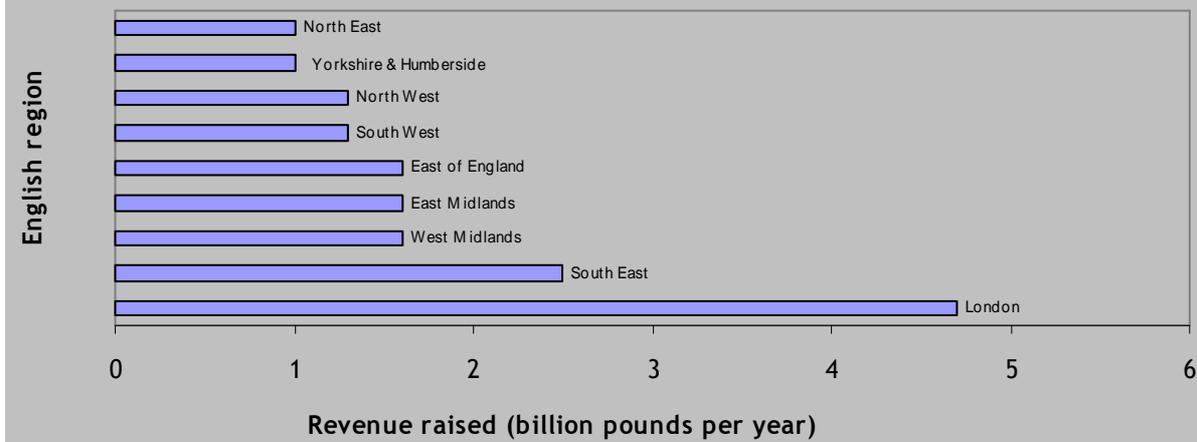
Source: Modelling by Imperial College commissioned by ippr.

### The revenue raised from congestion charging

If a revenue raising charge were introduced across England in 2010 it could potentially raise £16 billion per year in 2010 prices. This is about £14 billion per year in 2004-05 prices. Figure 6 shows the revenue results disaggregated by English region. The highest charges would be paid by motorists in the Greater South East including London and the South East of England where traffic congestion problems are currently worse. A national congestion charging scheme could potentially raise £2.5 billion per year (in 2010 prices) in the South East. This is about £2.2 billion per year in 2004-05 prices.

The results for the revenue raised from congestion charging need to be treated with caution as they are just an illustration of what could potentially be raised and not definitive amounts. Also, they do not account for the costs that would be incurred from setting up and administering a national scheme which could be significant. It is very difficult to predict the costs of future congestion charge technologies. But it has been estimated that the technology needed to set up a national scheme could cost in the region of £3 billion. The further costs of administering and enforcing the scheme have been estimated at between £2 billion and £3 billion per year (Road Pricing Feasibility Study, 2004).

**Figure 6: The additional revenue raised from a congestion charge introduced in 2010 in the English regions (2010 prices)**



Source: Modelling by Imperial College commissioned by ippr.

Every region would have a strong case for arguing that any revenue raised from motorists travelling in their region should be redistributed back to their region. *Any revenue raised from motorists travelling in the South East should therefore be earmarked for transport improvements that benefit the people of the South East.*

When the London congestion charge was introduced Ken Livingstone, the Mayor of London, committed to additional spending of £84 million on bus services to ensure that people travelling around central London would have an accessible and reliable alternative to the car. The first year results showed that 71,000 extra bus passengers were entering the charging zone during the hours of operation each day, an increase of 37 per cent. Of the 65,000 to 70,000 fewer car trips made into the zone, survey evidence suggests that between 50 and 60 per cent have transferred to public transport (TfL, 2004a). In the South East, the revenue raised from congestion charging could similarly be used to fund improvements in local public transport such as buses and rail services.

### Fairness for motorists in the South East

Of the revenue raised from motorists in the South East, over a third would be paid by motorists in rural areas which is a higher proportion than the other English regions. Within the South East, more than two million people live in small rural villages and the countryside and nearly a quarter of all South East businesses are based in rural areas (SEEDA, 2002). An important political concern is the impact congestion charging could have on businesses and low income households in rural areas of the South East. Low income households, particularly those in rural areas, can spend up to a quarter of their disposable income running a car and would find it difficult to manage without one (DfT, 2003c).

Table 5 shows the effects of congestion charging on the operating costs (fuel and non-fuel operating costs) of motorists in rural and urban areas in 2010. It compares the average operating costs per kilometre and per mile across the English regions and for the South East region. In the South East the operating costs per kilometre could be 10.8 pence for a rural motorist and 16.4 pence for an urban motorist with a congestion charge, compared to 9.4 pence and 11.1 pence respectively without a congestion charge. Rural motorists in the South East might therefore pay, on average, just over 1 penny more per kilometre or just over 2 pence more per mile after the introduction of a charge. A revenue raising charge would not significantly increase the operating costs of motoring in rural areas of the South East where there can be few public transport alternatives to the car. It would, however, significantly increase the operating costs and thus help to reduce the demand for urban driving in the South East.

**Table 5: Average operating costs for rural versus urban motorists (travelling by car) in 2010**

	Average operating costs (pence per kilometre and mile)			
	Rural (population <10,000)		Urban (population between 25,000-250,000)	
	England average	South East	England average	South East
No charge	9.6p/km	9.4p/km	11.1p/km	11.1p
	15.4p/mile	15p/mile	17.8p/mile	17.8p/mile
Revenue raising charge	10.7p/km	10.8p/km	15.7p/km	16.4p/km
	17.1p/mile	17.3p/mile	25.1p/mile	26.2p/mile

Source: Modelling by Imperial College commissioned by ippr.

Notes: The money cost includes the non fuel operating costs (road charges, maintenance and insurance) and fuel operating costs (including fuel duty). It is based on a weighted average cost for all types of road and for all times of the day.

## The economic benefits of time savings

There is long established evidence that people value the savings they get from reducing the amount of time spent travelling. Table 5 does not account for the compensatory time savings congestion charging could offer. The Road Pricing Feasibility Study (2004) for the Government estimated the time savings that motorists could gain from less congestion. This was done by multiplying the time spent driving by a monetary estimate of how much individuals value their time. The study found that after congestion charging was introduced, the non fuel operating costs could be expected to rise whereas the cost of the time spent driving could be expected to fall with reduced journey times. It assumed that vehicles should be able to travel more efficiently after charging, as they would be consuming less fuel waiting in traffic jams, and so there should be a small reduction in the fuel operating costs of driving. The study concluded that once the value of time savings had been accounted for this offset the increased monetary costs of congestion charging (DfT, 2004c).

The Road Pricing Feasibility Study (2004) estimated that a national road user charging scheme could achieve as much as £10 billion worth of time savings a year - at 2010 traffic levels. Congestion charging could therefore reduce the costs incurred by individuals, industry and commerce in the South East through delays and unreliable journeys.

## Short to medium term options: area based charging and motorway tolling

The Government's view is that it could take 10 to 15 years before it is technically feasible to introduce a national congestion charging scheme (DfT, 2004b). Uncertainties relating to the kinds of technologies needed for administering and enforcing a national scheme would need to be resolved. Many European countries favour the use of Global Positioning Satellite (GPS) tracking technology which can pinpoint a vehicle's location on any road at any time of the day. HM Treasury's progress report on the proposed introduction of the HGV distanced based charge recognised that "satellite-based systems probably offer the best way forward, since they have the most flexibility for charging all roads" (HMT, 2003). There have, however, been concerns that using such technology could be an infringement of peoples' civil liberties. All this points to the need for the Government to start developing a congestion charging strategy as early as possible so that it can engage the public in a debate about how a national scheme might work.

In the meantime, traffic will continue to rise and congestion will get worse in regions like the South East. This raises questions about what road user charging options are available for policy makers and agencies in the South East to pursue in the short to medium term. There is limited scope for introducing an urban area based charging scheme on the scale of the London congestion charge

owing to an absence of a large metropolitan area in the South East. However, the Multi-Modal Study for the South East Corridor recommended a role for smaller scale urban congestion charging in Brighton and Southampton-Portsmouth (GOSE, 2002b). Quality of life surveys reveal that residents in Southampton have some of the highest concerns about traffic congestion and air pollution (Foley, 2004).

Local Transport Authorities already have the powers under the Transport Act 2000 to introduce such charging schemes – subject to the approval of the Secretary of State for Transport. As part of the Consultation Draft of the South East Plan (2004a), the South East England Regional Assembly (SEERA) has called on Local Transport Authorities to make appropriate use of their powers to introduce urban congestion charging schemes. Local Transport Authorities would need to explore options for enforcing urban congestion charging. Local transport police could help enforce the scheme by doing spot checks. However, camera enforcement is often less expensive and more effective than police wardens.

Another option is to introduce motorway tolling along busy commuter routes in the South East. The technologies for enforcing tolling have been proven across Europe. The M6 Toll Road in Birmingham was built to provide an alternative to the M6 which is one of the busiest motorway routes in Britain. On the M6 Toll Road the majority of drivers pay cash into a collecting bucket as they pass the toll booth although it is also possible to pay electronically using a microwave tag system. Tolling could also be introduced on major motorway routes that are due to be widened, such as sections of the M25 that run through parts of the South East. In some cases this might require partnership working between Local Transport Authorities, Transport for London (responsible for trunk roads within the Greater London Authority) and the Highways Agency (responsible for the motorway spurs that come into Greater London and strategic road networks outside of London).

The M6 Toll Road was privately financed and is operated by a private company which collects the revenue. However, motorway tolling schemes could also be introduced as part of a public-private partnership. For instance, a private company could administer the scheme with the revenue being shared between the Government and the private sector. In cases where motorway routes need to be widened or where a new motorway needs to be built, a public-private partnership could help to reduce the financial risks of investing in new road capacity.

There appears to be growing Government interest in the role for High Occupancy Vehicle (HOV) lanes - dedicated lanes for vehicles carrying two or more people. HOV lanes are frequently used alongside highways in the United States to encourage car pooling. In December 2004, it was announced that the first HOV motorway lane will be trialled on the M1 between junctions 7 and 10 (Milton Keynes South to St Albans) which is due to be widened from three lanes to four lanes (DfT, 2004d - 9<sup>th</sup> December 2004 press release). Alongside road user charging schemes, there could be exemptions or reduced charges for HOVs to help provide a financial incentive for car pooling.

In recent years there have been significant technical advances in lower carbon fuels and technologies for vehicles that produce lower greenhouse gas emissions (DfT, 2001). For instance, hybrid-electric vehicles that combine a battery with an engine offer fuel efficiency improvements of 30–50 per cent over conventional vehicles (Foley, 2002). They are already supplied by several leading vehicle manufacturers and benefit from a government purchase grant. Vehicles running on low carbon fuels and technologies have been exempted from the London congestion charge. Alongside both urban congestion charging and motorway tolling schemes there could be exemptions for low carbon vehicles.

## **Key recommendations:**

### *Longer term recommendations:*

- *Authorities and agencies in the South East should encourage the Government to press ahead with plans to introduce a national congestion charging scheme within the next 10-15 years.*

*A revenue raising congestion charge could help to reduce the rate of traffic growth in the South East and improve the quality of life of its citizens.*

- *The Government should pledge that the revenue raised from charging motorists within a region is redistributed back to benefit that region. Any revenue raised from motorists travelling in the South East should therefore be earmarked for transport improvements that benefit the people of the South East.*

*Short to medium term recommendations:*

- *Local Transport Authorities should use their powers, under the Transport Act 2000, to explore options for introducing congestion charging schemes in some of the South East's busiest urban centres.*
- *Authorities and agencies across the Greater South East should work in partnership to explore options for introducing motorway tolling on congested commuter routes as well as tolling on major motorway sections that are due to be widened. Motorway tolling schemes could be introduced as public-private partnerships whereby the financial risks, administration and revenue are shared between the Government and the private sector.*
- *Alongside road user charging schemes there could be exemptions or reduced charges for High Occupancy Vehicles carrying two or more people and low carbon vehicles that produce lower greenhouse gas emissions.*

## Smarter choices - encouraging public transport use, cycling and walking

In addition to road user charging there are softer measures that could be employed for encouraging people to use public transport alternatives to the car or to cycle or walk. These kinds of measures focus on improving information about travel choices rather than altering the regulatory or charging framework within which travel choices are made. There is often a false dichotomy between softer and harder options. Many softer measures are most effective when they are combined with harder edged incentives. The application of soft measures in the UK has been fairly small scale although there is considerable potential for scaling up their implementation. Compared to investing in new road infrastructure projects, most softer measures have the advantage that they can be put into effect much more quickly and cost effectively.

This section examines five options: personalised travel planning, public transport marketing, work place travel plans, school travel plans and car clubs. We are using research and case studies recently undertaken for the DfT by Robert Gordon University in Aberdeen, Eco-Logica, Transport for Quality of Life and University College London (Cairns *et al*, 2004a and 2004b).

### 1. Personalised travel planning

Personalised travel planning involves the use of direct techniques for providing information to individuals or households aimed at encouraging them to choose a different pattern of travel behaviour. It tends to take the form of individualised marketing projects which involve contacting households within a defined area to see if they are interested in receiving information about local public transport services, walking or cycling routes. The information is then personalised to suit their travel needs. Incentives, such as free or discounted tickets for public transport services, are also offered. Personalised travel planning tends to focus on journeys for which a modal switch is easily possible. In 2002-03, 22 per cent of car trips per person in the South East were less than two miles (NTS, 2002-03). Many of these shorter car trips could feasibly be made by foot, bike or bus.

The largest applications of individualised marketing so far have been in Western Australia. In the UK, Sustrans - the sustainable transport charity - has piloted two individualised marketing projects in Frome and Gloucester, each involving about 500 people, as part of its 'Travel Smart' programme. During 2001-02, the net reductions in car driver trips were 6 per cent in Frome and 9 per cent Gloucester and both pilots led to increases in walking and cycling (Sustrans, 2002). The costs of individualised marketing pilots vary although the costs benefit from economies of scale. For example, in Frome the total budget for the 500 people targeted was £72,000 implying an average cost of £144 per person (Sustrans, 2002). Transport for London has estimated that a larger scale scheme targeting 120,000 to 150,000 Londoners could cost £1.3 million implying an average cost of about £10 per person (Cairns *et al*, 2004a).

In 2004, Hampshire County Council launched its 'Infomotion' scheme which is an individualised marketing campaign focused solely on promoting greater bus use. The 16 month-long programme will target 116,000 households living in the areas surrounding selected bus corridors (Hampshire County Council, 2004). In other areas of the South East personalised travel planning could help to reduce car trips particularly for short distances of less than two miles.

### 2. Public transport marketing

Public transport marketing tends to be employed as part of a combination of soft and hard measures for increasing patronage of local public transport services. Marketing, promotion and dissemination of information may occur through the distribution of leaflets and posters, local radio and newspaper advertisements, real time information about local public transport services or targeted letter or telephone campaigns. In the UK, bus service improvements have tended to take the form of a public-private partnership – called a quality bus partnership – whereby local authorities and bus operators work together to improve local bus services and undertake promotional activity. In the South East if more local authorities were to work in partnership with bus operators to combine public transport

marketing with improvements in local bus services they could significantly increase bus patronage, particularly in urban areas.

#### **Case study: Brighton and Hove bus service improvements**

Public transport information and marketing in Brighton and Hove is a mixture of closely related hard and soft initiatives. In 1998, Brighton and Hove City Council entered into a quality bus partnership with Brighton and Hove Bus Company and since then the bus network has undergone fundamental changes. Brighton and Hove bus company has re-branded its services as part of a high profile marketing campaign, developed more frequent and reliable bus journeys, and introduced a flat fare of £1 for every bus journey with discounts for younger and older people. This has been supported by the council through the introduction of bus priority lanes and improvements to bus shelters such as the provision of real time information about bus waiting times. The council has also seeking ways in which 'park and ride' measures can play a role in encouraging people to use bus services around the Brighton city area. Since the partnership began the council has spent £35,000 per year on publicity and the bus company has spent £225,000 per year on its marketing and advertisements. The £2 million cost of the real time information systems has been shared between them. The locality has started to see the benefit in increased passenger numbers with an average of a 5 per cent per year increase in bus patronage compared to 1994 levels - which is significantly higher than the national average.

Source: Brighton and Hove City Council (2000 and 2003); Cairns *et al* (2004b)

### **3. Workplace travel plans**

Commuting to work by car makes up a large proportion of all car traffic, particularly during the morning and evening peak periods. The majority of residents in the South East travel to work by car – 74 per cent in 2003 (see appendix 1; figure D). A workplace travel plan can be described as a package of measures put in place by an employer to try and encourage more sustainable travel, usually meaning less car use, particularly less single occupancy car use (Cairns *et al*, 2004a). Typical measures include communication and marketing measures, car pooling, cycle leasing, organisational measures such as flexi-time and the provision of company buses. Local authorities are often involved in both developing their own travel plan, and also encouraging other employers to develop their own travel plans.

There is substantial variation in the impact of workplace travel planning on car use. A national study found that at one extreme mobile phone company Orange had cut the number of staff driving to work from 79 per cent to 27 per cent which was in part due to a re-location from a business park to a city centre site close to a rail station. At the end of the spectrum, Boots headquarters in Nottingham cut car drivers from 65 per cent to 62 per cent whilst coping with a large influx of staff from a town centre site to its main offices in an out-of-town business park (Cairns *et al*, 2002). Local planning authorities in the South East could make it a planning requirement that employers implement travel plans when opening new premises.

#### **Case studies: Buckinghamshire travel plans**

Buckinghamshire County Council first established a workplace travel initiative in 1998 called 'Travel Choice.' One of the notable successes of the scheme has been the county's travel plan for its own staff, which has cut single-occupancy car commuting from 72 per cent to 50 per cent over five years. The council is working with another 32 companies and organizations based in the county, and altogether its travel plan work covers 21,700 employees, or 11 per cent of the workforce. When the council first started working on travel plans, in 1999-00, the budget was only £15,000. As the scheme has expanded the expenditure on Travel Choice has grown, and in 2002-03 spending on workplace travel plans was £91,000.

Buckinghamshire County Council began work on school travel in 1999. Initially the main emphasis was on physical measures such as traffic calming, but recently the emphasis has shifted to non-infrastructure measures. The council has developed a clear framework for school

travel plan work and is currently working with 142 schools in the county (out of a total of 221), covering 63 per cent of all school pupils. For the schools participating in travel plans, car journeys fell from 45 per cent to 37 per cent between 2002 and 2003. The schools with the most impressive travel plans have achieved between 21 per cent and 39 per cent reduction in car use. In 2002-03, total council spending was £111,000 which included both safe routes to school measures (such as speed humps and 20 mile per hour zones) and school travel plans.

Source: Buckinghamshire County Council (2002 and 2003); Cairns *et al* (2004b)

#### 4. School travel plans

School travel plans operate in a similar manner to workplace travel plans with the onus placed on schools to develop safe and sustainable travel to school. Plans include parentally supervised 'walking buses' and 'cycle trains' as well as bus use promotion through discounted ticketing and dedicated school buses. Local authority schools with authorised plans are eligible for capital funding - £5,000 per primary school and £10,000 per secondary school from central government (Sloman, 2003). The overall reduction in traffic which might occur across engaged schools is likely to be in the order of 8-15 per cent (Cairns *et al*, 2004a). As well as time savings, modal shift towards walking and cycling can help to tackle health problems such as obesity amongst young children (Mackett *et al*, 2003). Evidence from school travel plans in Netherlands suggests that a modal shift towards cycling has helped to reduce child pedestrian accidents (Dutch Ministry for Transport, 1999).

Buckinghamshire County Council has played a leading role in promoting school travel plans and it is predicted that 80 per cent of its schools will be engaged in travel plans by 2006 (Buckinghamshire Council, 2003). If more local authorities were to follow Buckinghamshire County's lead they could help to reduce traffic during the school run and improve the health of children by encouraging more walking and cycling.

#### 5. Car clubs

Car clubs give people access to a car without having to own it. Typically, car club members pay an annual membership fee to an operator (in the order of £100-£200) who provides and maintains a range of vehicles in their neighbourhood (Cairns *et al*, 2004a). Members then pay by the hour and mile when they use a vehicle. The combined costs of membership and use are intended to be cheaper than personal car ownership for car owners who do not do a high mileage. The idea was imported from mainland Europe in the late 1990s. There are currently 25 car clubs in the UK with two of the largest, most established schemes in Edinburgh and Bristol. As economies of scale are reached car clubs become self-financing so that over the longer term they require no public subsidy. The evidence suggests that car clubs are most effective in urban or residential areas where there is a restriction on car parking spaces or parking charges. Car clubs could be promoted in conjunction with new developments in the South East especially if there are a limited number of residential car parking places.

##### **Case study: Milton Keynes car sharing scheme**

The Milton Keynes car sharing scheme was launched in October 2002. It attracted over 1,000 members in its first 9 months through incentives such as free parking for sharers, dedicated parking bays in prime locations in the town centre and discounts on the local buses. The scheme was launched at the same time as further charges for parking in the town centre were introduced. It is primarily focused on commuters travelling into Central Milton Keynes (CMK). Over 90 per cent of the members routinely use the scheme and shared cars make up nearly 8 per cent of the total town centre parking at peak times during the week. In 2002/03, the initial cost to set up and run the scheme was £75,917. The budget for 2003/04 is £58,711. Half of the funding comes via English Partnerships and half from Milton Keynes Council.

Source: Milton Keynes Council (2001/02); Cairns *et al* (2004b)

## Cost and benefits of softer options for changing travel behaviour over the next ten years

Information on the costs and benefits of softer measures is fairly limited and patchy because they have tended to be fairly small scale and/or limited to specific localities. As part of the 'Smarter Choices' study (Cairns *et al*, 2004a), commissioned by the DfT, two policy scenarios were explored for taking forward softer options over the next ten years across the UK:

- A 'low intensity' scenario - a projection of the present, small scale (2003-04) levels of local and national activity on soft measures.
- A 'high intensity' scenario - significant expansion of softer measures and good practice albeit to a realistic level which recognises constraints on resources.

Table 6 shows the potential effects softer measures could have ten years on from 2003–04 across in the UK. For example, the percentage of the UK population in urban areas that could be targeted by personalised travel planning (or individualised marketing projects) in ten years time could be 15 per cent under the low intensity scenario or 30 per cent under the high intensity scenario. The costs of softer measures are also presented as a range for the low and high intensity scenarios or as an average figure. For example, the estimated cost of workplace travel plans per individual targeted ranges from £0.70 under the high intensity scenario, which is based on it being relatively straightforward to recruit employees, and £5.00 under the low intensity scenario, which is based on it being much more difficult to recruit employees.

Personalised travel planning (or individualised marketing projects) and public transport marketing are likely to be most effective in urban areas. Under the high intensity scenario, personalised travel marketing could reduce car trips in urban areas by 5 per cent whilst public transport marketing could reduce car mileage in urban areas by 2.6 per cent. Personalised travel planning is particularly useful for encouraging people to switch to walking, cycling and public transport in place of shorter car trips of less than two miles. Public transport marketing is best employed when introduced alongside improvements in the provision of local public transport alternatives, such as bus priority lanes, and incentives such as flat rate bus fares.

Participation in car clubs in residential and urban areas is greater when they are introduced alongside harder edged measures such as restrictions on car parking spaces or parking charges. Table 6 shows that the potential coverage of car clubs is very wide- ranging. Under the high intensity scenario 10 per cent of the UK population could potentially be members of car clubs within ten years. But this is optimistic and case study evidence from the UK suggests that it will take considerably longer than 10 years to reach these levels.

Work travel plans and school travel plans offer one of the most promising options for reducing car trips in the South East during the peak commuter times and during the morning school run. Whilst school travel plans are likely to be effective in both urban and rural areas, the potential for work travel plans is likely to be higher in busier urban areas. Of the range of softer measures, travel plans are currently one of the most widely adopted in the UK and there is therefore greater confidence in predicting their future impacts and cost.

**Table 6: Estimated range, impact and cost of selected soft measures across the UK over a ten-year timescale (2003-04 to 2013-14) - for the low and high intensity scenarios.**

Measure		Potential sector of population that could be targeted (%)	Potential reduction in car trips or mileage across relevant trip types and times (%)	Estimated cost of measure per individual targeted (£) (Public sector costs)	Estimated cost of each car km reduced (pence) (Public sector costs)
Personalised travel planning	Urban	15% (low intensity) - 30% (high intensity) of whole population <sup>1</sup>	1% (low intensity) - 5% (high intensity) across all trip types and times	£1 <sup>2</sup> (average)	1p <sup>3</sup> (average)
	Rural	1% (low intensity) - 3% (high intensity) of whole population <sup>1</sup>	0.02% (low intensity) - 0.2% (high intensity) across all trip types and times		
Public transport marketing	London	8% (low intensity) - 32% (high intensity) of whole population <sup>4</sup>	0.6% (low intensity) - 2.6% (high intensity) reduction in car <i>mileage</i>	£1 <sup>5</sup> (average)	2p <sup>6</sup> (average)
	Rural	2% (low intensity) - 9% (high intensity) of whole population <sup>4</sup>	0.1% (low intensity) - 0.3% (high intensity) reduction in car <i>mileage</i>		
Workplace travel plans	Urban	30% (low intensity) - 50% (high intensity) of working population <sup>7</sup>	5% (low intensity) - 9% (high intensity) concentrated in peak periods - the journey to and from work	£0.70 (high intensity) - £5.00 (low intensity) <sup>8</sup>	0.1p (high intensity) - 2.0p <sup>9</sup> (low intensity)
	Rural	10% (low intensity) - 20% (high intensity) of working population <sup>7</sup>	2% (low intensity) - 4% (high intensity) concentrated in peak periods - journey to and from work		
Car clubs	Urban	0.1-0.2% (low intensity) - conservative estimate 10% (high intensity) - optimistic estimate of whole population <sup>10</sup>	3% (high intensity) mostly concentrated on trips with easily available alternatives notably commuting and school trips	Initial set up cost of £50,000 - £420,000, eventually becoming self-funding <sup>11</sup>	5p with membership of 90 - 200; potentially zero once clubs expand and become self-funding <sup>12</sup>
	Rural	0.1-0.2% (low intensity) - conservative estimate 10% (high intensity) - optimistic estimate of whole population <sup>10</sup>	3% (high intensity) mostly concentrated on trips with easily available alternatives notably commuting and school trips		
School travel plans	Urban	30% (low intensity) - 95% (high intensity) of pupils <sup>13</sup>	4% (low intensity) - 20% (high intensity) of school escort trips - peak morning period, off-peak afternoon period	£3.50 (high intensity) - £4.00 (low intensity) <sup>14</sup>	1.4 (high intensity) - 10p (low intensity) <sup>15</sup>
	Rural	30% (low intensity) - 95% (high intensity) of pupils <sup>13</sup>			

Source: all figures drawn from Cairns et al, 2004b;<sup>2</sup> information from Hampshire County Council. The notes for table 6 are shown in appendix 3.

The Government has committed to ensuring that every school in England has a travel plan by 2010 (DfT, 2004b). The high intensity scenario suggests this is achievable. It forecasts that school travel plans could potentially cover 95 per cent of pupils across the UK (not just England) which could lead to a reduction in school escort car trips by 20 per cent during the peak morning and off peak afternoon periods. The cost of each car kilometre reduced by school travel plans could be as low as 1.4 pence. Under the high intensity scenario, work travel plans could potentially cover 50 per cent of the working population in urban areas across the UK and could reduce car trips by 9 per cent during peak travel times. The cost of each car kilometre reduced by work travel plans could be as low as 0.1 pence. The high intensity scenario is indicative of what could be achieved at the regional level. The South East could achieve similar levels of coverage if best practice work travel plans were rolled across the region over the next ten years.

The majority of trips in the South East and across Great Britain are for leisure purposes (See appendix 1; table C). Soft measures have not so far been developed on a large scale to target journeys specifically for leisure purposes. Unlike school and work travel, leisure travel takes place at different times throughout the day and to geographically dispersed destinations. This pattern of travel makes it much more difficult to reduce car trips for leisure purposes. Options include designing travel plans for specific sites, such as sports centres, or using public transport marketing to raise awareness of bus services to and from leisure destinations. For instance, as part of Brighton and Hove City Council's 'Breeze up to the Downs' initiative it has been publicising the bus routes it runs from the city to popular countryside locations (Brighton and Hove City Council, 2005).

### **Key recommendations:**

*The South East should be scaling up a range of softer measures for changing travel behaviour and reducing car trips. In many cases, harder edged, demand management measures will be needed to lock in the benefits of softer measures. Local authorities, regional authorities and regional agencies should:*

- *Ensure that every school in the South East has a travel plan by 2010 for helping to reduce car trips especially during the morning school run.*
- *Aim for 50 per cent of the working population in urban areas of the South East to be covered by work travel plans by 2010 for helping to reduce car trips during the peak commuter times.*
- *Use personalised travel planning (or individualised marketing projects) to help reduce short car trips of less than two miles which could feasibly be made by foot, bike or bus.*
- *Work in partnership with bus operators to combine public transport marketing with improvements in local bus services to help increase bus patronage particularly in urban areas.*
- *Encourage car clubs in urban centres especially in areas where restrictions on car parking, parking charges and park and ride measures are likely to make them more attractive to people who want access to a car but do not necessarily need to own one. Explore options for developing car clubs in conjunction with compact new housing developments where there may be a limited number of residential car parking places.*
- *Implement softer options for reducing car trips for leisure purposes. For example, designing travel plans for tourism and leisure sites and using public transport marketing to raise awareness of bus services to and from leisure destinations.*

## Designing sustainable communities - prioritising the interests of pedestrians and cyclists

This section looks at the role of development planning, traffic management and neighbourhood design policies in promoting sustainable mobility. Changing patterns of land use in recent decades have not been the main driver of traffic growth but they have exacerbated the trend. Better planning, appropriate speed management and improved street design could help to address these issues but only in combination with demand management measures and better provision of public transport.

### Development planning

In spite of the received wisdom that development planning is important in generating transport or else reducing the need to travel, there are surprisingly few empirical studies about the relationship between land use patterns and traffic growth in Britain. Peter Headicar of Oxford Brookes University recently reviewed the subject (Headicar, 2003). He concluded that the effects of land use policies have often been exaggerated and that the significant growth in road traffic over recent decades far outweighs anything that could be attributed to changing patterns of land use. For example, one study suggested that the redistribution of population towards less urbanised areas between 1961 and 1991 is likely to have added only about two per cent to overall road traffic in Britain (Breheny, 1995).

Some planning policies have clearly encouraged the growth in traffic, such as the relaxation of planning controls during the 1980s that led to the proliferation of out-of-town commercial and retail developments. But development is an evolutionary process and many settlements have maintained their traditional compact character. Urban densities remain relatively high when compared, for example, to the United States and Australia, where urban sprawl and design for driving are more deeply engrained.

This is not to negate the importance of development planning but to recognise its limitations. Headicar (2003) concludes that planning policies have the greatest potential in relation to major redevelopments or new developments, such as the growth areas in the South East. He argues that the provision of public transport and proximity to major regional centres matter as much as whether new developments are compact and self-contained, with local employment opportunities and services, as encouraged by current planning policy guidance on transport (PPG13). These features should be pursued in combination. To illustrate the importance of proximity, Headicar (2003) looked at patterns of commuting from two similar sized settlements in Oxfordshire - Abingdon seven miles from Oxford and Banbury more than twenty miles from Oxford. Table 7 shows that even though a higher proportion of people who live in Banbury work in their home town than is the case for Abingdon residents, the average commuting distances by car were much longer from Banbury. This suggests that focusing new developments close to existing regional centres helps to reduce commuting distances, which is a proposal in the Draft Consultation of the South East Plan (SEERA, 2004a). In this respect, expanding dormitory villages adjacent to cities may be preferable to building on smaller free-standing towns.

**Table 7: Commuting from Abingdon and Banbury in Oxfordshire**

Town	Pop. in 1991 (in 1000s)	Distance from Oxford	Workplace			Journey to work		
			Home town	Oxford	Elsewhere	Average trip distance - all modes (miles)	Trips as car driver (%)	Average trip distance by car (miles)
Abingdon	35	7	30	29	41	6.6	69	5.5
Banbury	40	23	56	8	36	15.6	72	13.9

Source: Headicar, 2000

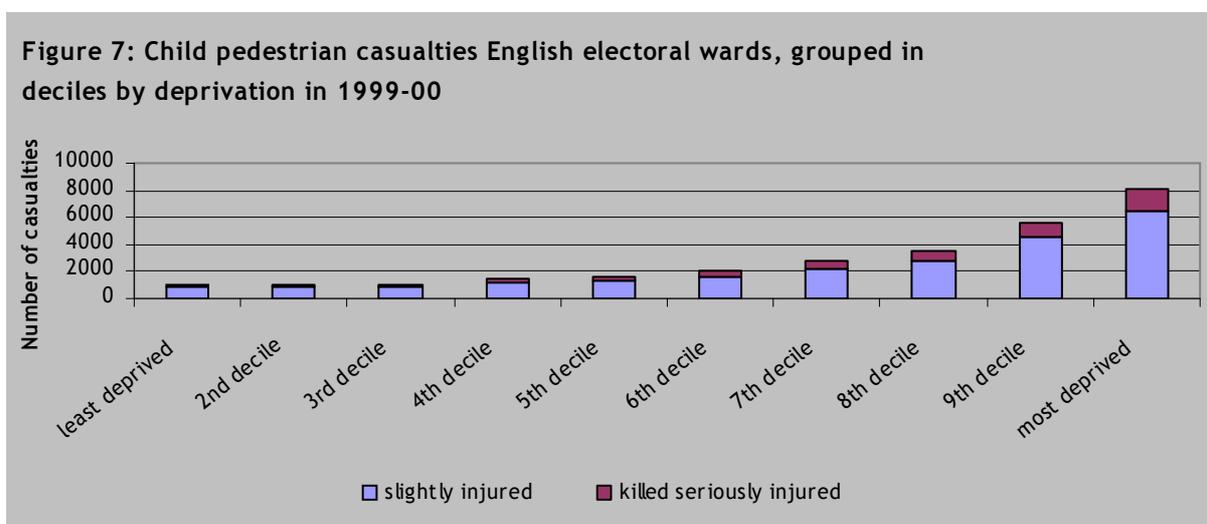
While more dispersed patterns of development may not have been the main cause of traffic growth, they have undoubtedly reinforced car dependence, by making many journeys impossible or inconvenient by other means. In contrast, higher density, mixed-purpose developments that combine housing with services and commerce, can give people the choice of meeting more of their daily needs and wants locally. They also enhance social inclusion by making more destinations accessible on foot, bicycle and bus.

Professor Anne Power of the LSE (Power, 2004) has advocated compact densities of 50 dwellings per hectare to sustain good coverage and high frequency of local public transport services, which is the upper limit in current planning guidance (PPG3). This corresponds to three or four bedroom terraced houses, with small to medium sized gardens (or a combination of apartment blocks and houses with gardens). The Consultation Draft of the South East Plan proposes that densities of at least 40 dwellings per hectare are achieved (SEERA, 2004a) but this may be challenging to deliver. Whilst people generally accept the need for higher density accommodation, especially in areas like the South East where there are growth pressures, developments that are designed to be very compact are often viewed as unattractive for aesthetic and comfort reasons (e.g. Platt *et al*, 2004).

The provision of decent public transport also requires adequate public funding, both investment and subsidy, and appropriate regulation. Current arrangements are arguably inadequate in both respects, with insufficient government funding for public transport and an absence of network regulation of bus services outside London. On the later point, however, the Future of Transport White Paper (DfT, 2004b) recognises the role that Bus Quality Contracts could play in improving the accessibility and reliability of bus services by giving local authorities greater influence over routes, timetables and fares.

### Traffic management and street design

Road traffic impinges on the quality of life of people particularly in residential areas (Foley, 2004). In Britain in 2003, the police recorded over 12,000 child pedestrian casualties (up to 15 years old), including more than 2,300 serious injuries and 74 deaths. Social inequality underlies this relatively high casualty rate. Research by ippr showed that children from the ten per cent most deprived wards in England were more than three times as likely to be pedestrian casualties as their counterparts from the least deprived ten per cent of wards, using the government's index of multiple deprivation (Grayling *et al*, 2002). Figure 7 shows that this was compounded by the fact that more children live in deprived areas so that there were eight times as many child pedestrian casualties in the most deprived tenth of wards compared to the least deprived tenth. This inequality also exists for adult pedestrians but is less pronounced.



Source: Grayling *et al*, 2002

Children least likely to be ferried by car were the most likely to be knocked down by them. Whereas nine out of ten households in the least deprived tenth of wards owned one or more cars, only half the households in the most deprived tenth of wards owned cars. Part of the explanation is that deprived areas tend to have more traffic. But children in deprived areas are also more exposed to traffic because they are more likely to be making journeys on foot and more likely to be playing on the street.

Improving road safety education is clearly helpful and the Government has targeted extra resources at deprived areas for this purpose (DfT, 2004b). However, children cannot be expected to have the road sense of adults. Changing the behaviour of drivers is likely to be more effective, in particular reducing the speeds in residential areas. For example, 20 mph zones have proved extremely effective. These zones combine the lower speed limit with humps or speed cushions and other changes to the road layout that make them self-enforcing. A study by Transport Research Laboratory (TRL) of 72 such zones found that on average they reduced road casualties overall by two thirds and child pedestrian casualties by 70 per cent (Webster and Mackie, 1996). The same study showed that simply reducing the speed limit to 20 mph without changing the road layout had very little effect on speeds or casualty rates. But road humps are an imperfect solution, creating their own problems of noise for residents and inconvenience for drivers. While highly cost effective and popular in many areas, they are not appropriate in all circumstances and unpopular in some local authorities. They might be seen as an evolutionary step, towards a new approach to traffic management in residential areas.

The traditional approach is that people and vehicles should be segregated, epitomised by the Buchanan report on traffic in towns that set the agenda for generations of traffic engineers (HMSO, 1963). When deemed necessary to prevent collisions, this approach involves corralling pedestrians behind barriers or in tunnels underground. A different approach, however, is to redesign streets in favour of pedestrians and cyclists towards the reintegration of traffic and people on more equal terms. The development of 'home zones', based on the Dutch *woonerf*, represents the beginning of this movement in Britain.

A strong advocate of this approach is the architect Ben Hamilton-Baillie (2001 and 2003). At lower speeds, 20 mph or preferably less, it seems possible to deregulate safely the traffic environment – for example, removing barriers, road markings and traffic lights – and for pedestrians, cyclists and motorists to negotiate shared use of road space through eye contact. This approach is perhaps most developed in the Netherlands and Denmark, both of which have significantly lower child pedestrian casualty rates than Britain.

Pedestrian casualties provide a hard measure of the impact of road traffic on quality of life but the effects of growth in traffic and car dependence are more pervasive. Children's freedom to get about unaccompanied by adults appears to have been significantly constrained. A well-known study by Mayer Hillman compared children's journeys to five primary schools across England in 1971 and again in 1990 (Hillman *et al*, 1990). It found that whereas in 1971, eight out of ten of the seven and eight year olds got to school by themselves, by 1990, fewer than one in ten did so. Without safer streets the effectiveness of measures for promoting less car dependency, such as school travel plans discussed in the section above, will be inhibited.

Another classic study showed an inverse correlation between the amount of road traffic and the number of friends and acquaintances among residents of streets in San Francisco (Appleyard, 1981). The effect of main roads in dividing previously coherent neighbourhoods is also well documented. It seems that heavy traffic can be bad for community life. There are a variety of social as well as environmental policy reasons to constrain the further growth in motorised traffic and give higher priority to pedestrians and cyclists, in particular children and other vulnerable road users.

## Key recommendations:

*Traffic growth is eroding quality of life in the South East by causing pedestrian casualties, constraining community interaction and limiting the freedom of children to play in their local neighbourhoods or travel to school safely without being accompanied by an adult. This section has identified a number of recommendations for planners in the South East to consider.*

- *Development planning has an important but limited role in constraining traffic growth. It will be most effective in areas of major development change, such as the South East growth areas, in combination with other demand management measures.*
- *Proximity of new developments to major regional centres is as important in reducing the need to travel as their compactness and self-containment.*
- *Higher housing densities are needed to support good local public transport. Adequate public funding and network regulation, such as Bus Quality Contracts, are also needed.*
- *20 mph zones are highly effective in reducing road casualties in residential areas, in particular dramatically reducing child pedestrian casualties, but should be seen as an evolutionary step.*
- *In the longer term a new approach to traffic management, as exemplified by home zones, is desirable in redesigning residential streets in favour of pedestrians and cyclists and reducing traffic speed to 20 mph or less.*

## Better co-ordinating transport policy and delivery

It is difficult to contest the view that there should be a better co-ordination of transport planning and delivery both within the South East and Greater South East. The question for policy makers is what kinds of governance arrangements are needed and how should they be managed. This section explores several options for better joining up transport policy and delivery.

### **Use regional transport ‘hubs’ and ‘spokes’ to support the economic regeneration of poorer areas within the South East.**

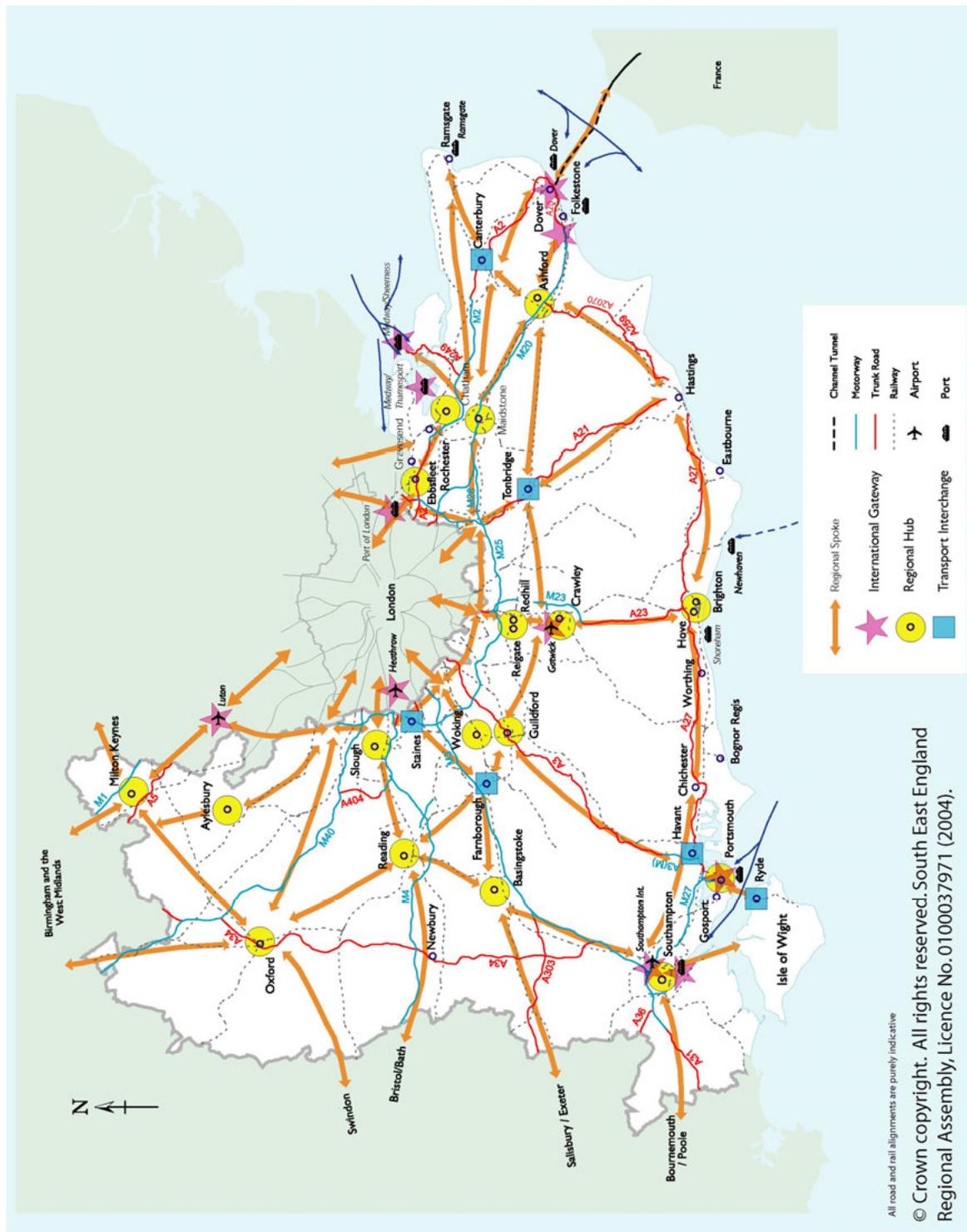
The South East Regional Transport Strategy (GOSE, 2004) and the Consultation Draft of the South East Plan (SEERA, 2004a) propose developing the region’s transport planning around the idea of transport ‘hubs’ and ‘spokes’. Transport Hubs are defined as “those settlements where the provision of (or potential to provide) a range of multi-modal transport services supports the concentration of high order economic activity. As highly accessible settlements of regional significance they should be the focus for development and investment in the transport system that leads to an increase in the overall level of accessibility by all modes between regional, sub-regional and local hubs along transport spokes. They should aspire to accommodate high density development, the economic and social needs of the settlement, and links to the local economic area.” Transport Spokes are defined as “transport corridors designed to support the transport hubs, through appropriate linkages that enhance accessibility. They should provide linkages to/from the local economic area” (SEERA, 2004a).

Figure 8 shows the Transport Hubs and Spokes that have been identified for the South East. The Transport Hubs are largely major urban commuter centres, such as Oxford and Guildford, and/or areas that have been identified as growth areas such as Milton Keynes and Ashford. The Transport Hubs could all be classified as areas of strong economic potential. As key locations for the movement of people and goods within the region it appears to make economic sense to focus transport spending on further developing these areas. But as identified in the first working paper for the Commission - ‘Going for Growth: Comparing the South East’s Economic Performance’ (Robinson, 2004) - despite being a largely affluent region there are pockets of disadvantage within the South East and reducing these disparities should be a priority for policy makers. A potential concern is that focusing limited transport resources exclusively on areas of economic potential could be to the detriment of poorer areas within the South East that may need to develop better transport networks if they are to attract inward investment and jobs.

Policy makers in the South East should investigate whether Transport Hubs and Spokes could be used to improve the accessibility of poorer areas as part of joining up transport and economic regeneration policy objectives. For instance, could the Transport Hub in Ashford help to support the regeneration of Thanet through the development of better transport corridors between Ashford and Thanet?

It is, however, important to acknowledge that there is limited empirical research on the relationship between transport improvements and economic activity. The report of the Standing Advisory Committee on Trunk Road Assessment (1999) warned that improving transport links in poorer areas would not necessarily be beneficial to those areas. It highlighted that it could lead to greater migration of labour and a depression of the local economy (SACTRA, 1999). More work needs to be undertaken to understand better the relationship between transport improvements and regeneration in the South East and more widely.

Figure 8: Proposed regional hubs and spokes in the South East



Source: Consultation Draft of the South East Plan (SEERA, 2004a)

## **Merge the Regional Housing Board, Regional Planning Body and the proposed Regional Transport Boards in a single 'Housing, Planning and Transport Regional Board'.**

In September 2004, the Office of the Deputy Prime Minister (ODPM) issued a consultation that outlined recommendations for better integrating housing and planning in the regions. It proposed that the current Regional Housing Boards and Regional Planning Bodies are merged "to create a single body responsible for managing regional housing markets and making recommendations to the Government on the distribution of the single housing pot in their region..." (ODPM, 2004). Merging the Regional Housing Boards and Regional Planning Bodies was a recommendation in Kate Barker's 'Review of Housing Supply' (Barker, 2004) and has received a lot of political support. In the South East, integrating the Regional Housing Board and the Regional Planning Body will effectively shift greater influence over strategic housing priorities to SEERA whilst reducing the role of the Government Office for the South East (GOSE).

### **South East Committees and Regional Boards**

#### *South East Planning Committee*

The role of the South East Planning Committee is to advise the Regional Assembly on matters relating to the Assembly's role as the Regional Planning Body for the South East. The Regional Assembly is responsible for developing the Regional Spatial Strategy. The Planning Committee has twenty-five members who are appointed at the Assembly's annual meeting. The Chair of the Planning Committee is currently Cllr Keith Mitchell, Leader of Oxfordshire County Council. The Committee membership reflects the balance on the Assembly between local government and social, environmental and economic partners. There are sixteen local authority members, one from town and parish councils, four from the social/environmental partners and four from the economic partners. Up to ten members of the Regional Planning Committee can be non Assembly members nominated according to their knowledge and experience.

#### *South East Regional Housing Board*

The South East Regional Housing Board (RHB) was set up following the publication of the Government's Sustainable Communities plan in February 2003. The Board takes specific responsibility for the preparation of the Regional Housing Strategy for the South East as the basis to inform Ministers on strategic housing investment priorities within the region. The seven board members are largely senior officials drawn from SEERA and GOSE. The Chair of the Regional Housing Board is Paul Martin, Regional Director at GOSE. In addition the Regional Housing Board has seven non-executive members who are Assembly members. The Regional Housing Board currently sits within GOSE.

#### *Experimental South East Transport Board*

Along with Yorkshire and Humberside, the South East has been one of the regions to set up an Experimental South East Transport Board. It was set up to assess some of the following:

- The alignment between the Regional Spatial Strategy, the Regional Transport Strategy, the Regional Economic Strategy and the Regional Housing Strategy and any relevant national policies and priorities (including PSA targets);
- How best to allocate hypothetical regional budgets covering capital and current/revenue expenditure on Local Transport and on Highways Agency roads of regional importance;
- Alternative sets of allocations on the assumption that there is freedom to transfer funds between all expenditure streams, including between capital and current spending; and identify any significant issues arising in respect of rail;
- The relevance and usefulness of the outcome of the experiment for the region, and to identify any lessons for the development of the Regional Spatial Strategy and other regional strategies and for Local Transport Plans.

The twelve board members of the Experimental South East Transport Board reflect the balance on the Assembly between local government and social, environmental and economic partners. The Chair of the Experimental South East Transport Board has been Andrew Robert, Director of Transport at GOSE. The board has been supported by an Officers Group made up of ten senior officials drawn from the South East authorities and agencies.

The South East region has been piloting the proposed Regional Transport Board since July 2004. The 'Experimental South East Regional Transport Board' has been chaired by an official from GOSE which has raised some doubt about the extent to which the Government is genuinely interested in devolving transport decision making down to the regional and local levels. Nonetheless the evaluation report states that "the region wishes to see the board formalised and embedded into the regional decision making structure, alongside economic and housing decisions, with an integrated budget" (SEERA, 2004b).

In December 2004, HM Treasury, DfT, ODPM and the Department of Trade and Industry (DTI) issued a joint consultation on 'Devolving Decision Making: A Consultation on Regional Funding Allocations.' It examines how regional funding allocations for transport, housing and economic development should be developed for the period 2005–06 to 2007–08. It proposes that the regions should advise ministers on spending priorities within each of the three funding areas. It also suggests that regions could take a greater role in determining the distribution of funding between transport, housing and economic development. It states that "in some cases a region may want to re-profile spending – by proposing changes to the funding in the three policy areas that off-set each other over a period of years – for example if there were a large transport scheme in an early period, and then a large housing scheme in a later period" (HMT/DfT/ODPM,DTI, 2004).

Bearing this in mind, there is merit for combining housing, planning and transport policy advice at the regional level through the creation of a single 'Housing, Planning and Transport Regional Board.' This single board could serve as the main body for advising ministers on spending priorities across policy areas as well as the possibility of switching funding between them. Housing, Planning and Transport Regional Boards could offer several advantages:

- *A joining up of policy making at the regional level*  
Rather than creating new RTBs, it would make policy sense to join up the responsibilities for housing, planning and transport into a single board. The Sustainable Communities plan (ODPM, 2003) has been criticised for not paying enough attention to whether additional transport infrastructure and services will be able to keep pace with the rate of new development. Creating a single regional board for housing, planning and transport would help to integrate strategic policy making across these three areas.
- *Democratic accountability*  
The Housing, Planning and Transport Regional Board should be a multi-stakeholder body to avoid giving too much power to unelected officials and to ensure the legitimacy of any decisions that are made. As with the South East Planning Committee, the board's composition should reflect the balance on the Assembly of elected representatives alongside senior representatives from business, the environmental and voluntary sectors and relevant agencies. The chair of the board should be a democratically elected representative. The Housing, Planning and Transport Regional Board should be supported and advised by expert officials from the different agencies and authorities within the regions.
- *Streamlining governance arrangements*  
Housing, Planning and Transport Regional Boards could help to streamline and join up policy making not only within regions but also between them. The structure of

housing, planning and transport policy making across the Greater South East is very complex. London, the South East and East of England regions currently all have separate boards and strategies for planning and housing. If the idea of Regional Transport Boards are taken forward this would mean the creation of another regional board within each of the regions. Creating single Housing, Planning and Transport Regional Boards would make it much easier to better co-ordinate development and planning across the Greater South East.

- *Promoting subsidiarity*  
It is important to achieve a balance between local and regional tiers of decision making. Regional board structures should not suck up powers from the local level. The creation of Housing, Planning and Transport Regional Boards should not therefore lead to the erosion of existing local authority powers. Local authorities currently have responsibility for developing Local Transport Plans (LTPs) which reflect local transport priorities. Housing, Planning and Transport Regional Boards should account for the findings emerging from LTPs when advising Ministers on spending priorities on behalf of the regions.

### Create a new Greater South East Rail Authority

The South East Regional Transport Strategy highlights that radial movements into London are one of the major transport issues affecting the South East (GOSE, 2003). Table 8 highlights the strong rail linkages between the South East, London and the East of England. It shows that 49 per cent of all rail journeys made in the South East have a destination within the Greater London boundary. The proportion is even higher for the East of England with 66 per cent of all rail journeys being London bound. It is, however, important not to overplay the commuter linkages between the South East and London. Between 1998 and 2003, the proportion of the workforce in London travelling from both the South East and East of England slightly declined (see appendix 1; table D). Nonetheless, the concentration of rail passenger journeys within the administrative boundaries of London, the South East and East of England suggest that a new approach to strategic rail decision making is needed for the Greater South East. Planning academics, such as Professor Peter Hall, have argued that commuter patterns across the Greater South East call for new governance arrangements for better planning transport provision particularly in the case of rail services (Hall, 2004).

**Table 8: Percentage of passenger journeys by rail from the East of England, London and South East in 2003-04**

Origin	Destination								
	North East	North West	Yorkshire & Humberside	East Midlands	West Midlands	East of England	London	South East	South West
East of England	0%	0%	1%	1%	0%	29%	66%	2%	0%
London	0%	1%	1%	1%	1%	13%	65%	17%	1%
South East	0%	0%	0%	0%	1%	1%	49%	46%	2%

Source: SRA, 2003-04 cited in DfT, Regional Transport Statistics 2004a

In July 2004, the Secretary of State for Transport announced the much anticipated outcome of the rail review which resulted in the publication of the 'Future of Rail' White Paper (DfT, 2004e). Amongst the many changes to the structure and organisation of the UK's railways, including the abolition of the Strategic Rail Authority, it announced that greater powers are to be given to regional organisations. The White Paper recognised that central government is not

always best placed to take decisions on the transport needs of different communities and that in future the devolved administrations would take increased responsibility for passenger services and, where appropriate, infrastructure.

It announced that the Mayor of London would have “an increased role” with regards to rail services within the Greater London Authority boundary (DfT, 2004e). But this increased role still remains fairly unclear. Whilst the Scottish Executive and Welsh Assembly Government have been given franchising powers (to set minimum service standards including the frequency of train services and train operating contracts) the same powers have not yet been passed down to the Mayor of London. Instead the Railways Bill only states that the “Secretary of State must consult Transport for London before issuing an invitation to tender (or when entering a franchise agreement) for railway passenger services to, from or within London” (DfT, 2004f, Clause 15). The franchising powers over rail services within the Greater London Authority area still largely rests with the Secretary of State.

Transport for London (an executive body directly accountable to the Mayor and not the Greater London Authority Assembly) has argued for greater influence over rail passenger services within the Greater London Authority boundary (TfL, 2004b). But given the passenger rail linkages between London, the South East and East of England regions it is questionable whether such powers should be given exclusively to the Mayor of London.

There is a case for arguing that responsibility for the franchising of rail passenger services should be devolved down to a new Greater South East Rail Authority. It would have responsibility for all rail passenger services across the Greater South East excluding inter-city rail journeys. To ensure democratic accountability, the new rail authority should be governed by a board of democratically elected representatives who would be supported and advised by officials. Local politicians from all three regions - London, the South East and East of England - could be nominated onto the board. The new rail authority would need to work closely with Network Rail which is responsible for operating the rail network. If new Housing, Planning and Transport Regional Boards were to be created – as proposed above – then a Greater South East Rail Authority would also need to work in partnership with them.

## **Key recommendations:**

### *Recommendations for better co-ordinating policy making within the South East:*

- *Authorities and agencies in the South East should investigate whether Transport Hubs and Spokes could help not only to support areas of economic potential but also areas in need of economic regeneration.*
- *Create a single ‘Housing, Planning and Transport Regional Board’ for advising ministers on spending priorities across policy areas as well as the possibility of switching funding between them. The single board should:*
  - *Join up strategic policy making for housing, planning and transport at the regional level;*
  - *Support democratic accountability by being made up of elected representatives from the Regional Assembly alongside senior representatives from business, the environmental and voluntary sectors and relevant agencies;*
  - *Promote subsidiarity by not eroding existing local authority powers. It should account for the findings of Local Transport Plans when advising Ministers on spending priorities on behalf of the region.*

### *Recommendations for better co-ordinating policy making across the Greater South East:*

- *Single Housing, Planning and Transport Regional Boards for the South East, East of England and London would help to streamline governance arrangements and make it easier to co-ordinate development and planning across the Greater South East.*

- *Create a new Greater South East Rail Authority with responsibility for the franchising of rail passenger services across the Greater South East (excluding inter-city rail journeys). It should work alongside Network Rail in setting service standards and regulating peak fares. To ensure democratic accountability, the new rail authority should be governed by a board of democratically elected representatives supported and advised by officials. Politicians from all three regions - London, the South East and East of England - could be nominated onto the board.*

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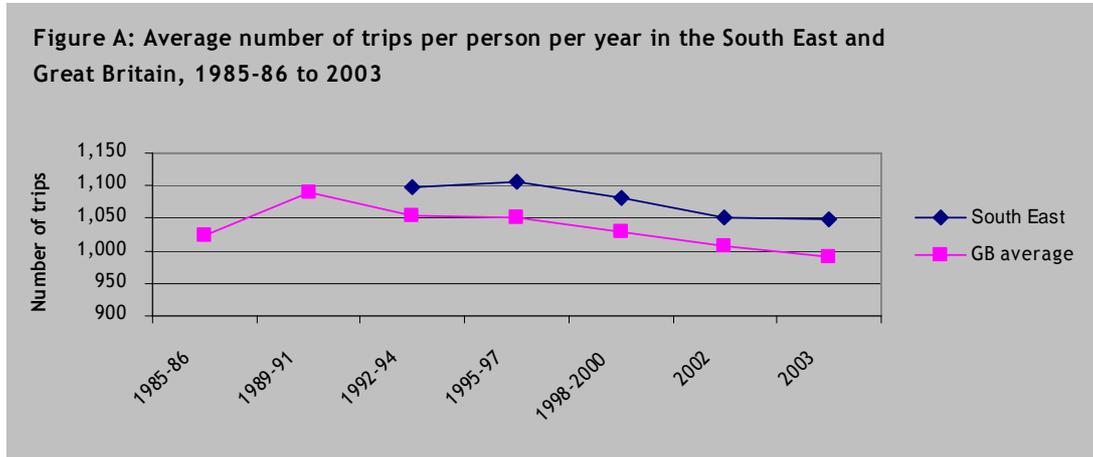
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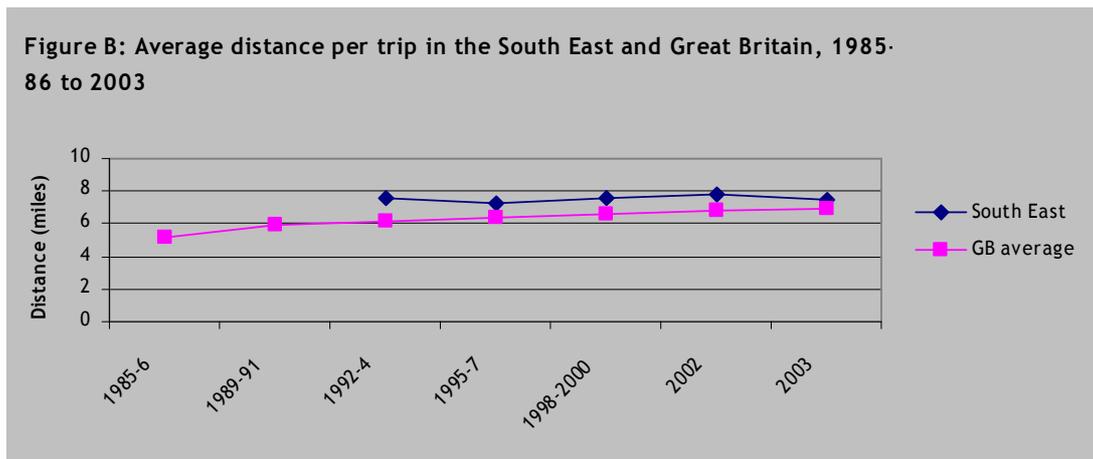
## Appendix 1: Mobility patterns in the South East

The figures and tables below correspond to the 'Mobility patterns in the South East' section of this working paper.

### Journey trips and distances

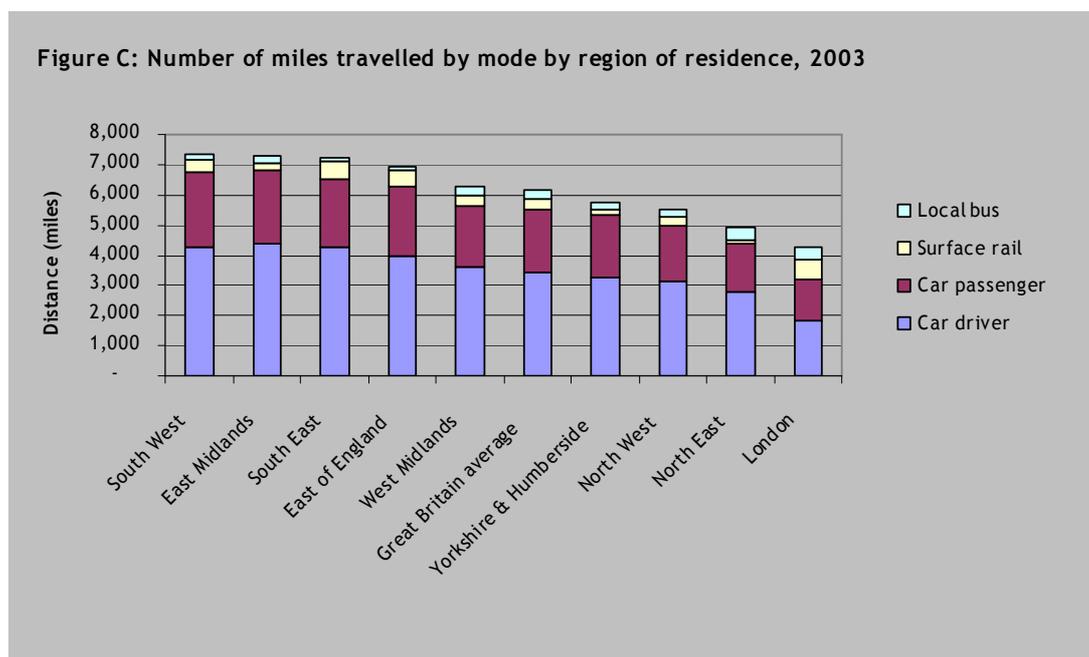


Source: National Travel Survey, 1985/86-2003



Source: National Travel Survey, 1985/86-2003

## Mode of travel



Source: National Travel Survey, 2003

**Table A: Average distance by car per person per year by English region, 2003**

Region	Car driver	Car passenger
East Midlands	4,402	2,395
South East	4,260	2,283
South West	4,243	2,511
East of England	3,960	2,324
West Midlands	3,614	2,037
Great Britain average	3,457	2,040
Yorkshire & Humberside	3,252	2,081
North West	3,154	1,852
North East	2,805	1,554
London	1,861	1,312

Source: National Travel Survey, 2003

**Table B: Household car ownership by region of residence, 1996 and 2002**

Percentage	No car		One car		Two cars	
	1996	2002	1996	2002	1996	2002
South East	23%	18%	45%	44%	33%	38%
East of England	23%	19%	45%	45%	31%	36%
South West	21%	18%	51%	46%	28%	36%
East Midlands	28%	22%	44%	45%	28%	33%
West Midlands	31%	26%	43%	43%	26%	31%
Great Britain average	30%	26%	45%	44%	25%	29%
North West	31%	27%	45%	45%	24%	28%
Yorkshire & Humberside	33%	30%	46%	46%	21%	24%
North East	44%	37%	39%	43%	17%	20%
London	39%	38%	44%	42%	17%	20%

Source: National Travel Survey, 1996 and 2002

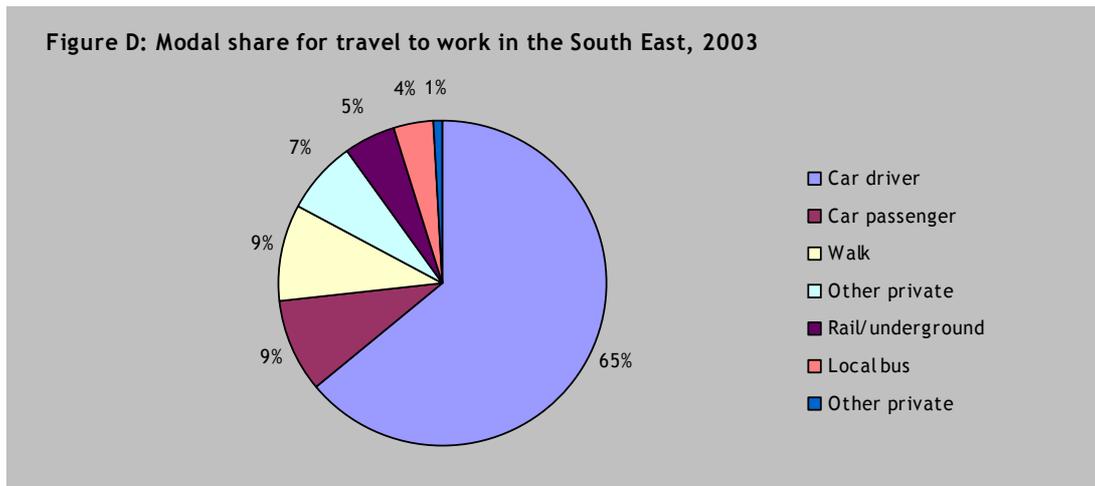
## Travel purposes

**Table C: Percentage of trips by purpose for Great Britain and the South East from 1985-86 to 2003**

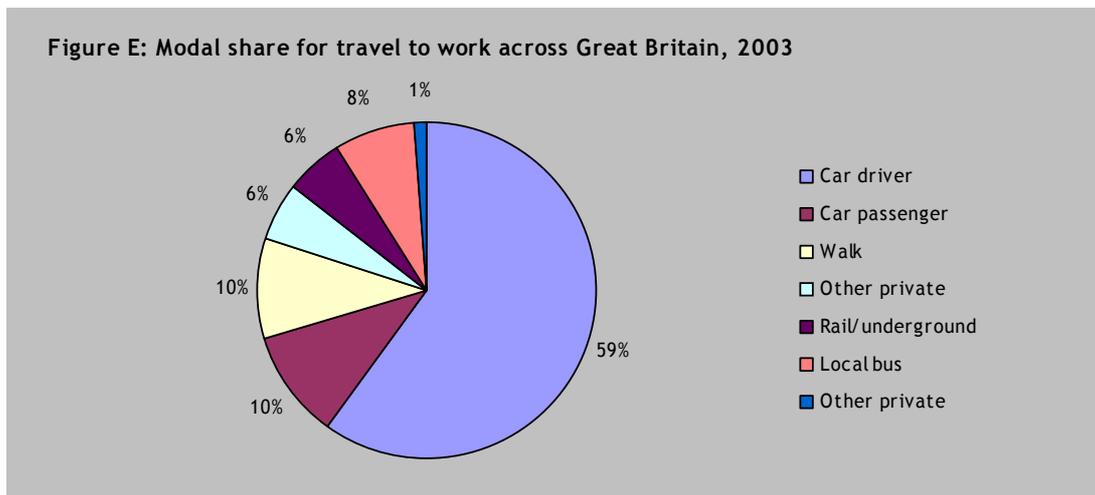
Purpose		1985-	1989-91	1992-94	1995-97	1998-	2002	2003
		86				2000		
Commuting and business	Great Britain	17%	16%	19%	19%	19%	18%	18%
	South East	-	-	20%	20%	19%	18%	18%
Shopping	Great Britain	21%	21%	21%	21%	21%	20%	20%
	South East	-	-	20%	20%	20%	19%	20%
Leisure	Great Britain	41%	41%	41%	41%	41%	41%	41%
	South East	-	-	43%	43%	42%	43%	42%
School and education	Great Britain	21%	22%	19%	19%	19%	18%	18%
	South East	-	-	17%	17%	19%	20%	20%

Source: National Travel Survey, 1985/86-2003 (- : data not available)

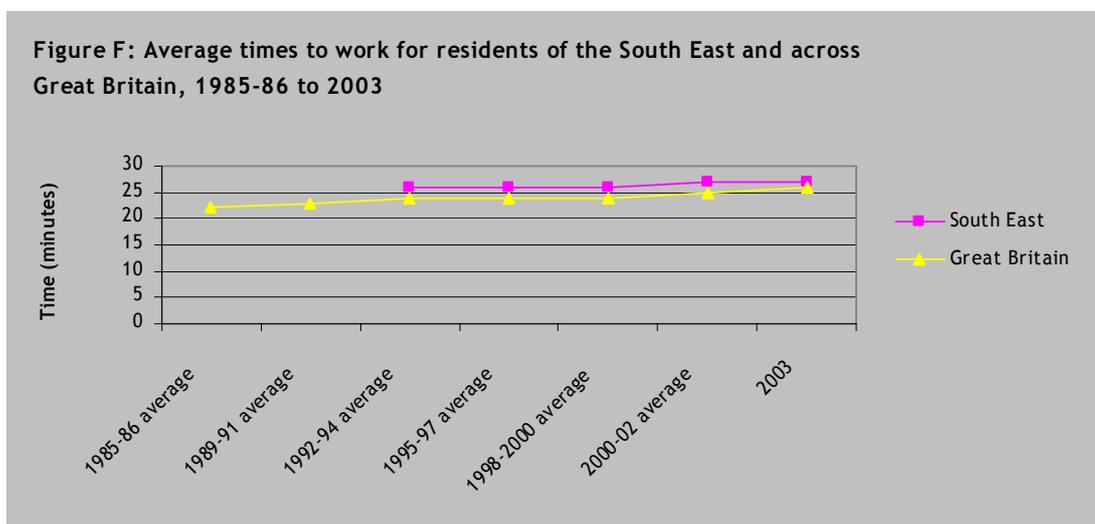
## Travel to work journeys



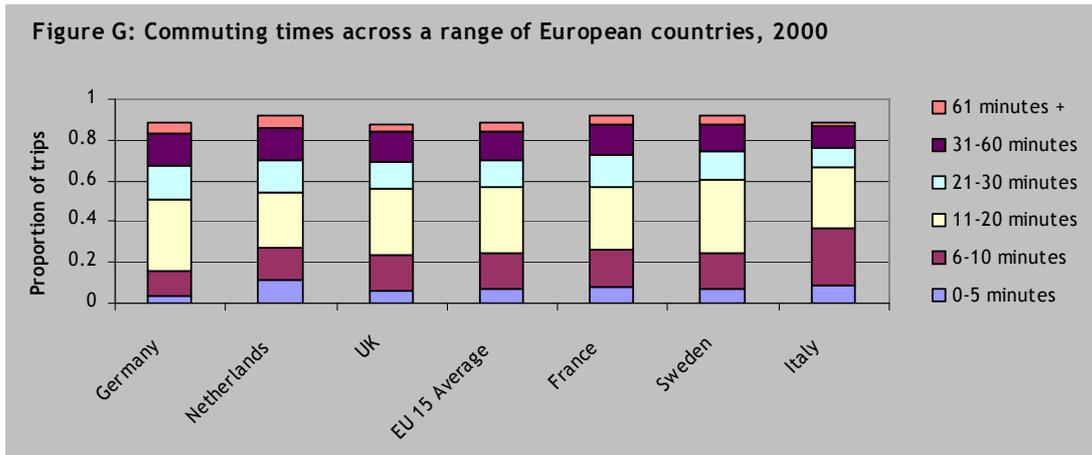
Source: National Travel Survey, 2003



Source: National Travel Survey, 2003



Source: National Travel Survey, 1985/86-2003



Source: European Foundation, Working Conditions Survey, 2000

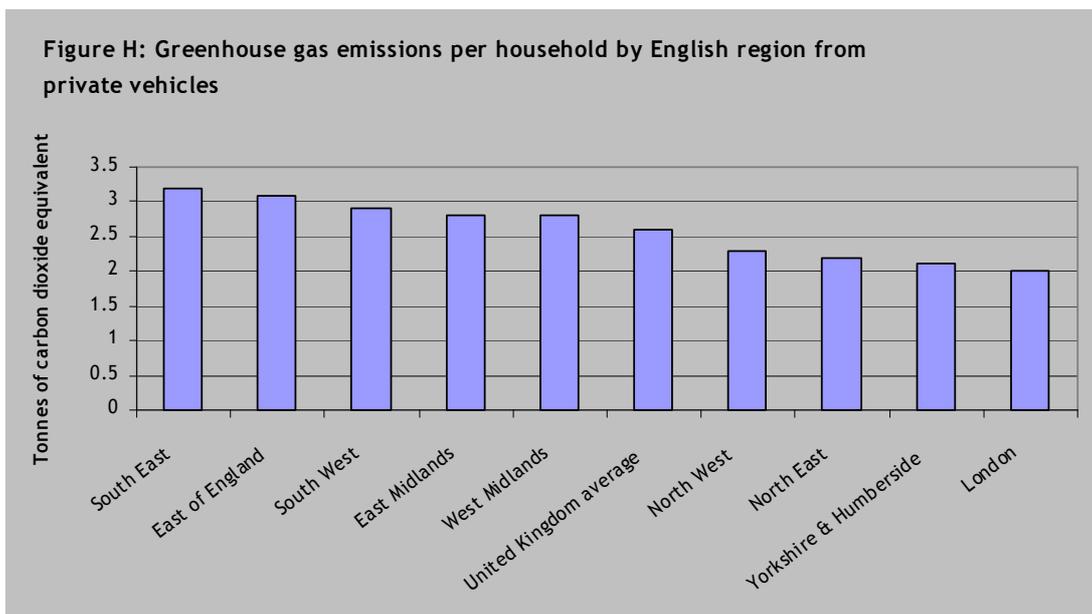
## Work-force trends across the Greater South East

**Table D: Percentage of work-force in London, 1998 and 2003**

	1998	2003
Greater London Authority	80.7%	81.9%
South East	10.3%	9.6%
East of England	7.9%	7.3%
Other English regions and UK nations	1.1%	1.3%

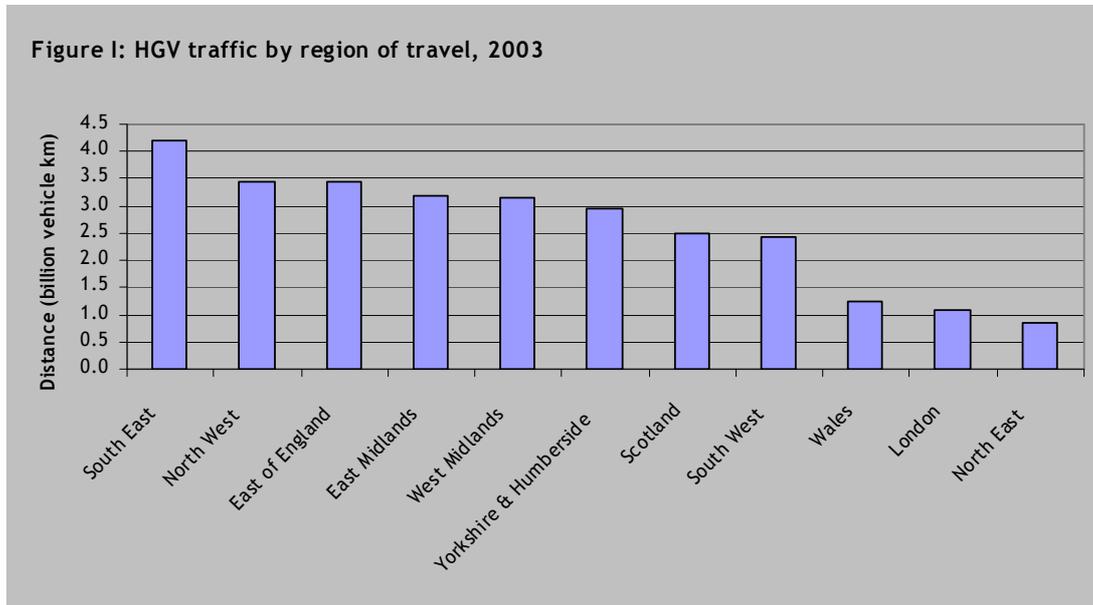
Source: Office for National Statistics, November 2004a

## Greenhouse gas emissions from private vehicles

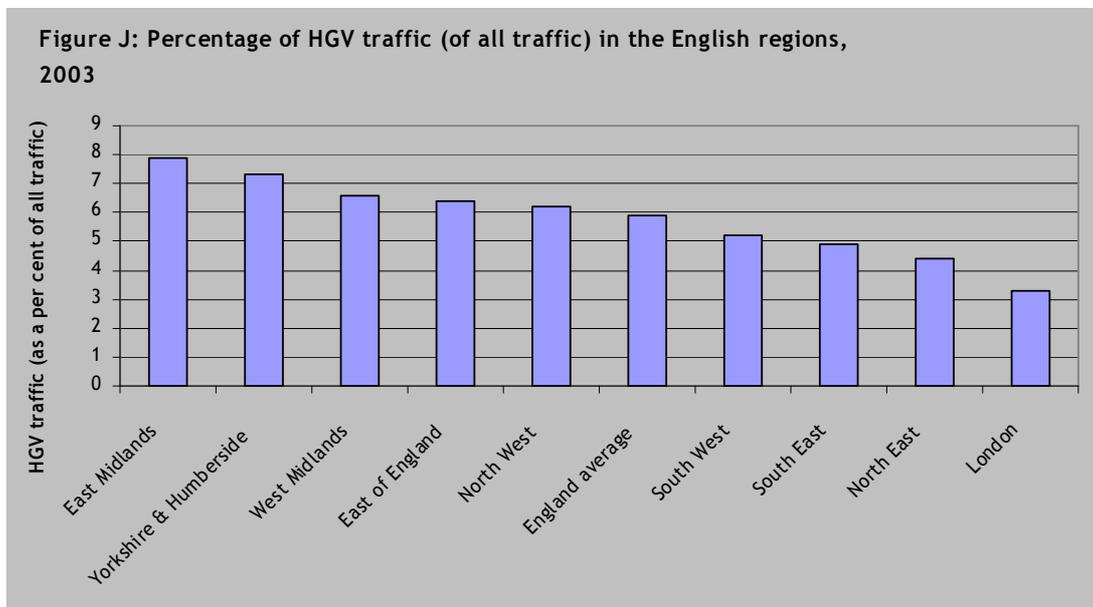


Source: Office for National Statistics, October 2004b

## Freight traffic



Source: Department for Transport, National Road Traffic Survey, 2003a



Source: Department for Transport, National Road Traffic Survey, 2003a

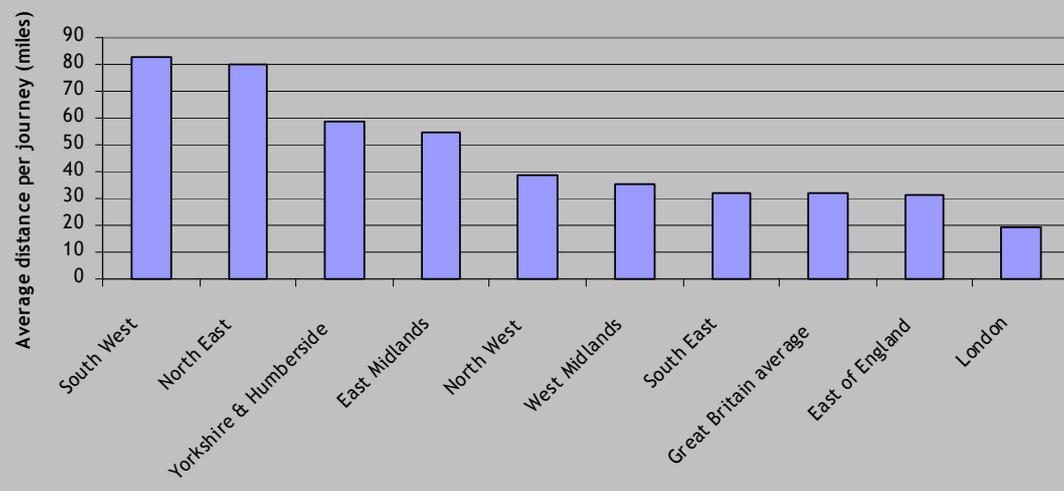
**Table E: HGV traffic on major motorway routes across England, 2002**

Multi-Modal Studies	Motorway routes	Annual average daily traffic, 2002	HGV (vehicles over 5.2 m)	Percentage of HGV traffic
Orbit	M25 J12-15	180,000	18,000	10%
	M25 5-7	122,500 (1998 figures)	13,500	11%
	M25 16-31	135,000 (1998 figures)	16,200	12%
East Midlands	M1 J21-30	112,000	22,400	20%
London to South	M1 J6a-13	136,000	21,760	16%
Midlands	M11 J8-14	49,000	7,350	15%
Mid Manchester	M6 J11a-19	140,000	36,400	26%
South Yorkshire	M1 J30-42	102,000	13,260	13%
	M62 J25-32	98,000	17,640	18%
	M18 M1 (J32)-J3	64,000	13,440	21%
	A1/A1(M) J34-M62	54,000	10,800	20%
JETTS (North West)	M60 J12-18	165,000	33,825	21%
West Midlands Area	M42 J3-7	126,000	13,230	11%

Source: From the Multi-Modal Studies (MMS) published by the government offices between 2000 and 2003.

## Rail patronage

**Figure K: Average distance per rail journey across the English regions, 2003**



Source: National Travel Survey, 2003

**Table F: Percentage of passenger journeys by rail from the South East in 2003-04**

Origin: South East	Destination	%
	North East	0%
	North West	0%
	Yorkshire & Humberside	0%
	East Midlands	0%
	West Midlands	1%
	East of England	1%
	South West	2%
	South East	46%
	London	49%

Source: Strategic Rail Authority 2003-04 cited in Department for Transport, Regional Transport Statistics, 2004a

## Appendix 2: Road user charging modelling assumptions

ippr commissioned Imperial College to conduct some modelling on the effects of a national congestion charging scheme if it were introduced on all roads throughout England in 2010. The forecasts were made using a computer model of England's transport system, first developed for the Independent Transport Commission (Glaister and Graham, 2003). The model differentiates between the nine English government office regions, different area types from metropolitan to rural, different road types from motorway to unclassified and different times of the day and week. It distinguishes five different types of road vehicle.

The model is based on year 2000 traffic data supplied by the Department for Transport projected to 2010 and is consistent with the government's forecast for overall traffic growth of 20 to 25 per cent. It uses the same assumptions as the Department for Transport in its own national transport model that by 2010 real fuel prices will have fallen by 12 per cent and fuel efficiency will have improved such that average fuel costs per km will have fallen by 30 per cent (DfT, 2003b). Two different scenarios for congestion charging in 2010 were tested: 1. Revenue raising in which congestion charges are added to existing motoring costs and 2. Revenue neutral whereby congestion charging is offset by cuts in fuel tax so that no net extra revenue is raised overall.

Congestion charges in the model are set according to estimates of the time costs of congestion with an additional amount for the environmental costs of carbon dioxide emissions, which vary by area, road type and time period. The modelling uses a long run price elasticity of traffic with respect to price of 0.3 which assumes that for every 10 per cent increase in price there is a 3 per cent reduction in traffic. The forecasts in table 1 should be taken as illustrative of the likely direction and magnitude of changes rather than as precise measurements.

### Appendix 3: Notes to go alongside table 6 showing the estimated range, impact and cost of selected soft measures across England over a ten-year timescale (2003-04 to 2013-14)

1. Estimates are based on the projection of findings from case study projects with target populations of between 10,000 and 30,000 people per year. Substantially lower coverage is assumed in non-urban than in urban areas, because of lower potential for modal shift through purely information-based measures.
2. Crude estimate by Jon Foley of Hampshire County Council. Based on the InfoMotion project which was launched in 2004 and is targeting 116,000 households and is costing £300,000. The cost is based on an average household occupancy of two people.
3. Mean of estimates for two proposed large-scale projects targeting 161,800 in Nottingham and 120,000-150,000 people in London. In Nottingham the cost was 0.7 pence per car km reduced and in London the cost was 1.2 pence per car km reduced.
4. It is impossible to specify the size of target audience for mass marketing activity, so these ranges are based on the number of public transport users who appear to respond to public transport marketing. Based on case study evidence from Brighton and Hove, Bristol, Buckinghamshire and Perth.
5. Calculated using data from Nottingham whose branding, marketing and information activities are aimed at the city's whole population of 250,000. The local authority revenue budget (including staff costs) in 2002-2003 was £85,000. Local authority capital spending has averaged £220,000 per year. The figure is calculated as [revenue budget + capital spending]/population.
6. Calculated using city-wide data from the public transport marketing schemes in Brighton and Nottingham.
7. Estimates are based on what is being achieved in city-wide or county-wide case studies and interviewees' conservative estimates of what could be achieved in the future.
8. Costs of 70 pence per targeted employee in Birmingham were reached relatively quickly. In Buckinghamshire, the local authority is still at an early stage of trying to recruit employers and so the costs are higher at £5 per targeted employee.
9. The 0.1 pence figure is calculated using data from Birmingham city council assuming organisations with fully-fledged travel plans reduce car use by 18 per cent, and those in other organisations actively undertaking travel work achieve reductions of 10 per cent. Data pertains to work with 165 companies, reaching 136,000 people per year. The 2.0 pence figure is calculated using data from the work travel plan in Nottingham assuming that the average effectiveness of travel plans is to reduce car use by 5 per cent overall. Data pertains to Nottingham city council's in-depth work with 25 organisations, reaching 52,000 employees per year.
10. The literature evidence from international case studies suggest that 10% of the population could be members of car clubs within ten years. But case study evidence from the UK suggests that it will take considerably longer than 10 years to reach these levels. Far more conservative projections from existing rates of growth suggest that membership may only reach 0.1-0.2% of the population within the next 10 years. To reach 10% coverage would require a markedly higher participation in car clubs.
11. Figures for start-up costs taken from case study car clubs: e.g. £160,000 committed to car club in Bristol which in April/May 2004 had 160 members. For a much larger scale car clubs initiative across 16 Italian cities the Italian government provided start up funding of £420,000 to each city car club. Running costs are low and international evidence suggests clubs should break even and become self-financing within a few years.
12. Figures are based on case study car clubs in Edinburgh and Bristol, which at time of data collection had 215 and 92 members respectively. It is expected that as car clubs expand the costs will fall to the point where clubs eventually become self-financing.
13. Figures are based on range of local authorities' county or city wide estimates of future coverage, themselves based on projections of current implementation levels combined

with future intent. It should be noted that DfES and DfT have jointly declared an objective for 100% school coverage by the end of the decade so the lower intensity estimates may be too conservative.

14. Based on data from three city or county wide case study areas (Buckinghamshire, Merseyside and York) targeting 47,000; 43,000 and 17,609 pupils respectively. Calculation based on revenue expenditure and number of pupils targeted in current 2003–04 travel plan.
15. Based on data from same three case study areas cited in note 14. The 1.4 pence figure is calculated using data from the best-performing county (Buckinghamshire) assuming a 'high' level of effectiveness - average reduction in school escort trips by car of 15%. The 10 pence figure is calculated using data from York case study assuming a 'low' effectiveness - average reduction in school escort trips by car of 8%. Cost data includes capital and revenue spending.



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