Scottish transport review

Issue 37
October 2007
www.stsg.org
ISSN 1462-8708

An independent publication by
Scottish transport tudies Group

SPECIAL THEME

Ferries, Tariffs and Competitiveness

Paying for Transport

WHAT'S INSIDE:

How do Scotland's rail services compare with mainland Europe?

Modes of travel to work

Contents

The Scottish Transport Studies Group (STSG)

STR is the newsletter of the Scottish Transport Studies Group (STSG) and is largely funded from STSG membership subscriptions. STSG was formed in 1984 and now has corporate and individual members from transport operators, industry, national government, local government, universities, and consultants.

The aims of STSG are "to stimulate interest in, and awareness of, the transport function and its importance for the Scottish economy and society: to encourage contacts between operators, public bodies, users, academia and other organisations and individuals with interests in transport in a Scottish context; to issue publications and organise conferences and seminars related to transport policy and research". STSG has charitable status.

Cover photos courtesy of Cycling Scotland

Published by LBD • www.lbd.uk.net • Tel. 0131 478 5378

Who decides what goes in STR?

Firstly the members of STSG - We rely on STSG members and others telling us about interesting studies they have completed or knowledge they have. To keep subscriptions low we need members to invest time to share their knowledge. STSG has some funds to commission some analysis and reporting but the editorial work is undertaken voluntarily.

Secondly the Editor Derek Halden, assisted by the STSG Committee tries to fit the contributions into 16 pages and create a readable document.

If you can contribute to STR please e-mail editor@stsg.org

Funding Challenges in Scottish Transport
Summary of STSG Seminar hosted by Price Waterhouse Coopers

Options for procurement and financing should be considered throughout the life of a transport project as it develops, from inception through to transaction phase. Consideration of financing often comes too late in the development of a project. There are many available pots of money for major schemes and a growing need to consider alternative and innovative funding sources.

STSG held a seminar in August 2007 to allow stakeholders from across the industry to discuss roles, responsibilities, and opportunities for funding transport in Scotland. The seminar also discussed specific transport projects where innovative funding solutions have resulted in approval that otherwise would not have occurred. The debate centred on three main themes:

- Why should public bodies fund transport and how should they justify the funding to the electorate
- Ensuring value for money and transport appraisal
- Methods of raising the money

Transport infrastructure investment is often justified on the basis of its economic development, social inclusion or environmental enhancement, so the starting point is to ask how much transport funding should come from the transport budget and how much from other wider sources. In practice, financing structures must vary. Integration across public policy areas is critical to establish where the lead funding responsibilities should rest, and what the maximum level of public sector contribution should be.

Budgets for transport are under greater pressure, and concerns about private finance are growing

Asset maintenance tends to rely mainly on transport funding, whilst regeneration and economic development projects tend to rely on a substantial stake from non transport investors. Deal making skills are essential to identify the optimal funding approach. However, the negotiating position of public bodies is sometimes hampered by political commitments to deliver particular schemes. For example a new road might only attract sufficient priority over public funds with additional developer contributions. Once the decision has been made to proceed, the political consequences of delay may be greater than the cost consequences of increased public funding. Most transport investment involves private sector operation in managing facilities and operating vehicles. Political commitments to deliver can therefore affect the parameters of the negotiation with operators. To ensure value for money, the terms under which each project will be prioritised for funding need to be build into the commitment for delivery.

Appraisal of value for money depends on clearly linking public policy aims to public funding. Transport is a derived demand so measuring value is complex. The consequences of transport failure to the wider economy are much greater than the consequences within the transport economy. Transport project delivery depends on identifying this value outwith the transport economy, and capturing revenue streams (e.g. from regeneration benefits) that reflect the full value of the investment to the wider economy.

Value for money depends on:

- Optimising allocation of risks between partners and rigorously executing the transfer of these risks within contracts.
- Focusing on whole life costs
- Integrated planning and design of facilities and services
- Specifying outputs whilst maintaining flexibility since the future is uncertain.
- Building incentives in procurement consistent with the value for money aims.
- Appropriate skills and expertise need to be available consistent with the scale and complexity of delivery.

The approach to appraisal and the approach to procurement need to be more closely linked to improve value for money to ensure that opportunities in procurement feed back into programme and project prioritisation and optimisation. In developing the business case for investment, continued iteration is required to develop approaches which maximise the benefits and minimise costs. If the sensitivity of each parameter is assessed when determining value for money on the overall project, the project can be specified to minimise risk for the funders.

Project finance can be cashflow based, asset based or corporate based. Relying purely on public funding means that costs need to be met when they are incurred. However, the benefits of earlier investment may be substantial, so alterative funding sources can be used, involving borrowing money with:

- Loans from banks - this tends to be an expensive way to raise money particularly if there is investment risk on the project carried by the banks.
- European Investment Bank funding - aims to finance capital investment furthering European Integration promoting EU policies. The EIB operates like a development bank but using the revenue from successful investment to finance other projects but in other ways operating. However the bank does not seek to generate profits so can offer loans at rates 20-50% less than in the commercial marketplace.
- A Scottish Futures Trust - could enable the Scottish Government to borrow money in the marketplace. Similar approaches have been adopted by State Governments in the Unites States of America.
- Business contributions - can be used to provide loans to the project which are recovered over time. For example a company might gain from new infrastructure being built and make an up front investment to help it be built. This can be offset over time through reductions in business rates or discounted costs for users of the services by the business.

Budgets for transport are under greater pressure, and concerns about private finance are growing. STSG plans to follow up the seminar to help professionals share best practice on new approaches. If you would like to contribute to this debate, contact STSG on enquiries@stsg.org. Further details about the recent seminar can be obtained from Tony Rose or Jonathan Turner at Price Waterhouse Coopers who will be contributing to this debate in the next issue of STR.

Ferry Transport in Scotland

Prof. Alf Baird and Gordon Wilmsmeier, Napier University Transport Research Institute (TRi) provide a summary of Transport Day at the Orkney International Science Festival arranged by the TRi.

The Scottish islands ferry industry has an annual turnover (incl. subsidy) approaching £200 million, and is estimated to provide about 2,000 direct jobs, plus a far higher number of associated direct and indirect jobs given the dependence of island/remote communities on sea transport for much of their trade and travel. Leaders from throughout the industry presented their thoughts on the challenges and opportunities facing the industry.

Transport policy

The shortcomings of current ferries and services are widely perceived to hamper socio-economic development. Naomi Coleman of Orkney Islands Council (OIC) and David Sawkins of OIC-owned Orkney Ferries showed that out-migration was occurring from the outer isles to the main island. The Scottish Transport Appraisal Guidance (STAG) process does not assist focused decision making for crucial investments and leaves the public sector ferry operator in an inferior position compared with private sector initiatives.

Maritime specialist Kieran Nash (Croi na Mara) explained that the clash of cultures between public and private sectors was a problem. The private sector manager in charge of a commercial operation must continually perform well and ensure the organisation itself performs at its best within a competitive and fast changing business environment. This often conflicts with heavy handed approaches by some public sector organisations, which adds bureaucracy and delay and stalls development, innovation and economic growth. Nash argued that the most important thing to some public sector managers appeared to be 'the size of his/her desk' and that job security did not appear to be a problem, even for those overseeing commercial failure.

The role of government as efficient and effective shipowners and ferry service providers, was raised. The discussion centred on whether this responsibility might better rest within the private sector, with or without subsidy as required.

Head of Shetland's Transport Partnership (ZetTrans), Ken Duerden presented on how specific measures such as longer ferry operating hours, higher frequency and short passage times help achieve increased ridership and thereby retain island populations as well as enhancing economic activity. This contrasted with the lower service frequency, longer routes using relatively slow ships, and more limited operating hours of ferries within Orkney.

Ferry fares and road equivalent tariff

Highlighting the example of ferry services to the islands of Gigha and Lismore, Roy Pederson offered further concrete evidence confirming that improved configuration of services – especially high frequency, shorter routes, and reduced crossing times –result in far higher traffic growth since the crossing is perceived as much less of a barrier to travel. This in turn contributes significantly to economic growth by facilitating in-migration, economies of scale (in transport vehicles etc), greater economic activity and increased tourism potential. Somewhat faster ships perhaps combined with shorter routes are therefore key factors in route development.

Fig 1: One of the current inter-isles ferries based on 1980's design run by OIC's Orkney Ferrie

As inventor of the Road Equivalent Tariff (RET) concept for ferries, Pedersen nevertheless cautioned government that reducing prices was only one issue; innovation and improving the quality of ferry services were just as, if not more important.

The Cross-Forth Hovercraft

Gordon Wilmsmeier from Napier University's TRi supported Pederson's arguments by presenting results from the Stagecoach cross-Forth Hovercraft user survey, conducted during the recent July trial.[1] The 2-week trial involved a hovercraft service between Kirkcaldy and Portobello (Edinburgh) offering a completely new and innovative travel option between Fife and Edinburgh and avoiding congested bridges.

The users of this service perceived time, reliability and frequency to be the most essential factors in making such a service attractive, with price rather less of an issue. Users also stated that there is a clear need to integrate transport pricing, giving passengers a single ticket which includes ferry and connecting bus travel, plus car parking if required. The survey showed that users responded positively to innovation and that they perceived the public sector and certain interest groups as hindering innovative transport development and private sector initiative.

Ferry operations

Lorna Spencer and Guy Platten from CMAL (Caledonian Maritime Assets Ltd), the new state entity in charge of CalMac's ships and piers, discussed the issue of opening CalMac's harbours to competing private operators in what would be a new 'open harbour policy'. CalMac operates 29 ships between 56 ports within a heavily unionised set-up and highly subsidised operation. The possible "opening" of harbours could result in competition to CalMac services from new route developments and service innovations promoted by the private sector. However, under the current system, competition would inevitably be heavily distorted in favour of the subsidised operator and this could act as a disincentive to private sector operators.

Questions also remain if perhaps half-hearted "harbour opening" policies coupled with subsidy applying only to state-owned shipping companies can really contribute to innovation in the ferry sector? Moreover, does the CMAL (or inter-isles)

[1] *For details see: www.hovercraft-survey.s-and-w.org or www.stagecoachbus.com*

public ferry operation model offer potential and incentives for ship and service innovation, or will state entities continue ordering ships they believe are 'fit for purpose' but which wider ferry industry evidence increasingly suggests may instead be rather traditional, not especially efficient, and correspondingly high cost? In other words, instead of lowering transport prices and improving service quality, are publicly-owned subsidised companies not simply supporting inefficient/high cost ferry operations, at the same time blocking private sector innovation, and hindering economic growth prospects for the remote communities served?

Bill Davidson, CEO of Northlink Ferries, outlined his company's Northern Isles ferry services, operated under the current contractual arrangement the company has with the Scottish Government (its sole shareholder). The operational requirement of "fulfilling a contract" appears to provide little incentive or scope to radically improve service and efficiency levels. It was maintained that the contract and ferry service specification are decided primarily on the basis of consultation with stakeholders. In this sense, asking consultees to help design an efficient, effective ferry service assumes that consultees will know something about ship economics, ferry industry trends, ferry management/strategy etc, which is unlikely. Conversely, private sector ferry operators do not design ships through consultation - they tend to know the business they are in and can assess what is best in a given situation. This raises the question, can an optimal ferry service (or indeed any transport service) really be designed through consultation?

The appearance of privately owned operator Pentland Ferries offering a competing service between Orkney and mainland Scotland has had a negative impact on Northlink's traffic volumes. This implies that government has to compensate Northlink Ferries (which it owns) for any revenue loss as a result of competition from the private sector. Revenue losses incurred by the state-owned shipping company are therefore met by the taxpayer through increased subsidy. Increased subsidy levels are thus applied to compensate for relative inefficiencies and/or uncompetitive aspects of a service (the public service provided being an outcome of stakeholder consultation).

In effect, subsidy allocated to state-owned Northlink does not result in lower transport costs for the consumer; Northlink prices are still higher than Pentland Ferries prices even with the benefit of subsidy. This implies that subsidy is being absorbed by the state-owned carrier to cover its higher operating costs and relative inefficiency. Private shipping operators such as Pentland Ferries, Streamline, and Western Ferries on the Clyde have no similar public funding or compensation mechanism to turn to. This in turn raises the question as to the long-term sustainability of private sector shipping services, the latter effectively competing against the state. In other words, the longer this practice continues, the more likelihood there is of private operators being forced to withdraw from the market, and for which there is some recent precedent (e.g. Orcargo, Taygran, and Norse Island Ferries).

Fig 2: CalMac's 'new' ferry Bute, reflecting a somewhat traditional design approach

the lack of appreciation about what maritime transport can do for the Scottish economy perhaps reflects the fact that decision makers in transport often have an orientation only towards what they can see on a daily basis

Costs for new port berthing facilities used by state-owned Northlink at Kirkwall, Lerwick, Aberdeen, Stromness and Scrabster were all paid for by the state/local councils, whereas privately owned operators must finance their own port facilities, resulting in further market distortions. Additional public funding of on-terminal logistics facilities, such as livestock lairage and livestock containers, serves to push island livestock traffic in the direction of state-owned ferry services and away from private operator Pentland Ferries, the latter believed to be shipping most of the lamb traffic out of Orkney. Should the state not also finance berthing facilities (and livestock lairage/containers) for Pentland Ferries? Subsidy for shipping operations is one thing, the public financing of port facilities is another.

International evidence suggests that almost all other EU states have now privatised or intend to privatise their domestic ferry operations in line with EU policy. Scotland appears unusual in this respect, being one of the last places in the EU to retain and indeed since 2002 to expand the role of state-owned ferry operations. Private sector ferry services, maintained with or without subsidy, are a common feature of the transport landscape elsewhere, so why not in Scotland? Public sector ownership of so-called 'lifeline' ferry companies is hardly a guarantee of service provision, as the recent industrial dispute by Orkney Ferries crews illustrated, resulting in services to the North Isles being withdrawn for 3 days at the end of August, with the threat of further disruption remaining.

Other forms of subsidy were also considered. Introduced in 2006, the Air Discount Scheme (ADS) subsidy benefits island residents as well as private airline Loganair, but it has had an adverse

effect on both public and private ferry services. According to Inglis Lyon of HIAL, ADS has resulted in a dramatic rise in air passenger traffic and a big increase in air capacity and frequency to the islands. But subsidisation of airfares has inevitably led to a shift of passengers from ferry to air transport. To subsidised state-owned ferry service providers such as Northlink Ferries this matters little as government will always cover its losses, but private operators like Pentland Ferries are now finding they have to compete against both subsidised state-operated ferries as well as subsidised private airlines, which cannot be right. It is also noticeable that the ADS subsidy was introduced without a tender process, raising questions as to its legality.

Alistair MacLeod discussed the barriers Stagecoach plc faced in implementing its Forthfast hovercraft trial service across the Firth of Forth. Stagecoach used a hovercraft for the trial as neither Forth Ports plc nor the responsible public transport authorities would provide proper harbour facilities which would have been needed to accommodate other types of craft, such as catamarans. He noted that various environmental groups also had to be placated as they appear to view the sea as home only for ducks and fish, no longer to be used by ships for trade and travel purposes! The latter views appear exaggerated and tend to ignore the carnage inflicted on the animal kingdom each day through the more intensive use of other transport modes, particularly road transport.

Over 32,000 passengers used the hovercraft during the ten days trial, with average capacity utilisation above 80%; generally public transport vehicle utilisation struggles to exceed half this level. The hovercraft's success proved that such innovative transport alternatives are needed to rapidly improve accessibility between Edinburgh and Fife, which is currently significantly constrained due to problematic access via the Forth Bridges. Results from the Napier University online survey demonstrated that service frequency, speed and quality are the main drivers for commuters and tourists to use the cross-Forth ferry option. Analysis of the operation also showed the positive environmental performance of the hovercraft in comparison to car and rail travel, with fuel consumption per passenger being less than half that of a car trip. However, the hovercraft trial illustrated how public sector inertia and delay by state transport authorities can hamper innovative business ideas. The question for these agencies should not be how much subsidy does such a service need in its start up phase, but rather what are the subsidies per passenger trip paid in perpetuity towards alternative and increasingly problematic transport modes such as road, rail, and fixed links, and how can similar subsidy levels be applied to a public transport ferry service. Stagecoach quite rightly needs an answer to this question before committing to introduce a permanent cross-Forth ferry public transport service, in addition to assistance with interchange infrastructure.

Investment incentives for the private sector are entirely absent under the current schemes

Fig. 3: The 130-seat hovercraft used on the recent Stagecoach cross-Forth trial

Transport Innovation

Mark Willbourn of ship design specialists BMT Nigel Gee discussed innovation across several island ferry services. In virtually all cases the most innovative examples emanate from private sector operations, with or without public subsidy. The key factor here is that the private sector can act faster, and usually at much lower cost than public sector organisations, based on real commercial incentives to maximise traffic volumes and revenues whilst minimising costs. Such incentives may not be the same for public sector employees, whose posts are generally unaffected by success or failure, a point reinforced by Kieran Nash.

Craig Patrick of FBMA Shipbuilders presented Pentland Ferries new catamaran. He highlighted the development of a most efficient and cost effective solution, which also proves to be environmentally superior in terms of energy consumption and emissions, payload per litre etc in comparison to traditional designs of state-owned ferries. The new catamaran is expected to be far more efficient than any ship currently operating to or within Orkney, or indeed within Scotland, and will therefore become an important reference.

Pentland Ferries resulting high frequency is expected to revolutionise travel to/from Orkney. The company is also advocating a port shift from St. Margaret's Hope to the more southerly Orcadian port of Burwick. Orkney Islands Council has so far refused to give the company access to Burwick. This would result in only a 30-minute crossing time over the Pentland Firth and 8 round-trips/day. Earlier presentations suggested a significant increase in frequency had dramatic effects on a number of other island routes; could Pentland Ferries combination of Burwick, a new faster catamaran, turn-up-and-go frequency and attractive prices perhaps lead to a doubling of the current Pentland Firth market from nearly 300,000 passenger trips to say 600,000 pa? The economic benefits of this for Orkney would be considerable.

There were suggestions that Orkney Islands Council and Highlands and Islands Enterprise (HIE) Orkney should help provide Pentland Ferries with terminal facilities at Burwick and for OIC to lease the terminal there to Pentland Ferries. Ignoring this opportunity does a disservice to the future socio-economic development potential of Orkney.

Pentland Ferries new medium-speed (18-knots) catamaran is expected to act as an important reference in terms of the modernisation of

Fig 4: New ferry being built by FBMA Philippines for Orkney's Pentland Ferries

the ferry industry across Scotland, the latter currently dominated by slow-moving, and specification-constrained state-owned ferry companies, operating within committee-type decision making structures, encumbered with outdated union/labour constraints, and ordering questionable ship designs decided through extensive consultation views/constraints rather than based solely on commercial managerial expertise/market knowledge. Pentland Ferries new cat is likewise a useful reference for Orkney's council-operated inter-isles ferries. It is interesting that Talisman Energy also has a catamaran on order – to carry passengers to/from the Flotta Oil Terminal - and due to arrive for service across Scapa Flow shortly. So Orkney will see not one, but two new privately owned catamarans in service within the next 8 months or so. Is this perhaps telling the public sector something?

New ferry transport options do not only arise within existing mature ferry areas. Bill Main (BM Consulting) provided evidence from the example of the proposed new Norway-Shetland-UK ferry service which is currently undergoing a tender process as part of the EU motorways of the sea concept. The proposal demonstrates how public agencies might facilitate new ferry services, founded on appropriate policy objectives (in this case the EU TEN-T programme for motorways of the sea aimed at taking freight off roads) and with some start-up public funding available.

Maritime sector development

Current schemes in Scotland do not contribute to strengthen the maritime sector development and traditions, according to maritime specialist Kieran Nash. He suggested this is due to a lack of awareness of cultural maritime heritage, which has been an essential factor in the development of coastal and island communities, but is not considered in relation to future development opportunities. In a transport sense, the lack of appreciation about what maritime transport can do for the Scottish economy perhaps reflects the fact that decision makers in transport often have an orientation only towards what they can see on a daily basis (i.e. road congestion, rail issues, airport expansion etc.), hence public resources are ploughed into those areas. The new agency 'responsible for transport' in Scotland (Transport Scotland) is an example of this, given its focus and budget is primarily aimed at only two modes, road and rail. This raises further questions, such as who exactly is responsible for the development of maritime transport in Scotland, what is the maritime transport policy, and what resources are allocated to support that policy?

Professor Margaret Grieco (TRi) highlighted the potential of ferries to present and promote maritime heritage and culture. She emphasized the need to increase the awareness of the role of ferries in further development of the region concerned. Ferry services reach beyond simply delivering point to point transport; they are a vital point of communication and interchange. Emphasizing the tourist potential of the Scottish islands and coasts, Grieco demonstrated how ferry travel can add to the experience of a place. Traditions are of high value, and should be displayed as a representation of the Scottish maritime heritage on modern ferries, leading the way towards making greater use of the geography and economic potential of Scotland.

Summary

Critical success factors for ferries are efficient and effective operational schemes which allow for the provision of frequent, reliable and high quality services. The potential of private sector ferry initiatives are highly underutilised in Scotland as they are hampered by public sector inertia, as well as by protection of state-owned ferry operations. Market distortions are evident and this prevents more sustainable transport sector development and at the same time hinders innovation. Investment incentives for the private sector are entirely absent under the current schemes.

Lengthy bureaucratic processes preventing the timely introduction of essential transport innovations and service improvements. The socio-economic downside of such delays is highly negative for the remote communities concerned.

Introduction of new subsidy schemes such as ADS appear to be implemented without any thought being given to the effect on competing non-subsidised transport services, with evidence suggesting significant modal shift from sea to air transport as a result of intervention. If private air transport providers are eligible for 40% state subsidy on ticket prices, then surely private ferry operators need to be similarly compensated (e.g. a 'Sea Discount Scheme'?).

Private sector transport operators demonstrate a willingness to bring forward innovative, cost-effective transport solutions, despite heavily subsidised competition from state-owned operators and other subsidised modes. Conversely, public sector dependence on lengthy consultations with stakeholders may actually result in sub-optimal transport solutions, as well as excessive delays in implementation of service improvements, plus dependence on ever-increasing subsidy levels.

Industrial disputes on state-owned ferry services suggests the state actually has little control over 'lifeline' service reliability and this also raises the question as to the need for the state to own and/or operate ships in the first place. Moreover, EU rules dictate that all transport services in receipt of subsidy should be tendered, which is not yet the case with certain inter-isles ferry services in Scotland, nor with ADS. Related to this is the trend throughout the EU for ferry services, subsidised or otherwise, to be operated by the private sector, whereas in Scotland the role of the state has been expanded of late. Ultimately, promotion and protection of state-owned ferry companies raises questions regarding the long-term sustainability of competing private operators, as well as the real cost-effectiveness of current subsidy schemes.

Further details can be provided at: www.orkney-tri-transport-day.s-and-w.org.

Ferry Books

A review of two recent books with possible policy implications for Scotland by Tom Hart

The Kingdom of MacBrayne (1820-2005) by N S Robins and D E Meek was published in 2006 and looks at the rise of scheduled steamers and tourist services to Scotland's western isles and west coast. *Bridging Islands – The Impact of Fixed Links by* G Baldacchino published in 2007 examines the impact of fixed links to islands. Both books consider accessibility and its relationship with economic and social change of islands.

The MacBrayne book ranges wider than the famous David MacBrayne Company, reorganised in 1928 and becoming part of the publicly owned Caledonian MacBrayne in 1973. Though not dealing with the irregular but valuable goods services provided by puffers, Robins and Meek outline the rise of steamship passenger and cargo services, the impact of new railheads and the pioneering transitions to diesel power and the creation of an extensive vehicle ferry fleet. Economic benefits – including the stimulus to tourism – are considered and there is an account of the rise of turbine steamers as a rival to MacBrayne and the continued competition with the more conventional McCallum Orme company (which handled the 1930 evaluation of St Kilda) until it was acquired in 1947.

The book does not focus on the financial details of companies though there are references to ageing ships and the need for public support to maintain and improve island services and terminals. There are intriguing references, which could have been taken further, to tensions in relation to competition, subsidy and potential ferry franchising. The rise of the largely unsupported Western Ferries is charted along with the forced withdrawal from Islay and subsequent revival as an innovative challenger to CalMac.

The islanders' love/hate relationship with MacBrayne is explored. In particular, scheduled steamers and the subsequent vehicle ferries brought new economic possibilities, but also competition from mainland firms and larger numbers of tourists. Despite these impacts, remoter islands retained much of their own local culture with the outer isles especially resistant to Sunday ferries.

These socio/economic themes are taken further in Baldacchino's book and in a more contemporary context. The chapter authors try to isolate the impact of fixed links compared to what might have happened. Islands such as Singapore, Venice and Hong Kong were successful trading cities utilising international shipping routes and extending their influence into their hinterlands. Islands adjacent to cities such as Stockholm, urban Holland and La Rochelle came under suburbanising and leisure trip influence irrespective of whether fixed links existed while provision of fixed links for remoter islands has often failed to reverse general depopulation trends. In the case of Skye, the population was already rising before provision of the 1995 toll bridge while, in Ireland, some small islands remote from cities and without a fixed link have experienced a slight rise in population. For Prince Edward Island, the conclusion is that, though provision of the fixed link has helped visitor numbers, the economic balance has shifted towards mainland Moncton and increased the prospects for unified administration of Nova Scotia, New Brunswick and Prince Edward Island.

On the whole, fixed links to islands, where feasible, are seen as securing a higher level of population and income than would otherwise have been the case. Benefits are greater if links are free of toll or have a modest toll. Ferry support can be reduced or eliminated and opportunities for commuting to mainland employment are increased with island life also helped by the ability to move free of ferry timetable constraints. Socially, islanders gain better access to – or can be more easily served from – mainland facilities (though this has the downside of possible cuts in local schooling, medical services and shopping). Public policy sees island fixed links as allowing support for ferries and air services to be concentrated on other islands. The Aran Islands off Ireland, too distant for a fixed link, are given as examples gaining from air links.

Even with fixed links, island culture is often found to be resistant to rapid change with the Dutch Zuiderzee island of Urk, turned into mainland by the Zuiderzee reclamation retaining a strong society and culture based on fishing and fish processing. On the other hand, islands with added fixed links and strong potential for urban residents and leisure pursuits moving outwards have experienced greater social change – with Noord Beveland offering a sharp contrast to Urk. The 1930s link to Sylt off the German coast also provided a base for the early expansion of mass tourism transforming the island.

Attention is drawn to two environmental issues related to fixed links. Greater interest in marine, environmental and fishery impacts since the 1980s affects causeway and bridge design and location. This leads to more interest in tunnel links which can also avoid the problems of high winds and waves affecting bridges and causeways. The second environmental issue, with a stronger human element, is whether fixed links may bring too much development to idyllic islands and prevent them being more exclusive retreats or suburbs. This issue is found on several Swedish islands and also on Re, close to La Rochelle, where strong heritage laws and restriction of inflows are being used to prevent a fixed link bringing excessive change.

These fascinating books show that history repeats itself and that policy makers might learn what has worked in the past to guide its plans and investment in the future.

International Comparisons of Rail Networks and Policy Lessons for Scotland

A summary of research for the Scottish Government by Steer Davies Gleave is shown below. The full report can be viewed at www.scotland.gov.uk

What is the role of government in rail markets? How each rail market is regulated? To what extent does competition exist and impact on costs of provision? Where does rail fit within the transport hierarchy? These are some of the questions that the Scottish Government asked the research team to answer.

To achieve this, the research examined the structure, ownership, control, planning, funding, operation and regulation of railways in Ireland, Northern Ireland, Hamburg/Schleswig-Holstein, Denmark, Sweden and New Zealand to identify lessons for Scotland's railways. All are peripheral or isolated railway networks serving populations of fewer than ten million and with substantial sections of single track but one or more urban commuter lines.

These networks are managed in different ways: convergence is appearing in some areas but in others a variety of approaches appear to work successfully. Only in Ireland and Northern Ireland are there single controlling authorities which are responsible for both rail and bus transport in both urban and rural areas. The other networks are subject to at least two tiers of cross-border, national, regional, local or urban government influence and control, and the responsibility is divided between government and industry bodies in different ways in each network. In large cities, however, rail timetables, fares and ticketing are increasingly integrated with all other modes, where there is accordingly a need for rail planning and investment to be integrated with other modes.

European law expects separation of railway operations and infrastructure, to facilitate open access to competing commercial services, and tendered competitions for non-commercial services justified on social grounds. In practice, almost all rail services face pressure to increase quality and reduce prices through competition from other modes.

Some rail freight services can operate commercially, particularly over longer distances, and their provision is left in the hands of operators who may be in the private sector. In contrast, few passenger services can operate commercially and there is little scope for competition between them "in the market". The principal reasons are the levels of fares sustainable in the market or permitted by regulation, lack of infrastructure capacity, desire not to abstract revenue from supported services and the need for fares integration.

Most passenger services must therefore be specified and supported by public bodies with competition, if any, through a franchising process, "for the market". With few services commercially viable, access charges have little influence on the behaviour of either operators or infrastructure managers, although a performance regime can ensure that operators do not bear risks related to infrastructure over which they have no control.

The average proportion of passenger train operating costs recovered from fares varies from 40% to 70% and the average level of passenger support varies from 2p/passenger-km to 17p/passenger-km. Patterns of fares regulation vary widely. Some networks have a rigid structure of largely distance-related fares with few discounts, but regulation has been removed from inter-regional fares in Sweden and is largely irrelevant on Anglo-Scottish services, where the operators offer large discounts on the regulated fare on most services. Debate centres on the availability of discounted tickets rather than the level of the regulated fare. In urban/suburban areas, in contrast, there appears to be convergence on zonal fares allowing travel on all modes, although smart cards may in future allow prices to be varied to manage demand.

Capacity on single track rural networks is often adequate or easy to increase through use of loops and longer trains, but rising demand in urban areas is creating a need for costly new capacity. This often raises the question of whether it should be added to the existing network or instead through a largely-segregated commuter network, a separate metro system, a light rail network or even by augmented bus services.

Responsibility for regulation of the railways lies with different government, regulatory and industry bodies in each network. No consensus either for or against any particular regulatory model has emerged. A key issue, however, is the need for bodies responsible for making planning, procurement and regulatory decisions to have a critical mass of workload and be able to recruit and retain capable, empowered staff.

Privatisation of the railway infrastructure has been tried in New Zealand but abandoned after the network gradually deteriorated. Difficulties include specifying and monitoring the condition and capability of the infrastructure, planning publicly-specified services, separating the costs, funding and outputs of underlying operations maintenance and renewal (OMR) and enhancement projects, and carrying out these projects on a working railway.

Privatisation of railway operations through concessioning or franchising has been introduced in all the networks except Ireland and Northern Ireland. Risk transfer arrangements vary widely, from a concession in which the private sector provides infrastructure and trains and takes revenue risk to a management contract with payment linked to performance. Franchises vary widely in size but are normally designed around services using distinct fleets or serving distinct areas. To be effective, however, franchising processes must be designed to avoid a situation in which franchisees retain profitable services but abandon unprofitable ones.

The principal barrier to entry to operators wishing to compete for franchises is the need to obtain suitable rolling stock, but leasing markets have emerged or been created in Scotland, Denmark, Sweden and, to a lesser extent, Germany. The need for access to other services in monopoly supply is generally being addressed through effective railway regulation and competition policy.

Trading between infrastructure managers, or between operators, and the development of railway supply industries, has allowed a range of subcontracting to procure services not provided in house or to deal with workload peaks. Subcontracting should not normally be mandatory, as it may not be cost-effective, but it presents no particular difficulties provided that workable specification and management arrangements can be put in place.

AVIATION

New routes are opening up to and within Scotland:

- Later this year, Ryanair is introducing new routes from Prestwick to Budapast, to Kaunas (in Lithuania) and to Belfast George Best Airport. Services to Grenoble will be restored for the ski season.
- easyJet is retoring direct services from Glasgow to Paris in October with fares starting from £45 return.
- Clickair has launched daily flights from Barcelona to Edinburgh.
- Zoom has announced an expansion of flights from Glasgow to Canada in 2008 with all flights being direct rather than via Manchester.
- Loch Lomond Seaplanes have expanded to provide direct trips from the Clyde in Glasgow to Oban with plans for services to Mull and Arran. Commercial demand is seen for a mix of tourist and business use. Glasgow-Oban return fares will be £149.

£40m BAA priority plans for Edinburgh include runway resurfacing, three new aircraft stands and a doubling of the passenger lounge. 26m passengers are expected at the airport by 2030.

Licencing of Argyll and Bute Council's airport at Oban(Connel) has been delayed and it may not prove possible to provide services to Glasgow. It is hoped that services to Colonsay can start early in 2008.

The West Coast Emergency Medical Retrieval Service is to have extended coverage and will include experimental use of helicopters to transfer specialist staff to smaller hospitals. This pilot expansion will cost £1.59m over 18 months covering the area from Wigtown to Stornoway.

PORTS & SHIPPING

The SNP is seeking Scottish control of maritime issues affecting Scotland, embracing environmental as well as transport aspects.

Scottish Government has ordered a further study of the introduction of a Road Equivalent Ferry Tariff (RET) with priority for a pilot route. RET could cut Ullapool-Stornoway car return costs from £200 to £30.

Western Ferries is looking to expand its route network to include Arran, Islay and Mull plus a new link from the Cowal peninsula to Bute. Two new ferries have been introduced on the Clyde-Cowal route and berthing has been improved.

Stagecoach secured high usage of an experimental 130 seat cross-Forth hovercraft service from Kirkcaldy to Portobello in July. Bus links were provided into Edinburgh and cross-Forth trip times were 17 minutes. Stagecoach are confident a service could operate commercially within a few years.

RAIL

The Rail White Paper has suggested a limited future for high speed rail and has ruled out Maglev technology. Campaign groups highlight that a broader view of the efficiency of high speed rail is needed including comparisons with air travel. London-Glasgow/Edinburgh rail times could fall to 3 hours with higher speed rail allowing them to compete with air.

The Scottish Rail Strategy proposes a shift to a wider range of smaller schemes offering earlier benefits e.g. in easing capacity and cutting trip times. The reopening of the Airdrie-Bathgate line and the extension of electrification through to Edinburgh are short term priorities by 2010. All of these projects have firm funding allocated, along with funding for the maintenance of existing track and services to 2014 under the High Level Output Specification (HLOS) for Scotland. The HLOS also indicates projects for which it is hoped that additional funding may be made available for the 2009-14 period, with possible supplementation from savings made in track maintenance and service operation. The HLOS differs from the Rail White Paper in proposing:

- The extension of electrification across the Central Belt services.
- Proposals to secure additional rolling stock for Scottish services

- Doubling up to allow 8 coach trains to run to the Ayrshire coast and on other routes
- Proposals for further work to determine a possible pattern for Glasgow CrossRail services

Arriva is to takeover the Cross-country rail franchise from Virgin this autumn and National Express will takeover the present ECML franchise from GNER. Arriva Cross-country will focus on services south via Edinburgh but will provide higher seat capacity. Payments from government will fall to £5m a year by the end of the franchise in 2016. National Express has offered no worsening of London services from Edinburgh and will pay a premium of £1.4bn over the franchise period to 2016. Trans-Pennine is to provide extra Manchester-Scotland services, replacing the loss of Cross-county services. Cross-country Birmingham-Glasgow services will transfer to Virgin West Coast

Malcolm Bruce MP is seeking a higher priority for Aberdeen Crossrail with extra stations.

Diageo plan to restart rail freight to their Leven plant, improving prospects for a rail passenger reopening to Leven.

A 245 space car park extension has opened at Larbert.

Transport Scotland and EWS Railways are awaiting an ORR ruling on whether the latter should pay extra freight charges for the Stirling-Longannet line due to reopen in the next six months. At present EWS trains using the Forth Bridge to reach Longannet pay no additional charge though they reduce passenger capacity on this busy route.

By 2009, the Nithsdale route to Gretna will have enhanced capacity (mainly for freight) and a half-hourly service will have been introduced between Glasgow and Kilmarnock.

Scottish Executive expect to complete detailed plans for Glasgow-Edinburgh electrification this autumn with completion by 2013. Anticipated costs vary from £130 to £265m. Transport Scotland is undertaking feasibility studies into provision of 30 minute Glasgow-Edinburgh trip times in the 2014-20 period.

A Transport Scotland survey has shown further improvement in ScotRail performance standards.

Litter in stations and the state of train toilets remain problem areas receiving attention.

BUS, TRAM & TAXI UPDATE

Scottish Government have committed to a capped £500m tram project. Completion is expected in December 2010. The preferred bidder for the tram vehicles has been announced.

First Glasgow and SPT have collaborated on extensive proposals to improve services, including

use of Route Development Grants. New and improved routes were introduced in July, giving better access to Glasgow Airport, tourist attractions, hospitals and retail centres.

A bus-only link improving access from the north-east to Edinburgh Royal Infirmary faces 18 months delay due to compulsory purchase issues.

Stagecoach has reorganised services in Dundee, north Fife and Angus. The Tayway brand has been introduced with a new range of 7-day Megarider tickets (from £9 to £20 per week)

A West Lothian Council vote has delayed action on a town bus service for Armadale pending an assessment of wider integration opportunities.

Lothian Buses has introduced 15 low-floor, low emission buses on the route from Newtongrange across Edinburgh to Silverknowes at a cost of £2m.

Vandalism affecting buses continues to be reported from several urban areas. Children as young as 12 are involved. East Lothian is piloting a scheme in the Musselburgh area for 'bobbies on the buses'. Extra security measures have been put in place on the Glasgow Subway following the Glasgow Airport suicide attack.

ROADS & PARKING

Scottish Government has issued an updated motorway and trunk road programme to 2013.

This includes 5 projects each over £100m, 7 intermediate projects (£20m to £100m) and 37 lesser schemes.

- Improvements on the A9 and A96 are included in the programme with full dualling of the Perth-Inverness A9 and the Aberdeen-Inverness A96 identified as a possibility over a longer period.
- Work on an additional Forth Crossing at Queensferry is not expected to start before 2012.
- A82 improvements at Pulpit Rock and Crianlarich are scheduled for 2011/12 completion with the A9 Balmedie-Tipperty dualling north of Aberdeen delayed until 2012/13.

The five major projects and expected completion years are:-

- Kincardine Bridge 2008/09
- Urban M74 2011/12
- M80 Stepps to Haggs 2010/11
- M8 Baillieston-Newhouse 2012/13
- Aberdeen WPR 2012/13

Work has started on:

- Three schemes to improve overtaking capacity on the **A75** (£9.2m)
- Phase 2 of the **A9** improvement at Ord of Caithness (£6m)
- Grade separation of the A9 at the Ballinluig accident blackspot (£15m).

Network Rail is planning a road underpass to replace the notorious Kirknewton level crossing in West Lothian. Road workers are the latest public service staff to come under attack from thugs and suffer from inconsiderate drivers. Health and safety requirements are producing more action and regulation to moderate these problems. Convoy systems limiting speeds are now being used instead of temporary traffic lights in some instances.

Consultation has started on a short-list of five options for an additional Forth crossing. Two are for either a cable-stayed or suspension bridge west of the present bridge or three tunnel variants west of the present bridge. The cable-stay option involves the least cost (£1.5bn) and the shortest construction period (5.5years).

The A77 Safety Group is taking interim action to cut road deaths and serious injuries pending

completion of grade separation at Symington and Bogend Toll by 2011.

A poll for the Royal College of Nursing (Scotland) shows that 87% of the public want hospital parking charges abolished for staff, visitors and patients. Proposed NHS hospital charges in Glasgow of up to £12 a day have been cut to £1 for up to 2 hours and a day maximum of £7. Spaces for disabled people will be free and discounts will be offered to staff earning under £10,000 with a lesser discount for the £10,000-£30,000 range.

Glasgow City Council is seeking powers to ensure that as many private car trips into the city as possible involves a parking fee. Parking fees would apply to workplaces, entertainment venues and out of town shopping centres in a bid to cut congestion and emissions.

SPT has also produced Action Plans for Park and Ride and for Regional Parking Policies as part of overall strategy for transport and the environment. Park and Ride charging would be more selective with many spaces remaining free to users. .

The Scottish Parking Appeals Service has ruled that penalty charges applied in Aberdeen were invalid, opening up the City Council to claims over £2m.

LEGAL & FINANCE UPDATE

The Office of Fair Trading and the Competition Commission have made significant steps to increase competition in transport. Action includes:

- The break-up of Scottish Citylink coach operations
- Decisions next year on whether BAA should be required to sell-off come of its airports in London and Central Scotland.
- A two-year examination of possible anti-competitive practices in rail rolling stock leasing.

CHANGES IN MODES OF TRAVEL TO WORK

A note by the Scottish Executive Transport Statistics branch

As commuting between home and work accounts for roughly a quarter of all journeys by adult Scots (including travel by those who are not employed), changes in travel to work can have a marked effect on travel patterns. This note uses data from the Scottish Household Survey (SHS) to examine how and why people have changed their usual modes of travel to work.

1. Overall pattern and trends in travel to work

Two-thirds of commuters travel by car. Since 1999, driving to work has risen from 55% to 60%, and commuting as a car passenger has fallen from 12% to 7%.

1.1 In 2006, about two-thirds of commuters said that they usually travelled to work by car (or van): 60% as drivers and 7% as passengers. 14% walked to work, 12% went by bus, 3% travelled by train, 2% cycled and 2% used other modes of transport (e.g. motorcycles).

1.2 The main changes since the SHS started in 1999 are that the percentage driving to work has risen from 55% to 60%, and the percentage travelling as a car passenger has fallen from 12% to 7%. Overall, the total percentage commuting by car has remained fairly stable over the period (it was between 66.5% and 68.6% in every year). While there have been some year-to-year fluctuations, other modes' shares have not changed markedly since 1999 (e.g. walking's was between 12.7% and 13.9% in every year).

2. Changes between modes of travel to work

About 8% of commuters change their mode between one year and the next. The most likely to do so are those who commute by bicycle (19%), rail (also 19%) and bus (17%).

2.1 Between one year and the next, more commuters change their usual mode of travel to work than might be expected from the trends in modal shares, which show only the net result. The SHS interviewer asked those commuters who were in employment one year earlier how they usually travelled to work then. 8% said that they had used a different mode of transport. Those most likely to be using another method were people who, one year earlier, had been commuting by bicycle (19%), by rail (also 19%), by bus (17%), as car passengers (12%) or by foot (also 12%). In contrast, only 3% of those who drove to work one year earlier "now" used a different mode of transport for commuting.

Excluding ex-car driver commuters, around 40-50% of those who change become car drivers.

2.2 Chart 1 shows how the percentage who change, and what they change to, varies with the mode used previously. The bars and the parts within them appear in the standard SHS order of modes. The black parts of the bars represent those who now drive to work, and show that (for every mode other than "car driver") around two-fifths to a half of those who changed became car drivers. For example, roughly half of the 19% of rail commuters who changed to another mode became car drivers, under a fifth changed to travel by bus, about an eighth became car passengers and a further eighth now walked to work. In the case of former cyclists, roughly half now drove to work and around a quarter walked. Of bus passengers who changed, about two-fifths became car drivers, nearly a quarter became car passengers and over a fifth walked to work. For those who used to commute by foot or as a car passenger, around 40-50% became car drivers and very roughly 25-30% became bus passengers.

Young people are the most likely to change their mode of commuting - particularly those who are in higher managerial and professional occupations, from lower-income households, or living in large urban areas.

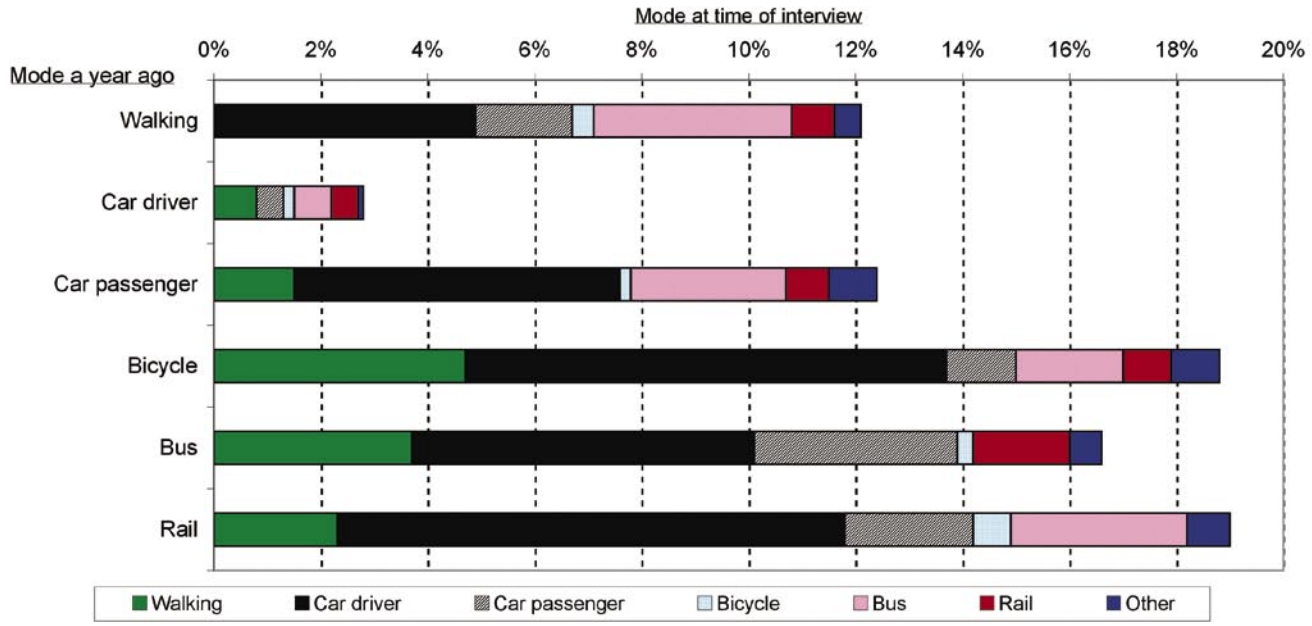
2.3 The proportion of commuters who change their mode of travel between one year and the next tends to fall with age, from 18% for 16-29 year olds to 4% for those aged 60 and over. Chart 2 shows this for each mode (omitting percentages based on fewer than 50 sample cases). There was no clear difference between the sexes (8.3% for men, 8.1% for women), but some variation with current situation: 8.6% of people (now) employed full-time changed their mode compared with 6.8% of both the self-employed and part-time employees. The socio-economic classification showed a greater range: from 5.1% of small employers and own account workers to 9.3% for "intermediate" occupations - and 21% of 16-29 year olds in higher managerial and professional occupations. The percentage also varied with the household's annual net income, being around 10-11% for commuters from "up to £15,000" households compared with only 7-8% for the higher income bands - and around 22% for 16-29 year olds from "up to £15,000" households. There were differences between urban and rural areas: 9.5% of commuters (now) living in large urban areas had changed their modes in the past year, compared to around 6-7% of those from rural areas - and 19% for 16-29 year olds living in large urban areas. People who drove every day were much less likely to have changed their mode of commuting than those who drove less often (5% compared with around 11%).

More commuters changed to "less green" modes than to "greener" modes.

2.4 For the purpose of this note, a change was to a "greener" mode if it was: (a) from private motor transport to public transport, walking or cycling; or (b) from public transport to walking or cycling. On this basis, only 29% of changes were to "greener" modes, and 42% were to "less green" modes (the rest were neither more nor less "green" - e.g. car passenger to car driver, or rail to bus). This fits in with the earlier findings that many of those who changed now drive to work, and only 3% of those who drove to work changed to other modes.

No sub-group had more than 36% of its changes being to a

Chart 1: commuters, in employment a year ago, who changed their mode



"greener" mode, whereas some sub-groups had almost half of their changes being to a "less green" mode.

2.5 The proportion of changes to a "greener" mode did not vary much with sex (men: 30%; women: 28%), age-group (being between 26% and 32%, apart from for the few aged 60+), socio-economic classification (ranging from 26% to 31%) or type of area of residence - such apparent differences could well be due to sampling variability. The "greener" percentage tended to fall as household income rose (the range being from 36% for the "up to £10,000" band to 23% in the "£30-40,000" band - but the margins of error are around +/- 6%-points). The percentage of changes which were to a "less green" mode was noticeably high for women (48%), 16-29 year olds (47%), part-time employees (48%), and the "£20-25,000" income band (49%).

3. Why people change their modes of travel to work

"Changed job" and "moved home" were by far the main reasons for a change.

3.1 The main reasons given for changes in the mode of travel to work were "changed job" (over a third of those who had changed their mode), "moved home" (almost a fifth), "bought a car" (about 1-in-14), and "employer relocated" and "fresh air/exercise" (each around 1-in-20). Various other reasons were given by smaller proportions of those who changed their mode - for example, "sold car", "changed working hours", "passed driving test", "public transport service withdrawn", "had a baby" and "spouse/partner has more need for car". In addition, around a tenth were gave an "other" reason (one which was not separately identifiable).

The reasons did not differ much between sub-groups, although some were more likely to say "bought a car" or "employer located".

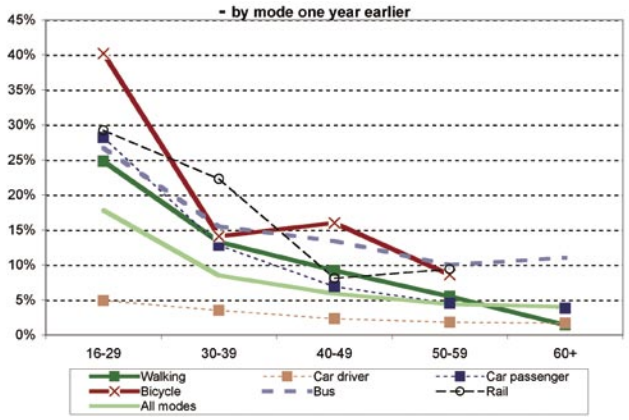
3.2 "Changed job" was by far the most frequently given reason for almost all the sub-groups, the main exception being the self-employed. "Moved home" was almost always the second most often quoted reason: exceptions were people aged 50+ (it is their third reason) and people who used to travel to work as a car passenger (for whom it came fourth). For other sub-groups, the third and fourth most frequently given reasons were always two of the following: "bought a car"; "employer relocated"; "fresh air/exercise"; and "other" (i.e. not separately identified). There were a few differences from the overall pattern: "bought a car" was the second most often cited reason for those who used to commute as a car passenger; the proportion giving that reason was also noticeably higher than 1-in-14 for 16-29 year olds, people who used to commute by bus, adults in "up to £10,000" households and residents of accessible rural areas; and the proportion saying "employer relocated" was markedly above 1-in-20 for people who formerly walked and commuters from "over £40,000" households.

4. Background and Further Information

4.1 This is the thirty-first in a series of short notes on transport-related results from the Scottish Household Survey (SHS). An interview is sought with the highest income householder or his/her spouse/partner (who provide information about the household as a whole) and with one randomly-selected adult (someone aged 16+) in each household which is included in the sample, which is spread across Scotland. All the results reported here are from the "random adult" part of the interview. The results were weighted to take account of differences in selection probabilities and response rates.

4.2 Adults whose "current situation" was described as self-employed or employed (full-time or part-time) were asked about the location of the place of work. Those who did *not* say that they worked "at or from home" were then asked how they usually travelled to work, and other questions about travel to work (some of which

Chart 2: commuters who changed to another mode



only applied in certain circumstances and/or to a randomly-chosen sub-sample). The ones which are most relevant to this note were added to the SHS in April 2003, and are:

- were you in employment or self-employment one year ago?
- *if so* - how did you usually travel to work one year ago?
- *if different from the current usual mode of travel to work* - why did you change from [old mode] to [current mode] for travelling to work?

The interviewer records the answers, generally by "ticking" the relevant "boxes" on the computer screen, and can also type in any reasons which do not "fit into" the "pre-coded" categories. The SHS contractors subsequently examine what the interviewers typed, and (if appropriate) extend the "pre-coded" lists for use in later years.

4.3 The overall results reported in **Section 1** are based on data collected, since 1999. in respect of an average of 6,128 adults per year whose "current situation" was described as self-employed or employed (full-time or part-time) and who did not work at/from home. Other people who might do some paid work (such as students, whose current situation is "in further/higher education") were *not* asked about travel to work. More detailed analyses of these statistics appear regularly in *Household Transport* and *Transport across Scotland* (see below).

4.4 **Section 2**'s analyses are based on data, collected between April 2003 and December 2006, in respect of a total of 21,674 adults whose "current situation" was described as self-employed or employed (full-time or part-time), who did not work from home, and who had been in employment or self-employment one year before the interview. Age, current situation, socio-economic classification, household income, area of residence and frequency of driving are all as at the time of the interview - *not* one year earlier. Some of the figures may have quite wide margins of error - e.g.:

- the 21% of 16-29 year old commuters in higher managerial and professional occupations has a margin of error of +/- 5%-points, as it is based on only 318 such people in the sample; and
- the 22% of 16-29 year olds from "up to £15,000" households has a margin of error of +/- 3%-points, as it is based on 1,033 sample cases.

The percentages of changes which are "greener" are subject to wider margins of error, because they are based only on the data for the 8% or so who had changed their mode of travel to work. The net reduction in "greenness" for those who change their mode is not incompatible with the general stability of the overall figures for travel to work, because the latter also take account of the modes used by people who enter and leave employment, and by the large number who continue to use the same mode.

4.5 **Section 3**'s figures are based on data collected, between April 2003 and December 2006, from the 1,737 adults who had changed their mode of travel to work from that of a year ago. The percentages given are subject to margins of error of around +/- 2%-points (if they relate to the whole of that sample) or more (if they are relate to a sub-group, such as men, or 16-29 year olds). The reasons that are recorded sometimes appear inconsistent with people's "new" modes of travel to work: e.g. "fresh air / exercise" is recorded as the reason for a few people who changed *to* driving to work, which seems unlikely (unless, perhaps, they have chosen to park away from where they work, and walk the rest of the way). There are also cases where no reasons are recorded for a person's change of mode.

4.6 Lists of the topics covered by the SHS, analyses of its transport-related results, and definitions of the urban/rural category, appear in a series of Scottish Executive Transport statistics bulletins:

- *Household Transport* (annual, latest edition: October 2006) - provides the results of most of the Transport questions (but *not* the Travel Diary) for Scotland as a whole;
- *Transport across Scotland* (biennial, latest edition: January 2006) - provides the results of the main Transport questions (but *not* the Travel Diary) for each Council area and some figures for Regional Transport Partnership areas;
- *SHS Travel Diary results* (biennial, latest edition: March 2006) - provides the main Travel Diary results for Scotland as a whole and some figures for each Council and Regional Transport Partnership area.

Some of the SHS's Transport-related results also appear in *Scottish Transport Statistics*, *Main Transport Trends* and *Bus and Coach Statistics*.

All these publications are available from Blackwells bookshop, or at: www.scotland.gov.uk/transtat/latest.

4.7 Anonymised copies of the SHS data are available from the UK Data Archive (www.data-archive.ac.uk).

4.8 Further information about the SHS can be found at www.scotland.gov.uk/shs. Enquiries should be made to the SHS Project Manager: Tel: 0131 244 8420 Fax: 0131 244 7573 Email: shs@scotland.gsi.gov.uk.

BUSINESS

- Profits at Scottish-based flyglobespan have dipped to £4.7m as new aircraft are integrated into the fleet. Boeing Dreamliners with UK built Rolls Royce are expected to operate new longhaul routes as early as 2010.
- Ryanair has posted better than forecast first quarter profits but expects to trim winter routes with extra costs after the rise in UK Air Passenger Duty.
- Salvesen is to shake-up its loss-making logistics division but 1500 staff in Scotland will be largely unscathed.
- Aberdeen Harbour Trust has unveiled record profits of £9m and a new high of 5.1m tonnes of cargo.
- Glasgow-based Allied Vehicles, the UK's leading supplier of wheelchair accessible taxis saw turnover rise and profits almost doubled in the last financial year. A £4m expansion of its Possilpark factory in under way.
- FirstGroup pre-tax profits have risen 11% to £196m despite higher fuel costs. The UK rail division , including First ScotRail, had a strong performance with profits up 37% to £109m. Auditor Deloitte & Touche has queried accounting techniques; which may have inflated profits by £40m.
- Stagecoach bus and rail income in the UK has been rising steeply. UK Bus income is up 7.6% with a rail increase of some 14%. Extra passengers rather than fare rises had been the main contributors with Chief Executive Brian Souter warning of the need for policy makers to do more to increase long-term rail capacity. Stagecoach has also won the contract to operate the Manchester tram network.
- Alexander Dennis, with plants at Falkirk and Guildford and 40% of UK new bus registrations, has acquired Plaxton and is planning further expansion The firm has also gained the Scottish Engineering Award for 2007 and is seeking Scottish Enterprise funding towards more energy efficient, low-polluting buses.
- Profits on Lothian Buses have fallen to £7.3m but annual turnover rose from £76m to £89.5m Over the year 85 new double-deckers were acquired and £2.2m of dividend was made to the councils (mainly Edinburgh) owning the company.
- Glasgow Central and Edinburgh Waverley have been placed second and fifth in a passenger satisfaction survey of Britain's larger rail stations.
- SECC in Glasgow now generates almost £340m for the local economy but Chief Executive Mike Closier is seeking improved public transport, including the bus Fastlink, akin to what is already available in other European cities.

PERSONNEL

- John Gooday has been appointed the first Scottish Roadworks Commissioner
- John Elliott chairs the new "Passenger View Scotland" organisation replacing the Public Transport User's Committee.
- Professor John Nelson, with wide experience in rural and demand responsive transport, has moved from Newcastle University to head a new Transport Research Centre at Aberdeen University.
- Peter Cockhead has retired from NESTRAN with Derick Murray raking over as Director.
- Howard Brindlay has retired from HITRANS and David Duthie has been appointed Chief Executive.
- David Johnston has taken over from Richard Jeffrey as managing director at Edinburgh Airport
- Gordon Dewar, formerly with ScotRail, is now managing director at Glasgow Airport.
- Geoff Dukes has joined Jacobs from tie as Divisional Director

The Centre for Transport Research at the University of Aberdeen invite readers of STR to attend their 2007/08 seminar series

Date	Title / Speaker
Wednesday 3rd October, 2007	*T2E - Reducing lack of transport as a barrier to gaining employment in rural communities.* Dr Steve Wright, Research Fellow, CTR, University of Aberdeen.
Tuesday 23rd October, 2007	*Port Competition in China.* Prof Kevin Cullinane, Director of the Transport Research Institute, Napier University, Edinburgh.
Tuesday 20th November, 2007	*Why No Car lanes appear to be the best form of priority lane.* Dr Corinne Mulley, Senior Lecturer in Transport Economics, Newcastle University.
Wednesday 27th February 2008	*The relationship between social capital and rural transport.* Prof David Gray, Centre for Transport Policy, Robert Gordon University.
Wednesday 12th March 2008	*Demand Responsive Transport multi-modal solutions – a new strategy for Scotland.* Brian Masson, Projects Manager, Angus Transport Forum and Honorary Research Fellow, CTR, University of Aberdeen.
Wednesday 23rd April, 2008	*Producing relevant recommendations for supported bus and community transport services in rural Scotland.* Mags Currie, PhD student, CTR, University of Aberdeen.

For further information please contact: Prof John Nelson, j.d.nelson@abdn.ac.uk; tel: 01224 272354

Would Voluntary Participation in Road Pricing be Practical in Scotland?

Derek Halden, DHC

Winners and losers from road pricing

The theoretical economic arguments for road pricing have been clear since the 1960s. However, despite the potential for reduced congestion, progress with delivery has been slow, at least partly reflecting widespread public concern that there will be losers as well as winners.

Voluntary participation

Research by DHC in 2006 suggested that with voluntary road pricing everyone could be a winner. Only people who gain from participation would join. Efficiency gains from road pricing result from people changing their travel behaviour e.g. walking rather than driving to the shops. Financial incentives support behavioural change by offering travellers a personal financial benefit.

Currently 'pay as you go' motorists can make savings on motor insurance (e.g. the Norwich Union scheme which installs a geographical tracking system in the insured vehicle and calculates the insurance premium based on the travel risk by time of day and day of the week). If local and central government were to add the social and environmental benefits of 'pay as you go' motoring to the safety benefits, then the retail and financial services industries could offer very attractive packages which would attract many more motorists.

But would growth in pay as you go motoring deliver sustainable transport? Impacts of voluntary road pricing depend on the design of the tariffs offered to consumers. Currently 'pay as you go' motorists make savings on motor insurance related to the reduced cost of insurance claims. If public authorities offer financial rewards in return for wider public policy benefits, then there is potential for very attractive packages to attract many more motorists to these schemes. At local, regional and national levels there are many different types of taxes and charges that could be foregone, if authorities were able to realise benefits from motorists joining a road pricing scheme - e.g. residents receiving appropriate Council Tax rebates if the need for spending on road capacity investment was reduced.

Choices for consumers

Voluntary road pricing also offers opportunities for a choice of tariffs linked with wider markets, such as the purchase of carbon credits. Local, national and international statutory bodies creating attractive opportunities for consumers, could be surprised how many people want to participate in road pricing and carbon markets. However markets will only be as sustainable as the rules that define their operation. Consumers need public authorities to define the framework.

Competing 'pay as you go' tariffs could be designed to suit individual circumstances, providing consumer choice. These might include:

- Rural traveller pricing – with high costs for any urban mileage.
- Weekender pricing – where low costs are offered for those people who avoid travelling on congested weekdays peak periods.
- Low car use tariffs - making car use more affordable for low income travellers and delivering social inclusion benefits.
- Special offers - at any moment in time a person will chose either to pay or not to pay, so cheap entry tariffs could be used to attract new customers (evidence from other markets shows that willingness to pay increases over time if the product delivers benefits).

It may be that the delivery of voluntary road pricing is the practical approach that governments have been seeking since the 1960s to change public attitudes to paying for road use

Accessibility or mobility

The contrast between mandatory and voluntary perspectives of road pricing reflects a wider debate in transport planning about the balance between accessibility and mobility. Road pricing policy tends to emphasise the **mobility** policy goals to keep traffic moving. Government policy states that "the fundamental economic argument for road user charging is that pricing is a useful tool for improving the efficiency of allocating a scarce resource, namely road space". The important factor for the mobility planner is that congestion results in some travellers imposing costs on others.

In contrast, **accessibility** planning recognises that consumers can be very fickle and all have individual preferences. In seeking to improve transport, accessibility planning identifies a user's experience of the transport system. This helps planners to understand the circumstances in which any individual consumer would buy into road pricing. Although responding to consumer requirements involves considerably more effort than simply managing networks and services, this is no different from selling any other product in the marketplace.

Incremental change

Transport supply and travel demand need to be maintained in balance. To ensure stability, incremental consumer buy-in could be managed by steadily increasing the price differential between standard and reduced "pay as you go" rates of taxation. Local and central government could revise taxation rates at regular intervals to reflect the local and national benefits that society receives from individual motorists participating in "pay as you go" schemes.

There is a need for further market research on public attitudes. Monitoring growth of "pay as you go" motoring would help with the understanding of consumer attitudes, so that road pricing market development can be publicly acceptable.

There will always be some people who will oppose road pricing. Rather than continuing to delay direct payment for road use in response to their concerns, it seems preferable to allow those who welcome the benefits to buy into voluntary road pricing markets. Allowing the poorest consumers, who drive less, to make financial savings has particular advantages for social inclusion.

Over time it may be that almost the entire population would buy into voluntary road pricing if the incentives were sufficient. Pricing packages could also help to unlock carbon trading markets in transport. It may be that the delivery of voluntary road pricing is the practical approach that governments have been seeking since the 1960s to change public attitudes to paying for road use.