

# **DETERMINANTS OF TRAVEL DEMAND – EXPLORING THE FUTURE OF SOCIETY AND LIFESTYLES**

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## **Abstract**

Changes in the fabric of society and its set of values can have a profound impact on travel demand and transport. Lifestyles continue to change in the face of freedom of choice, the information age and globalisation. The transport profession has a responsibility to look to the future in order to identify short and long term influences on mobility and accessibility and thereby ensure that the potential efficacy of current and emerging policies and practices is maximised. Many aspects of society and lifestyles are outside the conventional scope of the transport profession and yet such aspects can be significant in their influence on travel demand. With the current watchword of integration, the profession must be mindful of the outward integration of transport with employment, business practices, standard of living, households, education, social values etc, as well as integration within transport.

This paper considers a number of aspects of society and lifestyles including population size and composition, personal relationships, quality of life, patterns of migration, political participation, social segregation, crime and working practices. The paper presents some current facts and figures and then proceeds to outline prospects for the future in the context of three pairs of potentially opposing scenarios, namely: the community oriented society and the individual oriented society; the free market society and the government interventionist society; and the workplace to the workers and the workers to the workplace. The paper stems from the Transport Visions Network, a unique activity involving young professionals from academia, consultancy and government. Through the process of structured email and face to face discussions the Network has explored a wide range of issues and viewpoints concerning society and lifestyles.

The paper recognises that the future is not predetermined but is there to be shaped by present and future generations. It is not appropriate, therefore, to attempt to be prescriptive with future outcomes or their timescales. Instead the paper seeks to raise awareness regarding the diversity of factors that will directly or indirectly influence future travel demand. The principal aim of the Transport Visions Network is to challenge existing perspectives on the future of transport and thereby ensure more robust and informed perspectives are acquired by key decision makers.

## **INTRODUCTION**

Figure 1 presents the all too familiar trend in travel demand as measured by passenger distance travelled annually. The decline in use of bus and coach to exercise mobility falls far short of accounting for the huge increase in use of the private car. The total amount of travel has increased dramatically. Travel demand arises from the need or desire to participate in activities. Such increases in travel must therefore relate to changes in the nature and scale of activity patterns. The private car presents the opportunity to increase the spatial range of choice of amenities and activity centres which can extend the number and distance of journeys made and in turn reinforce the reliance on the private car. A relatively simple yet expensive response to rising travel demand and car dependence is to expand transport supply to meet current and projected requirements. This foregoes the need to fully come to terms with the factors that conspire to produce such rising demand and to make any attempts to influence and diminish or to redistribute the demand across time, space and modes to reduce the adverse effects of congestion. Government has recognised that predict and provide is in general no longer tenable and that there is a need instead to manage travel demand. This should not be restricted to efforts to redistribute demand across modes. However, this would appear to be a key objective of current policy with, for example, a significant

proportion of the £180 billion spending plan for transport over the next ten years devoted to increasing capacity of the rail network (DETR, 2000) and thereby supporting existing levels of mobility and even encouraging further growth in mobility levels. There is a need to understand the determinants of travel demand. This in turn offers the prospect of influencing such determinants with a view to influencing demand itself or being able to pursue future transport developments that will best suit the needs that society will place upon them. Society and lifestyles, whilst themselves influenced by the provision of transport services and associated policies and pricing measures, are responsible for demands placed on the transport systems. It is important therefore to consider the current and changing nature of society and lifestyles to provide a context for future decisions concerning transport developments.

This paper explores a number of aspects of society and lifestyles. The intention is to raise awareness of the diversity of factors that have a direct or indirect influence on travel and transport. The paper offers an overview of existing trends and projections for the future before presenting a series of different future scenarios. Some preliminary suggestions on the consequences for transport are also put forward.

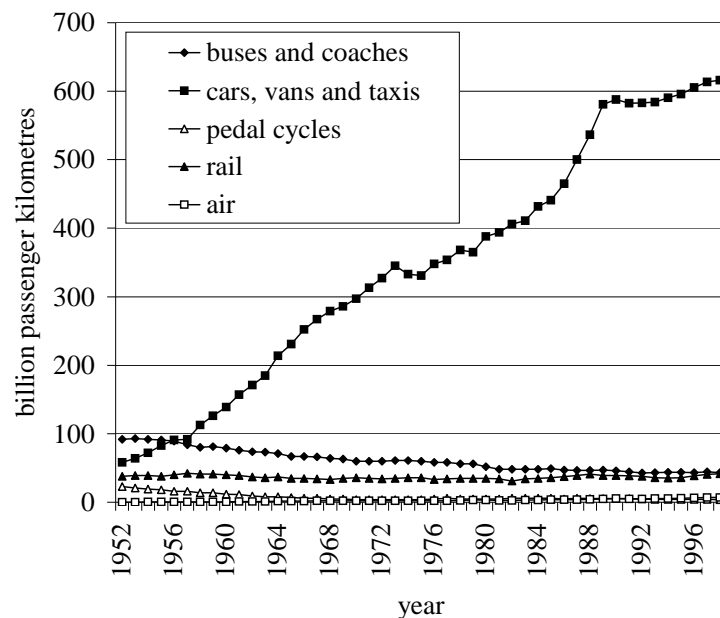


Figure 1: Passenger Transport by Mode 1952-1998 (DETR, 1999)

Material within the paper has arisen through the work of the Transport Visions Network. The Network is a (virtual) community of young professionals with an involvement or interest in transport. Network members come from a number of background disciplines and are based in academia, consultancy and government. The majority reside in the UK although approximately one third of the 220-strong membership is from overseas. Over a period of three years the Network is exploring the future of transport in the 21<sup>st</sup> century. A series of eight transport themes are being addressed sequentially, the first of which has been ‘Society and Lifestyles’. During consideration of the first theme some 250 email messages were exchanged in a structured on-line debate followed by a one day workshop. The purpose of the first theme was to set a context for later propositions for developments in transport – to explore the shape and nature of the society that transport might be expected to serve in the future. Exploration of the future does not and should not lend itself to prescriptive outcomes. A multiplicity of possible futures lie ahead dependent upon the consequences of a complex series of interacting factors. The Network chose to frame its explorations within three driving forces. For each driving force a continuum of futures may exist – the Network considered a pair of arguably opposing scenarios corresponding to each driving force as a means to express its views (this is illustrated in Figure 2).



Figure 2: A Framework for Exploring Society and Lifestyles

## FACTS, FIGURES AND TRENDS

The topic of society and lifestyles has the prospect of being all embracing and indeed there is a large and diverse amount of information relating to factors that, with close inspection, have an impact on the future of transport and travel demand. A selection is presented and discussed below.

### Population

The UK's demographic structure is expected to change significantly during the 21st century. According to forecasts, the population will increase from 58.7 million in 1998 to 60.0 million in 2020 and then decline to 56.7 million in 2050 (United Nations, 1999). This takes into account predicted trends in birth and death rates and net migration. Birth rates decreased substantially during the last century (for example, there were 2.43 children per woman in 1974 and 1.74 children per woman in 1994) (Eurostat, 1996) but they now appear to be decreasing very slowly or to be stable. Declining birth rates are causing the UK to have an increasingly ageing population. Trends in life expectancy are accentuating this process. Life expectancy increased from 71.5 (male) and 77.4 (female) in 1984 to 73.9 (male) and 79.2 (female) in 1994 (National Statistics, 2000). These trends are expected to continue through medical developments and improved healthcare and lead to a predicted increase of over 65s from 12 million now to 16 million in 2020 (Engineering Council, 1997). Population growth in developing countries provides the possibility of inwards migration to the UK to maintain the total population level. From 1994 to 1997 the annual migrant inflow ranged from 245,500 to 285,000 and the annual migrant outflow ranged from 190,800 to 225,000 (National Statistics, 2000). Without immigrants the retirement age would have to rise to 72 to maintain the ratio of workers to pensioners.

### Households

Average household size in Great Britain has decreased by more than one fifth since 1960 (National Statistics, 2000) (see Figure 3). It is predicted that by 2010 single person households will represent 40% of all households (Scase, 1999). They represented only 10% of all households in 1984. These trends can be attributed to smaller families, single parent families, couples living together longer before having children, young people living on their own, older people being able to live in their own homes longer and the purchase of second homes. The increased ability to communicate by means other than face-to-face contact

has also allowed for more dispersed households and living patterns. More women than men live alone and this is expected to continue to be the case with young women increasingly having the income to make this possible and with women continuing to outlive men in a context of lengthening life expectancy.

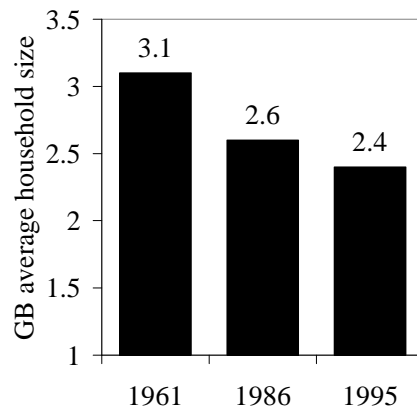


Figure 3: Decreasing Household Size

Total housing stock increased by nearly one quarter from 19.7 million in 1972 to an estimated 24.6 million in 1996 (National Statistics, 2000). The Government expects that a further 3.8 million new households will need to be accommodated between 1996 and 2021 (DETR, 2000a). 71% of the extra demand is estimated to be for single person households. 80% of the UK population live in urban areas. However, the numbers living in Metropolitan areas declined from 38.6% in 1982 to 37.1% in 1997 (National Statistics, 2000). The Government has set a national target that by 2008, 60% of additional housing should be provided on brown field sites and through conversions of existing buildings (DETR, 2000b).

Marriages have dropped from 395,800 per year in 1984 to 322,300 per year in 1995. Divorces increased from 144,500 to 155,500 between the same dates (National Statistics, 2000). Government no longer positively discriminates in favour of marriage, by offering a married couples tax allowance. Cohabiting couples could increase from 1.56 million in 1996 to three million in 2021 (Scase, 1999). It has been found, however, that separation rates for cohabiting couples are much higher than for married couples. The net increase in households due to divorce and separation of cohabiting couples averaged about 70,000 a year in the early 1990's (representing 35-40% of the estimated annual average increase in all households) (DETR, 2000c).

## Childcare

Evolving social attitudes, trends in adult relationships and a growing proportion of women in paid employment (women in employment in the UK increased from 9.9 million in 1984 to 12 million in 1998 (National Statistics, 2000)) have radically altered the ways in which children are cared for. In 1987 there were 60,000 all day nursery places, 153,000 registered childminders and 433,000 playgroup places. In 1997 there were 202,000 all day nursery places, 379,000 registered childminders and 413,000 playgroup places (National Statistics, 2000). In 1972, 7% of children lived in single parent families. By 1998 the figure had risen to 21%. In 1970 there were 71,336 children of divorced couples, by 1997 there were 150,145. Increasing wealth has led the home to become increasingly 'individualised' with children's bedrooms becoming personal leisure centres equipped with portable TVs and cheap Hi-Fi systems. Children are becoming an increasingly technologically literate and economically active section of society (Scase, 1999).

## Employment

Overall labour force participation in the UK increased by 5% to 60% between 1976 and 1985 with female participation increasing from 36% to 48% and male participation constant at 73% (Masser et al, 1992). An increase in the numbers of working people has helped achieve/sustain economic growth. Between 1984 and 1998, the total number of people in employment increased from 24.0 million to 26.9 million. The number of men in employment increased from 14.1 million to 14.9 million and the number of women in employment increased from 9.9 million to 12.0 million. In recent years, the percentage of the population between 16 and retirement age has remained fairly stable (61% in 1984, 61.3% in 1996) but this will decrease sharply soon (National Statistics, 2000).

The average unemployment rate nationally for the UK is 4.3%, whilst in some parts of the country it is over 10%. Almost a third of men over 50 but below pension age have no paid work and most have given up seeking it. There is a risk of creating a group of two million men in their 50s and early 60s without sufficient resources who are doing little with their lives and whose inactivity may jeopardise their health (Brindle and Quinn, 1999).

In 1975 the average job lasted six years one month and now it is five years six months. Young people are changing jobs more rapidly in their 20s and 30s. A 16-24 year old of today can expect to be on their fourth job after three years in the labour market. School leavers will have an average of 11 jobs over their lifetime, compared to today's retired population who averaged seven jobs. In 1980, 21% of all employees (and 42% of employed women) worked part-time. By 1995, this had risen to 25% but has remained static since. Part of this increase is due to the number of students now working part-time (Anon, 1999). In 1983 23% of British men worked over 48 hours a week and by 1992 it had risen to 28%. In no other EU country had the figure reached 20%. The 1983 average for the EU was 10% and in 1992 it was 12%. This situation is being compounded by the declining importance of specific location in employment leading to the blurring of distinctions between work and non-work activities (Scase, 1999).

In defining a teleworker as someone who works at least one full day at home per week and uses a telephone and computer for the work done at home, the Spring Labour Force Survey identifies a substantial growth in the number of teleworkers in Great Britain since 1997 when teleworkers represented 4% of all those in employment (see Figure 4) (National Statistics, 2000). Of the estimate of teleworker numbers for 1999, 225,000 worked at home, 693,000 used their homes as a base and 357,000 worked occasionally from home. Teleworkers are much more likely to be married than non-teleworkers. More than half the UK's call-centres are experiencing severe recruitment problems, and need more skilled staff to keep up with expanding customer demand. Only 4% of call-centre managers currently employ teleworkers although 42% expect to do so in the near future.

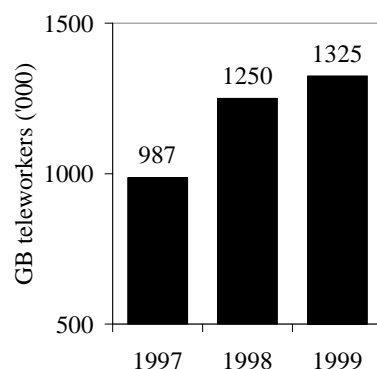


Figure 4: Increase in the number of workers who telework (full and part time)

Output of the service industries in the UK increased by over 8% between 1990 and 1997 with more than a 2% increase in 1996/97. In contrast, manufacturing output increased by less than 2% between 1990 and 1997 (National Statistics, 2000). Throughout Europe there has been a decline in the traditional manufacturing industries during the last decades. The service industry now forms the most significant sector of employment in European countries. This has been stimulated in Britain by a marked increase in disposable income. Between 1981 and 1997 average weekly earnings in Britain have risen by 310% (from £124.9 to £384.5). In the same period the Retail Prices Index has risen by only 210% (National Statistics, 2000). The number of agent positions in UK call-centres is expected to grow to 274,000 by 2002 - this means that more people will work in call centres than in farming and teaching combined. The UK has over 37% of all European call-centre agent positions (Datamonitor, 2000).

## **Standard of Living**

The UK Government Statistical Service currently lists the following items as indicators of (material) standard of living: average weekly earnings; retail prices index; and percentage of households having use of: car, television, telephone, central heating, refrigerator, freezer, dishwasher, tumble dryer, microwave oven, washing machine, video, home computer, compact disc player and second dwelling in the UK (National Statistics, 2000). Each of these indicators show standard of living is increasing. Increasing affluence has led to dramatic growth in the leisure activities of the population. In 1971 British residents took seven million holidays abroad. In 1997 they took 27 million. In the same period holidays taken within Britain dropped from 34 million to 30 million while the market share of overseas holidays increased from 18% to 48% (National Statistics, 2000). Of people under 45, men have 12 hours and women 10.5 hours of leisure time on average a week. By comparison, of those over 45, men have 15 hours and women 13 hours. Almost 33% of men and 38% of women between the ages of 50 and 65 do not work. Within an ageing population this time rich and sometimes cash rich section of the population will grow in social and economic significance (Brindle and Quinn, 1999).

## **Health**

The Human Genome Project has been working to decode human DNA and thereby unveil the blueprint for humanity. Its imminent completion marks the end of the beginning of a step change in medicine's ability to tackle disease. Despite such medical and technological advances, lifestyle choices also greatly influence the nation's health. In 1997 in the UK circulatory diseases including heart attacks and strokes accounted for 41% of male and female deaths. Cancer accounted for 27% of male and 23% of female deaths. In 1984 36% of men and 32% of women in the UK were smokers falling to 29% of men and 28% of women in 1996 (National Statistics, 2000). In the UK 17% of men and 20% of women are obese. In the UK during the 1980s the proportion of obese people doubled. It is estimated that by the 2005 about 20% of men and 23% of women will be obese (ASO, 2000). By contrast, interest in the pursuit of physical fitness is increasing. The health and fitness group Holmes Place now operates over 40 clubs across England, whilst the leisure company Fitness First operated 60 clubs across the UK in January 2000, doubling in size since 1998 with a national membership of over 125,000 (Finch, 1999). Annual UK bicycle sales rose from 500,000 in 1970 to 1.4 million in 1980 and 2.4 million in 1994. However, despite increasing ownership, cycle trips account for only 2% of UK journeys, compared with 10% in Sweden and 18% in Denmark (DOT, 1996).

## **Crime**

The 1998 British Crime Survey (BCS) estimates that 16.5 million crimes were committed in 1997. Of these, 21% were violent crimes and 4% involved serious injury. It is estimated that only one fifth of violent crimes are committed by strangers. Whilst the number of crimes and violent crimes are decreasing (the percentage of the population who were victims of crime fell from 39% in 1995 to 34% in 1997) perceptions

of risk are increasing. That is, more people feel more vulnerable to attack. Groups most likely to experience violence are young people aged 16-24, single mothers and the unemployed.

## **Governance**

Representatives are elected to the House of Commons of the UK Parliament in London using a 'first past the post' system. Some countries, including Germany and Italy, use forms of proportional representation (PR) to elect their national representatives. All members of the European Parliament are elected using a form of PR. In 1997 the electorate in Scotland and Wales voted for a Scottish Parliament and Welsh Assembly respectively to be established (convened in 1999). Members of the devolved Parliament in Scotland and the Assembly in Wales are elected using a form of PR. The election of a Mayor of London and of a London Assembly in May 2000 is likely to be the first of many regional English assemblies.

Voter turnout in the UK has been in decline in the post-war period. At the 1997 UK General Election turnout was 71%, in 1992 it was 78% whilst in 1950 it was 84%. Less than 25% of the electorate voted in the 1999 European elections compared to 36% in 1997. Turnout for the devolved assembly elections: was 59% in Scotland and 46% in Wales in 1999. Voter turnout in the 1998 local elections was 26%. This trend mirrors other Western countries: in America, less than 25% of the electorate voted in the 1996 Presidential election (turnout amongst 18-24s was 30%). However, in Australia and some other countries it is illegal not to vote. (Sources are various reported news items on the BBC website at <http://www.bbc.co.uk>)

The UK is a member of the European Union, World Trade Organisation and the United Nations, each of which influence UK law. There are many treaties to which the UK is signatory, whose targets are not binding in law and which come into conflict with other treaties and/or rulings from international organisations. Many environmental treaties that set conservation or pollution targets conflict with treaties on free trade. The tuna-dolphin dispute of 1991 ruled in the favour of free trade, rendering illegal "trade measures applied by individual nations to conserve wildlife and ecosystems beyond their national boundaries" (Lang and Hines, 1995).

Set against this background of present and projected trends a number of possible future scenarios are considered within which such trends are either endorsed or challenged as summarised in Table 1. It should not be inferred that the scenarios are mutually exclusive in their content. Elements described within a particular scenario may also apply in others.

## **SOCIAL DRIVING FORCES**

### **Community Oriented Society**

This scenario depicts a revival in the importance of family and community life. For some people this will mean a revival in the popularity of marriage or similar forms of legal union. But there will also be a significant increase in the popularity of various forms of community living reflecting society's primary concern for sustainability, relationships and quality of life. Fertility rates will increase to at least two children per woman although parenthood will typically begin later in life. There will be a growth in the number of parents in their thirties and older with 'planned' and financially secure families. Efforts will be made to address concern about population decline and to effect a change of public attitude which restores children as a target for investment in the future of society. These demographic changes will be further stimulated by a significant shift in social values. Quality of life will replace material standard of living as the key test of a society's success. This will be reflected in the acceptance that resource consumption per head of population is a key factor in the world's major social and environmental problems.

The Government will adopt policies to influence how we live together, rather than predicting and providing housing. For example, single people will be encouraged to live in one or two bedroom flats rather than five

bedroom detached houses, thereby making appropriate housing stock available for families and groups. Communal living through house or flat share arrangements will become increasingly popular and be encouraged by Government through fiscal incentives. This scenario espouses the aspirations of urban renaissance. Government will tackle the economic obstacles to community living by providing the framework for developers to build higher-density social housing. Britain will follow Denmark and Israel in the introduction and popularity of co-housing. Neighbourhoods of homes with shared resources such as dining areas, kitchen, communal living areas and shared childcare will meet the desire for community/family living. Urban design will change to reflect these aspirations taking lessons from office design in how to ensure provision of multi-use during the life of the building. Houses and flats will have at least two bathrooms and moveable internal walls for changing family structures so that young adults can have flats in their parent's homes. Large empty commercial buildings will be converted for co-housing rather than for executive flats. There will also be a return to employer provision of housing in response to the successful example of Japan where there is greater cultural acceptance of the employer as part of the extended family.

Inherent social difficulties with high-density living will be addressed. Cultivating a sense of community in high-density accommodation will require careful planning particularly to accommodate families and groups of friends. For example, noise nuisance between units will be eliminated through better construction techniques. Provision for children will be made, particularly through safe play areas on largely brownfield sites. Community living will benefit from the provision of spacious communal gardens around courtyards offering a more economical land-take than individual front and rear gardens.

Emphasis on local communities will see children educated at the school nearest their home. Technology will not replace real schools with virtual equivalents as it is increasingly recognised that only the former can properly offer young children the opportunity to acquire vital social skills. Technology and the information exchange opportunities it offers will encourage local communities to use their local schools by reducing the variability in (perceived) quality of education between schools. The education which school children receive will reinforce the values of community and quality of life.

The workplace environment will change to reflect the values of family and community. This will lead to an increase in teleworking in its various forms. A cultural realignment will take place by which loyalty between employer and employee will be restored on a large scale. As a result companies will invest in their staff's long term needs providing family oriented facilities including accommodation and community buildings. There will be inherent dangers as well as benefits with these schemes. If the companies faltered there could be dramatic social consequences akin to the mining communities in the past. Businesses will remain competitive within the family orientated model as a balanced work and home life will be seen to be more productive and effective. Indeed the community centred outlook will lead the UK to produce a high quality service industry sector in the global economy. Britain will not pursue such an economic strategy in isolation. There will be a complete overhaul in international trading institutions and policies as the world will consciously pursue sustainable community living. Europe will become more unified and work as a community and this example will be followed on a global scale. Globalisation of sustainable community living will not be solely top down. Change will be stimulated by individual action as people will choose which country to live and work in according to the country that offers the best social values. Language barriers will do little to inhibit such action as global communications via the Internet will create a universally used language.

## **Individual Oriented Society**

In this scenario a trend of increasing individualism is envisaged. Those belonging to higher social classes, with increased financial independence will choose to have (less) children later in life and those from lower social classes with taught/enforced low expectations will continue to become parents at a young age. These trends will be reinforced by a moral and social climate that values individual choice and personal freedom most highly. This will include widespread public acceptance of different lifestyles (sexual orientation, faith, interests etc.) and less social pressure to have children. Women will have much greater control and choice



over giving birth. They will choose to have fewer children (of the sex they choose) and have them later in life to accommodate career and other lifestyle aspirations. Later parenthood will mean more years with greater mobility, freedom and increased possibilities of changing home and work locations including living and working overseas. Family values will continue to be eroded. Marriage will continue to decline in popularity and transience will become the norm evidenced in multiple partners and relationships.

With the whole span of life extended (to in excess of 100 years for men and women in the latter half of this century) people may have their first child aged 35-40 when financially secure. They could choose, through the assistance of medical advances, to have children when aged 50 or even over 60. Alternatively, with the stigma of illegitimacy and single parenthood a thing of the past, people may have children while young and then marry later (as Double Income No Kids (DINKS)) when the children have grown up.

Medical advances will deliver the prospect of longevity for some sections of society (notably the wealthy who can take advantage of the latest medical advances) but long-life will also demand attention to personal fitness, particularly amongst those over 60. This age group will have more leisure time and resources to pursue fitness. Independence in old age will be prolonged to some extent by technological support. With regard to healthcare for example, an electronic chip attached to or implanted in the body will monitor health and detect any serious deterioration, automatically alerting appropriate parties. Private health care will be accepted and demanded as the primary source of treatment for most people in society.

The consequences for housing occupancy, density and ownership of an increasingly individually oriented society are difficult to predict. With ambitions motivated by choice, freedom and material standard of living there may be a stigma attached to high-density living. Large houses and gardens may be the norm. For many people, gardens have come to signify social status and are fashionable lifestyle accessories. Similarly, aspirations to own rather than rent may remain strong. People crave the security and freedom of their own place and their own kind and resist sharing. The house owning culture may continue to exist primarily because of the prospect, after 25 years, of acquiring a substantial asset that could be used to provide financial security during increasingly long lifespans. Alternatively, an individual oriented society could lead to a mixture of low and high housing densities. If people are more individual, flexible, transient and mobile the future may be one of renting and low cost, high-density living. People may be located closer to their place of work if they are not reliant on accommodating the potentially conflicting workplace constraints of a partner. This could lead to a socio-economic segregation in housing. Families and older people may want to move further out of the cities valuing gardens and a slower pace of living. Inner-urban areas would then be populated by single people of working age. These people may move around on efficient public transport while families and older people on the suburban and rural periphery will be more car-dependent.

Technology used in education will facilitate a culture of individuality from an early age. Telecommunications will see 'distance learning' extended beyond its traditional scope of supporting dispersed rural communities. Internet access will facilitate personal advancement from an early age, although the social interaction provided at schools will see the continuation of traditional venues of learning. Virtual university education will prove popular because of the increasing costs of traditional university education. The facility will serve the need for life-long learning as demands for flexibility in the workplace render the acquisition of new skills essential.

Longer lifespans will lead to a restructuring of lifestyles and conventional expectations. People will use time in their younger life to pursue leisure interests knowing that their careers will be much longer affording ample time to pay off debts incurred. Retirement age may be raised to 70 or higher to ensure that most people spend at least half of their life in employment and paying taxes to the exchequer. Technology will make physical attributes less important. Those formerly considered of retirement age will have the experience/social skills deemed vital commodities in many industries including the flourishing service sector.

Working practice will change to accommodate individuality. Ethics of company loyalty will be replaced by the notion that everyone is effectively self-employed at work with personal control and responsibility over

their career path. Workplace flexibility will be further reflected in working hours. In a global economy traditional nine to five working will be deemed anachronistic. People will work the hours they want as flexi-days. The escalation in efficiency and productivity demands to retain profit margins will pass increasing pressures onto the workforce. To cope, the convenience society of today will continue, preferring 'make, break, throw away' to alternatives that resemble sustainability.

## **POLITICAL AND ENVIRONMENTAL DRIVING FORCES**

### **Free Market Oriented Society**

In this scenario the free market will increasingly determine the way in which decisions are made. It will be accepted that it provides the best basis for prosperity. There will be an international consensus that government intervention and spending on a large scale, similar to the American New Deal in the 1930s, is inflationary and therefore undesirable. Any political tendencies to move away from the free market model will be 'trampled over in the rush' as countries from the developing world mature economically and follow the free market model.

The move to a free market oriented society will in part be a reaction to the perceived failures of government intervention. The British people will become increasingly disillusioned with predictable and adversarial political debate and national government that will be seen as secretive, weak willed, and inefficient. Efforts to revive local democracy through devolved local government and elected mayors and assemblies with little real power will be met by declining public interest and acceptance. Local government will be seen as a further inefficient and bureaucratic extension of central government. Cynicism about the motives and behaviour of politicians and the electoral system will further encourage people to look to the market to address society's needs as people will demand actions not words.

Globalisation and weakened government control might lead to a situation where a limited number of players are able to obtain control of certain consumer goods markets with genuine prospects for monopoly situations that governments will have only limited ability to prevent. Such corporations have the potential to eventually assume roles of implicit if not explicit governance, though not necessarily defined by national or continental boundaries. Although the integrity of large organisations might initially remain attuned to society's best interests such integrity will come under increasing pressure from conflicting demands for profit.

A free market oriented society will contribute to increased levels of migration as people will move as freely as goods and services. Migration will not be based solely on economic grounds as countries/regions will have to offer other social and lifestyle based incentives to attract migrants. Migration within Britain will increase substantially. The South East of England will continue to be an economic hot-spot of a high growth service economy. However high growth and the reduced dependence on physical location that telecommunications affords will result in a growth of some metropolitan areas as complimentary centres of commerce to London. In spite of opportunities for high-density living, a significant proportion of those who cluster in these areas will have the money and inclination to demand spacious living. As a result social segregation between cities and regions of economic prosperity and less successful areas will become increasingly marked and a large proportion of the population will lack the financial resources to migrate to the more attractive areas. This will have implications for the economic landscape of Britain with failing industries including some types of manufacturing and agriculture being increasingly pushed to the geographical margins. Leisure migration will become popular. People will retire in increasing numbers to areas like Mediterranean Europe in search of a better climate and escape from the pace of life associated with highly competitive economies of the Northern European region. This will result in a similar form of economic clustering as people of similar social class will congregate to share in this leisured lifestyle.

The free market economy has great potential to inflict damage on the environment and in particular resource consumption. It is possible that pricing mechanisms and the profit driven self-interest of market forces will naturally control environmental exploitation. It could be that markets will level off as depleted

resources become so expensive that new solutions, innovations and products are developed and targeted as alternatives and then consumption steadies (although by this stage a great degree of the damage will have already been done). For example, with escalating oil prices would come a relative decrease in the cost of solar panels to provide domestic and industrial heating. In addition, increases in production efficiency will slow resource depletion as the principle of 'cutting costs means cutting waste' is applied. On the other hand, it could be that scarcity would add to the profitability of controlling certain resources, such that there was intense competition to sell, for example, the last available North Sea cod stocks. Companies controlling non-renewable resources might actively seek to stifle competition from more sustainable rival products, for example, oil companies might buy up and patent solar technologies, so that exploitation of its full commercial potential is held back whilst there is still money to be made from the more profitable activity of oil production. The free market will also have the capacity to accommodate environmental consumerism. This is tentatively evidenced in the realm of food with the recent rise in the popularity of organic produce and opposition to developments like GM foods.

Social exclusion will have stark consequences in this scenario. Market forces will increase the divide between the 'haves' and the 'have nots'. As a result the 'have nots', in the face of diminishing state support, will have an increasing propensity to turn to crime. Rather than recognise and take actions to avert such a trend in the interest of its impact on national economies, industry will seek to prosper through the exploitation of the fear of crime among the 'haves'.

### **Government Interventionist Society**

In this scenario there will be a transformation in the political process of national government to accommodate increasing levels of intervention. This will require strong leadership at a national level ignoring adverse public and media opinion and taking serious decisions in the long-term national interest rather than in the interests of party politics and commercial lobbyists. This will reverse the culture in which measures that will provide for a better future are hampered by short-termism as expressed through public resistance and voter outcry which lead politicians to tinker with the system rather than making radical changes. This transformation will be driven by the success of international examples of more authoritarian yet benevolent governments such as that currently championed in Singapore. This transformation could be achieved through a change to the five year political cycle or the electorate could be educated to think more long term recognising that policies often only take full effect after ten or more years.

National government will increasingly see decentralised local government as the preferred mechanism for intervention. Even a strong central government will recognise that some decisions have to take account of specific local circumstances and are therefore best taken at a local level. Elected mayors backed by assemblies in both the major cities and smaller towns will use new found authority to create sustainable urban environments. Incentive based policies to encourage sustainability will also be introduced and made possible by national government providing the legal framework and devolved local government discussing the issues with the public and developing consensus. This approach to decision-making (embryonic at present) will increasingly serve to allow new initiatives to be tested in a particular location, benchmarked by others and then implemented more widely if deemed successful.

Powerful elected individuals (bearing substantial accountability) will have a greater incentive to make a difference than an elected body. Their effectiveness and public support will be heightened by the fact that they will opt out of national party sparring. Nevertheless, governments will need to be wary of the risks associated with continually 'passing the buck' to local authorities for difficult or unpopular policies. The patchy implementation of such policies by local authorities may limit the effective delivery of measures such as sustainable transport policies across large parts of the country.

These political developments will reinforce cultural changes particularly relating to identity. People will increasingly define their identity in terms of region rather than nation. This process will go even further with identity expressed in terms of ethnic groups or communities leading to a highly diverse society. This diversity will not be seen as insular but as cosmopolitan and internationalist. Population mobility and

migration will reinforce these cultural developments as intermarriage and transience cultivates a changing and diverse rather than traditional and segregated society. The high level of mobility will aid the transfer of ideas across borders and facilitate quicker adoption and implementation.

The creation of a more consensual form of politics which is based on intervention for the public good and the experience of effective local and international government in improving everyday life will revitalise political participation. Compulsory voting will ensure that the electorate as well as the politicians will be expected to be more accountable and socially responsible. The introduction of PR for all elections will serve to encourage the belief that every vote will count. Voting will become more convenient. Eventually, polls will take place electronically making use of secure data transfer and electronic signatures to identify voters. As a result government will be able to regularly poll its electorate where appropriate. People will be educated about the importance of participation in the political process from an early age through citizenship classes in schools.

Government intervention will serve to dramatically reduce crime in society at the expense of a measure of individual freedom which will be considered acceptable. This will be in response to the successful examples of Singapore and the 'zero tolerance' measures used in New York to create a safer society. Personal identification will be extended to electronic tagging and then in the longer term to the implanting into people's bodies of an ID chip. Public resistance to ID chips will decline with recognition of the inability of police forces to control crime with available resources in the absence of using such technology. Further legislation stemming from the 1998 Data Protection Act will seek to appease concern and protect against invasion of privacy. While this may appear to reduce individual freedom on one count, people will feel safer to utilise spaces previously considered dangerous, in effect providing greater freedom of access and movement for the majority.

## **ECONOMIC AND TECHNOLOGICAL DRIVING FORCES**

### **Workplace to the Workers**

In this scenario teleworking will become a very widespread practice significantly impacting on the ways and culture of working. The term teleworking, which currently signifies to many a fringe form of working practice, will disappear as it will become a common working practice with no need to highlight the significance of workplace location. Large sectors of employment (such as primary and manufacturing industry, health services and retail and leisure services) will be unable to shrug off the significance of workplace location. However some sectors of the expanding service sector (which, with the conventional concept of a daily commute, would have accounted for a substantial share of (company) car traffic) will become ideally suited to teleworking practices.

Early pioneers of teleworking practice who involve high proportions of their staff will achieve substantial savings in the historically fixed infrastructure costs of expensive and large office buildings and associated parking spaces. Such savings will be invested in the provision of high quality teleworking facilities in other locations and in increased salaries and other employee benefits. The uptake of teleworking practice will then accelerate as early adopters are seen to thrive commercially because of the high quality staff they can attract.

The long-term solution to the problem of social interaction will be the community office or telecottage. These already exist in growing numbers today. People from different organisations will work in their local office. Offices will be more sophisticated than examples of telecottages seen today. A community office will contain a number of 'worker cells'. These will be self-contained, insular, miniature working environments with high quality telecommunications media to enable remote virtual interaction with other company staff in other such offices. Such 'cells' will ensure that information security within a multi-company office is maintained. The office will provide the context for the rediscovery of local communities. Sharing with different disciplines will be stimulating, aiding community integration as people will be grouped by locality and not corporate colours and leading to less hierarchical work structures as people

from different ranks interact on a more equal basis. The 'worker cell' will become seen as the workplace for a large proportion of people. Worker cells will not only exist in community offices. A growing proportion of dwellings will also have them as will transport interchanges. Further into the future worker cells will be compatible across different countries thereby rendering the physical location of the workplace even more insignificant.

Technological developments will serve to facilitate and even stimulate teleworking. The qualitative standards of electronic communications will improve so greatly that travel and the printed media will become non-essential, largely leisure based pursuits. Communication between employer and employee via video conferencing will be highly realistic and effective, eliminating the need for a large proportion of physical meetings. Realism is likely to extend to video quality immersive virtual reality, particularly for the 'executive worker cells' in community offices. Users will no longer face the clumsiness of today's videoconferencing that cannot accommodate eye contact and body language (and which appears, as a result, to be largely ineffective as a means of travel substitution).

Publicly accessible communications points (akin to phone boxes) will be commonplace and will contain many of the communication features of the worker cells. As with today's technology there will continue to be a range of quality in facilities available. Nevertheless, multimedia communications facilities will be used by all or the vast majority of the population, irrespective of age and of whether or not they work in the service sector. The almost universal access and use of technology will serve to expand the range of jobs which prove compatible with teleworking as all manner of service industries will advertise and consult using communications technology. Staff productivity monitoring technology will also ensure that teleworking is not confined to 'high flyers' as management will effectively assess remotely the performance of staff such as call centre operatives.

The consequences for housing and land use of increased teleworking will be mixed. Companies will not need as much office space which will free up space in urban areas for housing, leisure, open space and other uses. The more intensive use of smaller buildings made possible by accommodating work and home in the same building will lead to some higher density living. However, homes that accommodate workspace will have to be bigger than those which do not. Generally, buildings may be utilised for larger amounts of time. Instead of sharing time between the office and the home, people will spend more time at home. This is more energy efficient. The reduced need for office space will enable greater numbers of people to be accommodated in cities who will, in turn work in community offices as they will be prevalent in cities as well as villages and towns.

Although the issues of social interaction and exclusion associated with teleworking will be partially addressed in the ways already outlined, problems will still occur. The culture of teleworking, where it leads to a reduction in travelling and social interaction, will encourage the creation of insular communities and something of the cultural diversity of these areas will be lost. Despite Government and commercial efforts some people will still be excluded from the culture of knowledge and technology. This will polarise and segregate society with inequality of treatment, opportunity and expectations still prevailing.

The 'workplace revolution' described in this scenario will impact upon a number of aspects of the nation's workforce. The erosion of the importance of physical location will enable a more effective and sustained match between employment supply and demand (at least in the service sector) in contrast to today where the geographic patterns of supply and demand are not fully compatible leading to unemployment and staff shortages. As a result, the total working population will increase in size. This will also be fuelled by an increase in the retirement age and an increase of women in the workforce. These increases will result from the greater opportunity to work on a part-time basis and to job share. The older workers will be able to continue in employment longer as a consequence of homeworking and the flexibility of workload they can choose to sustain.

Couples are less likely than today to face the problems of conflicting workplace locations and commute requirements. Childcare will be rendered more flexible through the presence of one or both parents working in the home although as women increasingly take advantage of the opportunity to develop 'tele-careers' on

a full or part-time basis the need for independent childcare facilities will remain or even increase. Although teleworking will substantially dampen the rate of change of home location it is likely to sustain or increase the rate at which workers change employer, particularly with the prospect of sophisticated means for companies to identify and head-hunt high quality staff. Companies will equally strive to retain high quality staff. Such increased dynamics of the employment market have the potential to lead to further increases in working hours particularly with an almost seamless boundary between work and home. However, because workers will be able to be more selective with employers and can change employer without disruption to their domestic circumstances, they will demand acceptable working conditions including hours worked.

## **Workers to the Workplace**

In this scenario the workplace will remain important and indeed grow in importance for a large proportion of the population. Trends in working culture will serve to assert the primacy of workplace location. Management culture and job insecurity will continue to encourage longer hours and to place a premium on time. Government legislation to limit the working week to 48 hours will prove difficult to enforce and companies will still have the option to operate longer working hours if employees consent. Many employees will consent because they feel it is the only way to ensure career progression. Time pressures will increase, working hours will lengthen and the notion of having hours of leisure will become increasingly illusory to many people. Workplace stress will increase and resultant relationship break-up and divorce will be more common. Time pressure will drive people to live and work in close proximity, or demand convenient and fast modes of travel.

There will be a clear recognition that (regular) homeworking does not provide a viable alternative to the office for the majority of workers. Developments in workplace technology will demand that people travel to work as the costs of support staff and training for newly acquired technology will be cheaper if centrally located at a single site. Home working will be seen to be detrimental to both work and home life. Concern for social and familial duties will compromise working efficiency. The use and benefits of childminders will become more widely accepted as the benefits of full-time care and interaction with other children at an early age is recognised in the face of increasing work pressures for both parents. Employers will recognise that employees who work two rather than five (or more) days a week are just as valuable to the company and job sharing will not prove a barrier to career progression. Government may have to address the problem of reduced tax revenue from an increase in job sharing, caused by single posts generating two personal tax allowances.

The workplace will adapt in response to increasing time pressure and longer working hours. Companies will take responsibility for provision on site of services and leisure facilities not normally associated with the traditional working environment such as bedrooms, gyms, shops and restaurants. As more leisure facilities become available the distinctions between work and leisure will become increasingly blurred leading to an almost subconscious acceptance of longer working hours. It is possible that provision will extend a stage further into employer owned towns but this would only be viable with the largest of companies.

New approaches to the culture of work will be reflected in the working environment. It will be recognised that communication and creativity thrives best in the communal social areas such as coffee bars and restaurants both within and outside of the business environment. Such places are centres for networking and the flow of information and ideas. Companies and city centre environments will be redesigned to reflect the importance of these areas, leading to even less formalised and rigid working environments than the open plan offices of today. Hot-desking will become the norm in most offices as the need for fixed workstations diminishes. It will be recognised that for cities and towns to remain economically competitive they must provide environments where people can easily access their place of work and their peers, moving simply and rapidly between work and leisure environments. Companies will recognise and promote lifestyle as integral to a contented workforce and their own prosperity.

Government and private companies will continue to appreciate the logistical and economic benefits of the clustering of resources and workers buoyed by global patterns of development. This will be reflected in intense public and private investment in business parks, science and technology parks and other campus type centres of industry. Government will continue to sponsor business incubation projects where new companies are sited in such parks where they can benefit from easy access to resources of expertise and technology. This will form part of a broader economic policy, which recognises city-regions as the engines of economic growth and therefore invests in regional development on a large scale.

## **IMPLICATIONS FOR TRANSPORT**

A number of transport implications arise from the scenarios considered. The text below considers some of these although the intention is to be illustrative rather than exhaustive in exploring the types of developments in transport that will be required to respond.

Total population will not in itself place an additional burden on the transport system in terms of the number of potential tripmakers. The lifestyles adopted by the population will however greatly influence travel demand and the use of different modes of transport. In both the community and individual oriented society people will delay having children resulting in a longer period in early adult life of high levels of mobility and home relocation. The individual oriented society is characterised by personal flexibility coupled with increasing affluence. This will result in a greater dependence on personal forms of transport. Ownership or long-term rental of a car or other personal vehicle is likely to increase. Highly individualised pay per ride systems, equivalent to taxis, may also become appealing and affordable as alternatives. If urban renaissance is realised in a community oriented society then high density public transport corridors will become much more viable than today and indeed the need for private transport will be further diminished because the size of housing developments will be sufficient to support local amenities and activity centres.

Optimism at the beginning of the 21st Century that new sources of oil will continue to be found will prove to be misguided. The free market would drive technological innovation leading to the creation of environmentally friendly cars as a niche service which will subsequently develop into a mass service. Environmental dangers will be addressed by the introduction of fuel cell and organic waste powered cars. Vehicle emissions will also be dramatically reduced, regardless of any increase in total vehicle traffic, by the introduction of zero emission vehicles (ZEVs). The concern that ZEVs involve a transfer of air pollution from the vehicle (point of use) to the source of energy production (e.g. electricity power station) will be addressed to some extent through parallel technology and science innovations to deliver clean(er) energy production.

In the free market oriented society, businesses will protest at the cost and inefficiency of road congestion and convince government and the public that free flowing roads at a cost are better than congested roads. In response the government will auction off roads to private companies. This will provide a context for road user charging. Any lingering cultural opposition to such moves will be overcome by practical experience of the benefits. When congestion does occur the experience will be dramatically improved by in-vehicle infotainment including Internet access and roadside environments that have been improved to be more scenic and interesting. The experience of public transport under a free market will be mixed. Where a market exists such as in large cities and main inter-urban routes, services will improve as companies compete to operate profitable services. This will be evidenced in the re-branding of public transport by private operators using commercial marketing techniques. Buses and trains will be recognised as being lucrative (and captive) advertising markets stimulating investment partnerships between operators and other commercial organisations. This will result in email, television, radio and other forms of interactive entertainment being standard on-board facilities. These facilities will improve the perception of public transport making its use more socially acceptable within major urban areas. Less profitable services, particularly those in rural areas will struggle to survive in a culture where government subsidy of unprofitable services meets with strong disapproval. The transport of information will be seen as being as important as that of goods and people in the free market oriented society. The telecommunications industry will experience problems of traffic and congestion comparable to those faced by the transport industry.

Information will be seen as the currency of a free market economy with knowledge increasingly being seen as a weapon as well as a resource. Those with access to valued sources of information will be successful. Other people will be excluded and marginalised.

A government interventionist society will promote a wider recognition of the environmental and societal impacts of road transport. Recent examples of co-operation between the European Governments and vehicle manufacturers have secured reductions in CO2 emissions and this process will provide a fast track to the development of more sustainable modes of transport. Whilst a free market oriented society will achieve the same goals to some extent through efficiency and consumer demand it has the potential to be a longer term and more environmentally damaging process.

Both the free market oriented and government interventionist society signal a future increase in the dynamics of migration patterns. It is unclear on what scale migration will occur and in turn what impacts it will have for travel. If, for example, a significant proportion of the retired population of the UK were to migrate to continental Europe in pursuit of more favourable climates then the predicted boom in leisure travel associated with this age group may not arise within the UK. Of greater significance perhaps is the potential for more dynamic and widespread patterns of migration to stimulate change and the acceptance of it. This could enable new transport policies and practices and other areas of policy change impacting upon transport to be introduced with reduced public resistance. As people migrate so too will examples of successful practice in travel demand management from around the world.

Crime and the fear of crime in the free market oriented society will be detrimental to advances in transport solutions as communal means of travel are seen as a threat to personal security and the insularity afforded by private vehicles becomes even more prized for the protective environments they provide. Acceptable compromises in invasion of privacy, data protection and civil liberties in the government interventionist society might release a generation of more effective transport solutions as information about individuals and their movements becomes available to transport system providers and authorities and enables them to better influence and control travel demand.

The workplace to the workers scenario would increase demand for public transport. People will want services close to their homes so that they do not have to travel far to access them. This will result in a greater proportion of non-motorised trips. In contrast, as people don't need to travel (regularly) to the workplace they will have more flexibility in terms of living place. Whilst this will support greater family life it could also encourage the dispersal of homes for those who can afford to live in more remote areas where they may become more car dependent.

The travel implications of a society where workplace location becomes increasingly important are mixed. People working in city centres and business villages will seek to minimise the time they spend travelling in the context of lengthening working hours and will increasingly choose to live in urban locations relying on efficient public transport. By contrast, campus based workers in business and science and technology parks as well as call centre staff and industrial shift workers will continue to be located outside of the cities and adjacent to major roads. They will continue to rely on private transport. Private transport will continue to be seen as the only viable mode for a large proportion of consultancies and burgeoning small and micro companies who rely upon irregular and varied trip making to visit clients. The growth in domestic passenger flights will continue apace. Businesses will increasingly view the mode as viable in terms of cost, speed and convenience as the competitive deregulated market sees niche business services develop with costs driven down and services increased.

The consequences for international air travel will be even more profound. Companies operating in the global economy will increasingly desire physical contact causing dramatic expansion in travel pressures on routes to airports and in the air. Business class flights will grow apace and regional airports will expand in size and services to meet demand. Air travel will cease to be considered seriously as a luxury for the few but instead as a necessity for the many. Companies will increasingly see benefits in sending employees to work abroad and international business consultancy will be a major growth industry worldwide.



To date, evidence that demonstrates a reduction in travel as a result of telecommunications is scant. It does not appear that the telephone has dampened the need for business travel. If anything it has stimulated it. Videoconferencing and virtual meetings have not been able to deliver technologically an experience that matches the real thing. As a result the need for face-to-face contact in business has remained. The advances in technology we envisage have considerable potential to overcome this situation. However, particularly in the workplace to the workers scenario, a more fundamental issue might prevail, namely man's in-built desire for mobility and contact with others. If this is the case then the suppression of business and commute trips is likely to lead to an increase in leisure trips leading to far less predictable temporal and spatial patterns of travel and traffic. Nevertheless, the potential exists for peak congestion periods to diminish as conventional 'rush-hours' are replaced by a more even spread of traffic throughout the day. This may be seen as desirable in either scenario and planning permission for any new, large centres of employment may require working hours to be staggered throughout the day in order to reduce localised traffic congestion at peak times.

The workers to the workplace scenario has greater potential to stimulate regeneration of urban areas as the importance of the workplace increases alongside a growing need to reduce commute times to accommodate a longer working week. The importance of national centres of business activity to operate in an international business market linked by air travel will further concentrate people and commuting into urban areas and produce densities of commuting along corridors that can support high quality public transport.

## **CONCLUDING REMARKS**

The pace of change and the extent to which the scenarios in this paper will evolve is dictated by two somewhat opposing forces. Technological advances are often termed *revolutionary* and advancement and change in this context is proving rapid. However human behaviour and habit are slower to respond and in contrast might be termed *evolutionary*. Technology can facilitate changes in behaviour and lifestyle, but it must be recognised that there is a need for social and political will to take on technological advances. Whether such changes, if and when they occur, are positive or negative is dependent upon actions taken to control how technology is allowed to manipulate our existence.

Who could have foreseen twenty years ago the arrival of the Internet and in turn the emergence of worm viruses that can, in a matter of hours, infect many millions of computers worldwide with potentially disastrous consequences? Who is to say exactly when in the future natural resources might be depleted to catastrophic levels? Will genetic engineering ever halt or rapidly slow down the process of ageing and if so when will the breakthrough take place? Who would have thought cloning of pigs and sheep and transplants of animal organs would take place? Are the recent demonstrations against capitalism in major cities in different countries the tip of an iceberg or will it be a short-lived and insignificant chapter in history? Futurology should not be trivialised by offering a pretence of definitive outcome. It might therefore be tempting to adopt a continuation of incremental response in transport developments to changes in society and lifestyles. Yet a more forward looking and perhaps even contentious approach to decision making in transport might hold the key to greater longer term rewards. Regardless of which approach is adopted it is important for transport professionals to recognise the link between society and lifestyles and transport. The shaping of one exerts a strong influence in the shaping of the other and as such solutions to transport's problems may themselves lie in addressing aspects of society and lifestyles.

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## REFERENCES

- Anon (1999). Jobs for life still not dead and buried. report on 'National Association for Pension Funds Report 1999'. *The Guardian*, Saturday August 14.
- Association for the Study of Obesity (2000). *Obesity: The scale of the problem*. Obesity Resource Information Centre, <http://www.aso.org.uk/oric/backgrnd/problem.htm>
- Brindle, D. and Quinn, S. (1999). *Social Focus on Older People*, TSO, London.
- Datamonitor (2000). *Call Centre Markets in the UK to 2003*.
- DETR (1999). *Transport Statistics Great Britain: 1999 Edition*, TSO, London.
- DETR (2000a). *Quality and Choice: A Decent Home for All*. The Housing Green Paper, April.
- DETR (2000b). *Planning Policy Guidance Note No.3: Housing*. March.
- DETR (2000c). *The Effects of Divorce, Remarriage, Separation and the Formation of New Couple Households on the Number of Separate Households and Housing Demand and Conditions*. Housing Statistics Summary No. 4.
- DOT (1996). *National Cycling Strategy*, HMSO, London.
- Engineering Council (1997). *A vision for transport 2020*. Thomas Telford, London.
- Eurostat (1996). *The European Union: key figures*.
- Finch, J. (1999). Gym firm bulges. *The Guardian*, 13th October.
- Home Office (1998). *The British Crime Survey*.
- Lang, T. and Hines, C. (1995). *The New Protectionism*. London Earthscan.
- Masser et al. (1992). *The Geography of Europe's Futures*.
- National Statistics (2000). *The National Statistics Website*, <http://www.statistics.gov.uk>.
- Scase, R. (1999). *Britain Towards 2010: the changing business environment*. Foresight/ERSC, HMSO, London.
- United Nations (1999). *World Population 1998*. Population Division, Department of Economics and Social Affairs.

<b>Present and Projected Social Driving Forces</b>	<b>Community Oriented Society</b>	<b>Individual Oriented Society</b>
Population will decrease	✘	✓
Net inwards migration will continue	?	?
Life expectancy will increase	✓	✓
Women will have children later in life	✓	✓
Legal union (e.g. marriage) will decline	✘	✓
Continued major increases in housing stock	✘	?
Average household size decreasing	✘	✓
Increasing use of childcare facilities	✘	✓
Overseas travel increasingly common	?	✓
Personal fitness increasing	✓	✓
Prolonged personal independence	✓	✓
Increasing (material) standard of living	?	✓
<b>Political and Environmental Driving Forces</b>	<b>Free Market Oriented Society</b>	<b>Government Interventionist Society</b>
Reform of political process/structures	?	✓
Increased political participation	✘	✓
Local level decision making will prevail	?	✓
Increasingly dynamic patterns of migration	✓	✓
Regions will gain increasing social, economic and political significance	✓	✓
Sustainable resource consumption	✘	?
Social segregation and economic division accelerates	✓	✘
Crime levels increasing	✓	✘
Personal freedom increases	?	?
<b>Economic and Technological Driving Forces</b>	<b>Workplace to the Workers</b>	<b>Workers to the Workplace</b>
Increasing size of total UK workforce	✓	?
Decreasing unemployment rate nationally	✓	?
Decreasing retirement age	✘	✓
Proportion of women in paid employment increasing	✓	✓
Workers changing employers more frequently	?	✓
Increasing level of part-time working	✓	✓
Increasing length of the working week	✘	✓
Increasing practice of teleworking	✓	✘
Increasing service sector employment share	✓	✓
Increasing level of disposable income	✓	✓
Increasing air travel	✓	✓

✓ - agree ✘ - disagree ? - uncertain

Table 1: Overview of Possible Defining Trends for the Future of Society and Lifestyles