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The Impact of Rail Privatisation on the Labour Market

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Outline

In her talk Lesley Hodsdon gave an overview of the UK Rail Industry and the impact of privatisation on that industry and the people who work in it. She provided an analysis of the labour market and highlighted future issues that might affect that market.

In her view, HM Government had privatised the UK Rail Industry in such a way as to create a series of sub-markets for rail services. This had resulted in the creation of a corresponding series of sub-markets for labour within the industry. Consequently, some groups of staff had done better than others in terms of pay and conditions post-privatisation. However, Lesley judged that overall privatisation had impacted less on the labour market, particularly in terms of workers' bargaining power, than government had expected.

Overview of the UK Rail Industry

The industry currently employs and estimated 145,000 staff in the UK, working in over 200 companies. It is now seen, particularly outside the UK, as a dynamic and growing industry. From 1996/97 to 2003 passenger demand increased by 26% and freight demand by 43%. However, Lesley acknowledged the long established relationships between passenger rail usage and UK economic growth and London employment. Railfreight has benefited from an increasingly innovative approach by suppliers, with new operators such as GB Rail moving into markets where legacy operators had failed - for example for Royal Mail.

Investment is running at some £3.8 billion per year, network capacity is being increased and around £5 billion worth of new rolling stock has been purchased since privatisation. At the same time there has been a rapid globalisation of the rolling stock supply industry, with most stock now being manufactured outside the UK. New technologies are being adopted, such as ERTMS, although for safety reasons these inevitably require a heavy research and development commitment, which results in long lead times.

Even after privatisation, the UK rail industry still represents a mix of public and private sector involvement. Looking at the creation of Network Rail and the "Darling Review", Lesley felt that at present the public sector role was growing and the private sector role diminishing. However, even so, the current organisation of the industry represented a massive structural change from BR days.

The industry is inevitably highly regulated. Safety issues drive costs into the industry in order to maintain safety margins. Lesley felt that the move of HMRI from HSE to ORR could raise some interesting tensions between economic and safety issues.

In Lesley's view developments in the UK industry will increasingly be driven by Europe. For example, the Rail Safety & Standards Board (RSSB) was itself changing to meet the European approach to safety issues. EU requirements for interoperability will lead inevitably to Train Driver Licensing.

Characteristics of the Rail Labour Market

The breakdown of current employment is:

Train Operating Companies	45,000 staff
Network Rail	32,000 staff
Suppliers (RIA)	75,000 staff

Rail companies tend to be large, with one third employing more than 500 people.

Employment within the industry has several particular characteristics.

- Only 11% of employees are female compared with 45% in the economy in general, with most being concentrated in Customer Services, Human Resources, Training and so forth, with just a few, lonely female train drivers.
- Only 2% are part-time compared with 25% nationally, which is very low especially compared with other service industries.
- But 13% are from ethnic minorities compared with only 5% overall in the economy, which gives a particular cultural dimension and way of working within the industry.
- 30% of employees work in or are based in London, despite being a nationwide industry.

The UK rail industry has an ageing employee profile. 90% or staff are over 25 and 32% over 45. The industry is not seen as attractive to younger people.

Overall the industry has a highly skill-oriented structure with large proportions of employees in managerial, professional and skilled positions – notably higher than the average for UK industries. However, there are skill shortages within the industry and recruitment is an ongoing necessity.

Because of recruitment and safety issues, the industry spends a lot of money on training and refresher training - much of this spending is in the area of core skills. For example, it takes 12 months to train a driver. Hence, it is not surprising that training expenditure runs at some £125 million per year. Companies have also made substantial investments in training technology, with £10 million spent on driving simulators.

Network Rail when created had just 14,000 employees. The increase of around 130% in staff numbers demonstrates the massive issues of assimilation and organisational change it has had to address by taking infrastructure maintenance "in-house".

Pre-Privatisation Labour Market Analysis

Prior to privatisation the railway labour market was characterised by having in British Rail (BR) only one major employer, which offered a stable long-term employment contract. This led to strong internal industry, rather than employer, loyalty - similar to that found in coal mining. The single employer situation also led to an inelastic demand for labour and low levels of labour mobility. Nationally uniform pay levels were achieved through central collective bargaining for a highly unionised workforce.

The high levels of training provided by BR were closely linked to promotion. The arrangements did, however, offer broad career paths to those willing to seek advancement - a facet of the labour market apparently lost through privatisation and much lamented by established railwaymen.

As the sole employer, BR internally controlled the accreditation of training and the development of industry-specific qualifications. Hence, take-up of nationally recognised NVQs within the industry is very low - less than 5%. To take a typical example, staff are defined as train drivers by reason of their employment status rather than by virtue of any external certification.

Overall the pre-privatisation railway labour market exhibited the features of a classic utility market.

Post-Privatisation Labour Market

Lesley reminded the audience that one of the objects of privatisation was supposed to be the opening-up the industry to new influences and working practices. However, new corporate entrants into the industry tended to overlook the degree of restructuring and cost-reduction achieved by BR during the 1980s and 1990s, through such changes as Sectorisation. There was not as much fat to cut as many had expected.

Initially some new employers offered generous redundancy payments to existing staff. This, coupled with the robust pension benefits offered by BR, affected the age and skills pattern of people leaving the industry at or shortly after privatisation. In turn this resulted in staff shortages in some key areas and necessitated high levels of recruitment and training.

There has been a decline in the perceived need for railway specific knowledge in certain areas – indeed, in the immediate post-privatisation world prior BR managerial experience was sometimes seen as a handicap. The private sector operators have introduced new methods of working, with outsourcing in a number of areas, such as train catering, train maintenance and station cleaning. This, together with the fragmentation of the employer base has meant a narrowing of career options, as noted above, and casualised the labour market in certain areas.

As a result of privatisation the employer base is now fragmented and labour mobility is much higher. There is now increased competition for scarce resources, with some evidence of Train Operating Companies (TOCs) poaching drivers from each other. In those highly skilled areas, such as train drivers or signalling staff, where there is no external market from which to recruit, this has led to significant wage inflation and a strengthening of union power. An outcome contrary to the presuppositions of some of the proponents of privatisation.

Whilst there has been some widening of the labour market supply base, this has not been as far reaching as had been expected, despite entrants from other industries (e.g. bus operators) winning many of the franchises. Interestingly, customer services staff in the railway still earn rather more than staff doing similar work in the airline industry.

There have been areas of employment where new entrants have injected new skills and attitudes. This has led to more flexible working patterns being adopted, such as in freight, leading to lower cost operations. Also, use of consultants is now a much larger element within the industry. Some supply base effects are being felt in certain areas of contracting - an extreme example is

Network Rail recruiting staff from India to fill a skill gap in maintaining mechanical signalling equipment.

Other effects of privatisation are that:

- Training is now much more fragmented and less uniform - there are currently 107 training providers within the industry; and
- Pension entitlements have been weakened.

Overall the industry suffers from skill shortages and relatively high labour turnover.

Future Issues

Lesley expected the restructuring of the industry to continue indefinitely, and not stop with the "Darling Review". The link between railways and politics is unlikely to be broken - other countries have not experienced such a break whatever pattern of ownership or organisation they have adopted.

The industry will have to face up to the effects of the age profile of its employees, although it is not particularly well organised to do so.

As in other industries, development of new technologies will require the parallel development of new skills to exploit fully their commercial benefits. This is likely to be achieved by training or re-training existing staff, rather than by external recruitment.

Capacity constraints on demand for rail services will continue, although technology may go some way to alleviating parts of these.

Safety and licensing requirements will increasingly be driven by European legislation.

Discussion

Graham Zeitlin (BR Retired) contrasted the way the privatised railway now purchased equipment from across Europe with the requirements imposed on BR to "Buy British" whenever possible. He also noted that when Freightliner was part of the National Freight Company (NFC) there had been more than one major employer in the industry, which had resulted in diverse labour arrangements.

Lesley Hodsdon commented that maximising benefits from supply chain management was now a major issue and had led to rapid globalisation in rolling stock supply and signalling equipment manufacture. The supply chains for the UK now spread beyond Europe to include Japan, India and potentially China.

Stephen Bennett (SRA) reminded the audience that Lesley had played a major role in addressing railway labour market issues in many parts of the world. He invited her views on what lessons the UK had to offer other countries arising out of privatisation.

Lesley noted that traditionally the UK had been a supplier of railway equipment and technology to the world. Nowadays the world looked to the UK for organisational models. Whatever reservations one may have with the model adopted by the UK Government in 1993, it was forced through and does provide a much clearer view of how market forces within the industry work. EU Directive 1991/440 requiring a split in accounts for infrastructure and operations laid the foundations for these changes. The UK then adopted the role of the "brave experimenter". Now Tanzanian and Kenyan railways are about to invite bids for concessions based on the UK model.

Tony Lucking, Air Transport Users Council asked what evidence there was for a strengthening of union power.

Lesley explained that ASLEF had been very astute in understanding how privatisation created a market for train driving skills and exploiting that market to increase pay rates for their members. RMT had been less quick to understand the effects of the changed labour market, although more recently it had exploited such opportunities in negotiating with Network Rail over taking track maintenance staff back in-house. The unions have also realised that to retain loyalty they had to offer added-value to their members.

Richard Jones (HR Director, ATOC) added that commercial imperatives for franchisees meant that they tended to see the costs of settling a dispute as less than those for holding out and risking a strike or severe disruption to their operations and revenue stream.

Andrew Price (DfT) sought the speaker's views on future wage inflation, particularly given the "Darling Review" and the Government's aim of exerting greater control over the industry and reducing the number of train operators.

Lesley felt that demographics, given the ageing workforce and inherent skills shortages, would inevitably lead to upwards pressure on salary levels. To some extent this might be balanced by the traditional UK method of recruiting from abroad, however, the high levels of training and refresher training required within the rail industry tended to restrict entry. Whilst technology might reduce the demand for labour, skills requirements would increase and the public still sought the comfort of seeing staff in evidence when travelling by train.

Andrew Evans (Imperial College) asked if there were any safety issues, possibly at micro level, which the speaker saw as arising from privatisation.

Lesley noted that rail safety overall had improved over the period since privatisation. Some commentators had expressed concerns about levels of literacy and numeracy amongst track workers, particularly after the Tebay accident. She believed that safety was a strong business driver in any industry, since commercial concerns understood the importance of retaining public confidence.

Peter Gordon (AEA Technology Rail) queried whether, in light of the age profile of rail staff, the fragmented industry would be able to forecast future labour demand accurately. He also sought the speaker's views on whether the increased degree of casualisation within the industry, for example amongst track workers, had affected skill levels.

Lesley, on the first point, felt that employers appreciated the necessity of accurate forecasting, but might not be very good at it. On the second issue, she pointed out that by taking track maintenance in-house, Network Rail had imported a large element of risk into that company. She felt that the degree of performance risk and organisational risk for Network Rail will be considerable; perhaps, greater than they might realise. The decision was driven by a core belief that the only way of ensuring competence in this activity was through direct employment of the resources, rather than by contractual means. By contrast, other companies in other industries had overcome the problem by becoming smarter in arranging and managing outsourcing.

Robert Cochrane (Independent Consultant) observed that most of the consultancy commissioned by rail companies had been directed towards how best to work the regulatory and legislative system rather than about how to improve and develop these systems themselves. Procuring safe and effective outsourcing depended to his mind on better training in inspection/supervision methodology by the procurer. How was such an approach being inculcated?

Lesley explained that part of the role of RSSB was to create standards which were then mandated throughout the industry and to which all procurers and suppliers had to conform. The fragmentation of training might actually have improved the approach to safety issues through the adoption of new training methods. Pre-privatisation large elements of railway knowledge were held informally by individuals or workgroups. During privatisation this "glue" which held the industry together was lost, which led to some initial adverse consequences. It should be remembered that, as an organisation, BR did not know the extent and condition of its assets.

Gradimir Stefanovic (GS Transport Consultancy) noted that the UK both privatised and restructured its railways as part of the same process. What aspects of these processes did the speaker feel could effectively be transferred to other European countries?

Lesley commented that almost all railways operated within a political context because of the degree of subvention from the taxpayer. Achievement of Open Access remained a core objective of the European Commission, based on the belief that this will drive change. In the Commission's view change can occur without massive restructuring. However Lesley remained doubtful on this issue. For example, in Germany there are independent driver training organisations which thus facilitates entry of open access operators into the market, whereas in France qualification as a driver can only be achieved through an SNCF training school. Hence, introducing open access operations in France is very difficult.

John Cartledge (LTUC) reported that, together with consultants, his organisation had been looking at stakeholder attitudes to the rail industry. Their conclusions so far were that most outsiders considered the industry to be infected with massive and chronic incompetence amongst its senior management.

Lesley felt that those similar perceptions had always been there, virtually since the inception of the industry. She had experienced somewhat similar feelings before joining New South Wales Railways, but had been taken aback by the high level of management competence found there compared with other organisations. Railway management had always been hindered by the regulatory and political framework within which it had been required to work. Railways are an engineering system directed towards delivery of a customer service. Any management works best when it understands how to take such engineering imperatives and transform these into a creative commercial entity. Ultimately, it may never be possible entirely to resolve the tensions between the engineering requirements and the commercial necessities for the railway industry.

Anzir Boodoo (Transcience) perceived that there was now greater separation between ticket office and operational staff. Had this broken previously foreseen career paths and caused tensions within the industry?

Lesley was not sure that the transferable skills had ever really existed.

Gregory Marchant (BR/SRA Retired) reported a recent conversation with someone who had joined the industry a few years ago as a refreshment trolley operator, had subsequently progressed to becoming a train conductor and was now booked onto a driver training course. Thus demonstrating that such career progression continued to be possible.

At this point the Chairman reluctantly called a halt to the discussion and thanked Lesley Hodsdon for a fascinating and out of the ordinary talk, which had obviously stimulated a great deal of interest.

Report prepared by Gregory Marchant

European Railways – Their Finances and State Funding

Emily Bulman and John Dodgson
NERA Economic Consulting

University College London
15 December 2004

Introduction

John Dodgson explained that the talk was based on a study NERA undertook for the European Commission that was published earlier in the year. The associated reports are available on the European Commission's website and on NERA's website.

In the study, NERA examined the finances and funding of the main railways in each of the (15) Member State of the European Union, in Norway and Switzerland and the countries that were candidates for EU membership. The study served to update earlier work by NERA's sister company Mercer Management Consulting for the European Commission, and NERA's project team included Ron Crompton who had led the earlier study.

The purpose of the study was to assist the European Commission in monitoring railways' progress in reducing debt and improving finances, and at the same time review public budget contributions made to railways.

General Developments

By the end of the 1980s, falling demand for rail transport had resulted in European railways becoming heavily indebted. The European Commission's vision was of revitalised railways, which were able to retain or increase their share of the transport market. An important mechanism for doing this was to reform the railways so that they operated on a commercial basis, thereby improving their competitiveness.

To this end, the European Commission have forced through a number of institutional reforms, notably the requirement that management and accounts of railway infrastructure be independent from those of passenger and freight services, and liberalisation of rail markets. EC specified financial reforms have consisted of one-off alleviation of historic debt (specified in Directive 91/440), greater specification of forms of state aid, and transparent presentation of railways accounts (in particular Directive 2001/12).

EU legislation resulted in significant institutional restructuring of European railways throughout the 1990s. The form of separation varies between Member States:

- Complete separation in private companies (Great Britain);
- Separate companies within the same state-owned holding company (Germany and Italy);
- Infrastructure managers and railway undertakings set up as separate state-owned bodies with independent executives (Denmark, Finland, the Netherlands, Sweden, Portugal and Norway);
- Hybrids, where railway infrastructure financing is separated, but infrastructure and operating capabilities are retained within the same company (Austria and France); and
- Separate divisions within an integrated company for infrastructure and operations (Belgium, Greece, Ireland and Luxembourg).

Since the early 1990s railways have been unbundling ancillary activities such as road transport, ferry operations, catering, IT, engineering and management consulting, and equipment leasing. There has also been increased managerial independence as rail organisations have moved into a greater "arms-length" relationship with the state. In many countries, though, the infrastructure authority continues to have a close reliance on the state, both in terms of managerial discretion and dependence on state funding.

Competition is evolving at different speeds in the three main areas of railway activity, namely passenger services, freight services and support services. Competition is furthest advanced in support services. In the passenger sector competition is being introduced mainly through competitive tendering of regional or local services. In freight there are some significant open access operators of international services who mainly act as consolidators with train operations in the hands of the national rail operators, though some are now starting to arrange haulage through independent train operators.

A further important trend has been the devolution of powers to specify and fund services to regional and local governments. This has recently occurred in Germany, Sweden, France and Italy, and to a more limited extent in some other countries.

Over the period covered by the study, the operational performance of European railways has improved considerably, supported by strong economic growth. Commercial traffic revenue increased by 13 per cent (passenger revenues growing by 27 per cent, freight falling by 12 per cent). Operating costs did not change overall, so that the viability ratio of operating income (excluding public budget contributions) to operating costs improved by 11% over the period.

In contrast to the EU15, railway activity in the candidate countries, in terms of both passenger and freight train-kms operated, fell (by 12%) from 1995 to 2001.

Employment has been following a strong downward trend in both the EU and the candidate countries, in part due to outsourcing. However staff productivity, as measured by employment per thousand train kilometres, is lower in the candidate countries than in the EU15, by a factor of two or three.

Railway Finances

During the mid-1990s, virtually all Member States restructured their railways' finances. Actions to reduce indebtedness can be characterised as follows:

- Using separation of infrastructure from train operations to put new entities on a sound financial basis (Denmark, Finland, Netherlands, Norway and Sweden);
- Creating separate entities for financing infrastructure (Austria, Belgium and Spain); and
- Restructuring to relieve the railway of historic debt (France, Germany, Italy, Luxembourg and Switzerland).

Since 1995, railways have continued to invest heavily in asset replacement and new assets, at a faster rate than the growth in operating costs. As a result, EU railways' asset intensity (the amount of capital required per unit of operating cost) has continued to increase: from 1.9 in 1980 to 3.3 in 1995 and 3.6 in 2001. The increase in asset intensity puts continuing pressure on government financing of the railways, and explains the concern among many European governments about the increasing cost of their railways.

The restructuring was successful in reducing debt levels and interest charges in the short-term. The debt: equity ratio fell from 1.5:1 in 1993 to 1.1:1 in 1995 and 1.2:1 in 2001. Charges for servicing debt fell from 13 per cent of operating costs in 1993 to 9.5 per cent in 1995, and have been fairly stable since then.

In some cases, governments have funded the railways to maintain the new financial position. In others, however, continued funding has not been adequate and debt levels have increased again. Railways can be divided into low, medium and high debt groups:

- **Low debt railways**, with a debt: equity ratio less than 0.5 are Denmark, Finland, Italy, Luxembourg, the Netherlands and Sweden;
- **Medium debt railways**, with a debt: equity ratio between 0.5 and one are Austria, Belgium, Germany, Norway and Switzerland, though for both Belgium and Austria, debt has been increasing substantially; and

- **High debt railways**, with a debt: equity ratio greater than one are Great Britain, Greece, Ireland, France, Portugal and Spain.

Based on benchmarks of commercial companies, it appears that debt levels should be in the range of 30% to 60% of liabilities (with railway undertakings sustaining lower levels than infrastructure managers). On this basis, the high-debt railways for the countries listed above have debt levels that are not sustainable, and a move towards greater commercialisation would necessitate financial restructuring.

Gearing is considerably higher in the candidate country railways than in the EU railways. This position has changed dramatically over the mid to late 1990s, with the debt: equity ratio rising in candidate countries from 0.1 in 1996 to 1.1 in 2001. For the EU15 countries, the debt: equity ratio only rose from 1.1 to 1.2 over the same period. Large operating losses have been a major contributor to increasing debt, so that in many cases debt levels are not sustainable.

State Funding

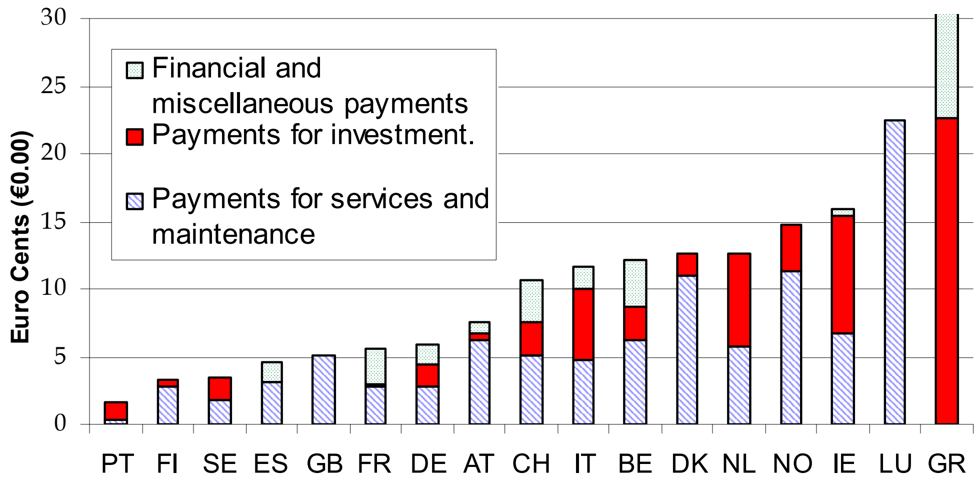
Public budget contributions to railway undertakings and infrastructure managers are permitted by EU legislation in a variety of forms. These include: Public Service Obligations (accounting for 30% of EU railway state aid in 2001); financing of transport infrastructure (23% maintenance, 25% capital investment); support under rules for normalisation of accounts (7%); support to reduce indebtedness (4%); and support for restructuring to remove excess capacity (3%).

Total payments for passenger services in the EU were similar in real terms in 2001 to levels in 1996, though they were slightly higher in intervening years. In contrast, payments for infrastructure maintenance and investment combined increased by 28 per cent over the period. When allowance is made for the decline in some financial and restructuring payments, total state payments to EU railways in 2001 were similar to those for 1996.

Figure 1 shows public budget contributions per traffic unit, distinguishing between operating payments, payments for investment, and miscellaneous payments.

State-owned railways receive additional (hidden) support: they receive higher credit ratings than would a private company, so that they can borrow at a more favourable interest rate. Such railways can borrow at an interest rate of about 0.25 per cent lower than a state-owned railway whose debt is not effectively underwritten and 1.1 per cent lower than a well-rated private rail operator.

Figure 1: Payments per Traffic Unit (2001)



Source: NERA database and analysis

Another form of hidden government support is provided by the lack of an equity return required by government on its investment in the railway. Such a return would be demanded by private investors. NERA estimates that, if they had been acting as commercial entities, European railways would have had to have been making average annual profits of around €11 billion to attract the capital employed, equating to up to 30 per cent of declared public budget contributions.

Conclusions

At the start of the period, largely in response to Directive 91/440, most of the railways underwent substantial institutional and financial restructuring to relieve indebtedness and to separate infrastructure management from operations. Since then railway reforms have continued, albeit without the large-scale restructuring of the early period, and real progress has been made towards establishing financially sustainable railways operating on a commercial basis.

Public budget contributions have become more transparent, with payments often made under contracts spanning several years, with only minimal funding for freight, identification of contributions in the accounts of railways, and treatment to normalise accounts with respect to these payments.

Problems, however, remain:

- In a minority of countries, the mismatch between service provision and funding has persisted, so that such companies continued to incur large annual operating losses into the late 1990s and beyond.
- Overall, there is increased expenditure on capital investment. In a number of countries high or rising debt levels indicate that such expenditure is not being adequately financed.
- We have also seen financial difficulties in some of the reformed railways, in Great Britain, the Netherlands and Sweden. It is important that Member States develop capabilities to administer such changes, and that experience and best practice are widely disseminated.
- It is also important to recognise that large hidden support for state railways persists. State linked railways benefit from favourable credit ratings relative to fully commercial competitors, and from shareholders that in general do not require returns on equity.
- A full analysis of the financial position and public funding of rail systems in Europe is becoming increasingly difficult because: the industry is fragmenting; there are increasingly complex internal flows within the industry, as a variety of complex special purpose vehicles are set up; and as individual organisations within the industry lose incentives to provide data in comparable form.

Discussion

Peter Gordon (AEAT) said that it appeared that Governments could define any service they wished as a social service and then subsidise it. There was therefore nothing to stop a Government paying as much subsidy as it wished. It might wish to limit costs or put services out to tender but this would be at the national Government's behest, not that of the EU. Is this correct? JD/EB: in theory, yes, though the tendency has always been towards under-funding, coupled with an unwillingness to permit restructuring, hence the problem with high levels of debt.

Ed Humphreys (Arup) asked what the main messages of the study were. He said that some of the European Commission's policies with regards to railway subsidies ran counter to their other objectives of achieving mode shift and Kyoto targets for reductions in emissions. JD / EB said that the policies were not necessarily at odds with the EU's environmental policies: governments were at liberty to fund services with environmental benefits.

Mary Ackland-Hood noted that often – though not in this talk – payments for roads were called "investment" whereas those for railways were called "subsidy". She said that the European Commission should be comparing the environmental effects of road, railway and air on a consistent basis when considering investment. Short haul air travel was particularly detrimental to the environment. JD agreed that it was appropriate to consider all the costs and benefits of each mode when allocating public funds, though he thought they may disagree as to the significance of environmental impacts.

John Cartledge (London Transport Users Committee) asked whether the extent to which governments set charges for users was known, and if governments withdrew subsidies and involvement in fare setting whether many services would be withdrawn. JD: in most countries governments do regulate fares, often informally. If subsidy were withdrawn, many of the rail services in Europe would not longer be viable.

Don Box (retired) recalled an old study the government undertook in the UK called “the necessary railway”, which identified routes which were viable according to financial criteria. The necessary railway consisted largely of intercity and commuter routes. But even with this reduced railway, subsidy would still be required. Subsidy per passenger increased, when the associated restructuring costs were taken into account. JD: it would be possible to increase revenue significantly by raising fares on commuter railways.

Chris Castles questioned whether the European Commission’s policy brought any financial discipline to the railways, because governments could pay as much subsidy as they wanted, irrespective of efficiency criteria. EB: it is true that governments of member states can determine the scale of subsidy, but under the legislative framework, railways have to work within pre-defined budgetary constraints, which might be expected to impose some financial discipline.

Robert Cochrane (Imperial) questioned whether aid from the European Union itself was allocated appropriately. He cited the example of Bulgaria where funds had been directed at improving railway infrastructure; as no funds had been allocated to rolling stock, the national railway continued to use dilapidated trains and so was unable to benefit properly from infrastructure improvements. JD: the issues for the eastern European countries tend to be different from those of Western Europe (in the EU direct subsidy for rolling stock is prohibited).

Dick Dunmore (SDG): the European Commission’s framework does not appear to require railways to be efficient. Instead, it requires that infrastructure charges be set on the basis of marginal cost, which is different. EB: member states can calculate subsidy according to the requirement of an efficient railway, though are not required to do so. JD: it is true that the European Commission tends to be less concerned with technical efficiency and more keen on marginal cost pricing.

***Tony Lucking*:** airlines are becoming more efficient, and now airlines are achieving fuel efficiency that means their emissions are only 1.5 times that of railways. JD: a big issue for the railways is competition from air; international rail journeys have been in decline. Peter Gordon noted that comparisons of railway and air emissions were sensitive to load factor assumptions (i.e. the number of passengers on each mode).

***Don Box*:** traditionally, infrastructure costs have amounted to around half of the total cost of railways. It is currently difficult to assess the financial performance of operators, because there are different approaches to charging and accounting for infrastructure costs. Railway results would be much easier to compare if they were quoted without allowance for infrastructure costs, and the requirement to charge operators for infrastructure access just adds unnecessary complexity. In the UK, allocation of infrastructure costs is largely arbitrary and meaningless. JD agreed that it was difficult to make firm comparisons between railways.

Dick Dunmore (SDG) said that in Britain information is limited because of commercial confidentiality and the difficulty of isolating the costs and revenues of "the railway" from the published accounts of private sector businesses, so it is difficult to assess profitability.

Gregory Marchant noted that in Scandinavia the infrastructure was managed separately from operations, and wondered how decisions as to the appropriate quality of infrastructure could be reached effectively under these arrangements. Dick Dunmore said that in Scandinavia infrastructure tends to be very simple, because the network is not dense, and so infrastructure enhancements are not a major issue.

Report prepared by Emily Bulman

The Economics of Walking

Daniel Heuman
Colin Buchanan & Partners

University College London
26 January 2005

Daniel began by setting out the importance of walking as a key mode since it makes up 31% of all trips in London and is part of all public transport trips. The growth in public transport is dependent on walking as an access mode. Walking is also at the heart of town centre strategies and rejuvenation.

The study of walking was done as part of an application for funding for the Strategic Walks Network. The Mayor officially launched his Walking Plan[1] in February 2004 to transform London into one of the most 'walking friendly' cities in the world by 2015.

The speaker asked "Why does walking get less than rail/road?" since only 2% of London Borough capital spending is on walking. Compare this with Barcelona where walking attracts 7% of all transport funding. It was suggested that it is under funded because of the nature of scheme appraisal, which is oriented towards "hard" rather that "soft" modes of travel. Walking is about quality, environment, fitness and comfort, which are not included as monetary values in scheme appraisal.

London's Strategic Walk Network

There are six strategic walking routes in London totalling 572 kilometres, which are being developed gradually by all Boroughs. The routes are:

- Thames Path (107 km within London)
- London Loop (238 km)
- Jubilee Walkway (25 km)
- Capital Ring (117 km)
- South East London Green Chain (65 km)
- Lea Valley Walk (20 km in London; 80 km total)

[1] *Making London a walkable city: The Walking Plan for London, TfL, February 2004 is available at* http://www.tfl.gov.uk/streets/downloads/pdf/walking-plan-2004.pdf

There is considerable variation in their use with central routes used by thousands per day and rural routes often less than 100

Figure 1: The London Strategic Walks

To develop the Strategic Walking Network, the Corporation of London took lead with Transport for London (TfL) funding. TfL indicated that more funding could be made available with a "more rigorous economic Evaluation", which is where Buchanan secured the work.

Although the methodology described here was developed for the Strategic Walks, it can and should be used for walking schemes generally. Evaluation of walking schemes was typically for safety at road crossings and for time savings, whereas improvements to the SWN are about quality and promoting walking (signing, surfacing, resting places, panels and information). In the wider context, the work forms a focus of walking research by developing quantitative evaluation for health, environment and quality.

DfT guidance on walking is due out in the spring.

An Economic Approach

Economics offers a powerful approach since it:

- Focuses on benefits to users
- Measures change (marginal benefits)
- Wide range – including trip generation, mode shift and impacts to existing users

A partial valuation is used for walking with some benefits excluded, e.g. air quality and congestion, or incomplete values with conservative estimates. There has been limited time and budget to develop further but now the strategy for funding is to focus on benefits that TfL accepts for other modes.

The benefits valued are:

1. **Safety** – benefits from surfacing improvements and providing a less hazardous walking environment:

    - Reduction in accident rates from improved surfacing
    - Limited data source probably taken too far!

2. **Health** – is difficult to quantify but there are benefits from additional exercise. Figure 2 shows that increasing physical activity in older men leads to reduced mortality

    - More exercise leads to better health, longer life and fewer days off
    - Restricted benefits to new users who start to walk regularly and previously took little/no exercise

3. **Quality** – it is important to focus on users who value benefits in different ways. signs, benches, information panels, cleanliness, graffiti removal, lighting

    - Focus of walking expenditure
    - Benefits vary by user
    - Striders and Strollers

Figure 2: Physical activity and age-adjusted mortality in older men

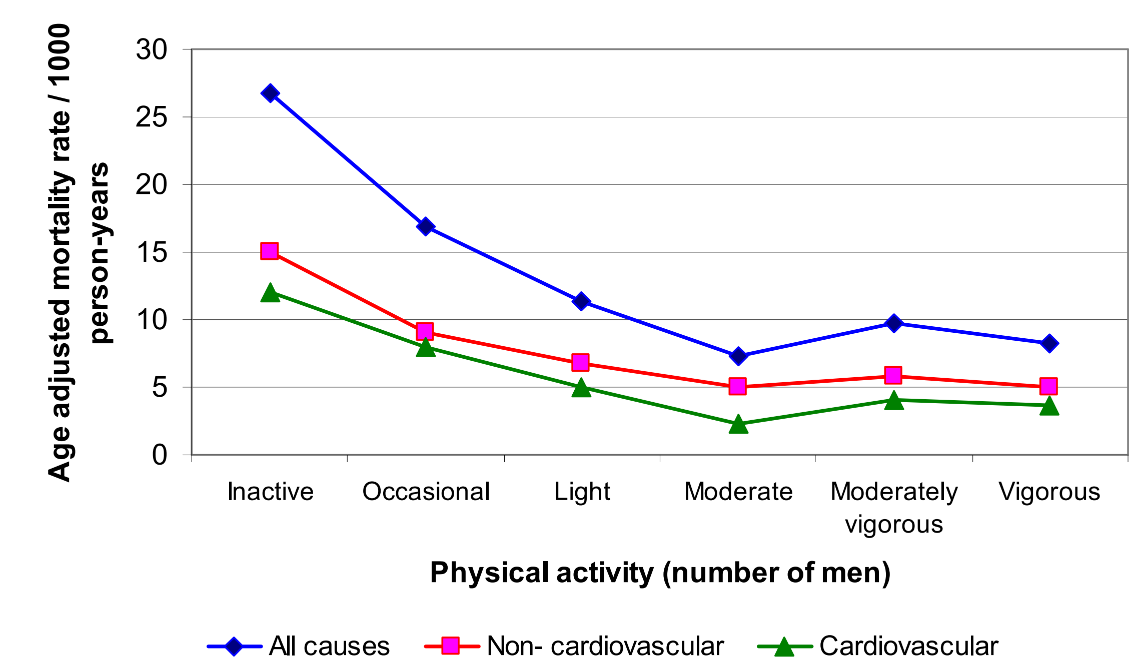


Figure 3: Walking preferences – Strollers and striders

Benefits Valued

Values are based on the willingness to pay in a similar way to those given to values LUL station improvements. This is then applied to walkways for items such as signs, benches, information panels, cleanliness / graffiti removal and lighting.

The valuation depends on the initial condition and:

- Improvement provided
- LUL "MSS" base condition
- LUL "willingness to pay" measure
- Appropriate adjustments to that valuation
- Quantification of potential users
- Lifespan, discount rate, etc.

Results

Using the above methodology benefit cost ratios were obtained as shown in table 1.

Table 1: Benefit cost ratios	
Measure	**BCR**
Signs and information panels	2.5
Benches and resting places	1.5
Surfacing, lighting	1.0

Outcomes

- Investment in walking competes with other modes and other projects for funding
- Fixed budgets mean all walk routes need appraisal to increase overall budget
- Evaluations are much more sophisticated for rail/road.
- Partial analysis…. but less partial than before!
- Helps civil servants allocate funds for walking

Studies

Studies are currently underway to evaluating improvements to the National Trails and stated preference surveys on the Strategic Walks

National Trails Evaluation being done only includes strollers. The work is in relation to access legislation and evaluating provision. Its aim is to be an important tool for managers so that limited funding is channelled to where the benefits lie.

Stated Preference Surveys follow on from study done by Leeds Institute of Transport Studies. The surveys are being done over the phone so it has not been easy to relate to precise measures. Therefore, this gives general value on how people value walkways. Aspects being studied include:

- Cleanliness, pavement evenness, crowding, signs, information panels, benches, kerbs, lighting

- Comparing preferences by journey purpose (replacing the striders and strollers assumption) since it is difficult to assign walkers to one of the two types; for example what are shoppers?
- Preferences in open/green areas compared to built- up sites
- Determine the impact of street clutter (bench in an urban street can be clutter but in an open area can be very important.

Way Forward

Walking is now recognised as a mode that is developing very quickly. Trafalgar Square and Millennium Bridge are a national pride. Appraisal needs to be carried out on major projects and DfT guidance will be landmark in helping to develop appraisal techniques. Data is the difficult area since it is difficult to collect, but more is needed, especially on trip generation and elasticities.

At the end of the presentation, Daniel showed an animated simulation of pedestrian modelling.

Discussion

Mary Ackland-Hood remarked that the talk was very interesting and encouraging. However, to compare with competing modes, walking should be valued more highly than powered modes. This could be case when evaluating the Exhibition Road scheme[2]. DH agreed that appraisal of Exhibition is crucial for a scheme where there will be pedestrian priority.

Tom Cohen *(Steer Davies Gleave)* thought that the ideas in the talk lived within the paradigm of walking disutility. He asked about values for health benefits. DH confirmed that mortality was included in the walking statistics but not the costs avoided by the National Health Service. It has been suggested that people spend two days extra at work if walking regularly

[2] A proposal by Kensington & Chelsea to have a maximum speed limit of 20mph, where drivers will not automatically have right of way over pedestrians who will be able to cross anywhere on the road.

Andrew Evans *(Imperial College)* asked if shortening journey times is of benefit to strollers. DH said that this was not used for strollers but it is for striders.

Tom Worsley *(Department for Transport)* commented that similar methods of appraisal are used for the cycling network. He thought that for strollers there would be a change in the consumer surplus but not a transport benefit. For striders, it is difficult to calculate. Demographic life cycle changes are an important factor in the amount of walking, with trade-offs between car and walking. He questioned whether it was possible to measure the generation effects.

Jenny Budd *(Lewisham Primary Care Trust)* was surprised that the health benefits are much greater than the cardio-vascular ones. She also commented that people who start out as strollers would very often end up as striders. DH thought that it was difficult to relate the marginal benefits of a scheme. He agreed with the second point adding that if there is culture of walking, people get confidence in walking.

Another person opined that planners need figures so that walking can be encouraged since there is a need to compete for public funding.

Gregory Marchant pointed out that there is a need to include social interaction and cohesion as these are important aspects for the government. DH admitted that these would be very difficult as they are qualitative. GM suggested that one could start with stated preference on the value of meeting people.

Stephen Plowden *(independent)* asked whether similar appraisal is done in other countries. DH suggested that they avoid appraisal; there is a different culture.

Taku Fujinama *(University College)* asked how the number of strollers is estimated and what is the background to the simulation shown at the end of the talk? DH said that there was no easy way of estimating strollers except through journey purpose. The simulation cheated a bit by assigning different destinations to pedestrians to reflect the different movement characteristics.

Another person asked if it would be possible to apply security benefits to walking since they are more likely to observe than vehicle drivers. DH said that some work had been done on this through stated preference but much more could be done by linking crime statistics to individual locations; therefore it is possible.

Tim Long *(Camden)* asked whether there were different values given to dropped kerbs and raised crossings. DH replied that there were no real differences given between the two.

Don Box mentioned that the maintenance of existing and new facilities needs attention since they are continual costs of schemes. DH: TfL provides the Strategic Walks Network, whereas the boroughs maintain them, but the techniques are not difficult with use of discount rates of the cost of maintenance.

David Simmonds *(David Simmonds Consultancy)* asked if the benefits different for single walkers and groups of walkers. DH admitted that this had not been considered in the evaluation but there is likely to be a difference.

Peter Gordon asked if removing barriers to pedestrians, such as taking out staggered crossings, had been evaluated. DH thought that not much had been done yet, but it is clearly a problem, which can be analysed using simulation techniques.

Mary Ackland-Hood thought that an element in quantifying benefits should be the inclusion of savings from not using other modes. DH agreed absolutely.

At this point Roger Mackett called the meeting to a close, thanking Daniel for a most interesting talk – a first on walking for the TEG.

Report prepared by Laurie Baker

Further reading

Measuring the Benefits of Pedestrian Improvements, (paper by Paul Buchanan and Daniel Heuman presented to *Cities for People* conference) available at http://www.cbuchanan.co.uk/pdfs/pedestrian.pdf

Report of AGM 2005

The Annual General Meeting was held on Wednesday 16th March 2005 and was attended by nine people

Chair's report for 2004

The TEG continued its series of meetings on topical subjects in the field of transport economics. The programme for 2004 was as follows:

January	**Commuter services on the CTRL and the Integrated Kent Franchise** (Christopher Clark, Project Manager, Strategic Rail Authority)
February	**Making markets work in rail freight** (Julia Clarke)
March	**Increasing costs of rail** (Roger Ford, Modern Railways)
April	**London Bus Priority: the story so far** (Scott Lester, Monitoring and Research, London Bus Priority Team, TfL and Martin Lawrence, FaberMaunsell)
May	**The Working Time directive: turning a challenge into an opportunity** (Alan Waller, Cranfield University)
June	**Appraisal and evaluation: the evolution and potential of the Treasury 'Green Book'** (Michael Spackman, NERA Special Adviser)
October	**The demand for public transport** (Neil Paulley, TRL)
November	**The impact of railway privatisation on the labour market** (Lesley Hodsdon, Rail Safety and Standards Board)
December	**The finances and funding of European railways** (Emily Bulman and John Dodgson, NERA Economic Consulting)

The meetings have all been held in the Chadwick Building at UCL. Attendance at meetings continued at a high level, averaging 35, with a range from 13 to 60, compared with an average of 28, (range 14 to 45) in 2003, and an average of 27 (range 19 to 43) in 2002. Members not only receive a reminder prior to the meeting, they can also receive a copy of the speakers' Powerpoint presentations, if they wish.

I have decided to stand down from Chairing the TEG after four years. I have found it very enjoyable and have been able to meet many of the Group's members. I would like to thank the other members of the committee for their help and support over the year. I would particularly like to mention Emily Bulman, who is also standing down from the Committee, for her efforts to make the TEG website much more effective. Rebecca Graham continues to help ensure the smooth running of the Group's affairs.

I am sure that the Transport Economists' Group will continue to thrive, enabling members to discuss issues in transport economics in a serious manner, in a friendly and sociable atmosphere.

Roger Mackett
14 March 2005

Treasurer's Report for 2004

Overview
As you have heard from the Chairman, 2004 was a very successful year for the Group. Financially, the Group enjoyed an excess of income over expenditure of just under £600. This was down to a number of factors.

Membership
There has been a slow but steady increase in membership. By the end of 2004 the Group had over 150 members. My job is to get as many existing members as possible to renew for 2005. As explained last year the Group's expenses are relatively inelastic relative to the number of members. Hence every extra members improves the health of the Group, not just financially but in terms of discussions and debates at meetings.

Expenses
Your committee has continued to exercise control on costs. Amongst the significant changes in expenditure over the last year compared with 2003 has been the inexorable rise in postage costs. This particularly affects the Journal, and sending out reminders about subscription renewals. The increase in meetings cost between 2003 and 2004 is due partly to inviting distinguished speakers from outside London, with the inevitable need to pay travel expenses, and party to an accounting adjustment in 2003 for some expenses provisions in 2002 which did not actually arise, and hence depressed the 2003 total.

Outlook
Last year I said that in order for me to feel comfortable, the Group should have a reserve of at least two years annual turnover. By the end of 2004 we were progressing towards but not at that level. External costs, especially postage, will inevitably increase. For these reasons and despite generating a surplus in 2004, your Committee felt that it would not be sensible to continue to hold down subscription rates and agreed a modest increase of £2 for 2005. Given the level of renewals so far for 2005 and efforts to keep costs under control, there seems every prospect of the Group continuing in financial health.

Gregory Marchant
16th March 2004

INCOME & EXPENDITURE ACCOUNT FOR 2004

					2003
Income			**£**	**£**	*£*
	Subscriptions:	2003	0		
		2004	2,879	2,879	*2,709*
	Interest			27	*15*
	Other (*Note 2*)			0	*5*
	TOTAL			**2,906**	*2,729*
Expenses					
	Meetings			536	*255*
	Administration:	Admin Assistant	765		
		Other	223	988	*907*
	Publications			785	*736*
	Other (*Note 2*)			0	*28*
	TOTAL			**2,308**	*1,925*
Excess of Income over Expenses				**598**	*804*

BALANCE SHEET AS AT 31st DECEMBER 2004

				31/12/2003
		£	**£**	*£*
Accumulated funds at 31/12/2003		3,241		
Plus Surplus for 2004		598	3,839	*3,241*
Creditors (*Note 3*)			340	*1,035*
			4,179	*4,276*
Represented by:				
	Deposit Account	2,609		
	Current Account	2,394	5,003	*4,474*
	Less: 2005 Subscriptions Prepaid		-233	*-84*
	Less: Uncleared cheques (*Note 4*)		-592	*-114*
			4,178	*4,276*

Notes on 2004 Accounts

1	*Apparent errors are due to rounding*	
2	*There was no "Other" income or expenses in 2004.*	
3	*Creditors comprise*	
	(a) Hire of meeting room	£40
	(b) Journal printing - 1 edition	£200
	(c) Journal post & packing - 1 edition	£100
	Total	***£340***
4	*Uncleared cheques*	
	UCL issued 15/12/2004	£80
	Marchant issued 31/12/2004	£49
	Admin Asst. issued 31/12/2004	£463
	Total	***£592***

REPORT OF THE AUDITOR
To members of the Transport Economists Group: I have examined the books and records of the TEG, together with any other necessary information from your Treasurer.
In my opinion the Balance Sheet gives a true and fair view of the TEG affairs as at 31st December 2004, and the Income & Expenditure Account properly reflects the trading result for the Group.
G.R. Carson, Transport Consultant, 98 Waverdon Avenue, London, W4 4NS.

Webmaster's Report for 2004/05

www.transecongroup.org.uk

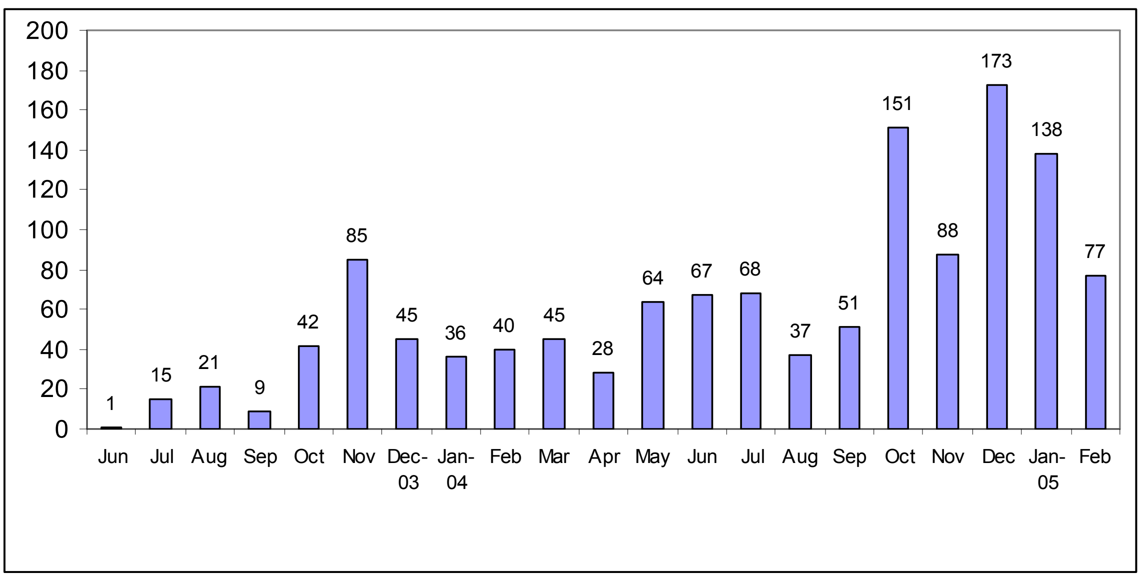
The main website developments this year have been:

- **Journal Catalogue** The site now includes a list of the contents of each journal volume from 1998 onwards, as well as links to electronic copies of the journal. The committee decided not included links to the most recent journal editions, but they are available to members on request.
- **Talk abstracts**: Since May 2004 we have included a new page summarising the contents of the next TEG talk and providing information on the speaker.

The website continues to provide information on TEG membership, the membership form, the programme of talks and contact details, and lists the members of the TEG committee.

The TEG website was launched in October 2003. The following graphs show that the number of people using the website has gradually increased since then.

TEG Website – Traffic per Month, June 2003 – February 2005



Emily Bulman, Webmaster
February 2005

Committee Elected at AGM

The following were elected to the Committee, proposed by David van Rest and seconded by Chris Castles:

Laurie Baker	Robert Cochrane	Martin Lawrence
Jillian Beardwood	Tom Cohen	Gregory Marchant
Don Box	Dick Dunmore	Francesca Medda
	Peter Gordon	

At the first Committee meeting following the AGM, positions were assigned:

Chair
Robert Cochrane

Deputy Chair
Don Box

Secretary, Webmaster and Programme Co-ordinator
Dick Dunmore

Deputy Secretary
Jillian Beardwood

Treasurer and Membership Secretary
Gregory Marchant

Editor
Laurie Baker

Deputy Editor
Peter Gordon

Committee Members
Martin Lawrence

Tom Cohen

Francesca Medda
