The Case for Rail in the Highlands and Islands: A Rejoinder

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In the last issue of the Review (Scottish Transport Review 25, spring 2004 p11) Roy Pedersen comments on "The Case for Rail in the Highlands and Islands" prepared by consultants Steer Davies Gleave. The report is a fascinating read but the conclusions drawn and reproduced in the comment massively overstate the economic case. Before proceeding I should add that I am a strong advocate of rail when a sensible case can be made. For example it could be argued that the Highland line linking Inverness to the central belt should have the right journey time (more than 2 hours but less than 5) and a large enough population base to justify doubling of both line and frequency. The fundamental problem I believe is that the resources that might be utilised in developing this service to meet real needs are employed in offering services that few would miss and fewer use. In my view, in encouraging a complacent view of the current situation, this report is a major missed opportunity.

For those unfamiliar with the report, the economic case looks at the whole network in the HIE area as a unit and examines the economic effect of closure of the whole network. Two approaches are utilised. The first is Economic Impact Assessment which examines the total change in employment that might be expected and includes direct, indirect and induced effects. This, in turn, is split into internal (transport) effects which relate to employment changes in the transport industry and their multiplier effects, and external effects which relate to the customers (notably tourists) of business in the HIE area who might be lost if there was no service and the impact of their expenditures on employment.

The consultants estimate that some 404 individuals are currently employed in Rail earning £15.27m in wages. Multiplier effects are responsible for a further 246 jobs giving a total attributable to the rail sector of 646. To supply alternative services either by

expansion of private activity or public transport (bus and air) would need around 150 jobs, or factored up by indirect and induced effects 170 in total.

In effect this section shows that labour productivity in rail is only 35% of that of the alternatives. This however would appear in the analysis as a positive benefit to the HIE because it leads to more employment.

The major external factor in the impact appraisal is the estimated 172,000 tourists spending over £30m who apparently would not come to the Highlands without the Highland Rail service. Around 1000 people are employed due to this rail based tourism, and unless exceptionally expensive to the public this business should clearly be protected.

The second approach utilised is a one-sided Cost-Benefit Analysis labelled Welfare Impact Analysis. The analysis provides detailed estimates of the value of items as diverse as ability to work on train, congestion costs, accident savings and, of course, time savings. What is clearly missing, however, is the opportunity cost of providing the service. If one assumes that the subsidy comes from outside the study area, and equivalent subsidy to the region would not be forthcoming then ignoring the cost is acceptable. However the reason given by the consultants is one of computational difficulty; specifically they were unable to allocate rail costs and subsidies between the Highland region and the rest of Scotland.

The report is full of the heroic assumptions and order of magnitude assessments that typically inhabit cost benefit appraisals. As an example the value of accidents avoided relies upon assumptions about accident rates that may be wholly inapplicable to the A9 north of Inverness or the A82, a conversion factor that transforms a broken leg into a percentage of a life and a Value of Life that is massively contentious. The failure to estimate cost therefore suggests that the consultants were asked to develop the best case for the maintenance of the railways not an analysis of the case for the railways. To remedy this omission I now attempt to identify in broad terms the cost to the public of the service.

The first element is the rail infrastructure; Network Rail Costs. Table 4.1 of the report initially estimates this to be £69.33m on the basis of proportion of stations in the area. Subsequently the consultants scale down the resulting wage cost element by almost half to reflect service provision rather than stations served. Similarly allowing for single lines and light usage a conservative estimate for Newtwork Rail (infrastructure costs) would be of the order of £30m.

For the operating costs of ScotRail, no data was made available by the company. However staff numbers were put at 233 with wages at £8.66m. In addition the company pays for the rail costs (as above), the rolling stock and fuel. Assuming rolling stock and fuel were approximately equal to wage costs gives a total cost to Scotrail of £47.3m.

Despite expected growth in usage, a conservative assumption is that these costs will not grow in real terms. The present cost of the stream over a 30 year period at 3% is thus £927m. The paper identifies the net present value of the revenue stream to be £287.25m over the period giving a total subsidy requirement of £639m. This is equivalent to an annual subsidy of £32.7m.

As a check I referred back to my 1996 study The Economics of Scottish Railways (Riddington 1996). Table 4 details the subsidy for the total network as £200m of a total cost of £289m. The £200m was split between direct support for SPTE services of £100m and support for all other lines (the Highland lines, the Glasgow-Edinburgh-Aberdeen Intercity routes, Dumfries and Stranraer and Edinburgh and Fife local services). In this context £33m for the Highland services seems quite conservative.

A filleted version of table 5 in that paper is shown below;

	Type of Cost as a % of Revenue			
Route	Operating Costs	Op + ROSCO Charges	Total Costs	Subsidy as a percent of costs
Aberdeen - Inverness	68%	111%	308%	67.5%
Glw/Edin - Inverness	64%	114%	292%	65.8%
Inverness - Wick/Thurso	196%	320%	894%	88.8%
Inverness - Kyle	151%	258%	597%	83.2%
Glw - Ft Wm/Mallaig/Oban	145%	266%	521%	80.8%

Although these figures are not strictly comparable in that they incorporate the relatively profitable Glasgow and Edinburgh to Stirling and Perth sections, the estimated total subsidy was £34m. Of this the subsidy for the North and West Highland lines alone is put at £18.9m. HIE(1995) estimated at that time a benefit of £12.4m for these lines.

Returning to the current study, this suggests that the benefit of keeping the lines open is £298m over the 30 year period, equivalent to an annual benefit of £15.2m for the larger system. The subsidy needed to realise this benefit is £639m. (£32.7m p.a.). I would have thought it difficult to justify social expenditure on this scale when the realised benefits to society are less than half the cost.

These are obviously very tentative figures and I will be happy to concede to contradictory information. However I do not believe the orders of magnitude are incorrect and it appears that Highland Rail carries a subsidy well in excess of the benefits derived by the population from the rail service. Clearly, as might be expected, there are benefits in employment and economic health of the Highlands from this subsidy. These are laid out in the Economic Impact Appraisal which, however, also indicates how low the labour productivity of rail relative to road transport.

In terms of policy I am convinced we should be examining how that subsidy can be best used to make life better for the people of the region. We do not want, nor do we need, to

lose the rail based tourist business but the maintenance of winter services on some of the remotest lines must be questionable. If the services are for tourists is the pricing structure and rolling stock appropriate? The ability to work has substantial benefits. Is this compatible with overcrowded two coach sets and “aircraft style” seating?

The case for Rail in the Highlands has been made and provides much useful information on the impacts of closures. However the need for proper examination of the options for rail services in the millennium has not been started and in my view needs to be.

References:

HIE(1995*) The Economic and Social Impact of the Rail Network in the Highlands of Scotland* HIE 1995

Riddington G (1996) *The Economics of Scottish Railways* Scottish Transport Studies Group Occasional Paper 8 July 1996

Steer Davies Grieve (2004) *The Case for Rail in the Highlands and Islands* Available at *www.hie.co.uk/HIE-the-case-for-rail-in-the-highlands-and-islands_final-report.pdf*